



## Traditional Knowledge and the Section 106 Process: Information for Federal Agencies and Other Participants

### Introduction

The Section 106 review process requires federal agencies to consider the impacts of undertakings they carry out, license, or assist on properties determined eligible for the National Register of Historic Places, including those with religious and cultural significance to Indian tribes and Native Hawaiian organizations (NHOs). Understanding how the significance of historic properties of cultural and religious significance to Indian tribes and NHOs is determined and effects to them are resolved, in consultation with Indian tribes and NHOs, is crucial to successful Section 106 reviews. The purpose of this paper is to explain the important role traditional knowledge can play in meeting these requirements.

### Key Concepts

Although the term “traditional knowledge” (TK) is not defined in the National Historic Preservation Act (NHPA) or its implementing regulations, its role in the Section 106 process is obviated by the requirement, at 36 CFR Section 800.4, that agency officials “acknowledge that Indian tribes and Native Hawaiian organizations (NHOs) possess **special expertise** in assessing the eligibility of historic properties that may possess **religious and cultural significance** to them.” Traditional knowledge is an integral part of that special expertise. The Advisory Council on Historic Preservation (ACHP) applies the term “traditional knowledge,” for purposes of Section 106, to the information or knowledge held by Indian tribes and NHOs and used for identifying, evaluating, assessing, and resolving adverse effects to historic properties of religious and cultural significance to them.

The NHPA clarifies that properties of religious and cultural significance to Indian tribes and NHOs may be eligible for the National Register of Historic Places. It also requires federal agencies, in carrying out the Section 106 review process, to consult with Indian tribes and NHOs when historic properties of religious and cultural significance to them may be affected by a federal undertaking. The ACHP’s regulations implementing Section 106, 36 CFR Part 800, in turn, require federal agencies to consult with Indian tribes and NHOs throughout the Section 106 review process.

This paper focuses on traditional knowledge of Indian tribes and NHOs and its role in the Section 106 process. For purposes of this paper and out of respect, Native Hawaiians will be referred to as *kanaka maoli* unless the legal rights of NHOs are being discussed. The term “Native Hawaiian organization” refers to certain groups who have the right to participate in the Section 106 review process. *Kanaka maoli* is the Hawaiian word, roughly translated as “the people” or “true people.” It should also be noted that the actual name of each Indian tribe should be used to address the tribe in the consultation process.

This paper includes appendices with examples of how *kanaka maoli*, Indian tribes, intertribal organizations, federal and state agencies, and international bodies explain and address traditional knowledge. The tribal information was generously provided by tribal representatives and the Hawaiian information from *kanaka maoli* to help educate others about the importance of traditional knowledge and

its place in their worlds. The information is presented as it was submitted to the ACHP. The ACHP acknowledges that sharing and discussing traditional knowledge can be sensitive and is grateful to all those who helped draft this paper and provided information for the appendices. The appendices will be updated as additional information is provided to the ACHP.

### **Traditional Knowledge**

It is important to understand at the outset that traditional knowledge is frequently used by Indian tribes and *kanaka maoli* to identify historic properties of religious and cultural significance to them in the Section 106 review process. While there is no singular federal definition or understanding of traditional knowledge, the concept of traditional knowledge is recognized by a number of federal agencies in the context of environmental reviews and in carrying out land management and restoration. In these contexts, it is often referred to as traditional ecological knowledge or TEK. It may also be referred to as indigenous knowledge or traditional cultural knowledge. For the purposes of Section 106, the term “traditional knowledge” is inclusive of all these terms, and it informs the body of knowledge referred to in the Section 106 regulations as “special expertise.”

### **Traditional Knowledge in the Section 106 Process**

While indigenous oral histories and traditions that inform traditional knowledge have, in the past, been treated as mythology, stories, or folklore by some people who are not indigenous and therefore lacking validity, this is not the case for traditional knowledge which is both valid and an accepted form of information acknowledged by federal law. For example, oral tradition is one of 10 lines of evidence used to demonstrate cultural affiliation in the Native American Graves Protection and Repatriation Act (NAGPRA). The federal acknowledgement process (25 CFR Part 83) also often integrates tribal knowledge as part of the evidence collected to demonstrate continuity of Indian tribes and their social and political interactions over time. That said, the ACHP is not suggesting that traditional knowledge is only legitimized when specifically identified in federal law or regulation; rather, the ACHP points to these examples to illustrate the ongoing practice of the federal government to recognize traditional knowledge as valuable information.

