



# **Yakama Nation Fisheries Strategic Plan**



**HONOR. PROTECT. RESTORE.**

The Yakama people are truly blessed with this land and its many resources that sustain us. We are also blessed with a way of life, with our language, and with teachings passed down since time immemorial. As part of these teachings, we acknowledge our responsibility to speak on behalf of those that can no longer speak for themselves. Therefore, we dedicate this strategic plan to our ancestors who passed on these ways and who cared for this land before our time. We dedicate it to the many leaders who fought to maintain our way of life, whether on a battlefield, in a courtroom, or on the edge of a river. We also dedicate it to our employees who continue to follow the path laid down for us and maintain the legacy and mission to “make it like it was”. Lastly, we dedicate this plan to those future generations who will inherit what we leave for them. After all, we don’t own this land, we are simply taking care of it for them.





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"WHEN WE WERE  
CREATED, WE WERE  
GIVEN OUR GROUND  
TO LIVE ON. AND FROM  
THAT TIME, THESE  
WERE OUR RIGHTS."

—Chief Meninock, Yakama Nation, 1915



Chief Frank Seelatse (*átwai*) and Chief Jimmy Noah Saluskin (*átwai*), Yakama Indian Chiefs with the U.S. Capitol 1927.  
Source: U.S. Library of Congress. [*Átwai* (Ichishkin language): *The Ones That Went On*]



## Preface

The Confederated Tribes and Bands of the Yakama Nation (YN) have a traditional use area of over 11 million acres, where the Yakama People have hunted, fished, gathered, and practiced religious ceremonies since time immemorial. Each area has a name and a story of how it came to be. These stories have been handed down from generation to generation, through oral tradition in *Ichi Skiin Sinwit* (the words we speak), termed by linguists as Sahaptin. It is within *Ichi Skiin Sinwit* where the unwritten laws are passed down to the younger generations to show them how, when, and what resources to hunt, fish, gather, and protect. It is according to those laws that the Yakama people have been appointed as stewards of the land to honor, protect, and restore the resources for those who will inherit them.

For millennia, tribal elders and leaders have passed on the language and teachings that have guided tribal harvest of roots, berries, wild game and fish. However, with the signing of the 1855 Treaty, fisheries management was quickly taken over by the state and federal governments of the United States. Traditional foods were threatened and diminished through settlement and development by western society. Only through civil protest and legal challenges was the tribe able to regain their official management and oversight role in restoring and regulating fish and their habitat. In the mid-1970s the courts recognized the historic and legal authority of the tribes to regulate their own fisheries. In 1977, after eight years of litigation, the federal district court in *U.S. v. Oregon* approved a five-year management and allocation agreement regarding upper Columbia fish runs. In 1980 the Northwest Power Act was passed, directing the state, federal and tribal fish managers to implement hydro system mitigation actions.

These actions led to the creation of a Yakama Nation Fisheries Resource Management Program (FRMP) in 1983. In 1988, the Yakima Klickitat Fisheries Program (YKFP) was established to work alongside the State of Washington in managing the Yakima River and Klickitat River hatchery and restoration programs. Since that time, the Yakama Nation Fisheries (YNF) program has grown to over 200 employees that focus on all aspects of the aquatic realm, including but not limited to harvest management, hatcheries, habitat protection and restoration, water management, fish passage, predator management, and species-focused efforts for salmon, steelhead, lamprey, sturgeon, and other resident fish. The department has also assisted the Yakama Nation in developing a climate change adaptation plan and is directly involved in protection and mitigation actions related to hydro system operations, superfund sites, cultural resources, conservation enforcement and other activities that impact tribal resources. The YNF encourages the interest and



Wanapum Lake between Wanapum Dam and Rock Island Dam, Columbia River.

active participation of tribal members and provides educational opportunities for tribal youth, preparing them for potential future employment in the program.

The Yakama Nation's goal is to "make it like it was"—return the landscape to one that supports the scale of fish and wildlife that existed at the time of signing the treaties.

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# Yakama Nation Fisheries Strategic Plan

## **Section 1.0**



**HONOR. PROTECT. RESTORE.**

**WE MUST SPEAK FOR  
THE RESOURCES THAT  
ARE UNABLE TO SPEAK  
FOR THEMSELVES.**







# 1.0 Purpose of Strategic Plan and Direction Statement

## 1.1 Introduction

Since time immemorial, the Yakama Nation and other Columbia River Treaty Tribes relied on the natural environment for their food and culture.

The fish are considered an essential element of family and society. Historic numbers of *nusúx*, *asúm*, *wílapas* (salmon, eel-like lamprey, sturgeon) and other fish throughout the *Nch'í Wána* (Columbia River) were so abundant that our people could be sustained throughout the year by drying fish for cold winter months, and still have enough to trade with other tribes. Yakama people must carry on with this way of life because the fish are our brothers. But fish numbers have sharply declined and now it is difficult to teach our young people the lessons that come from the creeks and rivers. It is shocking to grandparents that

some of our grandchildren do not know how to bait a hook or set a net. While a majority of our families hold tightly to this traditional way of life, as fish numbers decline, our traditions are in jeopardy. When we speak our Yakama language it contains knowledge that has been developed over thousands of years. Our survival depends on the ability to know the resources around us. We must honor our longstanding relationship with the resources by speaking for the resources that are unable to speak for themselves.

This responsibility and authority was given to us by our creator, but in today's world we live within the constraints of other parties. Because of these constraints, the Yakama Nation (YN) historically has pursued legal avenues for the protection and restoration of our rights and our natural resources. This legal history was necessary to lay the foundation

for today's focus on co-management, working with our neighbors and establishing key partnerships with local, state, and federal entities. These partnerships are critical to finding the long-term solutions that are needed to "make it like it was", as one Yakama Nation tribal elder, Bill Yallup, Sr., succinctly stated. In order to develop and carry out these solutions to honor, protect, and restore our traditional foods and culture, the tribe created the Yakama Nation Fisheries Department (YNF). We are proud to say that the YNF is now the largest tribal fisheries management department in the U.S. We are staffed with highly trained professionals who have employed

**"If the fish go, so do we. We break the circle and the circle ends and we end with the circle."**

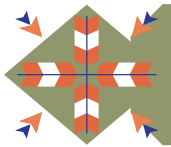
—James Kiona

their scientific expertise in concert with traditional ecological knowledge to develop innovative projects and partnerships. The successes we have achieved over the past 30 years have earned regional, national, and even international recognition and respect for the YN Fisheries Program as a leader, ensuring our fish and wildlife resources will be here for future generations.

This Strategic Plan was established to provide a clear path forward, to highlight our mission, to provide direction for our department that can be carried forward by current and future fish managers and be communicated to our partners.



Celilo Falls—Wyam—on the *Nch'í Wána*, the Columbia River, 1900.  
Photo courtesy of Benjamin Gifford



YNF is now the largest tribal fisheries management department in the U.S.

## 1.2 Yakama Nation Fisheries Management

Yakama Nation Fisheries consists of over 200 employees that manage numerous projects within our ceded territory in the following watersheds: mainstem Columbia River, Methow, Chelan, Entiat, Wenatchee, Yakima, Rock Creek, Klickitat, White Salmon, Little White Salmon, and Wind. While we respect and protect all species of fish and wildlife, Yakama Nation Fisheries focuses on culturally important fish, including: Chinook salmon (*Tkwínat; Núsux*), steelhead (*Shusháyynsh*), sockeye (*Kálux*), coho (*Sinux*), Pacific lamprey or eels (*Asúm; K'súyas*), and white sturgeon (*Wilaps*).

Our headquarters is on the Yakama Reservation. We maintain field offices throughout the Yakama Nation Treaty Territories in Husum, Goldendale, Wahi- acus, Glenwood, Prosser, Yakima, Ellensburg, Cle Elum, Peshastin, Wenatchee, Winthrop, Piney Wood, Twisp, and Portland (Figure 1).

From its inception in 1983, Yakama Nation Fisheries has integrated scientific expertise with traditional ecological knowledge to develop innovative projects and partnerships credited with restoring culturally important fish runs in the Columbia River. Figure 2 illustrates the integration of science with the overall tribal management. The program is instrumental in honoring, protecting, and restoring

these sacred resources and traditions of the Yakama people throughout their Treaty Territories in the Columbia River Basin. The fisheries program provides education and employment opportunities for tribal members to maintain the strongest possible relationship in support of our fishery resources and traditions.

Yakama teachings instruct us to advocate for the resources that cannot speak for themselves, and we provide outreach and education activities that empower others to do the same. The Yakama Nation protects the Columbia River resources through responsible management with our partners, and our unique treaty rights and sovereign status within the United States.

**200+**  
Employees

★ **1**  
Main Office

▲ **12**  
Field Offices

■ **7+**  
Facilities

Hatcheries  
Enumeration facilities  
Acclimation sites

**14**  
Subbasins

Methow  
Lake Chelan  
Entiat  
Wenatchee  
Upper Columbia Middle  
Yakima  
Lower Columbia Middle  
Rock Creek  
Klickitat  
White Salmon  
Little White Salmon  
Wind  
Lower Columbia  
Willamette

### SUSTAINABILITY

Yakama Nation Fisheries seeks to ensure sustainable fisheries by integrating our use of the water and land with responsible harvest management and production practices aimed at restoring and sustaining fish health and ecosystem function.

### COLLABORATION

Yakama Nation Fisheries collaborates with state and federal co-managers, local governments, NGOs and the public to protect and restore the aquatic resources we depend upon.

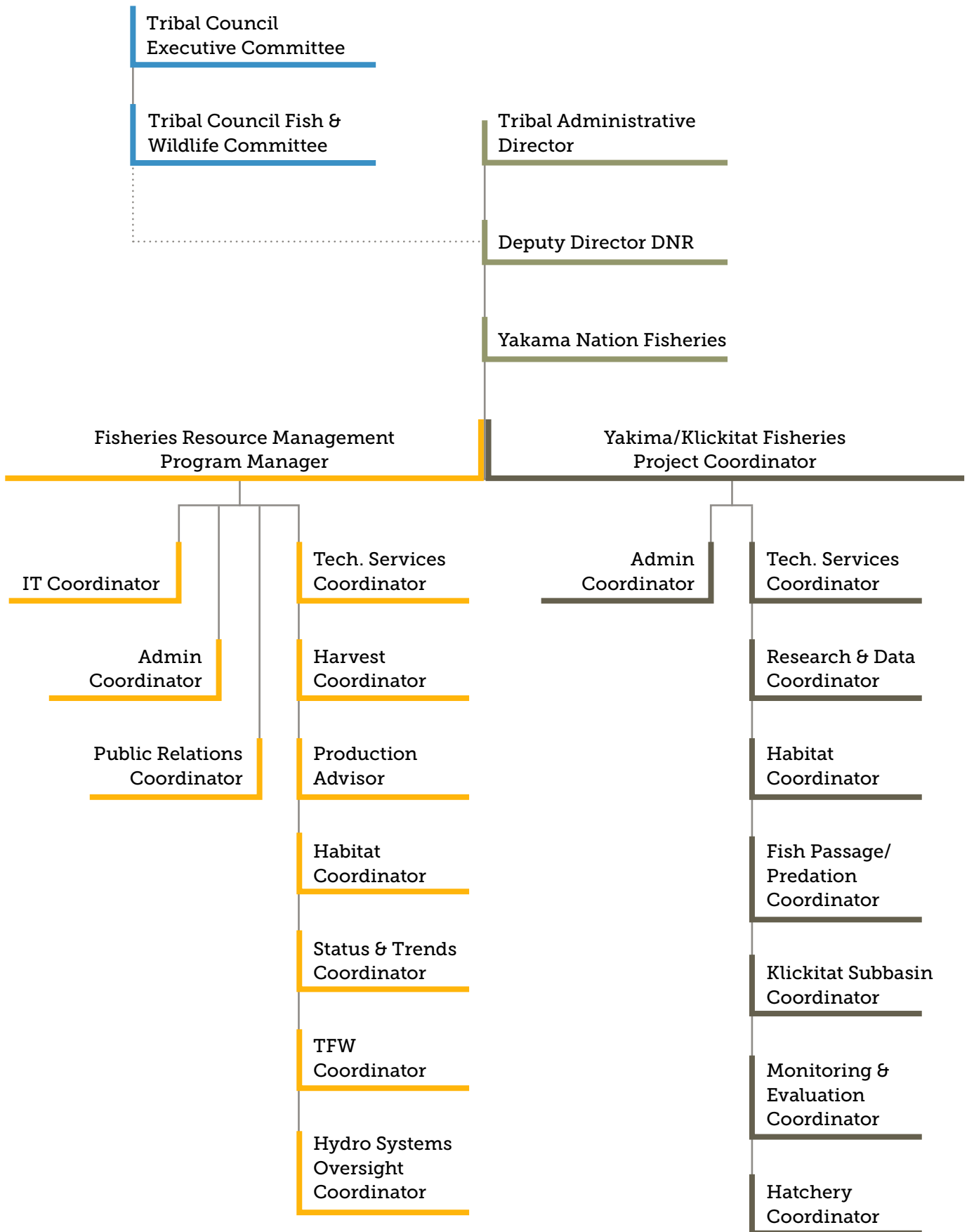
### PRESERVATION

The Yakama Nation protects its treaty-reserved rights in all venues for the benefit of the resources of the Columbia River and its tributaries.

Figure 1. Yakama Nation Fisheries Offices and Facilities



Figure 2. Yakama Nation Fisheries Organizational Chart | 2021





YN Tribal Council with Washington Governor Jay and First Lady Trudy Inslee.



YN Tribal Council conducting a commemoration at the Cultural Center in Toppenish, WA.



Fish and Wildlife Committee Chairman, Gerald Lewis



Fish and Wildlife Committee: George R. Meninick Sr. (left), Secretary; Terry Heemsah Sr., Member; Gerald Lewis, Chairman; Jeremy Takala, Member (right)



Deputy Director DNR, Phil Rigdon



Fisheries Resource Management Program Manager, Donella Miller



Yakima/Klickitat Fisheries Project Coordinator, Joe Blodgett

The Treaty of 1855 reserved the right for the Yakama Nation to maintain its culture and the natural resources that culture relies on.



### 1.3 Key Laws, Decisions and Agreements Regarding Treaty Fishing Rights and Governance

The Yakama Nation reserved its rights to access natural resources under the Treaty of 1855 (12 stat. 951) with the United States of America, including the right to hunt, gather and take fish in all usual and accustomed places. Notes from the negotiation of the 1855 Treaty make it clear that the Tribes and Bands would not have signed without protecting these rights. Yakama Nation Tribal members have exclusive rights on their reservation, but they also have treaty-reserved rights to hunt, fish, and gather on the 11 million acres of ceded area and other usual and accustomed places. Therefore, the Yakama Nation has a vested interest in the welfare of all natural resources throughout the region, including everything that affects the species there, but also factors that affect them in other regions, such as during their migrations.

Securing recognition for the Yakama Nation's treaty-reserved rights to be recognized has been hard fought, but in various court cases the Yakamas' rights have repeatedly been upheld. Not only do these rights include access to resources, but also the right to co-manage the resource, the right to 50% of the returns destined for usual and accustomed places of harvest, and the recognition that if there were no fish to catch, treaty obligations were indeed being violated.

