YUROK TRIBE

Water Quality Control Plan
For the Yurok Indian Reservation

August 2004

Developed by The Yurok Tribe Environmental Program

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Section 1: INTRODUCTION

The primary responsibility for the protection of the water quality on the Yurok Indian Reservation (YIR) has been assigned to the Yurok Tribal Environmental Program (YTEP) and the Fisheries Program (YTFP). YTEP and YTFP provide YIR wide coordination of the water quality control program by developing, reviewing, and recommending Tribal (Yurok Tribe) approval of Reservation-wide policies, plans and permits for the implementation of Tribal and federal law.

The water quality standards outlined in this document and its subsequent amendments are designed to fully protect the beneficial uses of Reservation waters. This Water Quality Control Plan (WQCP) is not a management document and therefore does not set forth actions or recommendations for the implementation of projects that may impact beneficial uses. Rather, it is a regulatory document used by the Tribe to permit, deny, or condition proposed actions that have the potential to affect the beneficial uses of waters of the Reservation. It is the intent of the Tribe that these standards be binding on all other governmental entities and private parties to the maximum extent permitted by law.

In cases where the following standards are believed to be unattainable or impractical; or, where meeting the standards would cause harm to beneficial uses; the proponent must demonstrate, to the satisfaction of the Tribe, that this is the case. Such a demonstration will only be considered by the Tribe as part of an active request for a permit, action by the proponent, or enforcement action by the Tribe; not as a matter of projected or theoretical proposed actions. Tribal staff established the following standards based on the best available science to support a thriving, sustainable fishery and related aquatic ecosystem. For more information on available science, see references.

Discharge of waste into waters of the Reservation, whether or not the discharge is made pursuant to this WQCP, pursuant to any Tribal, or other governmental permit shall not create a vested right to continue the discharge. ALL DISCHARGES INTO THE WATERS OF THE RESERVATION ARE CONDITIONED PRIVILEGES, NOT RIGHTS.

1.1 Function of the Water Quality Control Plan:

The WQCP is the basis for the Tribe's regulatory program. It sets forth water quality standards for surface, ground and coastal waters of the YIR, which includes both designated beneficial uses, and the narrative and numerical criteria which must be either maintained or attained to protect those uses. It identifies general types of water quality problems which can threaten beneficial uses occurring on the Reservation. The plan also sets forth an anti-degradation policy requiring existing high water quality levels be maintained and prescribing criteria for protection of high-quality Reservation waters. Methods for water quality control include plans, policies and permit processes.

This plan will be used as a resource by the Tribe's technical staff. It will also serve as an educational document for both staff and dischargers and as a reference document for members of the public interested in water quality issues.

1.2 Legal Basis and Authority:

The Tribe is a self-governing tribe, possessing and exercising full control over resources within the exterior boundaries of the Reservation through the activities of various Tribal departments, including the legislative and executive branches, as well as the Tribal court system. The Yurok Tribal Council (Council) is the governing body of the Tribe, and under Article IV of the Constitution and Bylaws, the Council is authorized to enforce protection of Tribal property, wildlife and natural resources, and safeguard and promote the safety and general welfare of the Tribe and the Reservation community.

In protecting Tribal property, wildlife and natural resources with the adoption of this WQCP the Tribe is exercising its inherent power to regulate conduct that may threaten or have a direct effect on the political integrity, the economic security, and health and welfare of the Tribe.

In general, the Hoopa Valley Tribe and the State of California, through its resource and regulatory departments, such as the Tribal Environmental Protection Agency and the North Coast Regional Water Quality Control Board (RB1), respectively, are the jurisdictions responsible for the quality of the water entering the YIR.

As a sovereign power recognized by the Federal Government, a co-manager of natural resources, and by the U.S. Environmental Protection Agency (USEPA) for purposes of water pollution control, the Tribe maintains jurisdiction over waters that flow into and through the Reservation, regardless of the geographic origins of water sources.

1.3 Reservation Setting:

Yurok People have inhabited lands of the Lower Klamath and Trinity Rivers, as well as along the Pacific Coast extending from Little River to Damnation Creek, for thousands of years. These ancestral lands encompass an area of approximately 360,000 acres. The natural resources of the Klamath River, its surrounding lands, and the Pacific Ocean have been central to the lives of Yurok People since time immemorial, fulfilling subsistence, commercial, cultural, and ceremonial needs.

The Tribe is the largest Federally Recognized Tribe in the state of California with approximately 4,500 enrolled members. With the passage of the Hoopa-Yurok Settlement Act (PL 100-850), the Tribe was able to exercise its powers as a sovereign nation for the first time since non-Indian contact. The present YIR is located in northwestern Humboldt and southwestern Del Norte Counties.

The Klamath River defines the exact shape of the YIR (Figure 1). The YIR consists of approximately 59,000-acre corridor of land including the Klamath River, and extends for one mile from each side of the Klamath River. The segment of the Klamath River running through Tribal lands is approximately 46 miles long, or about 16% of the total length of the Klamath River measured from the outlet of Upper Klamath Lake to the Pacific Ocean. The Reservation includes two separate populated areas, generally known as the Lower Reservation (area that surrounds the "lower" part of the Klamath River where it flows into the Pacific Ocean near Requa) and the Upper Reservation (area that surrounds the "up-river" portion of the Klamath River where the Trinity River flows into the Klamath River near Weitchpec).

At the present time 5,090 acres are held in trust status within the YIR. The remaining lands in the YIR are fee lands, a majority of which are owned by Simpson Resource Company (SRC), and managed intensively for timber products. A small portion of the YIR consists of public lands managed by Redwood National/State Parks (RNSP), the United States Forest Service (USFS), and a number of other private landholdings. Approximately 960 people live on the YIR with most of the remaining tribal members living nearby in Humboldt and Del Norte counties.

The steep terrain, granular soil matrix, high precipitation, historic and current land use practices have produced erodible conditions throughout the area. Landslides occur frequently. These soil conditions make road conditions difficult to stabilize and cause considerable siltation and turbidity problems in the Klamath River.

The Mediterranean climate of the area is characterized by hot, dry summers and cool, moist winters. The average annual temperature of the valley is 57 degrees Fahrenheit, and the average annual precipitation is around 70 inches, falling mostly between October and April. There are two distinct climates that occur within the YIR, including the coast which receives approximately 85 inches of rain and the inland valley that receives approximately 60 inches of rain. Snow usually occurs only in moderate amounts above the 2,000-foot elevation.

Management of private lands in the basin, including fee land within the YIR boundaries, has been dominated by intensive timber harvest for the last 100 years. Associated road building and slope destabilization have resulted in aggradation from increased sediment input into many of the streams tributary to the Klamath River on the YIR. Some historically perennial streams now have ephemeral lower reaches and seasonal fish migration blockages because the water in low-runoff periods flows under aggraded streambed. Additionally, the lower slough areas of some of the Lower Klamath tributaries that enter the estuary experience eutrophic conditions during periods of low flow. These can create water quality barriers to fish migration when dissolved oxygen and temperature levels are inadequate for migrating fish.

Nearly all of the YIR streams that have perennial flow and no physical barriers to fish migration provide spawning, incubation, and rearing habitats for anadromous fish

species. Perennial tributaries also provide important thermal refugia for fish during periodic mainstem warm water episodes. Many of the streams that have ephemeral lower reaches also provide important fish habitat in their higher perennial reaches.