The inclusion of traditional knowledge in the Section 106 process is a critical component in the identification and evaluation of historic properties. In fact, the Section 106 regulations at 36 CFR § 800.4(c)(1) require federal agencies to acknowledge the special expertise of Indian tribes and NHOs in evaluating and, by extension, identifying historic properties of religious and cultural significance to them. Including Indian tribes or NHOs early on in project planning in addition to consulting with them at every step of the process as required in the regulations, will help provide federal agencies with the information necessary to carry out the Section 106 process. It should also be noted that the regulations acknowledge that the passage of time, changing perceptions of significance, or incomplete prior evaluations may require the reevaluation of project areas for the presence of historic properties (36 CFR § 800.4(c)(1)). This is a particularly important consideration in planning for identification, because past identification and evaluation efforts may not have included the traditional knowledge held by Indian tribes and NHOs.

Indian tribes or their designated representatives and NHOs and *kanaka maoli* are the experts about their respective cultures and thus are the experts in the identification and evaluation of historic properties of religious and cultural significance to them. Federal agencies are not the experts on what constitutes traditional knowledge. It must also be understood that historic properties are unique to each Indian tribe or NHO and may have tangible or intangible characteristics that could include both natural and human-made elements. Each Indian tribe or NHO may have their own information about a specific place that differs from that of another tribe or NHO, because each has a unique culture and history. In many cases, different tribes or NHOs may have different views or beliefs about the same place. The fact that each may

hold different traditional knowledge about the same place does not invalidate that knowledge. Additional outreach and consultation may be required for a federal agency to engage with multiple tribes to better understand a single place; such additional efforts enrich the process and better inform decision making.

In planning for Section 106 consultation, federal agencies should recognize that it may take time for Indian tribes or NHOs to produce traditional knowledge because such knowledge is not usually documented in databases or written files and may in fact be dispersed in different locations and among more than one person. In some cases, the very act of writing down traditional knowledge can cause harm to the practices and places with which it is related. Sometimes, such information or permission to share such information needs to be obtained from knowledgeable community members, elders, preservation boards, cultural committees, and/or elder advisory boards of an Indian tribe or NHO. Doing so may take time. Indian tribes and NHOs may also have protocols that dictate if, how, and/or when they can divulge or discuss information about properties of religious and cultural significance. For example, there may be times during the year when it is forbidden to speak about certain places or their use. Such protocols or prohibitions should be considered in the Section 106 process and project planning and may require a fair degree of flexibility and creativity in decision making. Therefore, working with Indian tribes and NHOs early in the Section 106 process makes sense in order to accommodate protocols and information gathering.

In addition, the Section 106 regulations require federal agencies to conduct consultation in a manner that respects tribal sovereignty and recognizes the nation-to-nation relationship that exists between Indian tribes and the federal government. The regulations further remind the agency official to take into account and address any tribal or NHO concerns about confidentiality pursuant to 36 CFR § 800.11(c). Therefore, federal agencies must treat access to and use of traditional knowledge as part of the nation-to-nation interaction and be guided by tribal protocols about traditional knowledge.

The National Congress of American Indians (NCAI), an intertribal organization, states that “traditional knowledge should also only be accessed through the government-to-government process that respects the sovereign right of each Tribe to determine its appropriate process with its tradition holders for access...in those cases where traditional knowledge may be shared by the tribes, measures need to be developed to ensure that it is used appropriately, that tribes are protected in policy and law against its misuse and that the tribes are able to determine and receive benefits from its use.”<sup>1</sup>

Traditional knowledge can provide information that greatly enhances a federal agency’s ability to make historic preservation decisions that respect, value, and take into account historic properties of religious and cultural significance to Indian tribes or NHOs. The integration of traditional knowledge into project planning can also help ensure identification and evaluation efforts meet the regulatory requirement that the federal agency carry out a reasonable and good faith effort. The demonstration of respect for traditional knowledge can show the Indian tribe or NHO that the agency takes its responsibilities seriously and recognizes values and practices of the Indian tribe or NHO.

### **Traditional Knowledge in the U.N. Declaration on the Rights of Indigenous Peoples**

In 2013, the ACHP formally adopted a plan to support the U.N. Declaration on the Rights of Indigenous Peoples (Declaration). The plan includes a commitment to incorporate the principles and aspirations in ACHP’s work regarding tribal and *kanaka maoli* historic preservation. Therefore, it is important to briefly discuss what the Declaration says about traditional knowledge and its relationship to this information paper.