Prior to 1855, the United States shared title to lands of the Pacific Northwest with the Tribes, whom the United States Supreme Court ruled were "rightful occupants of the soil, with a legal as well as just claim to possession of it, and to use it according to their own discretion." At the Treaty Council of 1855, the U.S. sought to clear title to lands and the Yakama Tribes sought to reserve and maintain a homeland at all usual and accustomed places. The resulting treaty of June 9, 1855 reserved the right for the Yakama Nation to maintain its culture and the natural resources on which its culture depends, including rights to water, land and natural foods and medicines.



Chief Kamiakin (1855) of the Yakama, Palouse, and Klickitat peoples.

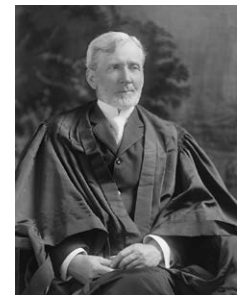
Drawing by Gustav Sohon (1855). Credit: Washington State Historical Society.

#### 1.3.1 Treaty Fishing Rights

The Yakama Nation manages fisheries resources to ensure continued access by Yakama members to fulfill their ceremonial, subsistence and commercial needs. This treaty-reserved right includes the right to have fish present and available to harvest at all usual and accustomed places. Preserving fish habitat and maintaining production in areas where ecosystem function is degraded is essential to maintaining the Yakama's fishing rights.

#### 1.3.2 Key Laws, Decisions and Agreements

For the Yakama people, fishing for salmon is "not much less necessary to the Indians than the atmosphere they breathed." This was cited by U.S. Supreme Court Justice Joseph McKenna in the landmark 1905 *U.S. v. Winans* Supreme Court decision, one of the first litigations dealing with Indian fishing rights in the Pacific Northwest. Unfortunately, the Yakama people have had to rely on the court system to protect against violation of their treaty-reserved rights to access their traditional fisheries. The YN has been a litigant in the most important legal battles over Pacific Northwest salmon. These legal victories cannot be directly translated into greater salmon abundance.



U.S. Supreme Court Justice Joseph McKenna

**"For the Yakama people, fishing for salmon is not much less necessary to the Indians than the atmosphere they breathed."**

—U.S. Supreme Court Justice Joseph McKenna, landmark 1905 *U.S. v. Winans* Supreme Court decision

Other key legal decisions include those listed below.

**1855 Treaty with the United States of America** – In exchange for ceding much of their territory to the United States, among other conditions, the Yakamas reserved exclusive use of a reservation and its resources, and access to traditional resources at usual and accustomed places. Rights reserved by the Yakama Nation (12 stat. 951, Article 3) include the rights to hunt, gather foods and medicines and take fish in all usual and accustomed places “in common with the citizens of the Territory”. Notes recorded from the negotiations of the 1855 Treaty make it unequivocal that the tribal leaders would not have signed without protecting these rights. When the United States entered the Treaty, they agreed to protect the Yakama Nation’s sovereignty, and to defend these rights as a trustee if challenged.

**1887–1938** – A number of cases were taken to the Supreme Court of the United States with challenges to the treaty-reserved right of Yakama Nation fishers to access traditional fishing sites. In all of these cases it was affirmed that the right to fish at the usual and accustomed places of the Yakama people, as was secured by the 1855 Treaty, includes licenses and profits on



On January 29, 1921, seven members of the Yakama Nation stopped in Seattle on their way back from Olympia where they appeared before the Washington State Senate. The 1855 treaty, which guaranteed the right to fish the Yakima River, was threatened by restrictions at the new Prosser Dam, in Benton County. This photo shows four members of the delegation (l. to r.) Chief Caesar Williams, Mrs. Kate Williams, Mrs. Homer Watson, and Chief Homer Watson. Photo courtesy of Univ WA digital collections; Webster & Stevens Studio.

private, county, state, and federal lands to access these places.

**1942–1968** – There were numerous court cases contesting state restrictions on tribal fishing rights. Results affirmed that states do not have the right to require state fishing licenses of tribal fishers, and that states can only impose fishing regulations and restrictions on tribal fishers for conservation purposes and only after other methods of conservation were employed first (e.g., ceasing commercial and sport harvest).

**1960s–1970s “Fish Wars”** – Many tribal fishers were beaten, gassed, and arrested while staging “fish-ins” to protest state restrictions on their treaty-reserved fishing rights as the issue was being argued in the courts. A key figure in the campaign to push this issue forward was Billy Frank Jr. (Nisqually). In 2021, the governor of Washington committed to replacing a statue representing the state of Washington in the U.S. Capitol Statuary Hall with one of Billy Frank Jr. In February 2014, Wash-

ington Senate-House Bill 2080 was passed, enabling some tribal fishers convicted of fishing violations while exercising tribal fishing rights prior to January 1, 1975 to clear their records.

**1969 Belloni Decision** – Originally brought by Yakama Nation fishers protesting tribal fishing restrictions by the State of Oregon, this landmark case (consolidated as U.S. v Oregon) upheld that Yakama held entitled, reserved fishing rights in the Columbia River. It also required states to regulate fishing in such a way as to guarantee treaty tribes a “fair and equitable share of all fish which it permits to be taken from a given run”, referring back to the original language in the 1855 Treaty, stating that tribal fishing rights were secured “in common with the citizens of the Territory”. Belloni also asserted that the fisheries may not be managed such that few fish ultimately reach tribes’ usual and accustomed fishing places. The original 1969 ruling was upheld by the Ninth Circuit Court of Appeals in 1976 and 1983.

Licenses and profits on private, county, state, and federal lands to access the usual and accustomed places of the Yakama people affirmed.

**1887–1938**



**1855**  
Treaty with the United States of America

1865

1885

1905

1925

**“The exclusive right of taking fish in all the streams, where running through or bordering said reservation, is further secured to said confederated tribes and bands of Indians, as also the right of taking fish at all usual and accustomed places, in common with the citizens of the Territory, and of erecting temporary buildings for curing them; together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed land.”**

Treaty of 1855 with the United States of America (12 Stat 951) Article 3, pgr 2



Signing a Settlement for Flooding Celilo Falls—c. 1956. The Yakama Nation, the Confederated Tribes of Warm Springs and the Walla Walla, Umatilla, and Cayuse were partially compensated for the loss of tribal fishing at the Falls when it was obliterated by the building of The Dalles Dam.

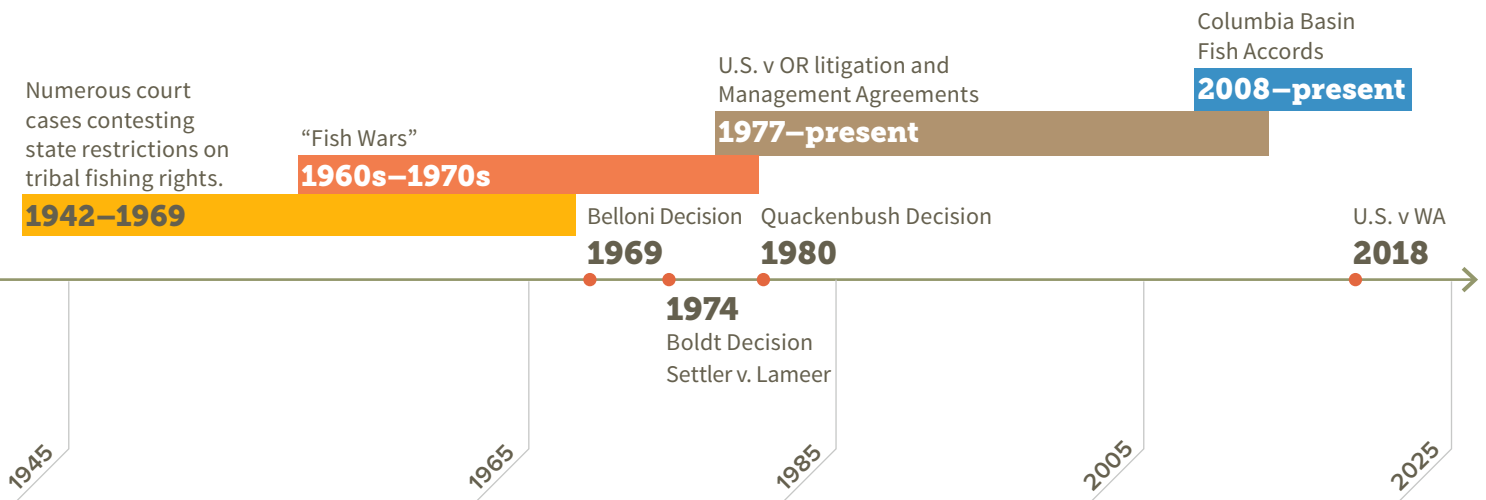
**1974 Boldt Decision** – Also known as U.S. v Washington, this decision ruled that the Yakama Nation, along with other treaty tribes, has a right to harvest 50 percent of the harvestable fish destined to reach its usual and accustomed fishing areas, including Puget Sound fishing areas. This clarified the ambiguous wording, “fair and equitable”, in the 1969 Belloni Decision. The State of Washington challenged this ruling in both federal and state courts; conflicting decisions resulted in the 1979 “Passenger Vessel” decision by the U.S. Supreme Court, which affirmed the 50 percent share.

Boldt Phase II (1980) found that: the existence of fish was “the most fundamental prerequisite to the right

to take fish”, “implicitly incorporated in the treaties’ fishing clause is the right to have the fishery habitat protected from man-made despoliation”, and that if present trends in settlement, development, and environmental damage continue, “the right to take fish would eventually be reduced to the right to dip one’s net into the water and bring it out empty.” (U.S. v WA Boldt Phase II, 506 F. Supp. at 203 and 205). In addition, the case law recognized that these trends were also: resulting in declines in natural fish, hatchery-origin fish were essential to a meaningful fishing right, and “the exclusion of hatchery fish [would] jeopardize[s] Indian treaty fishing rights” (506 F. Supp. At 198-99).

**1974 Settler v. LaMere** – The U.S. 9th Circuit Court of Appeals ruled that the Yakama Nation (Wilson LaMere, Yakama Chief of Police) reserved the authority to regulate on- and off-reservation fishing to protect their share of the fishery. In 1977 the Columbia River Inter-Tribal Fish Commission was formed to support self-governance and coordination of tribal fisheries.

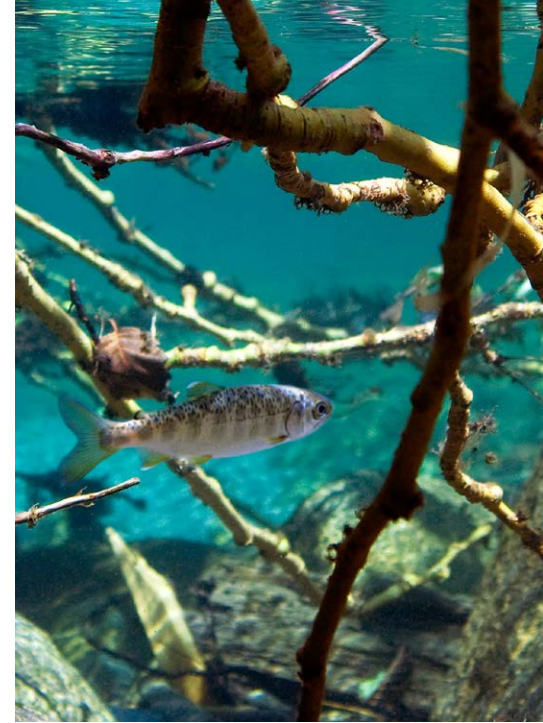
**1977–present; United States versus Oregon (U.S. v OR) litigation and Management Agreements** – The Boldt and Belloni decisions are being managed and implemented through the federal court in ongoing U.S. v OR proceedings. The original 1977 ruling ordered concerned states and tribal governments to develop







On May 2, 2008, the Umatilla, Warm Springs, Yakama, and Colville tribes, the Columbia River Inter-Tribal Fish Commission, the BPA, the U.S. Bureau of Reclamation, and the U.S. Army Corps of Engineers gathered to sign a ceremonial deer hide emblazoned with the Fish Accord logo, also unveiled at the event.



**All native fish species are not just natural resources but are cultural resources as well and are an irreplaceable part of the Yakama Nation's heritage.**

five-year Joint Management Plans to enhance the Columbia River fishery for the benefit of all parties. The Yakama Nation has worked with parties in *U.S. v OR* to negotiate a series of management agreements to govern Columbia Basin fisheries and production actions. The latest of these agreements, the 2018–2027 Management Agreement, describes the framework, performance measures, commitments, and assurances of the parties with respect to harvest and production actions. The current Management Agreement carries over the enhanced fishery opportunities from previous agreements and protection of treaty harvest by federal court order.

Specifically, the Management Agreement provides:

- » A harvest management framework that prioritizes the treaty fisheries' right to 50 percent of fish available for harvest in mainstem Columbia River fisheries for spring, summer and fall Chinook; sockeye; coho; steelhead; and white sturgeon.
- » A minimum mainstem ceremonial and subsistence entitlement to the Columbia River Treaty Tribes of 10,000 spring and summer Chinook.

- » Recognition of the right of Treaty Tribes, as self-regulating co-managers of fish resources, to set fishing seasons (ceremonial, subsistence or commercial), within management frameworks.
- » A connection to harvest in the Pacific Ocean to protect fish returns to the Columbia River.
- » A number of production actions to assure that these fish remain present to catch.

**1980 Quackenbush Decision –**

A federal district court judge, Judge J. Quackenbush directed the Bureau of Reclamation to release water from Yakima River reservoirs to protect fish redds in the upper Yakima. As a result, the “flip-flop” water management concept was conceived and implemented in 1981. This allows the river system to be actively managed to support fish spawning and rearing habitats as needed throughout the water year.

**2018 United States versus Washington (U.S. v WA) litigation –**

A recent ruling by the U.S. Supreme Court confirmed the fishing rights provided to the tribes by the treaties included a guarantee that there will be a supply of fish to harvest.

**2008–present; Columbia Basin Fish Accords –**

In lieu of litigation, the federal agencies, and some tribes and states agreed to work together as partners to provide tangible survival benefits for salmon recovery by upgrading passage over federal dams, by restoring river and estuary habitat, and creatively using hatcheries. The Accords support tribal sovereignty by ensuring sufficient funds for the Yakama Nation to manage, honor, protect, and restore its own fisheries resources. This includes extending timelines of secure funding to enable the planning and implementation of more impactful restoration projects, and the promise of a seat at the table to assert tribal priorities.



**“Protect fish at all life stages, from eggs in the gravel, to the adult spawner.”**

Yakama Nation Fisheries “Gravel to Gravel Management” concept



## 1.4 Fisheries Management Philosophy

### 1.4.1 Mission of Yakama Nation Fisheries

The mission of YNF is to honor, protect, and restore culturally important fish populations and the ecosystems that produce them throughout the Treaty Territories of the Yakama Nation, and to protect the rights of Yakama Nation members to use these resources as reserved in the Treaty of 1855 (12 STAT 951).

The people of the Yakama Nation recognize the spiritual, cultural, and economic value of all fish resources. All native fish species are not just natural resources but are cultural resources as well and are an irreplaceable part of the Yakama Nation’s heritage. By treaty, the

Yakama Nation reserved the right to exclusive control of the taking of fish and the preservation of fish habitats at all usual and accustomed fishing places. It is the right and duty of the Yakama Nation to regulate, manage and properly harvest its fish resources, within, but not limited to, the ceded area and ancestral fishing areas for the benefit of present and future generations. Unregulated use of fish would threaten the political integrity, economic security, and health and welfare of the Yakama Nation. To protect, maintain, and fairly distribute the benefits of fish resources, it is necessary to define fishing rights and privileges, and enact laws to protect and conserve such resources for the maximum benefit of all present and future

Yakama members. Limited use of Reservation fish resources by non-members provides an economic benefit to the Yakama Nation and promotes intercultural education and good will. The Yakama traditionally and culturally oppose placing a monetary value on fisheries; however, for the purposes of fisheries management and protection, a schedule of civil fines and restitution has been established.