The Lower Klamath River, many major tributaries creeks entering the Klamath below the Trinity River confluence, and associated ground water repositories support the household water needs of YIR residents and the habitat needs of a diverse fishery and aquatic ecosystem. Fishing, hunting and gathering food and culturally significant plants are particularly important to Tribal members who have long depended on fish and wildlife for subsistence. The Yurok people have traditional and contemporary importance attached to the fisheries associated with the rivers and water. Increased flows of clean water are essential to the long-term viability of the fisheries and cultures of salmon. Salmon is a traditional staple of Yurok diet. In contemporary times, salmon continues to be vital to the Yurok diet; however, the decrease in run size has caused a decline in its availability. The significance of salmon to Yurok people is evident in the Yurok word for salmon that has multiple meanings. The stem word *nep*- means 'to eat". The Yurok word *nunepuy*, which translates to 'food and fish' and is synonymous with *nepuy*, which translates to 'that which is eaten' and 'salmon'.

Yurok culture also emphasizes the significance of water through ceremonies and oral traditions. Yurok people have ceremonies that specifically seek to keep the world in balance. Traditional ceremonial practices that directly include the river are the construction of the Ke'pel Fish Dam and the Boat Dance. Contemporary ceremonial practices that indirectly relate to water are the Jump and Brush ceremonies. Ceremonies that require a purification process require that sweathouses be in close proximity to bathing areas that provide clean water.

The river and ocean are such an integral part of the Yurok way of life that without them, the traditions of the Yurok People would be perceived in a radically different perspective. To take away such waters, limit Yurok access to such waters, or severely impair the quality of such waters would result in the end of the traditional Yurok way of life.

As stated by Congress in the Klamath River Act (1986), the basin's fish habitat has been greatly diminished in extent and value in the past century by the construction of dams, diversions, hydroelectric projects, and by sediment from mining, timber harvest practices, and road building. These developments and land uses had and continue to have far reaching implications affecting the health of entire watershed habitats - from the soil stability and vegetative diversity of the highest slopes to the quantity and quality of the water in the rivers at the bottom of the basin.

Water quality problems in the Upper Klamath Basin are well documented, but comparability of data among different areas and sources of collection is uncertain. The majority of water flowing through the Reservation is derived from scheduled releases of impounded water from the Upper Klamath/Trinity Basins, which is often

of poor quality in relation to human needs as well as the needs of fish and wildlife. Releases from Iron Gate dam on the Klamath River tend to be warm and have low levels of dissolved oxygen, while releases from Lewiston Dam on the Trinity River are colder and have higher oxygen levels.

While on-site Reservation impacts due to silviculture, road building and water diversion occur, the magnitude of cumulative off-site impacts of these same activities is far greater. It is therefore appropriate to consider current and past land use and the associated cumulative effects on all watersheds of the Klamath River which flow through the YIR and the subsequent threat to federally protected and reserved fishing rights of the Tribe.

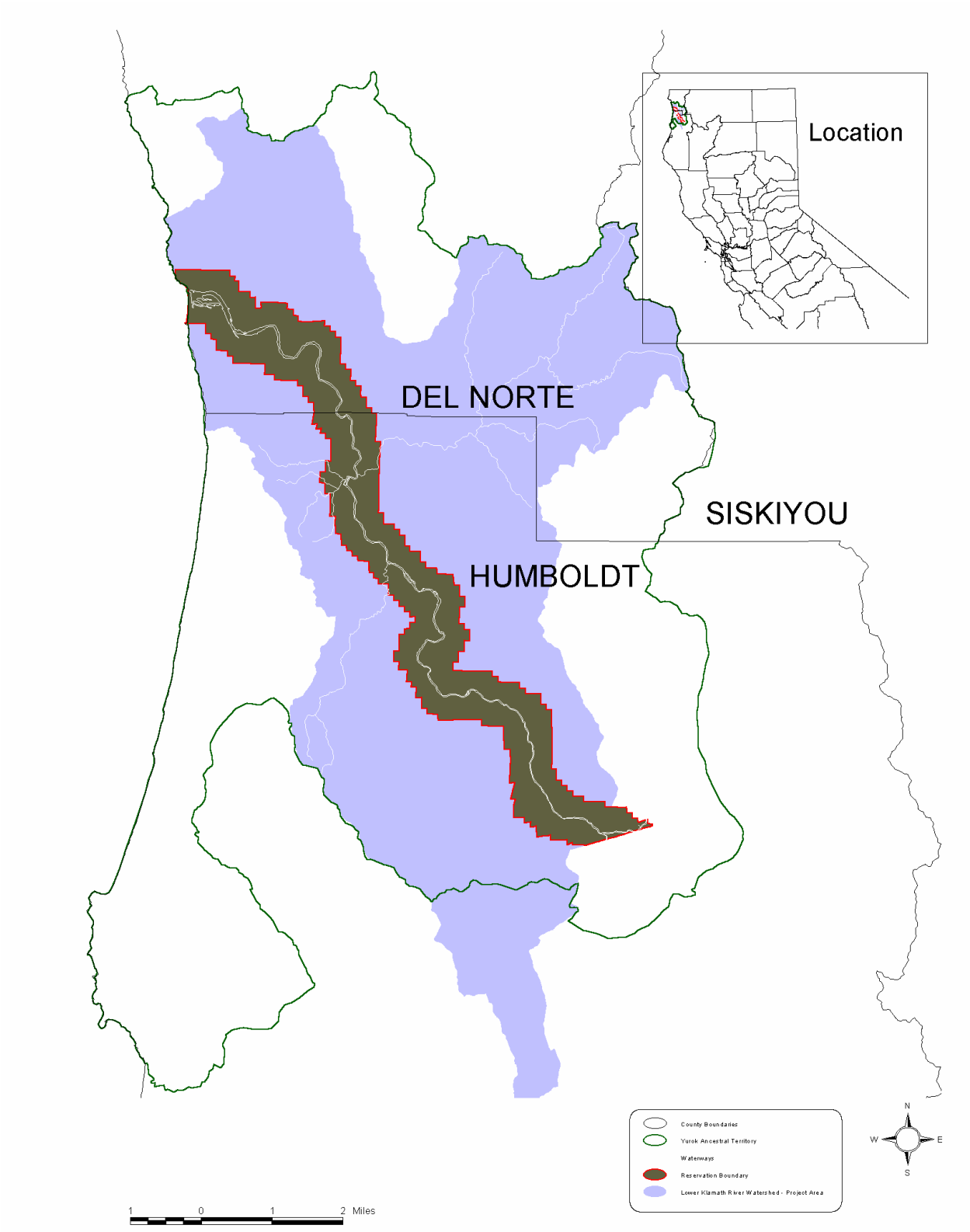

Figure 1. Location Map of Yurok Indian Reservation

1.4 Water Resources and Use:

Listing of waterways which theYurok Tribe asserts authority to regulate water quality and establish water quality standards (drainage area size listed if known). Not all streams are shown on the following maps.

Achelth Creek
Adjacent coastal waters
Ah Pah Creek - 15.9 square miles of drainage area
Bear Creek - 9.2 square miles of drainage area
Ben's Creek
Blue Creek - 42.9 square miles of drainage area
Burrill Creek
Clirliah Creek
Gist Creek
Ha Amar Creek
Halagow Creek
High Prairie Creek
Hoppaw Creek - 4.3 square miles of drainage area
Hunter Creek
Johnsons Creek - 2.9 square miles of drainage area
Klamath River
Ke'pel Creek - 8.5 square miles of drainage area
Lewis Creek
Mawah Creek
Mareep Creek
McGarvey Creek - 8.9 square miles of drainage area
Mettah Creek 10.1 - square miles of drainage area
Miners Creek
Minot Creek
Morek Creek - 4 square miles of drainage area
Omagar Creek - 2.3 square miles of drainage area
Pacific Ocean
Pecwan Creek - 27.6 square miles of drainage area
Pine Creek - 11 square miles of drainage area (non-Hoopa portion)
Quetep Creek
Richardson Creek
Roaches Creek - 29.4 square miles of drainage area
Rock Chute Creek
Rube Creek
Salt Creek
Saugep Creek - 1.1 square miles of drainage area
Spruce Creek
Surpur Creek - 5.8 square miles of drainage area
Tarup Creek - 5.1 square miles of drainage area
Tectah Creek - 20.1 square miles of drainage area