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<sup>1</sup>The National Congress of American Indians Resolution #REN-13-035

While the U.S. acknowledges tribal self-determination in federal statute, regulation, and executive actions, it bears noting that Article 3 of the Declaration states that indigenous peoples have the right to self-determination. In this context, the ACHP recognizes that this inherent right is the underpinning for any discussion about potential sharing of traditional knowledge by Indian tribes and *kanaka maoli* and uses of it by federal agencies. The following articles provide further clarity about the rights of indigenous peoples as it relates to their traditions and knowledge.

Article 12 of the Declaration proclaims the right of indigenous peoples “to manifest, practice, develop and teach their spiritual and religious traditions, customs and ceremonies; the right to maintain, protect, and have access to privacy to their religious and cultural sites; the right to the use and control of their ceremonial objects; and the right to the repatriation of their human remains.”

Article 15 explains that “indigenous peoples have the right to the dignity and diversity of their cultures, traditions, histories and aspirations which shall be appropriately reflected in education and public information and that states (national governments) shall take effective measures to promote understanding among indigenous peoples and others.”

Article 19 is particularly relevant to the use and integration of traditional knowledge in Section 106 decision making. It states that governments “shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free, prior and informed consent before adopting and implementing legislative and administrative measures that may affect them.” In requesting traditional knowledge, federal agencies should be respectful of an Indian tribe’s or NHO’s authority to disclose or withhold such information. If such information is shared by an Indian tribe or *kanaka maoli*, the federal agency should obtain permission regarding how and when it is used. The NHPA does not require any Indian tribe or NHO to provide federal agencies with traditional knowledge simply because it may be valuable information in the context of Section 106 decisions. Traditional knowledge belongs to the people who hold it.

Finally, Article 31 states that “indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.” Working with indigenous peoples, governments “shall take effective measures to recognize and protect the exercise of these rights.”

Accordingly, in the context of the Section 106 process, when a federal agency is working with and respectful of an Indian tribe’s or NHO’s special expertise, its actions align with these principles in the Declaration.

### **Conclusion**

The ACHP has provided this information to help inform federal agencies of their obligation to incorporate traditional knowledge into their Section 106 decision making.

Traditional knowledge is a valuable source of information that federal agencies must recognize and incorporate into the Section 106 process to determine whether an undertaking would affect a historic property of religious and cultural significance to an Indian tribe or NHO and, if so, how to resolve such effects. When a federal agency engages a traditional knowledge consultant, such as a tribal or *kanaka maoli* specialist, traditional practitioner, or tribal or *kanaka maoli* archaeologist, to inform its

identification and evaluation efforts, the agency should compensate that subject matter expert just as other subject matter experts would be compensated for their particular and specific knowledge and skills. It has long been recognized that archaeologists, historic architects, and architectural historians, among others, possess the knowledge and expertise to assist federal agencies in meeting their Section 106 responsibilities. It has also long been the practice to compensate them for their services when employed by a federal agency. The same recognition of the knowledge and expertise that tribal and *kanaka maoli* preservation and traditional practitioners possess is long overdue, and compensation for the employment of such consultants is appropriate to assist applicants and federal agencies in the Section 106 process.

Although traditional knowledge and non-Native scientific knowledge may arise from different cultural traditions, they are often compatible when integrated appropriately. The ACHP believes that both Native and non-Native ways of knowing are important to a full understanding of historic properties that must be considered in the Section 106 review process. Listening to indigenous perspectives, even when they differ, and taking traditional knowledge into account are vital to achieving informed decisions about historic properties.

### **Acknowledgements**

The ACHP wishes to thank the many tribal and *kanaka maoli* partners who helped frame and contributed to this paper. They spent many hours in discussions with ACHP staff, edited the main text, and shared information for the appendices. Their participation in this effort has enriched the content and given it greater meaning.

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### **The Appendices**

It is helpful for federal agencies and others to be aware of how Indian tribes and NHOs/*kanaka maoli*, intertribal organizations, various international bodies, as well as some governmental agencies have characterized traditional knowledge. The following is only a sampling of such sources; therefore, it is important to note that these examples are not universal but rather represent the views and understandings only of the referenced source.

Common throughout the definitions included here is the reality that traditional knowledge is reflective of and often tied to local landscapes as understood through the local community. Regardless of how expansive or specific the traditional knowledge is, an important takeaway is that traditional knowledge is both held by and verified through the Indian tribe or NHO providing such information; federal agencies are not the authority on what constitutes traditional knowledge. As noted previously, the ACHP considers traditional knowledge to be the information held by Indian tribes and NHOs and is the special expertise they bring to the Section 106 process.