The principles that guide our management direction and decisions are intended to honor, protect, and restore fisheries resources that are sacred to the Yakama people and our traditions throughout our territory in the Columbia River Basin.



## YAKAMA NATION FISHERIES MISSION

To honor, protect, and restore culturally important fish populations and their habitats throughout the Zone of Influence of the Yakama Nation and to protect the rights of Yakama Nation members to utilize these resources as reserved by them in the Treaty of 1855.



### HONOR

The fish in the Columbia River and its tributaries are of paramount importance to our people, our diet, and our health. One of Yakama children's earliest memories is sitting at the ceremonial table and waiting for the water to be poured. Next, the salmon is placed on the table, followed by the deer, roots, and berries. We complete the meal with water. We are taught this order and that water is the lifeblood of our existence. The relationship between the People, the Salmon, and the Columbia Basin is the foundation of the time-honored laws of the Yakama people.



### PROTECT

Through our treaty-reserved rights, we advocate for resources that cannot speak for themselves, and we provide outreach and education activities that empower others to do the same. The Yakama Nation accepts responsibility as stewards of the salmon and the Columbia River, which we call *Nch'í Wána*. We engage in responsible management through our treaty rights and sovereign status within the United States, and in cooperation with our partners. The Yakama Nation's history, culture, and the lives of our people are intertwined with the salmon and the Columbia.



### RESTORE

Our biologists and technicians are actively restoring the river in accordance with our traditions and rigorous science. From its inception in 1983, Yakama Nation Fisheries has employed scientific expertise to develop over 100 innovative projects and partnerships credited with restoring culturally important fish runs in the Columbia River. Working with federal, state, and local governments and private landowners alike, the Yakama Nation is making strategic investments to protect and restore salmon, steelhead, lamprey and white sturgeon. These actions address the full range of fisheries management activities relating to habitat restoration, hydrosystem impacts and artificial production.

**“The balance for all of our survival, that depends on the balance between these fish, this forest, the water and one is not without the other.”**

—Former Yakama Nation Councilwoman Stella Washines



## Put the fish back in the rivers and protect the places where they live.

### 1.4.2 Vision

Yakama Nation Fisheries seeks to implement the vision of *Wy-Kan-Ush-Mi Wa-Kish-Wit* (Spirit of the Salmon), which simply stated is to put the fish back in the rivers and protect the places where they live. The essence of this vision is:

- » Free-flowing rivers with cool and clean water
- » Bountiful and self-sustaining populations of fish, wildlife and culturally important plants

- » Efficient and reliable sources of energy that work in concert with our other needs, but do not sacrifice our natural and cultural resources
- » A balance between historical species, their abundance and what the environment can now support under a rapidly changing climate
- » Tribal membership that is able to maintain our heritage free of the burdens that weigh so heavily on our way of life.

YNF strives to be a leader in fisheries management by protecting and restoring fisheries and habitats to build self-sustaining populations. These sustainable fisheries will provide harvestable levels sufficient to support the tribal culture, tribal economies, the livelihoods of tribal members, and to enable the Yakama people to exercise their traditional way of life. In addition, through its restoration work, Yakama Nation Fisheries strives to restore species and their habitats to healthy functioning ecosystems that will sustain future generations.



### The Salmon Story:

#### *Since Time Immemorial...*

The sacred relationship with the Yakama people, the Salmon and the Columbia River was established in ancient time.

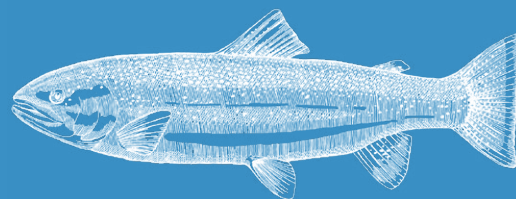
When the first people established themselves in this region, the Creator came and revealed that He was going to make human beings. After lengthy discussions, it was so agreed that the first people would give of themselves to sustain the human beings and that the human being would honor and take care of the first people. Then the Creator asked who would be the first to volunteer... the Salmon came forward.

The relationship between the People, the Salmon and the Columbia River is the foundation of the time-honored laws of the Yakama people: the laws that protect life and the cycles of nature and provide for human well-being; the laws that govern our longhouse traditions; the laws that support our practices, which have sustained the Yakama people since time immemorial.

The sacred relationship of the Yakama people, the Salmon, and the mighty Columbia River is based on an understanding that all life is intertwined and interdependent.

Today the Salmon has become the epitome of a time honored agreement; fighting to survive, fighting to maintain their natural life cycle, fighting to honor their agreement with the Creator and the Yakamas.

As told by: Russell Jim “Kii’ahl” (*átwai*) Former Environmental Restoration and Waste Management Program Manager, Tribal Elder, and tireless advocate for Hanford Nuclear Reservation cleanup.



*wy-kan-ush*





Strategic planning organizes and integrates technical, natural, human, and project resources across all functional management areas.

## 1.5 Summary of Strategic Plan Purpose

Broadly, this strategic plan is designed to guide Yakama Nation Fisheries program activities to:

1. be consistent with Yakama Nation treaty-reserved rights,
2. restore a balance with nature,
3. bring fish populations and their habitats to healthy conditions, and
4. provide harvest opportunities for tribal members.

The plan is intended to describe desired fishery resource conditions and the management framework that will be applied by Yakama Nation Fisheries to achieve those conditions. Communicating our fundamental mission and implementation philosophy is important internally within the Yakama Nation, and externally to other fishery resource co-managers and the public-at-large. Outreach to these audiences increases awareness and appreciation for the significant restoration efforts that the Yakama Nation has been imple-

menting, but it can also multiply restoration benefits by leveraging cooperative efforts in coordination with partners and co-managers and help incorporate Yakama Nation priorities and values into such efforts.

Many of the salmon and steelhead populations that have sustained Yakama people since time immemorial are now listed under the Endangered Species Act (ESA). While we observed some years of relatively good abundance for some species and populations, returns

in recent years signal a failure to adequately protect the freshwater and marine environments needed for salmon to thrive. Actions taken now to restore these resources and their habitats will benefit both ESA listed and non-listed species and will help to bring back treaty-trust fish resources that were once present in our region and supported the people of the Yakama Nation.

The YNF has on-going operations, projects and programs in six functional management areas (hatcheries, habitat, harvest, water management/fish passage, predation control, and research/monitoring/evaluation), with planning and implementation taking place across four large geographic



Actions taken now to restore these resources and their habitats will benefit both ESA listed and non-listed species and will help to bring back treaty-trust fish resources that were once present in our region and supported the people of the Yakama Nation.



Drying and cooking salmon at Celilo Village, then and now.

territories. Some of these programs and projects are interrelated; some are unique to a specific territory. Spanning each of these functional management areas are eight core operational support priorities: climate change impacts, cultural resource protection, Superfund, information management and sharing, human resources/ training, administrative support, conservation enforcement, and education/ outreach.

Our strategic plan is an important step in the development of an integrated YNF management and operations framework. This plan outlines a formal process to develop a set of management tools, built upon tribal strategies, to more effectively conduct and evaluate overall YNF operations and programs.

Strategic planning organizes and integrates technical, natural, human, and project resources across all functional management areas. Strategic planning also provides a frame of reference to measure scope, cost, schedule, and achievement (i.e., whether a project or program accomplishes its intended goals).

This Fisheries Strategic Plan will be applied to management of the resource in the following ways:

- » It provides specific direction to Yakama Nation Fisheries employees in the development and implementation of management recommendations and actions consistent with Yakama Nation policy direction.
- » It provides a more formal balanced, multidisciplinary approach for making sound management decisions based on analyses of the full range of options conducted by a staff with diverse expertise and experience.
- » It provides benchmarks and structure to maintain management continuity over time; and
- » It will function as an assessment tool for tribal policy to evaluate the performance of the fisheries program.

More specifically, implementing the strategic plan and process into YNF's operating practices will support engaging regional sovereigns and other appropriate parties to develop and implement regional solutions to end historical cycles of litigation and accomplish the following:

- » Describing desired future fisheries conditions and programs and the role YNF will play in achieving that future.
- » Outlining steps necessary to achieve those desired future conditions.
- » Providing clear policy direction on areas where YNF should focus its management and financial resources.
- » Developing clearly stated, achievable and measurable objectives to which YNF management is committed.
- » Providing a framework for measurement that YNF management can use to track and evaluate area performance.
- » Providing a format for re-allocation of resources to fulfill identified objectives if performance is off target.



Yakama Nation Fisheries Strategic Plan  
**Section 2.0**



**HONOR. PROTECT. RESTORE.**

A scenic photograph of a river with a large number of salmon jumping over a rocky ledge. The water is dark blue and turbulent, with white foam from the jumping fish. The background shows a forest with trees in autumn colors. The text "MAKE IT LIKE IT WAS" is overlaid in large white letters.

# "MAKE IT LIKE IT WAS"

Bill Yallup, Sr.





## 2.0 Organization of Strategic Plan

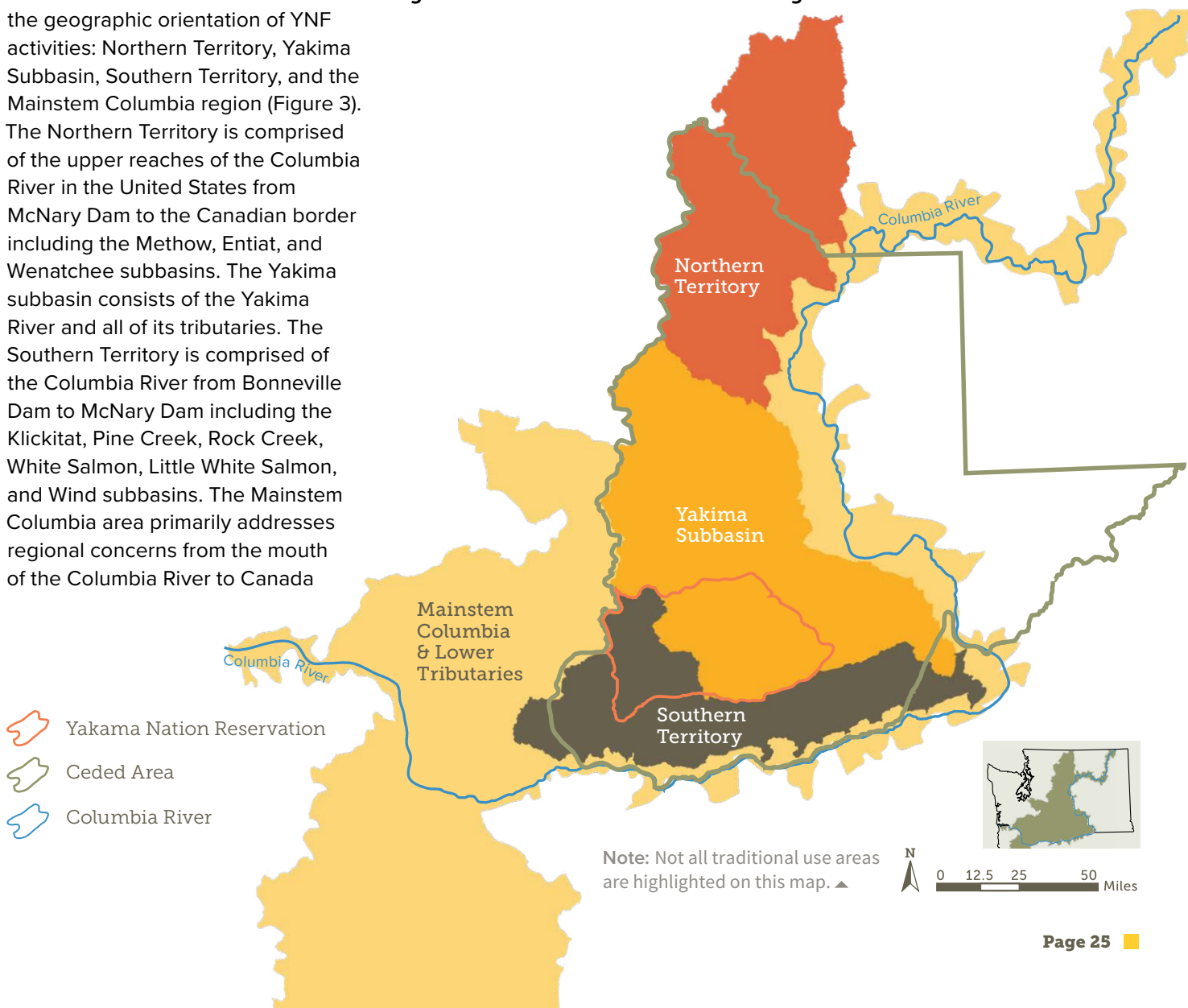
### 2.1 Nature and Geographic Scope of the Plan

For the purposes of strategically organizing YNF responsibilities and work, we define priority issues and objectives by common functional management areas: harvest; habitat; hatcheries; water management and fish passage; research, monitoring and evaluation; and predation management. At the same time, we recognize that these functional areas need to be coordinated within the geographic orientation of YNF activities: Northern Territory, Yakima Subbasin, Southern Territory, and the Mainstem Columbia region (Figure 3). The Northern Territory is comprised of the upper reaches of the Columbia River in the United States from McNary Dam to the Canadian border including the Methow, Entiat, and Wenatchee subbasins. The Yakima subbasin consists of the Yakima River and all of its tributaries. The Southern Territory is comprised of the Columbia River from Bonneville Dam to McNary Dam including the Klickitat, Pine Creek, Rock Creek, White Salmon, Little White Salmon, and Wind subbasins. The Mainstem Columbia area primarily addresses regional concerns from the mouth of the Columbia River to Canada

including the Cowlitz, Lewis, Willamette, and Puyallup subbasins as well as all sturgeon and lamprey programs conducted by the YN. Many YNF activities occur outside of these distinct geographic areas into the Usual and Accustomed (U&A) Territories of the Yakama Nation. Examples of these U&A territories in which the YN exercises great interest and activity include the Snake River and Puget Sound.

In addition, this plan defines operational support priorities and objectives relative to climate change; cultural resource protection; conservation enforcement; Superfund sites; information management and sharing; education and outreach; and administrative support. Each of these areas is critical to the overall success of our mission.

**Figure 3. Yakama Nation Fisheries Management Focal Areas**



These improvements create synergies that compound benefits greater than those achievable through single actions.



## 2.2 Biological Objectives

The Yakama Nation’s overarching goal is to restore sustainable and harvestable populations of salmon, steelhead and other at-risk species to all habitats within YN Treaty Territories where they were historically present.

