2.12.x *Impairment of Native American Culture (CUL) and Subsistence Fishing (FISH) Beneficial Uses*

The Water Quality Control Plan for the North Coast Region (Basin Plan) includes two Native American cultural beneficial uses; Native American Culture (CUL) and Subsistence Fishing (FISH). The CUL beneficial use covers "uses of water that support the cultural and/or traditional rights of indigenous people such as subsistence fishing and shellfish gathering, basket weaving and jewelry material collection, navigation to traditional ceremonial locations, and ceremonial uses"; FISH encompasses "uses of water that support subsistence fishing" (NCRWQCB 2007). CUL is designated as an "Existing" use in the Ukonom, Happy Camp, Seiad Valley, Klamath Glen, and Orleans Hydrologic Subareas of the Klamath River. Due to a lack of available information at the time of the last update of the Basin Plan, no waterbodies in the North Coast have been designated as "Existing" or "Potential" use for FISH. Based on the available information, however, Regional Water Board staff consider FISH an existing use within the same Hydrologic Subareas of the Klamath River as those designated CUL.

The CUL beneficial use in the Klamath River in California is currently impaired due to the decline of salmonid populations and degraded water quality resulting in changes to or the elimination of ceremonies and ceremonial practices and risk of exposure to degraded water quality conditions during ceremonial bathing and traditional daily activities. The FISH beneficial use is currently impaired in the Klamath River basin in California due to the decline of salmonid populations and other Tribal Trust fish populations resulting in decreased use, abundance, and value of subsistence fishing locations, altered diet and associated health issues, and increased poverty. Further, it is important to note that other beneficial uses, such as COLD and MUN, are linked to the support of the CUL and FISH beneficial uses throughout the year.

Decline in Salmonid and Other Fish Populations
Salmon are food, culture, and religion to the Klamath River tribes (Reed 2005). Religion, lore, law, and technology all evolved from the tribal peoples relationship with the salmon and other fish of the Klamath River basin (Pierce 2002, p.7-2). The Supreme Court has recognized the importance of salmon to Northwest tribes such as those in the Klamath River basin, concluding that access to the fisheries was "not much less necessary to the existence of the Indians than the air they breathed" (Pierce 2002, p.7-2).

The decline of salmon populations, as well as the decline of other Tribal Trust fish species of the Klamath River basin in California including sturgeon, eulachon (candlefish), and eel (lamprey), has impaired the CUL and FISH beneficial uses. Sufficient numbers of trust species must be maintained in the river to sustain the primary dietary needs of the Klamath River basin tribes. The federal government has allocated 50% of the total available harvest of salmonids in the Klamath River basin to the tribes, as required by 50 CFR Part 661 (NOAA 1993). The elimination of the spring Chinook run above the Salmon River has resulted in the elimination of cultural ceremonies associated with the migration of this species through the length of the Klamath River. Declines in fish populations, especially salmonids, has also resulted in decreased use, abundance, and value of subsistence fishing locations, an altered daily diet that has been linked to health issues for tribal members, and increased poverty.

An elaborate ceremony called the First Salmon Ceremony, marks the passing of the first spring Chinook salmon up the Klamath River. This migrating salmon was allowed to pass all the way up the Klamath River to its spawning ground. It was believed that the first spring Chinook migrating upstream would leave its scales at each spawning location for the rest of the salmon run to follow (Roberts 1932 as cited by Sloan 2003, p. 25). This first migrating salmon of the year was considered taboo, and if eaten would cause convulsions and death. Thus, the First Salmon Ceremony allowed this fish to pass safely upstream, thereby lifting the taboo, and allowing the Native people to fish for salmon in the river (Waterman and Kroeber 1938 as cited by Sloan 2003, p.25). The dramatic decline in the spring Chinook run has made it impossible for the Klamath Tribes to conduct the First Salmon Ceremony. "And how do you perform the Spring Salmon Ceremony, how do you perform the First Salmon Ceremony, when the physical act of going out and harvesting that first fish won't happen?"(Leaf Hillman 2004 as cited by Norgaard 2005, p.35).