## Appendix A: Traditional Knowledge as Explained by *Kanaka Maoli*

### Kaleo Paik, Indigenous First Nation

Our sacred places were chosen and structures erected for specific purposes. The purpose and what it served was carried down through traditional knowledge via oral history or practices that have continued over time. Therefore the term traditional knowledge can only be defined through the lens of that indigenous culture and not through the filters of a process which undermines the very indigenous wisdom by vetting it through a science that is not well suited to understand or help make the final decision in regards to our sites.

### Excerpt Provided by Kua'aina Ulu Auamo (KUA)

#### **Hawaiian view of natural resources**

Hawaiian world view emerged from many generations of life in this archipelago, and while beliefs are diverse, several key beliefs are common across the islands. One of these common beliefs holds that native species are ancestors to humans. This imposes familial responsibilities on people, and engenders respect and care for native plants and animals. Many native species are also viewed as physical manifestations of akua (gods), linking natural and supernatural worlds, and removing them from the mundane world, and requiring the attention devoted to sacred matters. Native species and ecosystems are further viewed as an inherent part of place, and cannot be separated from the cultural sense of place. To many Hawaiians, the natural world is in an ongoing reciprocal relationship with people that requires dedication and effort to maintain. Hawaiian cultural identity, knowledge, and practice are rooted in this reciprocal relationship with the land -- and the health of one depends upon the health of the other.

#### **Traditional knowledge**

Traditional Hawaiian knowledge encompasses a broad scope, including knowledge of native species diversity, knowledge of ecological processes and patterns, and knowledge of management of land and sea. Such knowledge was originally transmitted purely in an oral, trans-generational manner, and remains embodied in the names of species and places, and in oli (chants), mo'olelo (stories), and 'ōlelo no'eau (proverbs). There recently has been a development of explorations on the process of Hawaiian inquiry: on how traditional knowledge is gathered, assessed, and promulgated. This "Hawaiian Science" is comparable to conventional "Western Science" in terms of observation, manipulation, testing, and promulgation of knowledge. An example of this kind of exploration in the Papakū Makawalu inquiry method promises to create a multi-tiered training approach in traditional knowledge that honors and reinstates ancient knowledge, but is valid and applicable for modern times.

#### **Hawaiian values**

The values of Hawaiian people are broad-ranging, encompassing all aspects of human interactions with each other and with their environment. This paper does not intend to cover all values, but points out that many of these values align very well with the cause of conservation. For example:

*'ike*: knowledge and deep understanding is highly valued, and essential for survival and producing abundance;

*ho'omau*: perseverance, continuity and training ensures long term success and perpetuation of life;

*kānāwai*: rules dictate appropriate behavior for places and resources, mitigating abuse, waste and overuse;

*laulima*: pooling of resources and efforts is characteristic of familial coordination and cooperation which extends to nature;

*lōkahi*: interdependence between all beings is necessary for survival, and the balance of uses is a desirable condition;



## **Appendix B: TRADITIONAL KNOWLEDGE AS EXPLAINED BY INDIAN TRIBES**

### **Confederated Salish and Kootenai Tribes**

Cultural resources are precious Tribal resources. They encompass the Tribes' elders, languages, cultural traditions, and cultural sites. They include the fish, wildlife and plants native to the region and land forms and landmarks. Tribal elders and the languages are perhaps the most vital of these resources because they teach and communicate the histories and traditional lifestyles of the Tribes. The traditions depend on land based cultural resources, the topic of this chapter. These land-based resources include native fish and wildlife and their habitats, food and medicinal plants and the areas where they grow, prehistoric and historical use sites, and other land areas where Tribal members currently practice cultural traditions.

Hunting, fishing, plant harvesting, hide-tanning, food and medicine preparation, singing, dancing, praying, feasting, storytelling and practicing ceremonies are examples of age-old traditions that rely on the land and the community of life it supports.

Although each of the Tribes on the Reservation possess distinctive beliefs and practices, the people share one important similarity: Tribal people value the Earth—its air, water and land— as the foundation of Indian culture. In the words of the Flathead Culture Committee,

*The Earth is our historian, it is made of our ancestors' bones. It provides us with nourishment, medicine and comfort. It is the source of our independence; it is our Mother. We do not dominate Her, but harmonize with Her.*

The Tribes believe everything in nature is embodied with a spirit. The spirits are woven tightly together to form a sacred whole (the Earth). Changes, even subtle changes that affect one part of this web affect other parts.