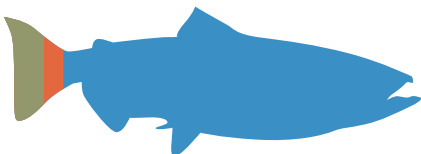
Specific quantitative (SMART<sup>1</sup>) objectives by species for the Yakama Territories were developed in collaboration with the Columbia Basin Partnership Task Force of the Marine Fisheries Advisory Committee (see MAFAC 2020, Phase 2 Report). Our work, and that of the Partnership, explored the various limiting factors that impact salmon and steelhead across their life cycles. The results of the analyses show that no single strategy (e.g., reducing predation, increasing habitat, reducing harvest) will independently achieve restoration goals. Instead, improvements in multiple factors will be needed to increase abundance to desired levels for most stocks.

Together, these improvements create synergies that compound benefits greater than those achievable through single actions (MAFAC 2020). Complementing habitat protection and restoration work, we are using hatchery supplementation or reintroduction strategies to achieve YNF goals. Specific release goals for production facilities and programs are identified in Section 2.5. While YNF believes we need to “make it like it was”, the currently agreed-to natural production goals for Yakama Nation management areas are listed in Table 1.



A Chinook parr feeds on the surface.

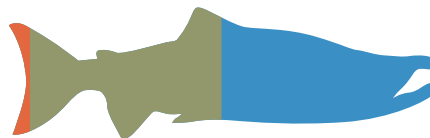
### Natural Production Objectives — Areas of Interest



#### Fall Chinook / Hanford Reach

Currently this is the largest and most successful naturally spawning population of salmon in the Columbia Basin and it is integral to our tribal fisheries.

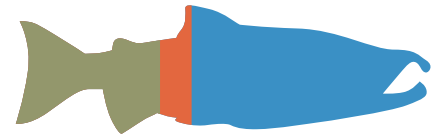
- Current: 70,400
- Goal: 51,188
- Historic: 500,000



#### Sockeye / Yakima subbasin

Restoration of extirpated sockeye salmon on the Yakima River is a major component of the Yakima Basin Integrated Plan.

- Current: 1,000
- Goal: 100,000
- Historic: 200,000



#### Coho / Upper Columbia

Upper Columbia coho represents the most comprehensive, extensive and successful species restoration effort initiated by the tribe.

- Current: 18,600
- Goal: 14,000
- Historic: 44,500

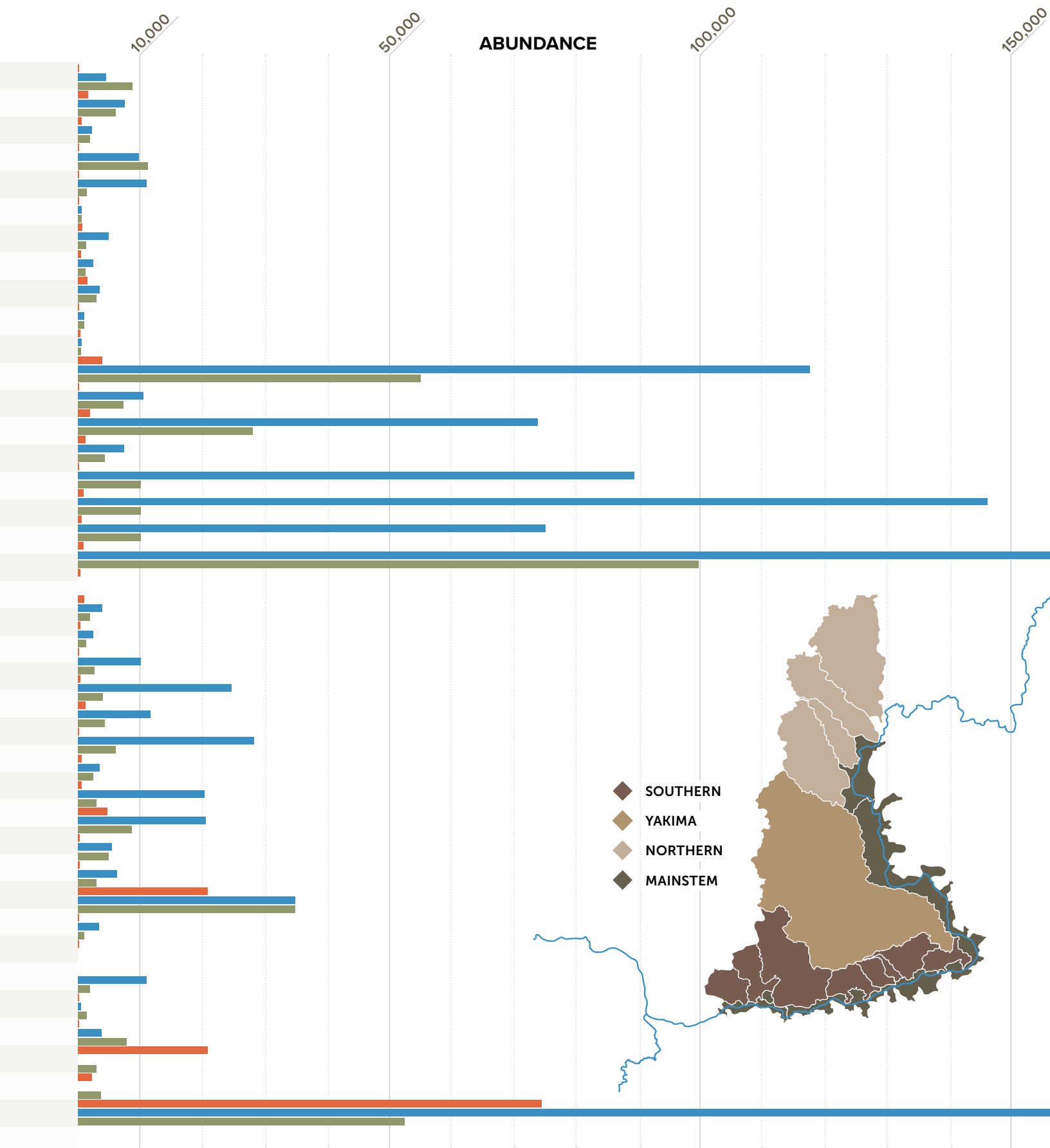
<sup>1</sup> Specific, measurable, attainable, relevant and time-based objectives

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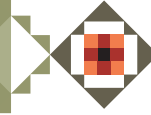
**Table 1. Natural Production Objectives for Fish Stocks in Yakama Nation Management Areas**

	<b>AREA/SUBBASIN</b>	<b>STOCK</b>	<b>RECENT</b>	<b>HISTORICAL</b>	<b>GOAL</b>
Southern Territory	Lower Gorge	Coho	259	4,700	<b>8,800</b>
	Lower Gorge	Chum	1,787	7,800	<b>6,000</b>
	Lower Gorge	Winter Steelhead	750	2,100	<b>2,000</b>
	Upper Gorge	Coho	140	9,800	<b>11,200</b>
	Upper Gorge	Chum	81	11,000	<b>2,700</b>
	Upper Gorge	Winter Steelhead	351	600	<b>600</b>
	Wind	Summer Steelhead	724	5,000	<b>1,400</b>
	Klickitat	Spring Chinook	500	2,500	<b>1,200</b>
	Klickitat	Steelhead	1,500	3,500	<b>3,000</b>
	White Salmon	Steelhead	200	1,100	<b>1,100</b>
Yakima Subbasin	Rock Creek	Steelhead	455	600	<b>600</b>
	Yakima / Upper Mainstem	Spring Chinook	4,000	124,500	<b>55,700</b>
	Yakima / Upper Mainstem	Steelhead	200	10,400	<b>7,700</b>
	Yakima / Naches – American	Spring Chinook	2,000	74,500	<b>28,700</b>
	Yakima / Naches River	Steelhead	1,200	8,400	<b>5,400</b>
	Yakima	Summer Chinook	100	89,500	<b>10,000</b>
	Yakima	Fall Chinook	1,000	150,000	<b>10,000</b>
	Yakima	Coho	800	75,000	<b>10,000</b>
	Yakima	Sockeye	1,000	200,000	<b>100,000</b>
	Klickitat	Coho	485	–	–
	Yakima – Satus Creek	Steelhead	1,100	4,000	<b>2,000</b>
	Yakima – Toppenish Creek	Steelhead	500	3,400	<b>1,500</b>
	Northern Territory	Okanogan	Summer Steelhead	240	10,000
Methow		Spring Chinook	430	24,000	<b>4,050</b>
Methow		Summer Chinook	1,400	12,000	<b>4,400</b>
Methow		Coho	25	27,000	<b>6,000</b>
Methow		Summer Steelhead	790	3,600	<b>1,650</b>
Wenatchee		Spring Chinook	680	20,650	<b>4,065</b>
Wenatchee		Summer Chinook	5,950	21,000	<b>8,600</b>
Wenatchee		Coho	367	6,500	<b>6,000</b>
Wenatchee		Summer Steelhead	310	7,300	<b>3,000</b>
Wenatchee		Sockeye	21,850	35,000	<b>35,000</b>
Entiat		Spring Chinook	220	3,400	<b>1,020</b>
Entiat		Summer Chinook	240	–	–
Entiat		Coho	–	11,000	<b>2,000</b>
Mainstem	Entiat	Summer Steelhead	140	500	<b>1,500</b>
	Chelan	Summer Chinook	880	–	<b>2,000</b>
	Priest Rapids to Chief Joseph mainstem	Fall Chinook	21,000	–	<b>3,000</b>
	Mainstem Columbia	Summer Chinook	3,200	–	<b>3,900</b>
	Hanford	Fall Chinook	70,400	500,000	<b>51,188</b>

Source: MAFAC 2020 ▲



The tribes have always anticipated the resource needs of their people seven generations into the future.



### 2.3 Harvest

Another overarching goal of Yakama Nation Fisheries is to provide harvest opportunities to tribal members consistent with reserved treaty rights and our historic culture.

A conservation ethic is inherent in this goal as YN has always anticipated the resource needs of our people seven generations into the future. We balance the conservation needs of the fish with the right to take fish. This is achieved through our biologically-based harvest management philosophy and a harvest rate based on the status and trends in abundance and productivity of the fisheries. Our focus is on providing sustainable harvest at all traditional fishing sites along the Columbia River and its tributaries for salmon (all species), lamprey, and sturgeon. The YNF protects and restores habitat and ecological

function and evaluates other activities to restore sustainable fisheries that will support the full exercise of tribal treaty fishing rights and other harvest for many generations to come. These actions support restoration of other important species such as mountain whitefish, suckers, trout, bull trout, and burbot.

The YNF harvest staff engages in regional harvest management forums and provides technical support and advice for the YN Tribal Council in making fishery decisions that meet requirements for self-regulating status under federal law. The Columbia River

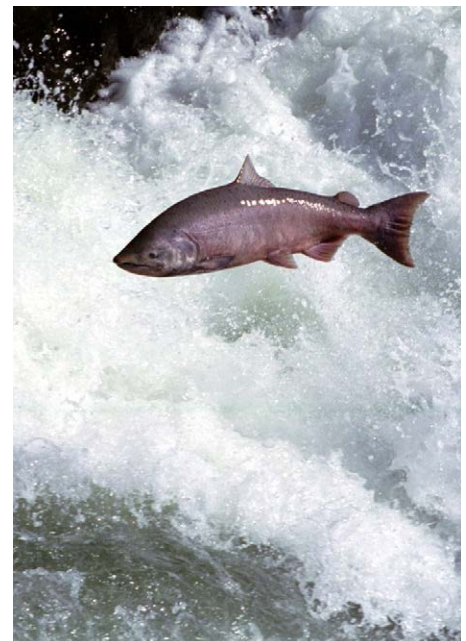
Fisheries Management Plan is negotiated and implemented under court supervision through U.S. v OR. The YNF also tracks the Pacific Fisheries Management Council and Pacific Salmon Commission to protect escapement of Columbia River salmon in ocean fisheries off the coasts of California, Oregon, Washington, Canada, and Alaska.

#### 2.3.1 U.S. v Oregon Management Agreement

U.S. v OR was borne out of fishery allocation disputes between the treaty tribes and the states of Oregon



Native American fishermen harvesting salmon in 1937 at Celilo Falls, Columbia River.



Fall Chinook, Lyle Falls, Klickitat River



Tribal fishery at Lyle Falls (Klickitat River), one of the few places left where Yakama Nation Tribal Members are able to still harvest using traditional fishing methods. Photo source: CRITFC

and Washington. Early versions of Management Agreements focused on in-river fishery allocations. The tribes recognized ocean fisheries, hatchery production and salmon recovery affect the availability of harvestable fish. With each iteration of the Management Agreement, the tribes have been successful in expanding the scope of the agreements to include clear connections to ocean harvest and hatchery programs, especially those that provide direct benefits to tribal fisheries. Although language and commitments from all parties to rebuild fish runs are part of these agreements, restoration cannot be solved with harvest management alone and must understand and incorporate multidisciplinary science. We better understand the effects of changing climate and ocean conditions. The listing of several salmon species under the ESA is an important consideration within U.S. v OR. Although these listings enhance the ability of the tribes to affect salmon recovery, harvest restrictions on ESA listed populations continue to hamper access to harvestable fish for both treaty and non-treaty fisheries.

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### 2.3.2 Distribution of Treaty Fisheries

The treaty of June 9, 1855 reserved the right for the Yakama Nation to maintain its culture, including rights to hunt, fish and gather in Usual and Accustomed places. Currently the main treaty fishing area on the Columbia River is the 147-mile reach from Bonneville Dam to McNary Dam, known as Zone 6. Additionally, the YN maintains U&A fishing areas from the mouth of Columbia River through the Hanford Reach and into the Priest Rapids and Wanapum pools.

Tributary fishery management is not part of U.S. v OR, rather it is coordinated by informal agreement between the YN and the states of Washington and Oregon. Key tributary fisheries for the YN include the Wenatchee (i.e., Icicle Creek), Yakima, Klickitat, and Wind River subbasins. In addition to salmon and sturgeon fisheries, the YN also coordinates with the State of Washington on smelt fisheries in the Cowlitz and Lewis rivers, and coordinates with the State of Oregon for fisheries on the Willamette River at Willamette Falls.

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### 2.3.3 Fisheries Management Periods

Treaty fisheries in the mainstem Columbia under U.S. v OR primarily target salmon and sturgeon in three seasonal management periods (Figure 4). YN-managed fisheries can be broadly grouped in two categories: commercial fisheries, and ceremonial and subsistence fisheries (C&S). Commercial fishing

usually involves gillnets but platform/hook and line (PH&L) and other gears are used for certain species and management periods. C&S fisheries can include some gillnetting by permit but mainly involves PH&L fishing. The Yakama Nation strives to keep the platform/hook and line fishery open year-round with closures limited to short periods when harvest rate limits in U.S. v OR have been exceeded. Additionally, the YN closes fishing on Sundays to respect the tradition of having a day to rest for both fishers and the fish.