The Karuk tribe historically depended on the abundant populations of fish found in the mainstem Klamath River for subsistence. However, as fish populations have declined the Karuk have shifted their reliance to other food source (Reed 2007). Ron Reed (2005), traditional fisherman and cultural biologist for the Karuk tribe, states that there is only one remaining tribal fishery location that provides any level of subsistence fishing to the Karuk tribe, Ishi Pishi Falls. According to Reed (2005), in 2002, about 1,500 fish were caught at Ishi Pishi falls, in 2003 approximately 1,000 fish were caught, and in 2004 only 100 fish were harvested at this location. The limited harvest of fish at Ishi Pishi Falls has meant that even ceremonial salmon consumption is limited (Ron Reed Pers. Comm. as cited by Norgaard 2005, p.4). According to Norgaard (2006), in addition to declining salmonid numbers, the fishery at Ishi Pishi falls is negatively affected by low flows. When flows are too low the ability to perform dip net fishing is limited and fewer fish are caught (Norgaard 2006).

The importance of fishing to Tribal members is reflected by the fact that fishing locations are a form of real property (Pierce 2002, p.7-2; Sloan 2003, p.17). They can be owned by individuals, families, or a group of individuals, and can be borrowed, leased, inherited, and bought and sold (Sloan 2003, p.17, 18). The quality, use, and value of these fishing locations has been reduced as factors including increased siltation and decreased salmonid abundance have occurred in the Klamath River and its tributaries (Sloan 2003, p.18, 28).

Historically, the Karuk tribe had a platform fishery associated with each of their 100 tribal village sites (Reed 2006). These fisheries were located near the tops of riffles, where eddies were created along the margins of the Klamath River. These areas of low velocity were where the salmon would hold. According to Reed (2006) these 100 platform fishery locations are no longer as productive as they once were, or are gone. Tribal elders convey that the riffles near these fishing areas have been filled in and flattened out by sediment, contributing to the decline in overall fish populations (Reed 2006), as well as contributing to the loss of a culturally significant way of life.

The decline of salmonids and other Tribal Trust fish populations in the Klamath River basin has altered the diet of each of the tribes along the river and its tributaries. Historically, traditional consumption of fish by the Karuk tribe was estimated at 450 pounds per person per year, while in 2003 the Karuk people consumed less than 5 pounds of salmon per person, and in 2004 less than ½ pound per person was consumed (Norgaard 2005, p.13). In 2005 over 80% of Karuk households surveyed reported that they were unable to harvest adequate amounts of eel, salmon or sturgeon to fulfill their family needs (Norgaard 2005, p.4). Furthermore, 40% of Karuk households reported that there are fish species that their family historically caught, which are no longer harvested (Norgaard 2005, p.7).

The decrease in abundance and availability of traditional foods, including salmon, trout, eel, and sturgeon, is responsible for many diet related illnesses among Native Americans including diabetes, obesity, heart disease, tuberculosis, hypertension, kidney troubles and strokes (Joe and Young 1993 as cited by Norgaard 2003, p.9, 39). These conditions result from the lack of nutrient content in foods consumed in place of the traditional foods such as salmon, as well as from the decrease in exercise associated with fishing and gathering food (Norgaard 2003, p.40). The estimated diabetes rate for the Karuk Tribe is 21%, nearly four times the U.S. average, and the estimated rate of heart disease for the Karuk Tribe is 39.6%, three times the U.S. average (Norgaard 2003, p.40).

In addition to altered diet and increased health issues, declines in fish populations have resulted in a documented increase in poverty rates for some Klamath tribes.