Protecting land-based cultural resources is essential if the Tribes are to sustain Tribal cultures. This is one of the most important goals of Tribal natural resource management on the Reservation. It is also a goal that the Tribes have for Tribal aboriginal territories managed by other entities.<sup>2</sup>

### **Traditional Indigenous Knowledge – John Brown, Narragansett Indian Tribe**

Traditional indigenous knowledge is what Indian tribes and Native Hawaiians bring to the Section 106 process in identifying, evaluating and determining effects to historic properties of religious and cultural significance to them. In simple terms, it is their way of knowing about these places.

Each culture has its unique way of knowing things, of viewing the world, of expressing their views and ideas. Different cultures can look at the same object, place, or living thing but may have very different knowledge about it or even have similar knowledge but express that knowledge differently. For example, a non-Native woman might look at a maple tree and think of it as a tree and source of maple syrup. A Native woman might look at the same tree and see it as a spirit being or source of medicine or power. In historic preservation, an archaeologist might examine a site and see its potential to yield archeological information about the past while a Native person might know it as a place of power and spiritual

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<sup>2</sup> CONFEDERATED SALISH & KOOTENAI TRIBES - COMPREHENSIVE RESOURCES PLAN

significance. An archaeologist might have to use technology and dig into the site to obtain the information while a Native person might see certain clues on the surface that indicate the type of place it is without having to physically disturb the site. The archaeologist obtained his or her knowledge through a non-Native education system and practice while the Native person might have obtained his or her knowledge through a system of learning specific to that culture. The content of such learning may also have been very different than that passed down to the archaeologist.

Traditional Knowledge is a non-linear expression that considers math, sciences, history, psychology, structural engineering and religion all at once from multiple vectors.

We are looking at the same reality; Traditional Knowledge simply expresses reality differently. So, what is needed is a translation process so that two or more parties can communicate, come to an understanding and reach common ground.

### **CONCEPTUALIZING TRADITIONAL KNOWLEDGE: Tejon Indian Tribe**

Traditional Knowledge (“TK”) is the deep generational wisdom gleaned via indigenous peoples’ symbiotic relationship with their super/natural environments over millennia of sustainable coexistence with those environments. Therefore, TK can include agricultural, anthropological, astronomical, biological, cultural, ecological, geological, historical, mathematical, medical, pharmacological, philosophical, spiritual and various other types of modern academic data, which are typically commingled by most aboriginal societies into a holistic and interdisciplinary ‘science’ or TK. While the ontological value of TK is derived from its persistence through the millennia (via, e.g., traditional practices, oral histories, cosmologies, etc.), its epistemological value is derived from the epigenetic and ethnolinguistic access that is *only* available to the aboriginal society maintaining a particular TK. Consequently, the ability to document, implement, interpret, transmit and/or otherwise utilize TK is *only* possible with the *proactive* participation of the indigenous keeper(s) of the TK. The Tejon Indian Tribe acknowledges that each aboriginal society maintains a discrete TK; thereby, making it impossible to provide a universal definition for TK. However, it is not implausible for multiple TKs to align, either partially or wholly, along the aforementioned principles.

### **TRADITIONAL KNOWLEDGE: Cheyenne River Sioux Tribe**

The Cheyenne River Sioux Tribe realizes the principles established by the Department of the Interior in National Register Bulletin 38, “Guidelines for Evaluating and Documenting Traditional Cultural Properties.” This document states: “A traditional cultural property, then can be defined generally as one that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community’s history, and (b) are important in maintaining the continuing cultural identity of the community.”

Site descriptions embodying a lifeway which has been ancestrally communicated through oral tradition, when transmitted to a professional of non-native descent, has typically been diminished as knowledge that is *incidental information or addendum* that is relevant but not essential to determine a site’s significance or eligibility to the National Register of Historic Places. Eligibility criterion determination measures are not inclusive of those Native attested descriptive tangible or intangible values of a site’s content. This condition prompts the non-native communities of researchers to seek to determine validation by scientific weights, measures, research of non-native theses and dissertations, and lastly, replication. In previous projects where Oceti Sakowin TCS have disclosed site information has led to traditional knowledge being appropriated without Oceti Sakowin permission. Perceptions engendered by the non-native researcher

becomes an erroneous depiction that is cited and compounded by citation and reference over time. Essentially, Oceti Sakowin knowledge is not a commodity that an academic degree can validate, or be owned via non-native scholarly research objectives and thereby be discounted of historical/cultural relevance.