Trinity River
Tully Creek - 17.6 square miles of drainage area
Turwar Creek - 31.9 square miles of drainage area
Waukel Creek - 3.2 square miles of drainage area
Wauketel Creek
Weitchpec Creek

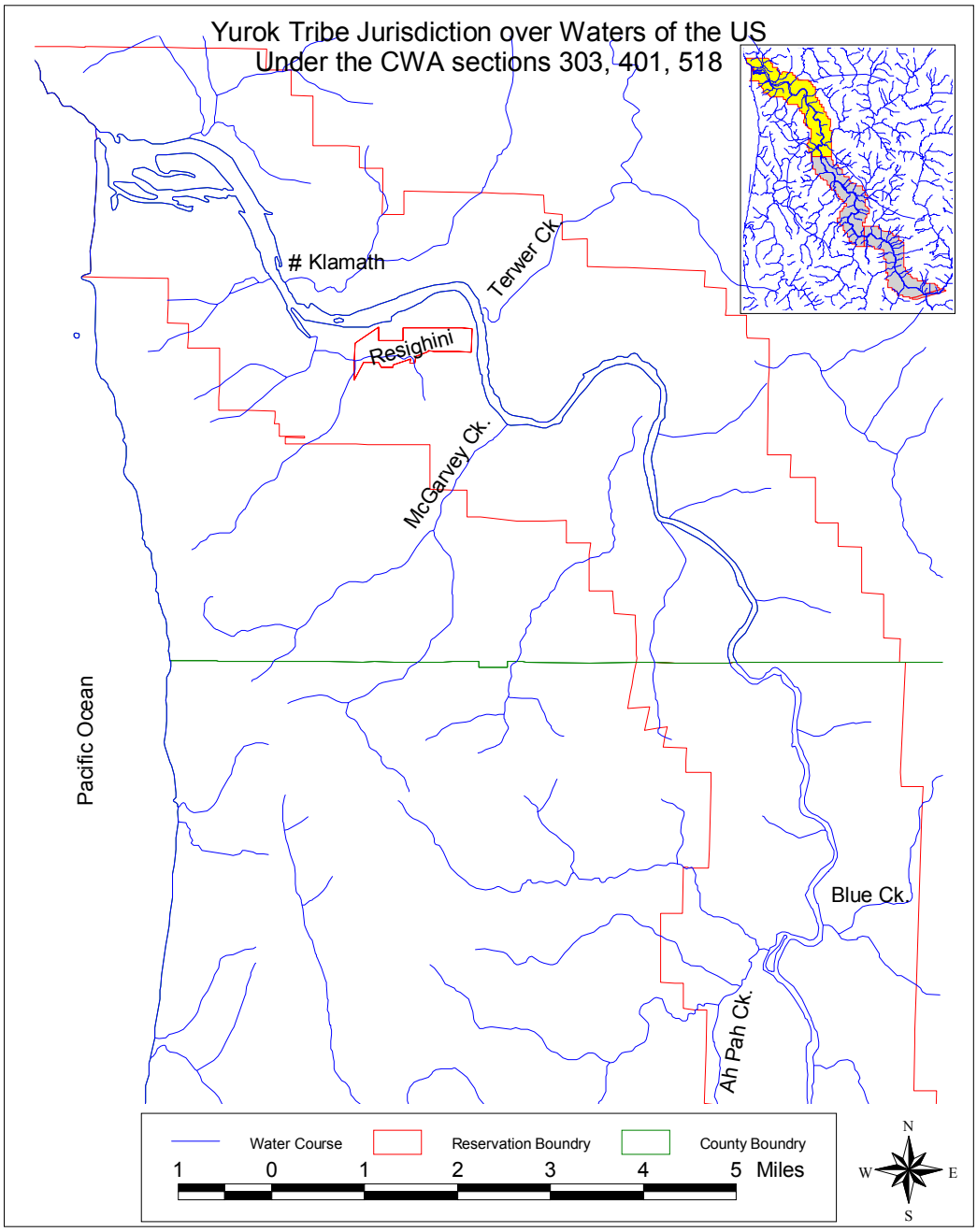

Figure 2. Streams and waterways occurring within the Yurok Indian Reservation, lower section (Only large order streams are labeled).

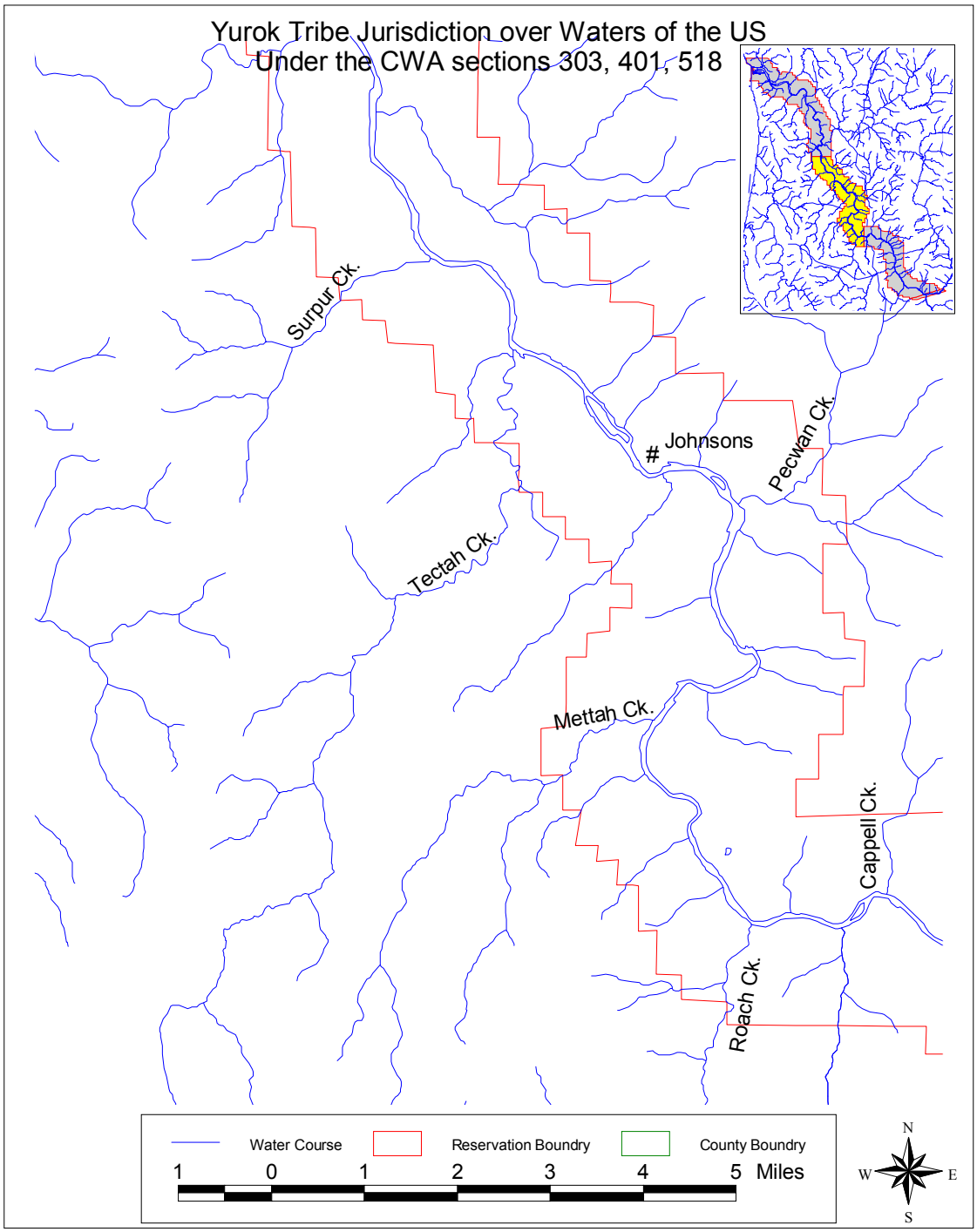

Figure 3. Streams and waterways occurring within the Yurok Indian Reservation, middle section (Only large order streams are labeled).