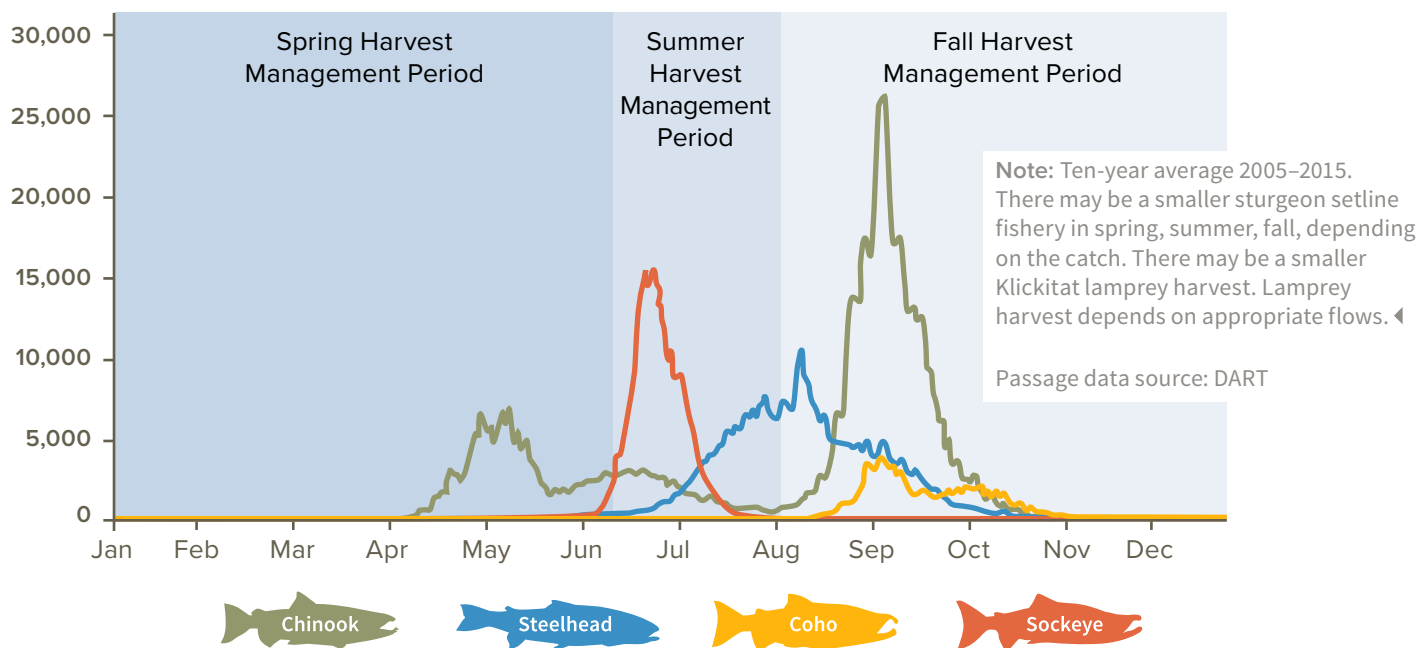
#### **Winter/Spring Management Period.**

Annual seasons begin with a sturgeon setline fishery during January followed by the winter gillnet season in February and March that targets primarily sturgeon but may also catch winter steelhead and coho. Spring Chinook historically begin to return by late March, but timing is subject to annual variation and climate change impacts. Fisheries transition to targeting spring Chinook for PH&L gear and each tribe authorizes spring ceremonial gillnet permits by late March. Ceremonial and subsistence fisheries normally harvest the majority of spring Chinook because the run is returning at depressed levels. Spring Chinook returns are rarely sufficient to provide commercial opportunities during the spring management period. The tribes often have to limit ceremonial catch to keep the PH&L fishery open and remain within the allowed spring Chinook harvest rate.

#### **Summer Management Period.**

The summer management period normally provides the first commercial opportunity for both PH&L and

**Figure 4. Harvest Management Periods and Average Fish Passage Counts at Bonneville Dam**



gillnets. Upper Columbia River summer Chinook are not ESA-listed and have higher allowed harvest rates. For many years, the tribes have executed a summer commercial gillnet fishery from late June into July; however, access to the summer Chinook is sometimes limited by the size of sockeye runs. Additionally, the tribes may choose to provide ceremonial permit opportunities during the summer management period; this requires commercial fisheries to be closed during weeks the permits are authorized. Tributary fisheries in the Wind, Klickitat, Yakima, and Icicle rivers typically extend into or through the summer management period.

**Fall Management Period.**

The tribes main commercial gillnet season occurs in the fall with weekly openings targeting Upriver Bright Fall Chinook (URB). These fisheries typically begin by late August and continue through September and often into early October. Coho, produced primarily by tribal reintroduction programs, are also caught in the latter half of the fall gillnet season. Access to harvestable URBs and coho is often restricted

by catch limits on Group B steelhead that migrate at the same time. The YN fall fishery in the Klickitat River can be very robust, especially for coho in the late fall. The Yakima River is also open during the fall and fisheries in Drano Lake and the Icicle River may occur if harvestable fish and incidental steelhead impacts are available within U.S. v OR catch guidelines.

**2.3.4 Ceremonial Distribution Program**

Having salmon for traditional ceremonies is extremely important to the Yakama people who honor salmon as a First Food. To provide salmon for those in need, the YNF manages a ceremonial fish distribution program. Salmon are collected throughout the year from regional hatcheries that have fish considered surplus to production need, stored in the YNF freezer in Toppenish, and distributed to tribal members for ceremonies upon direction from the Fish and Wildlife Committee. We continue to develop and improve our approach to obtaining these ceremonial fish

to better maintain consistency with YN traditional values, and to ensure the best product available for tribal people. YNF now has the facilities and equipment to process 100 percent of these ceremonial fish for storage and keeping.



Harry Tomalawash, Yakama Nation Tribal member (Wanapum), roasting lamprey. Courtesy of Yakama Nation Museum.

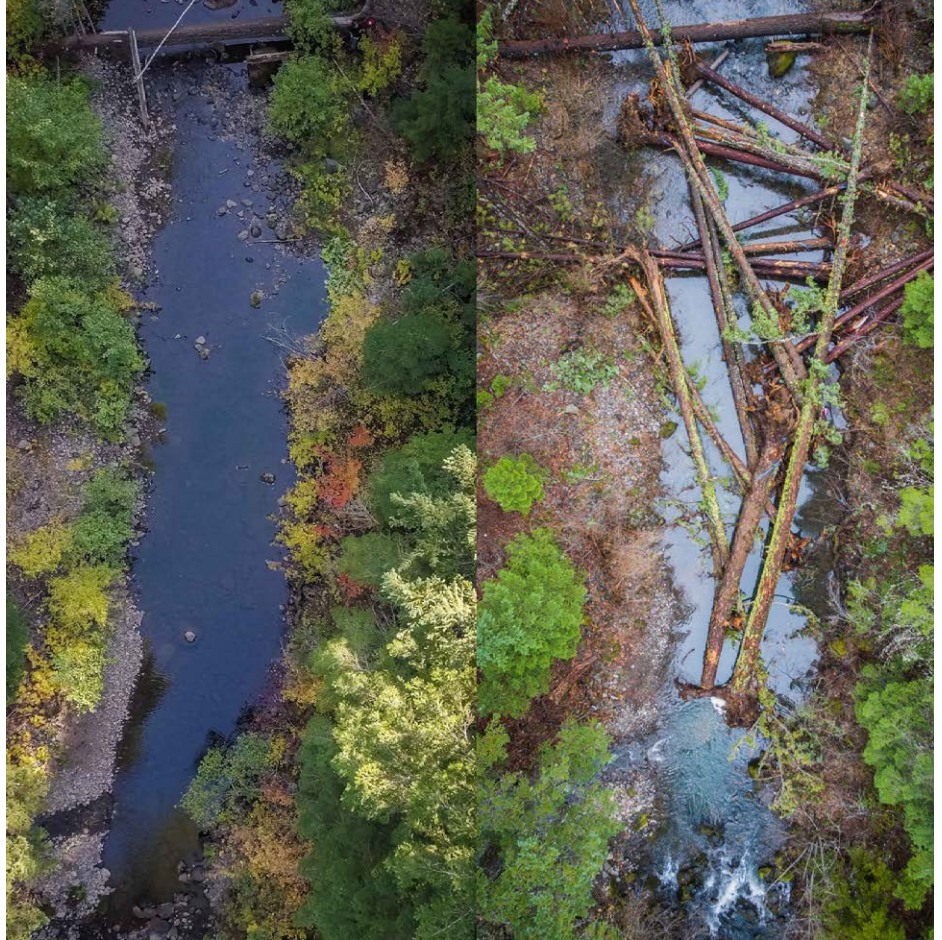




## 2.4 Habitat

Currently, sacred cultural resources of the Yakama Nation such as salmon are under a significant threat that is perhaps greater than any since human beings made their first pact with the *nusúx* (salmon). Unprecedented changes are occurring to the homelands and waters which the Yakama Nation have called home since Time Immemorial, and for which its people are caretakers.

This section communicates an adaptive management strategy that is anchored in both the best available western science and traditional knowledge. We acknowledge the cumulative history of the Yakama people and their forebearers on this land and adjacent waters, and all that they have contributed to the legacy of land stewardship and sustainable lifeways. In the work we do, we strive to *honor* the ancestors who came before and the accrued wisdom which has been handed down to us, forming a living legacy; we seek to *protect* the living culture which maintains that immutable connection to the land and insists we continue to protect the sacred resources; and we endeavor to *restore* the function and integrity of this landscape, its rivers and its ecology. While there are many factors outside of these subbasins and beyond our scope which affect natural and cultural resources such as salmon populations—from human population growth to changes in ocean conditions, to the health of



Before (left) and after (right) habitat restoration on the Klickitat River.



A helicopter transports logs into a remote area along the Klickitat River.

the Columbia River estuary—we are focused here on Columbia River tributaries, their confluences, and actions in the mainstem Columbia River that flow through, connect and give life to the Treaty Territories.

Restoration projects afford the opportunity to protect and enhance water (e.g., flows, temperature and aquatic habitat) and culturally significant *q'nit* (plants) such as the wild rose, chokecherry, cottonwoods, Ponderosa pine, and countless other species for the benefit of Yakama tribal members, but also for all other organisms that use that habitat. In practice, the habitat strategy is rooted in an established, adaptive approach to watershed protection and restoration. Project work emphasizes habitat enhancement that benefits native salmonid stocks, focusing on restoring stream processes by removing and mitigating disturbances to watershed function, improving habitat conditions, and protecting and improving water quality. Watershed and habitat improvements benefit threatened salmon, steelhead and resident fish species, and enhance habitat for many terrestrial and amphibian wildlife species.

Protection activities complement restoration by securing intact refugia and reducing habitat degradation. Since many portions of tributary watersheds are in private ownership, cooperation with federal, state, local and private entities increase the overall effectiveness of activities.

Project selection and implementation strategies address goals and objectives identified in various subbasin and salmon recovery plans, strategies, and more localized assessments, prioritizations and planning efforts. Many tributary systems have extensive instream, riparian, floodplain and watershed habitat degradation and loss. There are two main habitat restoration objectives in these areas. The first objective is to prioritize and then implement projects which focus on limiting factors within those areas. The second objective is to protect habitat already in excellent condition. The latter is coordinated with other federal, state and non-governmental organization conservation partners. Types of ongoing habitat restoration projects are illustrated on Figure 5, while Sections 2.4.1–2.4.3 identify our specific habitat strategies.

Right: North Fork Teanaway habitat restoration, Yakima Subbasin, 2021

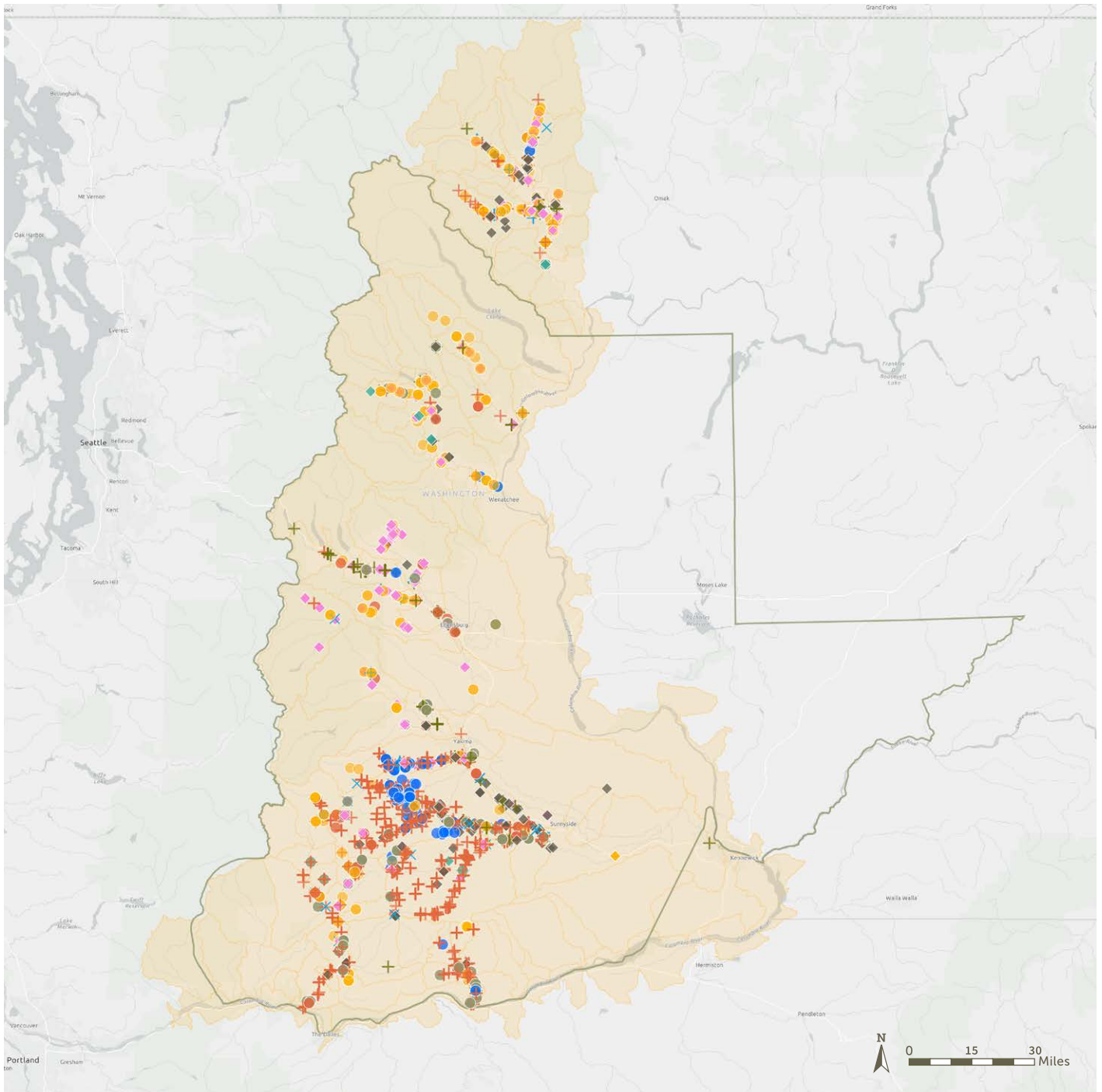
Below: Woody debris are a key habit for these spawning bull trout and many other species.

### 2.4.1 Restoration and Enhancement

- » Restore stream processes by removing or mitigating disturbances to watershed function, improving habitat conditions, and improving and protecting water quality.
- » Reduce impacts caused by roads, railroads, and infrastructure on floodplains.
- » Improve fish passage and floodplain connectivity.
- » Protect, restore, and manage riparian ecosystems through active revegetation, land protection, flow management, grazing management, and invasive weed control.
- » Increase headwater and floodplain storage capacity through process-based restoration such as beaver introduction or beaver-analog construction, addressing incision and compaction, excluding livestock, and revegetation.
- » Investigate and pursue opportunities for improving and restoring habitats on Columbia River mainstem and tributary confluences, such as restoring delta habitats, improving instream conditions, riparian vegetation.
- » Assess current and projected future water resources and pursue instream flow, municipal and irrigation efficiency improvements.
- » Address upland landscape integrity related to watershed processes: encourage Best Management Practices (BMPs) for forest health; reduce upland habitat fragmentation and conversion; work to maintain migration corridors; and reduce grazing impacts.