**Susanville Indian Rancheria**  
**Melany L Johnson, THPO/NAGPRA Coordinator**

Traditional Ecological Knowledge, TEK, when I first heard of this term I didn't know what it was and thought to myself I need to ponder this. TEK refers to the aboriginal, indigenous, Native form of knowledge, practice, and belief. It is passed down from generation to generation, culturally. It's the relationship of us, as living human beings and our environment; which is also living.

TEK is controversial in management and science. Science uses data based on research and experimentation. We as Native Americans know the cultural knowledge as it has been passed down from Great Grandparents to Grandparents to parents to children, to grandchildren. It's the Circle of Life. It is how we survived for thousands of years, even in hostile environments. We are the experts.

We suffered a *DISCONNECT* when our California homelands were invaded by Europeans, pioneers, and the 49er's. While it's true that we suffered Genocide, we are here today because our Great Grandparents were lucky enough, clever enough to stay alive. But, they had to sacrifice so much for us to be here, right now, right at this moment.

For me, my language was forbidden, my Grandma wanted us to be assimilated...But, she took us out in the woods and in the meadows to gather foods and medicine. We know how to take care of the plants, what to do to make them come back again next year. We know how to make acorn soup and jellies. We know how to gather basket materials and how to burn. We know the places of importance, medicine places, food sources, roots, Sacred areas.

Everything is related, everything is connected, Mother Earth, Water, Air, the four legged, the two legged, the winged, the trees, our food. We are all connected; we need to take care of our resources.

You must also understand, non-natives cannot do TEK. They can understand, they can be respectful...but it's not their job to sing, pray, give offering to our sites. That is our job.

**Traditional Indigenous Knowledge**  
**Sunshine Thomas-Bear, Winnebago Tribe of Nebraska**

Traditional Knowledge (TK) to the Winnebago Tribe of Nebraska is a connection to all things. We are connected from the air we breathe, the ground we walk on, to the foods we grow, the animals and plants we share our earth with, the connectedness with all things our creator put on this earth. We grow and respect all of these things in our lifetime, knowing that one day we will return to the earth and the cycle of life will continue.

Although colonization and the genocide of our people has taken its toll, loss of lands, culture, language and family structure, through TK we continue to learn, grow and become what our ancestors wanted for us. We are, our ancestor's prayers; answered. The battle to let go of the historical trauma of our people, learn from what we have left of TK, and form our culture and language from what we can reconstruct and reconnect with has and will be an ongoing battle but through TK we know where we come from, our oral

history, our lands our ancestors have walked on, finding our way back and knowing it is our place, here. Through perseverance and resistance, we continue to protect our culture, lands, and language, all of this possible through TK.

The Winnebago Tribe of Nebraska knows the battle for our lands and have suffered through the loss of our homelands and the split of our people and families due to removal. Finding our way back and protecting the lands we have left is extremely important to us. Unfortunately, we have to rely on a government that we know we cannot trust, that has not upheld their treaties with our people and learn to work with them to protect what little we have left.

Our people are aware that this form of knowledge, this blessing of being connected to everything is not a Western belief, nor can it be comprehended by many who are not Indigenous. There is a disconnect. Our people belong in all areas where decisions are being made, not only for our lands, but our culture, language, foods, children and people. No one can understand what we need and what our lands need but us. The world as a whole is not pieces to be broken up and to profit from, it is living and breathing and our people, all Indigenous people have a job to uphold, to protect our lands through our connection to all things.

#### **Confederated Tribes of the Colville Reservation Tribal Historic Preservation Office**

We have been called on to defend traditional information, knowledge, and places frequently in the last few years in relation to state, local, federal and international undertakings here in the Columbia Plateau. Our comments regarding TEK, Sacred Sites, places of religious and cultural significance, Indian trust assets, traditional foods' role in maintaining healthy minds and bodies, and the association between historic properties and ceremonial and ritual use is voluminous and compound. This is particularly true when determining areas of potential effect and cultural resource ties to natural resources, for example, the relationship between spirituality and full life cycle anadromous fish passage in the Upper Columbia River, or the importance of air and water quality to traditionally gathered food and medicinal plants. Each iteration of justifying Native American traditional practices in light of various undertakings and impacts is individualized and not easily condensed.