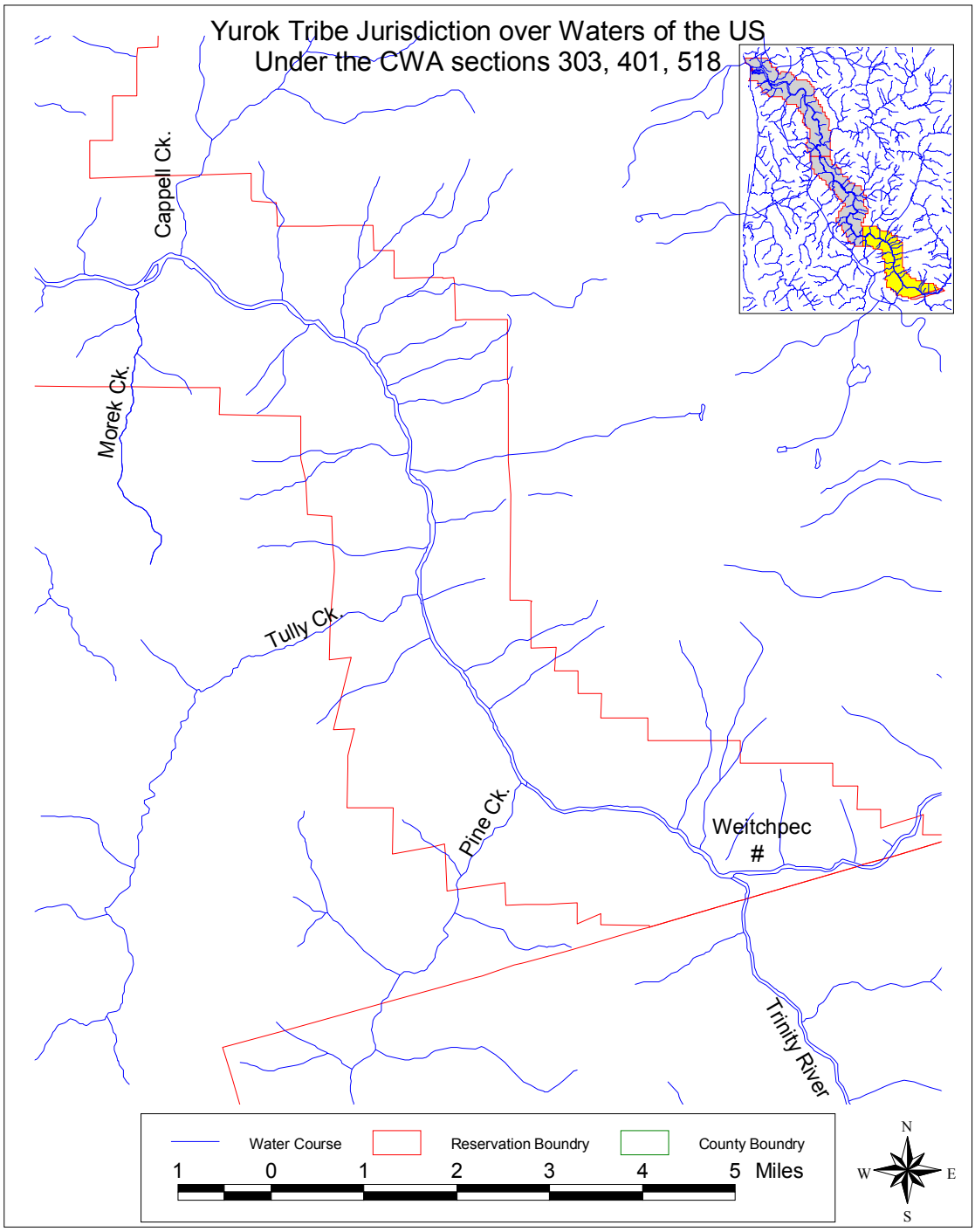

Figure 4. Streams and waterways occurring within the Yurok Indian Reservation, upper section (Only large order streams are labeled).

Section 2: BENEFICIAL USES

2.1 Definitions of Beneficial Uses

An effective water quality control plan requires determination of the beneficial water uses which are to be designated and maintained. The term 'beneficial use' refers to both the existing, potential or historical use of that particular waterway. Beneficial use definitions are listed in Table 1 below. This chapter identifies beneficial water uses in the YIR and projects probable future uses.

Table 1. Beneficial Use Definitions

Agricultural Supply (AGR)	Uses of water for farming, horticulture, or ranching including, but not limited to irrigation, stock watering, or support of vegetation for range grazing.
Preservation of Areas of Special Biological Significance (BIO)	Includes marine life refuges, ecological reserves and designated areas of special biological significance; areas where kelp propagation and maintenance are features of the marine environment requiring special protection.
Cold Freshwater Habitat (COL)	Uses of water that support cold water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.
Commercial and Sport Fishing (COMM)	Uses of water for commercial or recreational collection of fish, shellfish, or other organisms including, but not limited to, uses involving organisms intended for human consumption or bait purposes.
Cultural (CUL)	Uses of water for ceremony and other cultural activities as defined by Yurok tradition.
Estuarine Habitat (EST)	Uses of water that support estuarine ecosystems including, but not limited to, preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife.
Freshwater Replenishment (FRSH)	Uses of water for natural or artificial maintenance of surface water quantity or quality (e.g., salinity).
Groundwater Recharge (GW)	Uses of water for natural or artificial recharge of groundwater for purposes of future extraction, maintenance of water quality, or halting of saltwater

	intrusion into freshwater aquifers
Marine Habitat (MAR)	Uses of water that support marine ecosystems including, but not limited to, preservation or enhancement of marine habitats, vegetation such as kelp, fish, shellfish, or wildlife.
Migration of Aquatic Organisms (MGR)	Uses of water that support habitats necessary for migration or other temporary activities by aquatic organisms, such as anadromous fish.
Municipal and Domestic Supply (MUN)	Uses of water for community or individual water supply systems including, but not limited to, drinking water.
Hydropower Generation (PWR)	Uses of water for hydropower generation.
Navigation (NAV)	Uses of water used for travel, or other transportation by private or commercial vessels.
Rare, Threatened, or Endangered Species (RARE)	Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened or endangered.
Water Contact Recreation (REC-1)	Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible.
Non-Contact Water Recreation (REC-2)	Uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible.
Spawning, Re-production, and/or Early Development (SPN)	Uses of water that support high quality aquatic habitats suitable for reproduction and early development of fish.
Warm Freshwater Habitat (WARM)	Uses of water that support warm water ecosystems.
Wildlife Habitat (WLD)	Uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife, or wildlife water and food sources.

2.2 Use Designation

For the purpose of this plan, the following beneficial uses for the waters of the YIR have been established. Water bodies within the YIR which do not have beneficial uses designated for them innately maintain beneficial uses for wildlife habitat (WLD). Many of these creeks include essential habitat for amphibians, macroinvertabrates and other aquatic and/or riparian flora and fauna. These include the many smaller creeks and drainages including but not limited to the following: China, Coon, Devil's, Dry Gulch, Knulthkarn, Lewis Gulch, Little Surpher, Muddy, No Name, One Mile, Panther, Patrick, Pularvasar, Quetep, Saint's Rest, Scaath, Stawein, Tarwae, and Worthia Creeks. These habitat designations in no way affect the presence or absence of other beneficial use designations in these water bodies.