> The destruction of the Klamath river fishery has led to both poverty and hunger. Prior to contact with Europeans and the destruction of the fisheries, the Karuk, Hupa and Yurok tribes were the wealthiest people in what is now known as California. Today they are amongst the poorest. This dramatic reversal is directly linked to the destruction of the fisheries resource base.
>
> The devastation of the resource base, especially the fisheries, is also directly linked to the disproportionate unemployment and low socio-economic status of Karuk people today. Before the impacts of dams, mining and over fishing the Karuk people subsisted off salmon year round for tens of thousands of years. Now poverty and hunger rates for the Karuk Tribe are amongst the highest in the State and Nation. The poverty rate of the Karuk Tribe is between 80 and 85% (Norgaard 2005 Exec Summary).

Degraded Water Quality

Degraded water quality in the Klamath River basin in California, including the seasonal presence of algal toxins in the Klamath reservoirs and river (see section 2.X), has impaired the CUL beneficial use. Known and/or perceived health risks associated with degraded water quality have resulted in the alteration of cultural ceremonies to exclude or limit ingestion of river water. Additionally, known or perceived risk of exposure to degraded water quality conditions during ceremonial bathing and traditional cultural

activities such as bathing, gathering and preparing basket materials, and collecting and using plants has resulted in an impairment of CUL.

The Native American Tribes practice their culture through their ceremonies, such as the White Deer Skin Ceremony, the Brush Ceremony, First Salmon Ceremony, Second Salmon Ceremony, and the World Renewal Ceremony (Reed 2005). All of these ceremonies require tribal members to be in close proximity to the Klamath River and the ceremonies are integrally linked to the river and its health (Sloan 2003 p.18).

According to Karuk cultural biologist Ron Reed (2006), the World Renewal Ceremony is held on the Klamath River at Clear Creek, Somes Bar, and Orleans during July, August, and September of each year. The medicine man, who leads the ceremony, walks 14 miles through the ridges and hills along the Klamath River and is joined halfway through his journey by children and adults of the tribe who follow him the rest of the way for good luck. Upon reaching the Klamath River at the end of this walk, it was historically tradition to drink water from the river to complete the ceremony. This is no longer done due to health concerns about drinking water directly from the river, though children are still known to jump in and drink the water (Reed 2006).

Ceremonial bathing in the river is an important part of most ceremonies (Curtis 1924 as cited by Sloan 2003, p.28). For example, bathing in the Klamath River and its tributaries is a requirement for participants in the Brush Ceremony (Sloan 2003, P.16). "During the fish dam ceremonies at *Kepel*, young girls were selected by the medicine man to participate in the ceremonies. Once selected, they were sent to the river to bathe and then were dressed in full regalia they would wear during the ceremonies. Then they were sent home to their families, and were required to fast and bathe in the river every day" (Van Stranlen 1942 as cited by Sloan 2003, p. 28). During the World Renewal Ceremony, the medicine man and other participants bathe in the Klamath River for up to 10 days (Reed 2006).

Bathing is also associated with funeral services, subsistence practices, recreational swimming, courtship, and for individual hygiene (Reed 2007). Bathing associated with funeral rituals occurs year round and includes preparation for burial, and purification after burial (Curtis 1924 as cited by Sloan 2003, p.28). The Karuk tribe historically bathed in the Klamath River, however in more recent years degraded water quality conditions during the summer have forced them to take precautionary steps and avoid contact with the water (Reed 2007). The Yurok tribe has reported that detached algae have been present in the Klamath River in amounts high enough to prevent access and negatively affect the spirituality associated with bathing areas (McKernan 2006).

Willow roots, wild grape, cottonwood, and Oregon grape are collected by tribal members in the riparian zone of the Klamath River and used to make baskets (Reed 2007). Traditional collection of these basketry materials often involved wading in the water (Sloan 2007a), and further contact occurs when the material is washed and cleaned in the water (Reed 2007). Additionally, willow roots are peeled by mouth following cleaning with river water (Reed 2006). In addition, plants are collected for food, medicine, materials, and other cultural functions (Reed 2007). Gathering plants or plant materials involves wading and contact with the Klamath River (Sloan 2007a; Reed 2007).

Ingestion of water can occur because plants are often cleaned in the river water and water is consumed with medicinal plants (Sloan 2007a). Given degraded water quality conditions, ingestion of water may pose a potential health risk.