**Figure 5. Habitat Restoration Project Types, Implemented by YN 2004–2020 (BPA funded only)**



- |   |                                       |
|---|---------------------------------------|
| + O&M (habitat)                             | ◆ Habitat protection/ Pre-work        |
| + RME (habitat)                             | ◆ Passage O&M                         |
| + Channel complexity, floodplain            | ● Passage improvement                 |
| ◆ Enhance nutrients                         | ● Reporting/ planning/ administration |
| ◆ Habitat complexity/ quantity/ floodplain  | ● Revegetate                          |
| ◆ Habitat complexity/ stability             | × Road improvement                    |
| ◆ Habitat complexity/ stability/ floodplain | ● Water quantity/ mgmt.               |

## 2.4.2 Coordinated Land Acquisition and Land Use Management, Watershed Coordination, and Planning

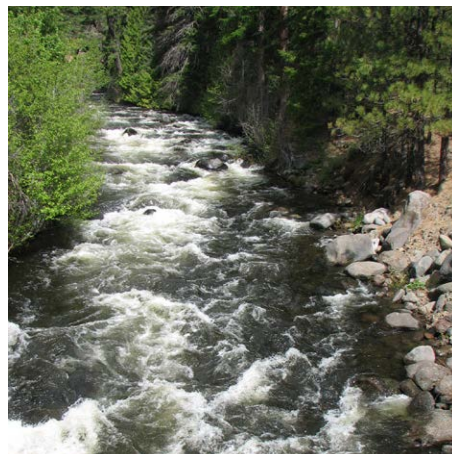
- » Coordinate with partner agencies and non-governmental organizations (NGOs) to pursue land and water acquisitions or conservation easements to achieve habitat conservation objectives and protect ecosystem function.
- » Ensure recognition of tribal sovereignty through consultation, inclusion of tribal treaty rights, traditional knowledge and best available science that supports treaty resources in local and regional planning processes.
- » Engage with local governments/agencies to communicate, advocate for habitat protection objectives and priorities.
- » Increase attention on Shoreline Master Program (SMP) and Critical Areas Ordinance (CAO) implementation, review and develop guidelines.
- » Engage with local and regional governmental organizations on coordinated priorities and objectives around habitat protection and restoration.
- » Increase monitoring, consistency and accountability of existing enforcement and regulatory mechanisms that affect watershed resources.
- » Encourage smart growth that protects ecosystem health through involvement in general land use planning (WRIA, CAO, SMP, etc.) and update processes that account for cumulative impacts.
- » Develop a permit tracking and accountability system to cover programs such as Hydraulic Project Approvals, Shoreline Management Act, U.S. Army Corps of Engineers Nationwide Permits and stormwater discharge permits.
- » Seek revision of habitat standards for the Growth Management Act (GMA), SMA and other resource protections from one of no net loss to net gain, understanding

that status quo conditions do not support recovery objectives and treaty rights (or account for climate change impacts, population growth, etc.).

- » Advocate that state and federal policies include climate change impacts, such as the SMA, GMA Comprehensive Plans, and management plans for National Scenic Areas, Wild and Scenic Rivers and USACE programs.
- » Track and prevent introduction and spread of terrestrial and aquatic invasive species by engaging with cooperative weed management entities, building capacity for early detection/rapid response and developing/communicating BMPs.
- » Work with state and federal agencies to make sure landscape analyses for forest health include aquatic as well as terrestrial habitats.



Habitat restoration plays an important role in the survival of native stock.





Educational site visit to Condit Dam. Documenting recovery after dam removal has been an unique educational opportunity.



Pacific Lamprey reintroduction during a tribal school field trip.

### 2.4.3 Education, Outreach and Collaboration

- » Develop a unified, regional messaging and communication strategy with partners and through multi-stakeholder efforts.
- » Expand programs such as *Salmon in the Classroom*, watershed education field days, tours of YNF facilities and restoration sites, Outdoor School, Water Jam, etc., to encompass territory watersheds.
- » Continue to engage with federal regional leadership from the National Oceanic and Atmospheric Administration, EPA, USFWS, USACE, Natural Resources Conservation Service, state agencies, local conservation districts, and land trusts as well as multi-agency regional bodies to advance landscape-scale habitat protection and protection of treaty resources.
- » Collaborate with partners to educate local communities about YN priorities and treaty rights, threats to fish, wildlife and their habitats, and best management practices for good stewardship of common resources through media, at public events, workshops and conferences, community science projects, etc.
- » Help partners (NGOs and agencies) develop incentives for water-wise and salmon-safe building, agriculture, landscaping, recreation, etc.



Students learning how to sample macroinvertebrates with YN biologist Jeannette Burkhart in the Klickitat watershed.

**“The Yakama people have been fishing and hunting here since time immemorial. Our grandparents depended upon the river’s resources for subsistence, as will our children.”**

— JoDe Goudy,  
Yakama Nation Chairman

“If we’re going to catch fish, then we should help produce fish.”

—Levi George, Hatchery Lead



## 2.5 Hatcheries

In its Treaty with the United States, the Yakama Nation reserved a variety of rights, including the right to fish at all usual and accustomed places, which includes the right to have fish present to harvest.

Since 1855, human population growth and development have drastically altered flows and diminished habitat quality, resulting in reduced productivity for fish populations. As long as *Nch’í Wána*, its estuary, and the Pacific Ocean are unable to maintain self-sustaining native populations in sufficient abundance, hatcheries will remain an integral and indispensable component of fishery management and conservation. Hatchery production is necessary for members of the Yakama Nation to harvest fish at usual and accustomed areas and to enjoy the rights and benefits secured by our elders in the Treaty of 1855 (12 Stat 951) and affirmed in *U.S. v. OR* and *U.S. v. Washington*. In addition to augmenting harvest, hatchery production is required to reestablish fish to areas where they were extirpated, and to supplement naturally spawning populations.

In managing hatcheries, we operate using these fundamental principles:

» The harvest of hatchery fish is a part of our federally recognized treaty right. The role of hatcheries associated with our treaty-reserved fishing rights is to support four basic values recognized by the federal courts: (1) conservation of the resource, (2) ceremonial, religious, and spiritual values, (3) subsistence values, and (4) commercial values.

» All watersheds and their native populations are unique. Consequently, management of hatchery and naturally produced fisheries will be most successful when hatchery programs consider the unique status of each watershed, its fishery populations, and the other actions taken in harvest management, habitat restoration, and habitat protection so that they work together toward specific short-term and long-term management objectives.

» The degree to which hatcheries are necessary will change over time depending on the health of the watershed. Watersheds that are heavily degraded are likely to require long-term or permanent hatchery production to support fishery populations sufficient to carry out treaty rights. Watersheds where habitat can be restored to produce fish returns in sufficient levels to fully support treaty rights may be able to reduce hatchery production as the habitat recovers and naturally produced runs become more abundant. Any change in hatchery production levels for programs that mitigate for lost natural production will be dependent on long-term trends, and whether or not habitat protection and restoration provide a measurable boost to natural production. In transitioning away



Fall Chinook broodstock collection, during dewatering of Chandler Canal, Yakima River, 2021.

from hatchery production to natural production in watersheds with recovering habitat, the transition must be implemented to assure that treaty rights are never diminished and there is no significant disruption of treaty harvest.

» Hatcheries can be an important conservation and management tool in the supplementation and rebuilding of depressed natural populations, reintroducing extirpated natural populations to unused or underutilized habitats, and maintaining adequate abundance. They can also play a vital role in education and in research, monitoring, and evaluation of natural populations.

» Hatchery programs that specifically produce fish for harvest are sometimes necessary to satisfy treaty rights, regardless of limiting factors that may impact natural production in the watersheds where they operate.



The role of hatcheries associated with our treaty-reserved fishing rights is to support four basic values recognized by the federal courts:

- 1) conservation of the resource,
- 2) ceremonial, religious, and spiritual values,
- 3) subsistence values, and
- 4) commercial values.

Yakama Nation Fisheries has reintroduced sockeye salmon to Lake Cle Elum, and plans to reintroduce them to other impounded historical Upper Yakima nursery lakes in future.

- » Changes to hatchery programs in response to scientific recommendations shall not be implemented without integrating other, non-technical factors and risk considerations, including but not limited to: (1) legally authorized and mandated mitigation obligations, (2) tribal treaty-reserved fishing rights under U.S. v OR, (3) logistical challenges and infrastructure constraints, and (4) funding and operating budgets for implementing the changes and monitoring their effectiveness.
- » Production goals developed in 2020 are presented by territory in Table 1.

### 2.5.1 Hatchery Programs in Northern Treaty Territories

#### Coho Reintroduction



Coho salmon were functionally extirpated from spawning tributaries upstream of Bonneville Dam in the 1900s. Our objective is to re-establish naturally spawning coho populations in mid-Columbia tributaries to biologically sustainable levels that could provide significant and consistent harvest opportunities. YNF began reintroducing coho in the Methow River (1997) and Wenatchee River (1999) using lower Columbia

River stocks. We are implementing a phased approach in this effort:

1. Broodstock Development — Transition to local broodstock (completed in Wenatchee and Methow subbasins in 2005) and eliminate Lower Columbia transfers.
2. Ensure that fish can imprint on suitable and productive habitat that will drive local adaptation by establishing capture sites upstream and selecting acclimation sites within known historic spawning areas to increase natural-origin productivity (completed in the Methow subbasin).
3. The natural production implementation phase includes introducing coho to new habitats, creating spawning aggregations, and reducing numbers released after three years. In the support phase we will reduce release sizes and increase the proportion of natural influence. Currently, broodstock development goals are being reached and we are moving into the natural production phase in the Methow subbasin, with one million smolts acclimated from eight sites in-basin, and releases coinciding with releases of Mid-Columbia PUD spring Chinook.

#### Steelhead Kelt Reconditioning



Reconditioning allows steelhead to spawn a second time, avoiding mortality associated with migrating downstream through the main-stem Columbia hydrosystem dams. YNF began reconditioning natural-origin steelhead kelts in the Upper Columbia in 2012.

The YN is partnered with WDFW on a reproductive effectiveness study, where the data are being used to document potential benefits to lifetime reproductive success as a result of kelt reconditioning. This has proven successful in the Twisp River, where reconditioned kelts are contributing to steelhead populations in the wild.

#### Spring Chinook and Summer Steelhead Multi-Species Acclimation



This project uses suitable natural ponds to improve effectiveness. To date, releases have only occurred from the Goat Wall acclimation site and we have documented high in-pond and outmigration survival. Collaborative research is being conducted to evaluate return migration behavior and strategies to improve homing, and to monitor



Marion Drain summer Chinook transfer



Tagging steelhead at Roza Dam

habitat use. A long-term objective of these efforts is to facilitate natural spawning throughout the historic range of these species in order to restore sustainable populations in the Upper Columbia.

### 2.5.2 Hatchery Programs in the Yakima Subbasin

#### Spring Chinook



This program rears a target number of 810,000 yearling smolts at the Cle Elum Supplementation and Research Facility and releases them from acclimation sites at Easton, Jack Creek, and Clark Flat. This is primarily an integrated production program for the purpose of increasing natural spawning and harvest.

#### Coho



At the Melvin R. Sampson Facility, 500,000 parr equivalent and 200,000 yearling smolts are reared and released in targeted tributaries in the Upper Yakima and Naches river systems. This is primarily an integrated production program to increase natural spawning and harvest. Reintroduction efforts may also consist of directed outplanting of adult fish into vacant or underutilized habitats in the Upper Yakima and Naches river systems.

At the Prosser Hatchery, 500,000 yearling smolts are reared and released. This is primarily a segregated production program for the purpose of harvest augmentation.

#### Summer-run Chinook



Up to 1,000,000 smolts (a combination of yearling and subyearling production) are reared at the Prosser Hatchery. Most of these fish are acclimated and released from targeted reaches in the middle Yakima subbasin near the confluence of the Yakima and Naches rivers. This is a reintroduction program to reestablish an extirpated species. In the initial phase we are using Wells stock fish from upper Columbia facilities reared at Prosser Hatchery with a short-term goal of developing a localized brood source sufficient to independently support this program. The long-term goal is to phase this into an integrated production program using new facilities in the middle reaches of the Yakima subbasin (near the confluence of the Yakima and Naches rivers).

#### Fall-run Chinook



Up to 500,000 subyearling smolts are reared at Prosser Hatchery and fish are released directly from the hatchery or in targeted upstream areas. This is an integrated production program using a broodstock composed of in-basin natural-origin fish for the purpose of increasing natural spawning and harvest.

There is also a segregated production program at Prosser Hatchery that uses brood fish from multiple Columbia Basin Upriver Bright facilities. The hatchery rears 1.7 million sub-yearlings and 210,000 yearling smolts which are released into the Yakima River at the hatchery site. The purpose of the segregated program at Prosser is to provide in-place, in-kind harvest augmentation (John Day/The Dalles Dam mitigation).



Gathering Fall Chinook broodstock prior to dewatering of Chandler Canal, Yakima River, 2019.



## Steelhead Kelt Reconditioning



Up to 1,500 post-spawned, adult natural steelhead kelts are captured at Prosser Hatchery. Kelts are held for about six months and reconditioned in artificial rearing tanks. This is a conservation program to increase the number of natural steelhead spawning in the Yakima Basin.

## Bull Trout



This program is designed to rescue juvenile bull trout from essential stream habitat that is subject to critically low flows and complete seasonal dewatering (ephemeral stream segments), and where each year large numbers of juvenile bull trout are likely to perish. Juveniles rescued in the summer (July–August) are taken to a rearing facility at LaSalle High School in Union Gap, WA, where they are reared in protected raceways until the following spring. By this time the rescued fish have reached a size that ensures greater survival in the natural environment. They are then released back into the streams from which they were rescued (Gold Creek and Kachees River). As older fish, they are able to seek perennial habitat and are not subject to the same risk of stranding as are young-of-the-year fish.

## Resident Species Project

This program is being designed to assess, monitor, and evaluate the salmonid and non-salmonid resident fish communities on the Yakama Reservation. The goal of the Yakama Nation Reservation Resident Fish Project is to document resident fish populations and communities on the Yakama Reservation. Information gathered will be used in timber sale assessments, construction and restoration projects, predation studies and water quality assessments.

## 2.5.3 Southern Treaty Territories

### Hatchery Operations

A Memorandum of Understanding transferring Klickitat Basin Mitchell Act facilities and operations from WDFW to YN was agreed upon in 2003, with a joint operational agreement established in 2008.

### Spring Chinook (Mitchell Act supported)



Production at the Klickitat Hatchery is used to supplement the native Klickitat River population of spring Chinook in a program to mitigate for fish losses due to development of the hydro system. Most natural-origin fish spawn in the upper watershed; hatchery-origin fish are collected for hatchery broodstock with some spawning occurring in the wild. Hatchery reform is underway to transition from a segregated program to an integrated conservation/harvest program. Passage improvements were implemented by the Yakama Nation to increase colonization above Castile Falls, and the operation and maintenance of these fishways was transferred from WDFW to YN in 2006.