Table 2 below displays the beneficial uses for surface waters that are present on the YIR. An "X" indicates the beneficial use either currently exists has the potential to exist or historically existed and may be restored. Protection will be afforded to these beneficial uses of surface waters of the YIR listed in Table 2 below.

Table 2. Beneficial use designations for waterways occurring on the Yurok Indian Reservation

Waterbody	Beneficial Use																		
	AGR	BIO	COL	COM	CUL	EST	FRSH	GW	MAR	MGR	MUN	NAV	PWR	RARE	REC 1	REC 2	SPN	WARM	WLD
Achelth			X		X		X				X				X	X			X
Adjacent coastal waters			X	X	X	X			X	X		X	X	X	X	X			X
Ah Pah			X		X		X	X		X	X			X	X	X	X		X
Bear			X		X		X				X			X	X	X			X
Bens			X		X		X				X				X	X			X
Blue		X	X		X		X	X		X	X			X	X	X	X		X
Burrill			X		X		X				X				X	X	X		X
Clirliah			X		X		X				X				X	X	X		X
Gist			X		X		X				X				X	X			X
Ha Amar			X		X		X				X				X	X	X		X
Halagow			X		X		X				X				X	X	X		X
Hoppaw			X		X		X				X				X	X	X		X
High Prairie								X			X			X	X	X	X		
Hunter			X		X		X	X		X	X			X	X	X	X		X
Johnsons			X		X		X	X			X			X	X	X	X		X
Ke'pel			X		X		X	X		X	X		X	X	X	X	X		X
Klamath River	X		X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X
Lewis			X		X		X				X				X	X	X		X
Mawah			X		X		X				X				X	X	X		X
Mareep			X		X		X				X				X	X	X		X
McGarvey			X		X		X	X		X	X			X	X	X	X		X
Mettah			X		X		X	X			X			X	X	X	X		X
Miners			X		X		X				X				X	X	X		X
Minot			X		X		X	X		X	X			X	X	X	X		
Morek			X		X		X				X				X	X	X		X
Omagar			X		X		X				X			X	X	X	X		X
Pecwan			X		X		X	X		X	X		X	X	X	X	X		X
Pine			X		X		X	X		X	X			X	X	X	X		X
Quetep			X		X		X				X				X	X	X		X

Table 2 (continued). Beneficial use designations for waterways occurring on the Yurok Indian Reservation

Waterbody	Beneficial Use																	
	AGR	BIO	COL	COM	CUL	EST	FRSH	GW	MAR	MGR	MUN	NAV	PWR	RARE	REC 1	REC 2	SPN	WARM	WLD
Richardson			X		X		X				X				X	X			X
Roaches			X		X		X	X			X		X	X	X	X	X		X
Rock Chute			X		X		X				X				X	X	X		X
Rube			X		X		X				X				X	X	X		X
Salt			X		X		X	X			X			X	X	X	X		X
Saugep			X		X		X				X				X	X	X		X
Spruce			X		X		X				X				X	X	X		X
Surpur			X		X		X				X				X	X	X		X
Tarup			X		X		X				X				X	X	X		X
Tectah			X		X		X	X		X	X			X	X	X	X		X
Trinity River	X		X	X	X		X	X		X	X	X		X	X	X	X	X	X
Tully			X		X		X	X		X	X		X	X	X	X	X		X
Turwar			X		X		X	X		X	X			X	X	X	X		X
Waukel			X		X		X				X				X	X			X
Wauketel			X		X		X				X				X	X			X
Weitchpec			X		X		X				X				X	X			X

Section 3: WATER QUALITY OBJECTIVES

3.1 Water Quality Standards

The Porter-Cologne Water Quality Control Act defines “water quality objectives” as the allowable “limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.” This WQCP is consistent with California’s Porter-Cologne Water Quality Control Act. However, the Tribe asserts its jurisdiction within the YIR and that the Federal Water Pollution Control Act (Clean Water Act or CWA) is the applicable law on the YIR. Therefore, the Tribe has authority to set water quality objectives for Reservation waters. Thus, the standards provided herein are to restore, maintain and protect the chemical, physical, biological, and cultural integrity of the surface waters of the YIR; to promote the health, social welfare, and economic well-being of the YIR, its people, and all the residents of the YIR; to achieve a level of water quality that provides for all potential uses; and to provide for full protection of state and federally threatened and endangered species.

These standards will provide protection of the historic, existing, and potential uses for the surface waters of the Tribe and water quality standards (narrative and numeric) to sustain the designated uses and protect existing water quality. The water use and quality provisions set forth herein are established in conformance with present and potential water uses of the surface waters of the YIR and in consideration of the natural water quality potential and limitations of the same. In addition these standards shall provide a mechanism for managing and safeguarding the quality and use of all water bodies within the YIR, and provide a legal basis for regulatory controls.

The Tribe has reviewed the Establishment of Numeric Criteria for Priority Toxic Pollutants for the Sate of California; Rule, 2000, also known as the California Toxics Rule (CTR) and has determined that for the purposes of consistency, the water quality criteria for priority pollutants in this document apply to waters of the YIR. The Yurok Tribe will incorporate the most current criteria for priority toxic pollutants as it is developed by the USEPA.

3.2 Anti- Degradation Objectives

The Anti-Degradation policy of the Tribe is as follows:

The existing level of water quality necessary to protect the existing uses shall be maintained and protected. In such cases where the designated uses of a given body of water are impaired there shall be no lowering of water quality with respect to specific pollutants, which may cause or contribute to impairment.

Where the quality of water exceeds levels necessary to support propagation of fish and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the Tribe finds that, after public participation provisions have been met, allowing lower water quality is necessary to accommodate important economic or social development in that area in which the waters are located. If allowing such degradation or lower water quality, the Tribe shall assure water quality adequate to fully protect existing uses. Further, the Tribe shall enforce, impose, implement, or adopt the strictest regulations for all new and existing point sources and all approved cost-effective, reasonable best management practices for non-point source control.

The Council may allow lower water quality on a temporary basis in order to respond to emergencies, protect public health and welfare, or implement social/economic activities.

In such cases where water uses justify outstanding resource designations, the designated water quality and uses shall be maintained and protected. Pollutants that will reduce the water quality shall not be allowed to enter such waters. To accomplish this YTEP may require water controls, maintenance of natural flow regimes and protection of in-stream habitats.

High quality waters are those that constitute an outstanding National and Tribal resource, such as waters of National and State parks and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

In those cases where potential water quality impairment associated with a thermal discharge is involved, the antidegradation policy and implementing method shall be consistent with section 316 of the CWA.

3.3 Water Quality Objectives for Surface Waters, Narrative criteria

All surface waters and wetlands of the Reservation, including mixing zones, shall meet the criteria below and be subject to review and/or permitting as set forth in the following sections.

Ammonia

Levels of ammonia shall not be increased, in any body of water, by human related activity that could cause a nuisance or adversely affect the water to support specified beneficial uses.

Bacteria

Waters shall not contain concentrations of coliform organisms attributable to anthropogenic sources, including human and livestock wastes.

Bacteria criteria shall ideally be based on a minimum of five samples collected as evenly spaced as practicable during any 30-day period. However, a geometric mean concentration exceeding the below stated criteria shall indicate violation of this objective even if fewer than five samples were collected.

In waters designated for contact recreation (REC-1) the geometric mean of enterococci shall not exceed 33 coliform forming units (CFU) per 100 milliliters and a single sample maximum shall not exceed 61 CFU. The geometric mean of *E. coli* shall not exceed 126 CFU per 100 milliliters and a single sample maximum of 235 CFU per 100 milliliters[1].