Table 1.a provides a summary of the activities that are encompassed by the CUL and FISH beneficial uses. Table 1.a also denotes when those activities occur during the year, and the footnotes identify the amount of physical contact with the water associated with each of these activities. This table is not comprehensive, but conveys the magnitude and diversity of activities that are covered under these uses. Based on the information presented, Regional Water Board staff find that the CUL and FISH beneficial uses of the Klamath River in California are not being fully supported.

Table 1.a: Karuk, Yurok, and Quartz Valley Tribes Cultural Beneficial Uses (CUL and FISH) of the Klamath River and Tributaries[4]

RESOURCE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CUL												
Plants[1,3]	■	■	■	■	■	■	■	■	■	■	■	■
Fish[1]	■	■	■	■	■	■	■	■	■	■	■	■
Fishing[1,2]	■	■	■	■	■	■	■	■	■	■	■	■
Water-drinking, steaming, cooking[1,3]	■	■	■	■	■	■	■	■	■	■	■	■
Rocks[1]	■	■	■	■	■	■	■	■	■	■	■	■
Bathing[2]	■	■	■	■	■	■	■	■	■	■	■	■
Boating[1,2]	■	■	■	■	■	■	■	■	■	■	■	■
Wildlife[1]	■	■	■	■	■	■	■	■	■	■	■	■
Hunting & Trapping[1]	■	■	■	■	■	■	■	■	■	■	■	■
River & Trail Access[1]	■	■	■	■	■	■	■	■	■	■	■	■
Training[2]	■	■	■	■	■	■	■	■	■	■	■	■
Swimming[2]				■	■	■	■	■	■	■		
Prayer & Meditation[1]	■	■	■	■	■	■	■	■	■	■	■	
Fish Dam[1,2]							■	■	■			
Washing[1]	■	■	■	■	■	■	■	■	■	■	■	■
Meditation[1]	■	■	■	■	■	■	■	■	■	■	■	■
Wood Gathering[1]	■	■	■	■	■	■	■	■	■	■	■	■
Tanning Hides[1]	■	■	■	■	■	■	■	■	■	■	■	■
Roots[1,3]	■	■	■	■	■	■	■	■	■	■	■	■
Sticks, Shoots & Bark[1]	■	■	■	■	■	■	■	■	■	■	■	■
Weaving[1]	■	■	■	■	■	■	■	■	■	■	■	■
Shells[1]	■	■	■	■	■	■	■	■	■	■	■	■
First Salmon Ceremony[2,3]				■	■							
World Renewal Ceremony[2,3]							■	■	■			
FISH												
Plants[1,3]	■	■	■	■	■	■	■	■	■	■	■	■
Fishing[1,2]	■	■	■	■	■	■	■	■	■	■	■	■
Eeling[1,2]	■	■	■	■	■							
Shellfish[1,2]						■	■	■				
Water-drinking, steaming, cooking[1,3]	■	■	■	■	■	■	■	■	■	■	■	■
Rocks[1]	■	■	■	■	■	■	■	■	■	■	■	■
Bathing[2]	■	■	■	■	■	■	■	■	■	■	■	■
Boating[1,2]	■	■	■	■	■	■	■	■	■	■	■	■
Wildlife[1]	■	■	■	■	■	■	■	■	■	■	■	■
River & Trail Access[1]	■	■	■	■	■	■	■	■	■	■	■	■

Sources: Bowman 2006; Norgaard 2006; Reed 2007; Sloan 2007a, Sloan 2007b

■ Indicates time of use.

1-Wading, 2-Full submersion, 3-Ingestion of water

4-Tributaries utilized by the tribes of the Klamath river for cultural purposes include many of those from the Scott River down to the mouth of the Klamath river. Additionally, the Quartz Valley tribe utilized all tributaries which flow into the Scott and Shasta Rivers.

Note: This table is not an exhaustive list of all activities covered under the CUL and FISH beneficial uses.

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