## **Appendix C: TRADITIONAL KNOWLEDGE AS EXPLAINED BY INTERTRIBAL ORGANIZATIONS**

### **Affiliated Tribes of Northwest Indians**

The Affiliated Tribes of Northwest Indians (ATNI), an intertribal organization comprised of 57 tribes, passed Resolution #11-77 stating that traditional ecological knowledge is "...an accumulation of centuries of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission." ATNI's resolution includes significant statements regarding the need for the United States and its agencies to "recognize and respect Tribal traditions, ordinances and expectations regarding access to and respectful use of their traditional ecological knowledge."

### **National Congress of American Indians**

The National Congress of American Indians (NCAI), an intertribal organization, addressed traditional knowledge in Resolution REN-13-035, "Request for Federal Government to Develop Guidance on Recognizing Tribal Sovereign Jurisdiction over Traditional Knowledge." The resolution explains that traditional knowledge is a core part of tribal identities and ways of life, is highly spiritual, and carries responsibilities for its appropriate uses. NCAI goes on to explain that traditional knowledge includes, but is not limited to, the use of medicinal plants, knowledge of traditional habitats, and that some traditional knowledge is so sacred that it cannot be shared outside of tribal societies and traditional holders. Finally, NCAI also explains that there is increasing acknowledgement that tribal traditional knowledge is equivalent to scientific knowledge in solving environmental problems.

## **Appendix D: TRADITIONAL KNOWLEDGE AS EXPLAINED BY GOVERNMENT AGENCIES**

### **U.S. Mission to the United Nations**

In the 2019 U.S. Statement: UN Permanent Forum to the U.N. (PFII) Eighteenth Session Agenda Item 9: Traditional Knowledge: Generation, Transmission, and Protection, the U.S. Mission acknowledged the role of traditional knowledge in U.S. government decision making:

“The United States engages and works with Indian tribes, Native Hawaiian organizations and other indigenous communities to support, share, utilize and protect traditional knowledge. We have a legal framework in place to incorporate traditional knowledge into U.S. government decision-making.”

### **U.S. Bureau of Ocean Energy Management<sup>3</sup>**

Traditional knowledge can be defined as a body of evolving practical knowledge based on observations and personal experience of indigenous residents over an extensive time period. It can be described as information based on the experiences of a people passed down from generation to generation. It includes extensive understanding of environmental interrelationships and can provide a framework for determining how resources are used and shared.

BOEM acknowledges that traditional knowledge is the following:

- Holistic
- Local and highly contextual
- Shared through kinship that promotes survival and well-being
- Dynamic rather than rigid
- Based on experience
- More than a collection of observations
- An important sociocultural component that anchors community values and can be part of a community’s spiritual and cultural identity
- A framework that emphasizes a fundamental sense of unity in which people are viewed as part of the environment.

### **U.S. Fish and Wildlife Service**

The U.S. Fish and Wildlife Service (FWS) discusses traditional knowledge in its fact sheet, [\*Traditional Ecological Knowledge for Application by Service Scientists\*](#) as follows:

“Also called by other names including Indigenous Knowledge or Native Science, (hereafter, TEK) refers to the evolving knowledge acquired by indigenous and local peoples over hundreds or thousands of years through direct contact with the environment. This knowledge is specific to a location and includes the relationships between plants, animals, natural phenomena, landscapes and timing of events that are used for lifeways, including but not limited to hunting, fishing,

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<sup>3</sup> <https://www.boem.gov/about-boem/traditional-knowledge>

trapping, agriculture, and forestry. TEK is an accumulating body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (human and non-human) with one another and with the environment. It encompasses the world view of indigenous people which includes ecology, spirituality, human and animal relationships, and more.”

### **National Park Service**

The National Park Service (NPS) has a webpage devoted to traditional ecological knowledge and describes it as:

“Traditional Ecological Knowledge (TEK) is the on-going accumulation of knowledge, practice and belief about relationships between living beings in a specific ecosystem that is acquired by indigenous people over hundreds or thousands of years through direct contact with the environment, handed down through generations, and used for life-sustaining ways. This knowledge includes the relationships between people, plants, animals, natural phenomena, landscapes, and timing of events for activities such as hunting, fishing, trapping, agriculture, and forestry. It encompasses the world view of a people, which includes ecology, spirituality, human and animal relationships, and more.

TEK is also called other names, such as Indigenous Knowledge, Native Science.”