Biostimulatory Substances

Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths could cause a nuisance or adversely affect the water to support specified beneficial uses.

Bottom Substrate

Suitable substrate particle size distributions shall not be altered by human caused activities in ways to impact successful fish spawning as well as attachment of macroinvertebrates and algal components.

Color

Waters shall be free of human caused coloration that could cause a nuisance or adversely affect the water to support specified beneficial uses.

Dioxins

No dioxin compounds will be discharged to any water within the YIR boundaries.

Dissolved Oxygen

Dissolved oxygen concentrations shall not be altered by human caused activities that could cause a barrier to salmonid fish migration or adversely affect the water to support specified beneficial uses.

Floating Materials

[1] Bacteria levels adopted from California's Colorado River Basin Region 7 Water Quality Control Plan (2002)

Waters shall not contain floating material, including solids, liquids, foams and scum related to human caused activities in concentrations that could cause a nuisance, or adversely affect the water to support specified beneficial uses.

Oil and Grease

Waters shall not contain oils, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water that could cause a nuisance, or adversely affect the water to support specified beneficial uses.

Nitrate

Levels of nitrates in waters with municipal or domestic supply use shall not exceed 10 mg/l. In other bodies of water the levels of nitrate shall not be increased by human related activity that could cause a nuisance, or adversely affect the water to support specified beneficial uses.

Nitrite

Levels of nitrites shall not be increased, in any body of water, by human related activity that could cause a nuisance, or adversely affect the water to support specified beneficial uses.

Pentachlorophenol (PCP)

No discharge of Pentachlorophenol will be allowed to any water body within the boundaries of the YIR. Any existing point or non-point source resulting in the presence of PCP shall be addressed as a non–compliance condition under the antidegradation plan.

Petroleum Hydrocarbons

No increase above background levels of petroleum hydrocarbons will be allowed due to human related activity in any water body within the YIR boundaries. Background levels shall be considered to be non-detect if baseline levels have not been established.

Pesticides

For the purposes of this WQCP, pesticides are defined to include insecticides, herbicides, rodenticides, fungicides, piscicides and all other economic poisons. An economic poison is any substance intended to prevent, repel, destroy, or mitigate

the damage from insects, rodents, predatory animals, bacteria, fungi or weeds capable of infesting or harming vegetation, humans or animals.

Since national numeric water quality criteria guidance has not been published for many pesticides and because Tribal member fish consumption far exceeds the national average upon which standards are developed, the Tribe maintains that there be no detectable levels of pesticides in any of the water bodies under its jurisdiction. This policy is consistent with other jurisdictions and community concerns towards pesticide use within Northern California (e.g. Hoopa Valley Tribe, Karuk Tribe of California, Trinity County, and the Northern California Water Quality Leonean Regional Board (R6).

Pesticide concentrations, individually or collectively, shall not be detected by using the most recent detection procedures available. There shall be no detectable amount of pesticide concentrations found in bottom sediments. There shall be no detectable increase in bioaccumulation of pesticides in aquatic life.

PH

Changes related to human caused activities in normal pH levels shall not exceed 0.5 pH units.

Phosphates

Levels of phosphorous in any water body shall not be increased by human related activity above the levels that could cause a nuisance, or adversely affect the water to support specified beneficial uses.

Radioactivity

Radionuclides shall not be present in concentrations which are deleterious to human, plant, animal, or neither aquatic life nor which result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant animal, or aquatic life.

Sediment

The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause a nuisance, or adversely affect the water to support specified beneficial uses. In addition, the placing or disposal of soil and silt from any operation where such material could cause a nuisance or adversely affect the water to support specified beneficial uses is prohibited.

Settleable Materials

Waters shall not contain substances caused by human activities in concentrations that result in deposition of material that could cause a nuisance, or adversely affect the water to support specified beneficial uses.

Suspended Materials

Waters shall not contain suspended materials caused by human activities in concentrations that could cause a nuisance, or adversely affect the water to support specified beneficial uses.

Taste and Odor

Waters shall not contain taste or odor producing substances in concentrations that impart undesirable taste and odors to flesh or other edible products of aquatic origin, or that could cause a nuisance, or adversely affect specified beneficial uses.

Temperature

The temperature of waters within the YIR shall not be increased by human caused activity by more than 5 degrees Fahrenheit above the background level at any time or place. If a background level has not been determined, the temperature upstream of a project impacting the receiving water will be considered the background level.

Toxicity

All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analysis of species diversity, population density, growth anomalies, bioassays of appropriate duration and/or other appropriate methods as specified by USEPA's toxicity test guidance's.

Turbidity

Waters shall be free of human caused changes in turbidity that could cause a nuisance, or adversely affect the water to support specified beneficial uses. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver therof.

Turbidity shall not exceed 5 Nepholometer Units (NTU) over background turbidity when the background turbidity is 50 NTU or less, or have more than a 10 percent increase in turbidity when the background is >50 NTU[1].

Volume

The volume of all waters shall not be altered by human activities unless it can be demonstrated to the satisfaction of the Tribe that such an alteration in volume does not adversely affect the water quality needed to protect the beneficial uses. In particular, waters designated CUL, MGR, and NAV shall not have their water volumes altered as to impair these beneficial uses.

Other Chemical Constituents

Waters used for domestic or municipal supply shall not contain concentrations of chemical constituents in amounts which adversely affect such beneficial use.

[1] Turbidity levels adopted from the State of Washington as specified in Bash J., Berman C., Bolton S. Effects of Turbidity and Suspended Solids on Salmonids (2001)

3.4 Water Quality Objectives for Ground Water, Narrative Criteria

In general, groundwater standards and criteria will be the same as those for surface waters. The beneficial uses specified for those waters derived from ground water sources will dictate the specified standards which apply.

Groundwaters shall not contain chemical constituents, toxicants, radioactivity, pesticides or substances which produce tastes or odors in concentrations that produce detrimental physiological responses in human, plant, animal or aquatic life associated with designated beneficial uses. Groundwaters used for domestic or municipal supply shall not contain concentrations in excess of the maximum contaminant limits set forth in USEPA's Safe Drinking Water Act.

3.5 Specific Use Numerical Criteria

The Tribe adopts the following water quality standards for the following designated uses for specific Tribal water bodies. The Tribe adopts the following water quality standards for the designated uses of waters within and adjacent to the YIR:

A. Waters listed with the designated uses of preservation of biological habitat with special significance (BIO), cold freshwater habitat (COL), commercial and sport fishing (COM), cultural and ceremonial activities (CUL), migration of aquatic organisms (MGR), municipal and domestic supply (MUN), navigation (NAV), contact recreation (REC-1), rare, threatened, or endangered species habitat (RARE), spawning, reproduction, and development habitat (SPN) shall meet the following criteria over the entire length of the stream including connecting tributaries and the Pacific Ocean where applicable within Tribal jurisdiction.

(1) Bacteriological Criteria – Bacterial criteria for fresh and coastal waters use a geometric mean and a single sample maximum, which shall not exceed the following:

Bacteria	Geometric mean	Single Sample Max
enterococci	33 CFU/100 ml	61 CFU/100 ml
Escherichia coli	126 CFU/100 ml	235 CFU/100 ml

CFUs – Coliform Forming Units

(2) Specific conductivity levels shall have a 90% upper limit[1] of 300 µmhos/cm @ 25° Celsius (77° Fahrenheit) and a 50% upper limit[1] of 200 µmhos/cm @ 25° Celsius (77° Fahrenheit). This criteria does not apply to estuarine and coastal waters.

(3) Temperature shall not exceed 21° Celsius (69.8° Fahrenheit) and a maximum seven-day average of 15.5° Celsius (59.9° Fahrenheit).