### Fall Chinook and Coho (Mitchell Act supported)



Introduced in 1952 to meet harvest obligations for tribal and sport fisheries, our goal is to fulfill harvest obligations while establishing a locally produced brood source. On average, 3.4 million fall Chinook smolts are released annually since 2008 (target of 4 million) and 1 million coho are released annually. Fall Chinook are sustained by YN hatchery releases. The coho goal is to transition to a locally adapted population.

## 2.5.4 Mainstem Columbia River

### White Sturgeon Restoration



Since the 1980s, there has been an alarming trend toward low survival of juvenile white sturgeon in the mid-Columbia and Upper Columbia river reaches, and a complete recruitment failure has occurred in several impounded areas upstream of McNary Dam. While numerous factors have impacted survival, impeded migration routes (i.e., loss of connectivity) and degraded spawning and rearing habitat are the primary culprits. Sturgeon are broadcast spawners and tend to concentrate spawning activity in areas adjacent to the tailrace of dams. Changes in flows and spill associated with the hydro system is believed to be a



The Yakama Nation has developed hatchery techniques to restore white sturgeon in the Columbia River.

major contributing factor in recent recruitment trends. Our goal is to supplement wild production by releasing hatchery reared juveniles until healthy self-sustaining harvestable populations can be achieved. We are also enhancing natural spawning and fisheries throughout the mid-Columbia and Lower Snake rivers. We are working on plans to expand juvenile releases in Zone 6 of the Columbia River and into the Lower Snake River. From 2010–2018, about 83,000 tagged yearling sturgeon have been produced for release in mid-Columbia reservoirs. The future production goal is 20,000 fish annually.

**“To us, they [Lamprey] are sacred food ... They serve a purpose, and they are part of the balance of life.”**

— Bobby Begay (átwai)



Having nearly died out in the Yakima Basin, YN’s lamprey reintroduction efforts are now proving successful with increases in distribution, abundance and wild spawning.

### Pacific Lamprey Restoration and Reintroduction



### Freshwater Mussels



Lyle Falls Passage Facility, Klickitat River

Our goal is to increase populations to sustainable harvest levels by 2025. To do so, YNF is undertaking the following steps:

- » Translocating adults throughout their historic range (~1,000/yr.);
- » Artificial propagation – larval outplanting began in the fall of 2020 in the Upper Yakima/Naches rivers;
- » Passage structure improvements for adults is being implemented at Prosser, Sunnyside, and Wapato dams, and Toppenish (Unit 2). Juvenile passage is being implemented at the Ahtanum Creek Diversion;
- » Monitoring and evaluation includes examining natural history and limiting factors;
- » Salvage is occurring from dewatering/dredging activities (10,000–40,000 lamprey rescued per year);
- » Predation abatement investigations are being undertaken.

Our goal is to restore natural production of freshwater mussels to levels that will complement overall species richness and abundance, provide significant ecological contributions (e.g., in the food web), and meaningful harvest opportunities throughout the Yakama Nation’s ceded lands and in the U&A areas (including but not limited to the Yakima, Wenatchee, Entiat, Methow, Klickitat, White Salmon, Little White Salmon, Wind, and Rock Creek subbasins). The primary restoration objectives are to: 1) determine the status, distribution, and abundance of mussels in Yakama Nation ceded lands subbasins; 2) identify factors affecting declines in abundance and recruitment; 3) implement, monitor, and evaluate propagation, supplementation, and reintroduction strategies; 4) provide regional leadership in promoting freshwater mussel research and restoration; and 5) actively pursue a strong outreach and education program. The long-term goal is to rebuild ecosystem diversity, function, and traditional cultural opportunities in the region.



Pathology sampling during spawning at Klickitat Hatchery



By voicing concerns ... we are upholding the promise we made in sacred trust to the Creator to be responsible stewards of salmon and the habitats they rely on.

## 2.6 Water Management and Fish Passage

The construction and operation of hydroelectric and other dams on the Columbia River and throughout the natural resource use area of the Yakama Nation has had devastating impacts to the Yakama people and our treaty-reserved natural resources. Diligently working to improve hydro system operations and water management in these areas will aid in rebuilding aquatic species populations. The Yakama Nation’s advocacy of actions such as improving fish passage so that all species are taken into account, reducing dam passage mortality, and managing flows to improve fish survival and transport to the ocean helps create a more natural river, benefiting all native species.

Increased Tribal collaboration and representation on issues such as hydro system operation has enabled the Yakama Nation to help ensure that the most appropriate and effective actions are being implemented on behalf of our resources. By voicing concerns when we believe too little is being accomplished to restore and protect Treaty trust natural resources, we are upholding the promise we made in sacred trust to the Creator to be responsible stewards of salmon and the habitats they rely on.

### 2.6.1 Federal Columbia River Power System

The Federal Columbia River Power System (FCRPS) provides approximately one third of all the electricity for the Pacific Northwest. The FCRPS provides a navigation and commerce route for freighters and other vessels from the Pacific Ocean to Lewiston, Idaho, and provides flood control throughout the length of the Columbia River. Within FCRPS, a total of 31 hydroelectric projects are operated by the U.S. Army

Corps of Engineers and the Bureau of Reclamation. The Bonneville Power Administration markets the power produced by these dams and implements mitigation programs to offset the detrimental impact of the system on natural resources.

The Biological Opinion (BiOp) for the Columbia River System Operations covers the immediate and long-term actions related to the configuration, operation, and maintenance of the 14 major dams that are part of the FCRPS. These include Bonneville, The Dalles, John Day, McNary, Chief Joseph, Grand Coulee, Albeni Falls, Libby, Hungry Horse, Ice Harbor, Little Goose, Lower Monumental, Lower Granite, and Dworshak dams (Figure 6).

The Northwest Power Act directs the Northwest Power and Conservation Council to develop a 20-year Power Plan and every 5 years a Fish and Wildlife Program to guide electricity development in the Pacific Northwest and to guide BPA’s annual fish mitigation. Adequate support for the operation and



Ladders like this one at Prosser Dam, facilitate lamprey passage.



On March 10, 1957 Celilo Falls (an important traditional tribal fishing site of 11,000 years) was inundated by The Dalles Dam, as were villages along side the river.

**Figure 6. Major Columbia Basin Dams Affecting Yakama Nation Natural Resources**



maintenance of passage improvements is critical. The U.S. Army Corps of Engineers’ Fish Passage Plan, developed annually through a regional forum that includes the Yakama Nation, describes year-round project operations to protect and enhance fish species.

Flow, spill, water temperature, and dam operations affect passage and survival for juvenile salmonids in the Columbia River. These factors are related to run timing, travel time, susceptibility to dissolved gas trauma, disease, and predation.

Yakama Nation hydro system objectives include:

- » Facilitate research and analysis regarding (1) the anticipated life-span of the three lower Columbia

River dams, and (2) how the removal of one or more of the three lower Columbia River dams might be achieved in the next 50 years

- » Removal of the Snake River dams; if not removal, then optimize operations and mitigate for impacts
- » Restore normative river – improve flow, water quality, and travel time to replicate natural (pre-dam era) conditions as closely as possible
- » Improve survival – make modifications at the projects and in the reservoirs to improve fish survival at every life stage
- » Support research, monitoring and evaluation to improve knowledge and understanding of how to increase survival

**Columbia River Systems Operations**

The 2020 Columbia River Systems (CRS) BiOp directs the Federal agencies to operate the CRS dams to benefit salmon migration. The requisite actions include:

- » Chum flow management – Federal agencies manage Bonneville Dam tailrace water elevation between 11.5 and 13 feet during chum spawning and rearing (November to February) to protect redds where eggs are deposited.
- » Spring flow augmentation – Federal agencies fill upstream storage reservoirs higher than normal to allow higher releases of water during the spring salmon outmigration. This decreases the travel time to the ocean.



One of many types of fish ladders at Bonneville Dam.

- » Flexible spill operations – Federal agencies maximize spill for juvenile fish during 16 hours of the day and reduce spill during peak energy usage, to optimize spill for fish and power marketing benefits.
- » Fish transportation – Fish are collected at certain projects and either barged or trucked downstream to spread the risk of fish survival during unfavorable in-river conditions.
- » Summer spill operations – Spill is provided to reduce travel time and decrease mortality of salmon smolts as they migrate through the system.
- » Dworshak releases for Snake River temperature control – Water is held in Dworshak Reservoir until mid-July and strategically released at Dworshak Dam to decrease water temperatures in the Snake River.
- » John Day Reservoir water level management for predator control – John Day Reservoir is raised above the minimum operating pool during bird nesting periods to discourage nesting on the beaches along the reservoir.
- » Research, monitoring and evaluation to improve adaptive management and future operations.

## 2.6.2 Mid-Columbia Public Utility District Hydroelectric Facilities and Agreements

### Mid-Columbia Habitat Conservation Plans

Habitat Conservation Plans (HCPs), referred to collectively as the Mid-Columbia HCP, were developed to help address effects of three hydropower projects covering more than 100 river miles on the mainstem of the mid-Columbia River. These plans developed for Douglas County Public Utility District's (PUD) Wells Hydroelectric Project and Chelan County PUD's Rocky Reach and Rock Island projects were finalized in 2002, although the YN did not initially sign the agreements. The YN signed the HCPs three years later in 2005. The PUDs worked cooperatively with state and federal fisheries agencies, three Indian Tribes, and an environmental organization to develop these first hydropower HCPs for salmon and steelhead. The plans commit the two utilities to a 50-year program to ensure that their projects have no net impact on mid-Columbia salmon and steelhead runs. This is being accomplished through a combination of fish bypass systems, spill, off-site hatchery programs and evaluations, and habitat restoration work in mid-Columbia tributary streams. The YN is a member of the decision-making committees that guide implementation of the terms of the HCPs and mitigation programs at these three projects. YN staff played an active role in the HCP development processes to ensure that treaty-reserved fish resources were included in the plans. Chelan PUD funds YN's mid-Columbia Coho Reintroduction Project under the Rock Island and Rocky Reach HCP. Douglas County PUD rears coho at Wells Fish Hatchery for the YN's Mid-Columbia Coho Reintroduction Project under the

Wells HCP. The YN's Upper Columbia Habitat Restoration Project receives funds from the HCPs' Habitat Subcommittees through funding proposals on a by-project basis.

### Wanapum and Priest Rapids Settlement Agreement

Initially part of the HCP development process, Grant County PUD (Wanapum and Priest Rapids dams), withdrew from the HCPs and instead developed the Priest Rapids Salmon and Steelhead Settlement Agreement (Settlement Agreement). The Settlement Agreement is intended to provide a comprehensive and long-term adaptive management program for the protection, mitigation, and enhancement of salmon and steelhead which pass or may be affected by the projects. The Settlement Agreement was cooperatively developed by Grant County PUD, state and federal fisheries agencies and three tribes (YN, CTUIR, and CCT). YN staff played an active role in the development of this agreement to ensure that treaty protected fish resources were included in the plan. The Settlement Agreement was initially finalized in 2005; the YN signed the agreement in 2006.

Grant County PUD currently funds the YN White Sturgeon Management Project; the YN Pacific Lamprey Project to restore healthy, harvestable populations in the mid-Columbia River; and the YN's Mid-Columbia Coho Reintroduction Project. The YN's Upper Columbia Habitat Restoration Project receives funds through proposals on a by-project basis.

### Objectives

Our objectives for Mid-Columbia hydropower projects that are part of the HCP (Rock Island, Rocky Reach and Wells dams), the Priest Rapids Salmon and Steelhead Settlement Agreement (Priest

Rapids and Wanapum dams) and Lake Chelan Dam include:

- » Ensuring that the YN goals and objectives for hatchery and habitat actions for salmon and steelhead are represented and implemented through PUD mitigation programs
- » Ensuring that the YN goals and objectives for restoration and protection of sturgeon, lamprey and resident fish are implemented through collective agreements and mitigation programs
- » Continuing to improve survival of downstream migrating juvenile fish, upstream migrating adults
- » Implementing protection and passage measures for ‘overshoot’ steelhead passing through the mid-Columbia projects from downstream populations (e.g., Yakima River, Snake River)
- » Restoring a normative river, improving flows and travel time to replicate natural conditions as closely as possible
- » Supporting RM&E to improve knowledge of population, life history, and origin-specific fish survival and predation rates in the Columbia River.



Sockeye were extirpated in the headwaters of the Lower Yakima Valley about 100 years ago due to the construction of dams for irrigation that lack fish passage. With the support of partners, the Yakama Nation is reintroducing sockeye to headwater lakes and working on cooperative efforts to ensure fish passage is restored.

River system next to the Snake River, returning nearly 0.8 million salmon annually. However, due in large part to changes to natural river flows and habitats resulting from development and operation of structures to support irrigated agriculture, fish production dwindled to fewer than 8,000 salmon annually by the 1980s (<1 percent of historical abundance). This led to years of confrontation and litigation over how water was managed as the Basin struggled to balance water needs for agriculture and fish.

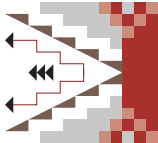
In 2009, a diverse group of interests in the basin came together with a desire to build a framework for resource management that would address the community’s needs and put long-standing conflicts over water and fisheries behind them. The Yakima Basin Integrated Water Resource Management Plan was born. This plan moves beyond long-standing conflicts over water and fisheries and takes pragmatic, collaborative steps to address the looming problems of climate change, especially loss of snowpack and earlier spring runoff. The Integrated Plan works toward a future with robust agriculture, abundant fisheries, outstanding recreation, healthy forests, and thriving communities. The Integrated Plan covers thirty years, divided into three ten-year implementation phases. Work on the Initial Development Phase is now underway.

The Yakama Nation is working in cooperation with the U.S. Bureau of Reclamation, State of Washington departments, farmers, communities and environmental interests to implement projects to achieve integrated water solutions in the Yakima Basin (many of the Yakima Basin fishery and habitat restoration objectives and solutions documented in other parts of this strategic plan are inherent in, and some are partially funded by, Yakima Basin Integrated Planning initiatives). Water-based management goals for the Integrated Plan are:

- » Provide opportunities for comprehensive watershed protection, ecological restoration, and enhancement addressing instream flows, aquatic habitat, and fish passage;
- » Improve water supply reliability during drought years for agricultural and municipal needs;
- » Develop a comprehensive approach for efficient management of water supplies for irrigated agriculture, municipal and domestic uses, and power generation;
- » Improve the ability of water managers to respond and adapt to potential effects of climate change; and
- » Contribute to the vitality of the regional economy and sustain the riverine environment.

### 2.6.3 Yakima Basin Integrated Plan

Using water from five large storage reservoirs, as well as five large and several smaller irrigation diversion structures, the Yakima River Basin is one of the top agricultural producing regions in the State of Washington. Agriculture and a robust outdoor recreation economy together contribute \$1.2 billion annually, providing over 14,000 jobs. Historically, the Yakima Basin was also the second largest producer of salmon throughout the Columbia



We are committed to supporting and implementing solutions and research that result in the efficient and long-term reduction in predator populations.



Sea lions wait near dams for easy meals.

## 2.7 Predation Management

The Yakama Nation recognizes that predation is a keystone agent that controls fish population dynamics. Although predation is a natural occurring control mechanism for fish populations, predation management is needed in altered systems such as that of the Columbia River Basin. Research over the last three decades has shown an alarming increase in predation rates on salmonids, lamprey, and sturgeon.