### **State of California**

#### **AB-275 Native American cultural preservation (2020):**

“Tribal traditional knowledge” means knowledge systems embedded and often safeguarded in the traditional culture of California Indian tribes and lineal descendants, including, but not limited to, knowledge about ancestral territories, cultural affiliation, traditional cultural properties and landscapes, culturoscapes, traditional ceremonial and funerary practices, lifeways, customs and traditions, climate, material culture, and subsistence. Tribal traditional knowledge is expert opinion.

## **Appendix E: TRADITIONAL KNOWLEDGE AS EXPLAINED BY INTERNATIONAL BODIES**

### **The United Nations Educational, Scientific and Cultural Organization (UNESCO)**

UNESCO defines traditional knowledge as “knowledge, innovations, and practices of indigenous and local communities around the world. Developed from experience gained over the centuries and adapted to the local culture and environment, traditional knowledge is transmitted orally from generation to generation. It tends to be collectively owned and takes the form of stories, songs, folklore, proverbs, cultural values, beliefs, rituals, community laws, local language and agricultural practices, including the development of plant species and animal breeds. Traditional knowledge is mainly of a practical nature, particularly in such fields as agriculture, fisheries, health, horticulture, forestry and environmental management in general.”<sup>4</sup>

### **UN Permanent Forum on Indigenous Issues: Study on the treatment of traditional knowledge in the framework of the United Nations Declaration on the Rights of Indigenous Peoples and the post-2015 development agenda 2/2/15**

“Traditional knowledge also encompasses traditional cultural expression and manifestations of sciences, technologies and cultures, including knowledge of human and genetic resources, seeds, medicines, flora and fauna, as well as oral traditions, literatures, designs, traditional sports and games and visual and performing arts.”

“In the WIPO context, traditional knowledge is considered to consist of traditional knowledge per se (techniques, practices, skills and innovations), traditional cultural expressions (the forms through which a traditional culture expresses itself, such as music, symbols or painting) and the genetic resources associated with traditional knowledge (such as medicinal plants or traditional crops).”

“Traditional knowledge is knowledge concerning the environment in which indigenous peoples live which is passed on from one generation to another in written and oral form on the basis of their own cultural codes. The knowledge is intangible, inalienable, imprescriptible and non-seizable. Traditional knowledge is a system of innovations and practices, and the only way of guaranteeing the survival of this knowledge and the associated best practices is to protect indigenous lands and ensure that both indigenous peoples and the biodiversity resources on their lands survive.”

“Traditional knowledge refers to knowledge, innovations and practices of indigenous peoples around the world which is developed through experience gained over the centuries, adapted to the local culture and environment and passed on orally from generation to generation (see the Declaration of the Indigenous Women’s Biodiversity Network). It tends to be collectively owned and takes the form of stories, songs, proverbs, cultural values, beliefs, rituals, laws and community rules, local language, art and agricultural practices, including the development of plant and animal species. It is sometimes referred to as oral tradition because it is transmitted orally but is also expressed through song, dance, paintings, sculptures or carvings. Traditional knowledge is mainly practical knowledge and covers areas such as agriculture, fishing, health, horticulture, forestry and environmental management (see [www.cbd.int/traditional/intro.shtml](http://www.cbd.int/traditional/intro.shtml)). “

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<sup>4</sup> [Traditional knowledge | UNESCO UIS](#)



**UN Permanent Forum on Indigenous Issues: Report on the eighteenth session (22 April-3 May 2019)**

“Self-determination is closely linked to the generation, transmission and protection of traditional knowledge, given that indigenous peoples have the right to determine their own conditions for safeguarding and developing their knowledge.”

“Indigenous languages represent complex systems of knowledge that have been developed over thousands of years and are inextricably linked to lands, waters, territories and resources. Each indigenous language represents a unique framework for understanding the world in all its complexity and is a repository of traditional knowledge...”

“Indigenous languages are key to ensuring the continuation and transmission of culture, customs and history as part of the heritage and identity of indigenous peoples.”

**World Intellectual Property Organization**

Traditional knowledge (TK) is knowledge, know-how, skills and practices that are developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity.

While there is not yet an accepted definition of TK at the international level, it can be said that: **TK in a general sense** embraces the content of knowledge itself as well as [traditional cultural expressions](#), including distinctive signs and symbols associated with TK.

**TK in the narrow sense** refers to knowledge as such, in particular the knowledge resulting from intellectual activity in a traditional context, and includes know-how, practices, skills, and innovations.

Traditional knowledge can be found in a wide variety of contexts, including: agricultural, scientific, technical, ecological and medicinal knowledge as well as biodiversity-related knowledge. (<https://www.wipo.int/tk/en/tk/>, 1/2020)