(4) pH levels shall not be below 6.5 and not exceed 8.5 due to human caused activities.

(5) The minimum level of dissolved oxygen shall not be below 7.0 mg/l in the water column. The 50% lower limit[2] shall not be below 9.0 mg/l.

(6) Hardness levels shall have a 50% upper limit[2] of 80 mg/l of calcium carbonate. This criteria does not apply to estuarine and coastal waters.

(7) Boron levels shall have a 90% upper limit[1] of 0.5 mg/l and a 50% upper limit[2] of 0.2 mg/l. This criteria does not apply to estuarine areas.

(8) Ammonia: Because ammonia toxicity to fish is influenced by pH and temperature, the above listed waters shall meet the following conditions for ammonia[3] based on the pH and temperature in the waterbody:

The one-hour average concentration of total ammonia nitrogen (in mg N/L) does not exceed, more than once every three years on the average, the CMC (acute criterion) calculated using the following equation. Where salmonid fish are present:

$$CMC = \frac{0.275}{1 + 10^{7.204 - pH}} + \frac{39.0}{1 + 10^{pH - 7.204}}$$

Based on this equation, ammonia toxicity values for a given pH value are provided in the following table.

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[1] 90% upper limits represent the 90 percentile values for a calendar year. 90% or more of the values must be less than or equal to an upper limit.

[1] 50% upper and lower limits represent the 50 percentile values of the monthly means for a calendar year. 50% or more of the monthly means must be less than or equal to an upper limit and greater than or equal to a lower limit.

[3] Ammonia levels adopted from USEPA's 1999 Update of Ambient Water Quality Criteria for Ammonia and Hoopa Valley Tribe's Water Quality Control Plan (2001)

When surface waters are at the specified pH levels in the table below total ammonia shall not be above the levels stated in the table below.

Total Ammonia (mg N/L) Toxicity Table for salmonids in fresh water at various expected pH levels

pH	mg N/L
6.0	36.72
6.5	32.6
7.0	24.10
7.5	13.3
8.0	5.62
8.5	2.14
9.0	0.885

The thirty-day average concentration of total ammonia nitrogen (in mg N/L) should not exceed, more than once every three years on the average, the CCC (Chronic criterion) calculated using the following equation. When fish early life stages are present:

$$CCC = \left\{ \frac{0.0577}{1 + 10^{7.688 - pH}} + \frac{2.487}{1 + 10^{pH - 7.688}} \right\} \times MIN(2.85,\ 1.45 \times 10^{0.028 \times (25 - T)}$$

In addition, the highest four-day average within the 30-day period should not exceed 2.5 times the CCC.

B. For all waters listed with the designated beneficial uses for agricultural supply (AGR), estuarine habitat (EST), and/or freshwater replenishment (FRSH), ground water recharge (GW), marine habitat (MAR), power supply (PWR), non-recreation contact (REC-2), warm water habitat (WARM) and wildlife habitat (WLD) no criteria has been set due to the fact that these waters already have been designated as supporting beneficial uses that require more stringent water quality standards. Therefore, the more stringent water quality standards supercede any standards that may be protective of these beneficial uses.

Section 4: IMPLEMENTATION PLANS AND POLICIES

4.1 General Conditions

The requirements of the water quality standards set forth in this WQCP shall be met for all waters of the Reservation. No person shall willfully engage in any activity that violates or causes the violation of these standards. All discharges from point sources, all instream activities, and all activities that generate nonpoint source pollution shall be conducted so as to comply with this WQCP and all other Federal and Tribal regulations. Compliance shall be determined by YTEP as established in the Water Pollution Control Ordinance.

To fulfill the requirements of this plan, YTEP is primarily responsible for overseeing the Tribe's water quality monitoring, enforcement, and compliance programs. Furthermore, YTEP shall be responsible for conducting triennial assessments of the WQCP for review by the Council and in developing new future water quality ordinances and regulations.

Implementation procedures are as follows:

To the extent required to ensure compliance with the WQCP, YTEP and other Tribal offices and departments, including but not limited to the Fisheries Program and other outside agencies as requested by the Tribe shall:

a. Monitor water quality (chemical, physical and biological) to assess the effectiveness of pollution controls and to determine whether water quality standards are being attained;

b. Obtain and assess information pertinent to the actual environmental effect of any effluent discharge, using data that accurately represents the quality and quantity of the effluent and receiving water, with due consideration of all factors with regards to actual or attainable use of a receiving water.

c. Advise any prospective discharger in writing, as needed, of requirements for obtaining a permit to discharge, including any additional permit requirements that the Tribe may enact;

d. Assess the probable impact of effluent discharges on receiving waters with regard to designated uses, anti-degradation policy, and numeric and narrative standards;

e. Require the degree of wastewater treatment that is practicable, cost-effective and commensurate with protecting and maintaining designated uses and the existing water quality of the receiving water with considerations of the long-term Tribal objectives for the economy and the environment;

f. Follow USEPA approved procedures to develop water quality-based limitations, as appropriate, for inclusion in any Tribal or federal permit issued to a discharger;

g. Require that effluent limitations developed by the Tribe be included in any such permit as a condition for Tribal certification pursuant to Section 401 of the Clean Water Act, 33 U.S.C. 1341, provided that a reasonable time, not to exceed 3 years, for compliance shall be granted, and provided further that effluent discharge limitations more stringent than those contained in existing National Pollutant Discharge Elimination System (NPDES) permits shall not be imposed without providing an applicant an opportunity to demonstrate that existing permit limitations are adequate to protect existing and designated uses of receiving waters;

h. Institute and coordinate water pollution control activities with other Tribal entities, including other departments, enterprises, and communities, federal and state agencies as appropriate and in consultation with the Council;

i. Develop and pursue inspection and enforcement programs to ensure that dischargers comply with requirements of this WQCP and satisfy the requirements of any regulations the Tribe enact subsequent to the adoption of the Water Pollution Control Ordinance and to enforce federal permits with assistance from the USEPA.

j. Encourage, in conjunction with other Tribal entities and outside agencies, the development and implementation of best management practices to control nonpoint sources of pollutants to achieve compliance with the Water Pollution Control Ordinance.

4.2 Enforcement and Penalties

A. Jurisdiction

Jurisdiction for enforcement purposes is defined in the Yurok Tribe Water Pollution Control Ordinance.

B. Procedure

Enforcement procedures are discussed in the Yurok Tribe Water Pollution Control Ordinance.

C. Federal Prosecution

Nothing in this WQCP or the Water Pollution Control Ordinance shall be deemed to preclude federal prosecution of non-members who trespass on the Reservation. Federal prosecution may be pursued in addition to, or in lieu of, other enforcement procedures provided by this WQCP.

D. Warrants, Subpoenas, and Service of Process

Warrants, subpoenas, and service of process are defined in the Yurok Tribe Water Pollution Control Ordinance.

E. Civil Citations

The civil citations procedure is defined in the Yurok Tribe Water Pollution Control Ordinance.

F. Liquidated Damages Provision

The liquidated damages provision is set forth in the Yurok Tribe Water Pollution Control Ordinance.

G. Liquidated Damages Presumption

The liquidated damages presumption is defined in the Yurok Tribe Water Pollution Control Ordinance.

H. Punitive Damages

(1) Nothing in the WQCP or the Water Pollution Control Ordinance shall be deemed to preclude the Tribe, through its Council, from paying for and being awarded punitive damages in any civil action filed for a violation of this WQCP or the Water Pollution Control Ordinance wherein it is alleged that the violator has committed the acts constituting the violation with wanton, willful or malicious disregard for the interests of the Tribe.

(2) The Court, in assessing punitive damages, shall determine their amount in the same manner in which it would determine punitive damages in any other civil action. Punitive damages shall not exceed ten times the amount of the civil penalty.

I. Costs

Additional costs assessed against violators of the Water Pollution Control Ordinance or this WQCP are defined in the Yurok Tribe Water Pollution Control Ordinance.

J. Disposition of Fees, Forfeitures, Penalties

The disposition of fees, forfeitures, and penalties is discussed in the Yurok Tribe Water Pollution Control Ordinance.

4.3 Monitoring Plan

A program has been developed for the purpose of monitoring Reservation waters based upon the beneficial uses assigned to each stream and the potential point and non point source pollution which can be attributed to the activities taking place in each watershed. The purposes of these water quality monitoring efforts are for the collection of water quality parameters and all other constituents known to affect water quality, which is and will continue to be used in the development and implementation of future water quality standards and other management programs.

YTEP, along with the Fisheries Program, is currently monitoring priority streams on the Reservation which include: Blue Creek, McGarvey Creek, Ke'pel Creek, Achelth Creek, Gist Creek, Tulley Creek, Turwar Creek and the mainstem Klamath including the lower estuary. These waterways have been determined to be of top priority for water quality monitoring based on the beneficial uses assigned to them. YTEP plans to expand the monitoring program to additional waterways as funding and personnel become available.

4.4 Section 401 Certification

Introduction

Section 401 of the Federal Water Pollution Control Act (Clean Water Act or CWA) requires that applicants for a federal license or permit relating to any activity which may result in any discharge into navigable waters (i.e., waters of the United States) shall obtain a certification from the responsible governmental authority that such discharge will comply with the applicable provisions of section 301, 302, 303, 306, and 307 of the CWA.

Purpose

The purpose of this regulation is to establish procedures for application, public notice and hearing in relation to the processing of applications for certification required by section 401 of the CWA.

Definitions

(1) “Applicant” for purposes of CWA 401 certification means any person who applies for a license or permit issued by an agency of the federal government to conduct an activity that may result in a discharge of a pollutant to Reservation surface waters or wetlands.

(2) “Certification “means a letter of approval, denial or approval with conditions of an application for certification issued by the Director of YTEP and/or authorized representatives.

(3) The definitions of other terms used in these regulations shall be consistent with those used in the Water Pollution Control Ordinance and the CWA and its implementing regulations. In the case of ambiguity, words will be given their ordinary meaning.

Authority to Act

A certification, certification with conditions, or denial of certification with conditions or alternatives shall be issued in letter form, but must be assigned a docket number and retained as a part of official records. Such letters may be signed by the Tribe and/or authorized representatives such as the Director of YTEP or persons duly authorized to act for him/her in his/her presence.

Application

(1) No discharge of pollutants or construction of any facility which may precipitate a discharge of pollutants to Reservation surface waters, including wetlands, may commence without first obtaining a written certification of such discharge as described herein.

(2) Application for certification may be made upon a form supplied by YTEP or in any manner which adequately and accurately describes the applicant’s name and address, a description of the proposed point source or activity, its volume, biological, chemical, physical and radiological characteristics, a description of the existing environmental conditions at the site of the proposed discharge, its location and duration and extent of the proposed discharge. The applicant shall also supply YTEP with the size of the area potentially affected, the location or locations at which the discharge may enter Reservation waters and any environmental impact assessment, information, maps and/or photographs provided to any licensing or permitting agency, the date or dates of the proposed activity’s inception and termination, a description of the methods proposed to monitor the quality and characteristics of the discharge and operation of the facility from which the discharge will originate and a description of the functions and operation of the activity and any practices proposed to minimize or treat pollutants or other effluent which may be discharged to Reservation waters. The applicant should submit an initial permit fee of $500. Based on the scope and complexity of the proposed project, the actual fee may vary based on staff time involved.

(3) In cases where a CWA 402 permit application has been made to the USEPA or a CWA 404 permit application has been made to the U.S. Army Corps of Engineers, the applicant may submit a complete copy of that permit application to YTEP in lieu of subsection 2 above, but may be requested by YTEP to supply such additional information as may be reasonably required to afford it sufficient information to make a certification decision in conformity with the CWA.

(4) Upon receipt of an application for certification, YTEP shall make a record of the date of its receipt. If upon examination the application is found to be defective or incomplete, it will promptly be returned to the applicant for correction or completion, and the date and reasons for the return shall be marked on a copy of application and made of record in YTEP files. The applicant shall be notified of the deficiencies by certified mail within 30 days of receipt by YTEP. The applicant shall have another 30 days from notification of the incomplete application to supply complete information to YTEP or face rejection of the application.

(5) Within thirty (30) days of submission of a complete application and supporting scientific and technical information, YTEP may grant, deny or grant with conditions the application for 401 Certification. Response from YTEP may be extended an additional forty-five (45) days upon determination that the time provided is insufficient to carry out consultation and technical review of an application.

(6) If YTEP accepts the application and later determines that additional information is required before a certification decision can be made, such information may be required at a later date without rejecting the application. Once a complete application for certification is received by YTEP, it shall be granted, denied or granted with conditions or alternatives.

(7) YTEP shall issue a statement of its reasons for denial of certification in writing to the applicant and such statement shall be made a part of Type's official record with regard to the application.

(8) YTEP 's decision as to any complete application for certification shall constitute an "agency action" within the meaning of the Water Pollution Control Ordinance and may be appealed according to the terms of that Ordinance. Any person aggrieved by YTEP's final determination with respect to grant, deny grant of certification with conditions or alternatives may be appealed as set forth in the Water Pollution Control Ordinance.

Public Notice and Public Hearings

Public notice of an application shall be performed in relation to all applications, as follows:
(1) By mailing notice of the application for certification to persons and organizations who have requested the same and to all others deemed appropriate.

(2) When determined by YTEP as necessary to protect the public interest. However, certification action shall not be construed to constitute rulemaking proceedings for any other purpose. The publication shall be made on a form approved by YTEP as appropriate, and the applicant shall arrange for publication and bear the cost of such publication and provide an affidavit of publication to YTEP.

(3) Any person desiring to present views on an application in relation to water pollution control considerations shall do so by providing the same in writing to YTEP. In cases where YTEP has elected to seek public comment on an application, no application may be deemed complete until the public comment period and hearing, if any, has been completed.

(4) If YTEP determines there is sufficient public interest in any application, a public hearing for the informal submission of informal oral or written testimony may be held. When this determination is made before notice of application as set out in section (1) above, the notice shall include the time and place of the hearing. Otherwise a separate notice of public hearing shall be made and such notice shall be distributed and published in the manner provided above. In addition, it shall be the applicant's responsibility to obtain YTEP approval of all notices referenced herein and to arrange for publication of the same.

Section 5: TRIENNIAL REVIEW AND AMENDMENT PROCESS

The Pollutant Discharge Prohibition Ordinance and the CWA (Section 303(c) (1)) require periodic review of the WQCP to keep pace with changes in regulations, new technologies, policies, and physical changes within the YIR. YTEP will be responsible for this review, conducted triennially, and is required to 1) identify those portions of the WQCP in need of modification or additions; 2) adopt new standards as appropriate; and 3) recognize the portions of the WQCP which are appropriate as written. The review includes a public hearing process to allow the public to raise issues for YTEP to consider for incorporation into the WQCP.

After the triennial review has concluded, YTEP shall present the Council a summary of the above stated process and a prioritized list of issues (priority list), for evaluation and potential development into a WQCP revision.

Once Council adopts the priority list, it will guide YTEP's water quality planning efforts until the next triennial review. As budget and staffing allows, starting from the top of the list, YTEP will consider each issue identified for potential WQCP revisions. YTEP may also initiate the WQCP revisions apart from the triennial review process in response to any urgent needs, arising after completion of the triennial review.

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