Many anthropogenic impacts to the Columbia River and its tributaries including alteration of flows, increases to TMDL inputs, sedimentation, introduction of non-native species (both fish and plants), and climate change have altered habitats in favor of many species of predators. These predators include native and non-native predatory fish species, piscivorous birds such as Caspian terns, double-crested cormorants, several gull species, mergansers and pelicans, and marine mammals such as California and Steller sea lions. Introduced predators as well as native predators that have flourished due to ecological advantages resulting from changes in ecosystems and altered habitats have tipped the predator/prey balance to the point that active management is required to rebalance predator populations and reduce losses to already imperiled fish runs.

As part of the commitment of the Yakama Nation to honor, protect and restore our sacred fish and water resources, we recognize the vital importance of sound predator management that is based on the best available science and traditional ecological knowledge. We are committed to supporting and implementing solutions and research that result in the efficient and long-term reduction in predator populations in order to improve the survival of our salmon, steelhead, sturgeon, lamprey, and other native aquatic species.

The following strategies were adopted as part of the “Salmon First Scenario” in the Columbia Basin Collaborative Partnership Phase II Report (MAFAC 2020) by the Yakama Nation and tribes of the Columbia River Intertribal Fish Commission:

- » Identify and implement targeted opportunities to enhance predator control actions;
- » Population scale removal and control of non-native/introduced species, or native species that have unnaturally expanded their range or increased in numbers or impact;
- » Increase funding for control efforts related to past or present federal and state introductions of non-native fish species;
- » Eliminate harvest limits and regulations protecting non-native or other predatory fish in waters that contain or are connected to waters containing anadromous salmon and steelhead;
- » Increase funding for federal, state, and tribal enforcement to reduce illegal or unintentional introduction of invasive/non-native species;
- » Identify and implement targeted opportunities to enhance predator control actions, including predation impacts related to climate effects (e.g., non-native fish range expansion due to dams and climate change);



Cormorants nesting on East Sand Island feed on fish returning to ocean.

**Figure 7. Map of Regional Predation Abatement Measures\***



» Modify or remove anthropogenic structures that have increased predators or that make salmon and steelhead more vulnerable to predation at all life stages.

Described below are some of the efforts that YNF is implementing to identify and mitigate impacts on anadromous fish. Figure 7 illustrates sites where predation management is occurring.

**Yakima River Delta Fish Predator Research and Smolt Survival Study**

The Bateman Island causeway blocks Yakima River flow and creates warm backwaters that increase water temperatures, negatively impact water quality, and create a nursery area for

introduced fish predators, resulting in high numbers of bass and catfish. The warm river temperatures also delay or prevent salmon from entering the Yakima River. The USACE has reached out to Yakima Basin Integrated Plan partners for collaborators to identify improvement options and find solutions. Mid-Columbia Fisheries Enhancement Group is an instrumental partner in this effort.

**Juvenile / Smolt Survival Study**

YNF conducted this study from 2018 – 2021 in collaboration with the USGS to identify sources of smolt mortality in the lower Yakima River. They found high steelhead and subyearling Chinook outmigrant mortality associated with low river

flows and high temperatures. High temperatures were associated with an influx of non-native fish predators, and low flows with increased avian predation. There were also high smolt mortalities from entrainment in diversion canals and fish bypass return outfalls where predators congregate. Next steps are to assess diversion structure change options to reduce or eliminate salmon mortality, identify options to optimize river survival flows, as well as to reduce predation in hotspot locations.

**Lower Yakima River Fish and Avian Predator Surveys**

YNF conducts avian and fish predation studies throughout the Lower Yakima River Basin. We have iden-



tified great blue heron predation hotspots, especially during low water, around Wapato and Selah rookeries, and below Roza, Parker and Sunnyside dams, where congregations of PIT tags from predated smolts can be found. We also investigate diversions and fish screening facilities. We have conducted fish surveys and predator management in the Lower Yakima River, Yakima Delta, and Wapato reach, and have identified the area that serves as a nursery for smallmouth bass and harbors a large number of other predatory fishes, such as northern pikeminnow.

**Lake Cle Elum Lake Trout (Mackinaw) Removal**

As part of YNF’s sockeye reintroduction project, gillnetting is conducted in Lake Cle Elum in the fall (and sometimes spring) to reduce the mackinaw population. Mackinaw were introduced into several of the Upper Yakima headwater lakes from the Midwest in the 1920s, but Cle Elum was the only one where they became established. They are voracious predators and consume sockeye fry and smolts, in conflict with our reintroduction effort.

**Miller Rocks Gull Colony Predator Research and Smolt Survival Study**

A small cluster of rocks above the ordinary high pool level upstream of The Dalles Dam creates ideal nesting conditions for well over 4,000



Caspian tern colony at the Columbia River Estuary, East Sand Island.

breeding gulls (California gulls [*Larus californicus*], and Ring-billed gulls [*Larus delawarensis*]). Predation rates directly attributed to Miller Rock Island gulls vary across ESA-listed fish populations. There are also impacts to mitigation production stock, reducing that benefit to the Columbia Basin and beyond. Predation rates on ESA-listed steelhead is particularly alarming at this location. Predation estimates on Upper Columbia River steelhead smolts directly attributed to these gulls have ranged from 13 to 29 percent over an 11-year period. In 2020-21, YNF coordinated discussions with the BLM (the landowner) and the USFWS to advance gull removal efforts in 2022.

**Klickitat Delta Juvenile Survival Study**

A two-year telemetry study was conducted to estimate survival through the Klickitat River delta. Survival was highest in free-flowing reaches of the Klickitat River and lowest near the Klickitat River delta. Cumulative survival of steelhead and coho was found to be low compared to estimates from other rivers in the PNW. Delta habitat modifications to limit predation opportunities are being assessed by USACE, YNF, and CRITFC. Implementation actions will require construction and long-term maintenance funding.



Pelicans devouring juvenile salmonids at Wanawish Dam, Yakima River.



Caspian Tern with juvenile salmonid.

Continued study is required to assess the long-term impacts on natural production and productivity.



## 2.8 Research, Monitoring and Evaluation

One of the goals of the YNF is to restore sustainable and harvestable populations of salmon, steelhead and other at-risk species that were historically present in our traditional use areas. To monitor progress toward this goal, various research, monitoring and evaluation projects are assessing whether innovative artificial production techniques, coupled with strategic habitat actions, are increasing harvest and natural production of spring Chinook, summer- and fall-run Chinook, coho and steelhead. The most intensive and long-running of these efforts is the Levi George (Cle Elum) Upper Yakima spring Chinook program in the upper Yakima River. That project has been monitoring for any changes in long-term genetic fitness of the populations being supplemented as well as whether the project has resulted in any adverse genetic and ecological interactions with non-target species or stocks that are beyond prescribed limits. Research related to the project has resulted in over 60 publications in the peer-reviewed literature. Continued study is required to assess the long-term impacts on natural production and productivity.

In our Northern Treaty Territories, the Yakama Nation Upper Columbia Habitat Restoration Project has successfully implemented approximately 30 major salmon habitat restoration projects throughout the recovery area since 2008, pursuant to the Fish Accords. We are now working to evaluate the effectiveness of these habitat restoration efforts designed to address primary ecological concerns

within high priority reaches identified by the Upper Columbia Regional Technical Team (UCRTT 2017). The goal of the project effectiveness monitoring is to validate whether these actions are directly increasing salmonid productivity and abundance. To date, most existing habitat monitoring programs (such as BPA's AEM program) have been conducted at a wide geographic scale and have

not provided the level of resolution needed to effectively inform project sponsors and direct future habitat restoration projects.

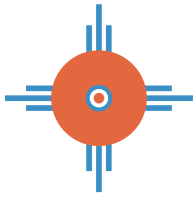
These efforts and others will be used to collect data and report progress against regional goals and objectives to hold the relevant entities accountable for their mitigation and restoration responsibilities.



Screwtrap monitoring outmigration of juvenile salmonids.



Electrofishing technology is helpful in monitoring fish habitat use.



## 2.9 Climate Change

Climate change is real and, unfortunately, the effects appear to be in motion. We are witnessing changes in the seasons. Our roots and berries must be gathered sooner, and salmon returns are less predictable. Our people notice less snow in the mountains now, and there is less cool water during the summer when it was once abundant. The changes we see may not bode well for our future. In years to come, we may lose natural resources that are important to our culture and our heritage. Some of these losses may be irreversible.

Our approach takes a long-term view and follows a three-phase process. Together, the three phases aim to cultivate a comprehensive vision, directing sustained coordination within the Yakama Nation to develop and implement actions that address climate change over the next seven generations. Our future is embedded within the lands and waters of our territories. Our overarching aquatic resource objectives include:

- » Restoring normative flows to the maximum extent possible
- » Restoring / replenishing natural aquifers in upper watersheds as a source of cooler water in the hotter, drier months
- » Establishing / expanding cool water refugia



Mt Adams, supplying the majority of water to YN territories, is essential to tribal life.

Developing creative approaches to address these objectives will build resilience in the watersheds. Given the increasingly altered hydrograph, using modern storage techniques could save and provide water for fish. These and other critical approaches require a call to action, to use our voices to support legislation and regulations that drive industry and energy producers to make measurable changes to reduce carbon emissions. Tribal enterprises must also evolve to reduce our impacts, including how we use water, emit gases and manage irrigation and farming.



Huckleberries are an important native food source for the Yakama people.



California Bighorn Sheep in the Yakima River Canyon.

These resources are the foundation of the YN's culture, heritage, and religion, and the Yakama people's spiritual relationship to their land and ancestors.



## 2.10 Cultural Resource Protection

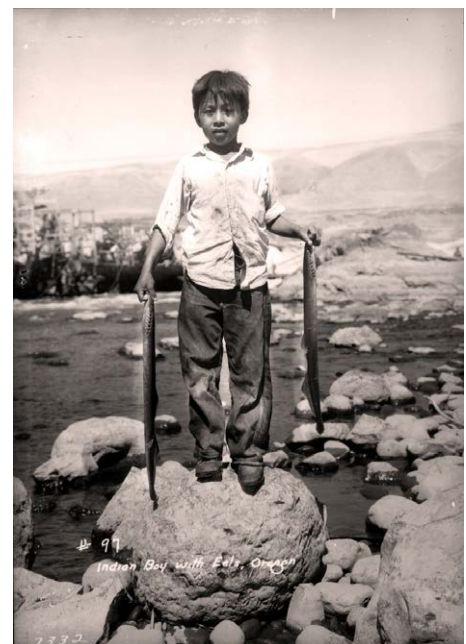
The Yakama Nation's cultural resources are present throughout our territory, including regions beyond the exterior boundaries of our Reservation. These resources are the foundation of the YN's culture, heritage, and religion, and the Yakama people's spiritual relationship to their land and ancestors. Resources include traditional use sites—fishing sites, the berry gathering areas, village sites, seasonal homesites, features associated with legendary stories, and legendary sites—those connected to oral histories. YN cultural resources staff work with YNF personnel in each territory to ensure these sensitive resources are considered during the planning and implementation of fisheries and habitat projects. Projects range from hatchery programs, acquiring land for conservation easements, or habitat improvement actions such as stream channel reconstruction, large woody debris placement, or upgrades to existing irrigation systems.

All native anadromous and resident fish have long-standing cultural significance to the Yakama people, with subsistence, ceremonial, spiritual, and economic value. Our traditional way of life depends on sustaining all native plant and animal species for gathering, harvesting and ceremonies. The pursuit of these activities must take into account the protection of traditional cultural resources and archaeological evidence, which is the responsibility of the YN Cultural Resources Program. These experts collaborate with YNF to determine the likely presence or absence of sensitive cultural materials or sites, evaluate probable effects of proposed projects on these resources, and conduct protection, salvage or documentation of the resources to be affected. Collaboration with YNF includes cultural resource regulatory compliance.



Above: Three Yakama women in regalia; November 30, 1910.  
Photographer Lucullus Virgil McWhorter

Right: former Yakama Nation Tribal Council Member Roger R. Jim, Sr. as a 9 year old child, holding two lamprey (eels) at Celilo Falls.





## 2.11 Conservation Enforcement

The YN Conservation Enforcement officers patrol over 12 million acres of ceded land in addition to 1.3 million acres of the YN Reservation, and Zone 6 (the approximately 150-mile stretch of Columbia Rivers between McNary Dam and Bonneville Dam). The assigned duties encompass, but are not limited to, general public safety, fisheries enforcement, wildlife enforcement, search and rescue, education, and community-oriented policing. The mission of the YN Conservation Enforcement officers is to protect cultural and natural resources of the YN, as well as provide general public safety throughout its jurisdiction.

Conservation Enforcement officers provide protection against illegal take of salmon, lamprey and wildlife on the Columbia River, ceded territories of the YN and the Yakama Reservation, conserving and increasing protection of fish and wildlife under YN treaty rights jurisdiction. This includes reducing illegal takes, enforcing habitat rules and regulations consistent with regional enhancement efforts such as the YNF Resource Management Program; the CBFWA Multi-year Implementation Plan; the Anadromous Fish Restoration Plan of the Yakama Tribes, Nez Perce, Warm Springs, and Umatilla; and NMFS and USFWS ESA Recovery Plans.

Officers ensure that applicable Fish and Wildlife codes, hunting laws, and any federal laws are obeyed and enforced during activities that include YN fishing, hunting, and boating. They have the authority to intervene when a fisheries or wildlife crime is in prog-

ress or habitat is being destroyed. YN conservation performance indicators consist of activity counts, “outputs” such as the number of inspections conducted, enforcement cases initiated, and penalties assessed.

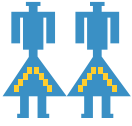


The YN conservation enforcement officers have three strategic goals:

- 1) Protect fish, wildlife and habitat from unlawful exploitation, industrial hazards, and habitat loss
- 2) Control illegal trade of fish and wildlife
- 3) Enhance management accountability



Yakama Nation conservation efforts affect all wildlife, plants and fish.

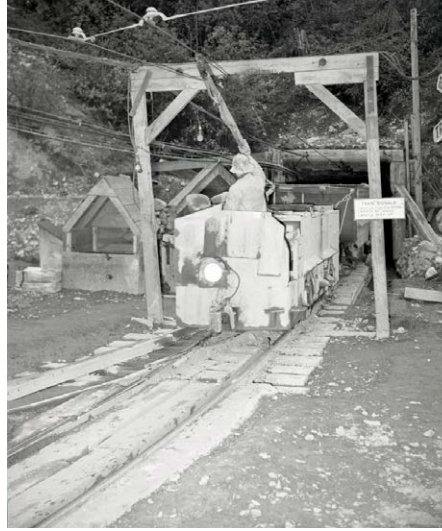


## 2.12 Superfund Sites

The Yakama Nation has inventoried, evaluated, and ranked contaminated sites along the Columbia River (Figure. 8) identifying:

- » 766 hazardous waste sites within a half mile of the Columbia River banks
- » 3 of the largest Superfund sites (Lake Roosevelt, Hanford, Portland Harbor) in the Northern Hemisphere adversely impact the Columbia River
- » 80 percent of the Columbia River mainstem is under fish consumption advisories

Contaminated sites along the Columbia River were ranked using our screening criteria and methods which included prioritization criteria considering proximity of a contaminated site to critical salmon habitat, wildlife refuges, and Lower Columbia River Estuary Partnership restoration projects. Through these efforts, priority sites were identified across the Lower, Middle and Upper Columbia River geographic area from the mouth of the river to Chief Joseph Dam. All priority sites are within a half mile of the river's banks and have indications of impacting Columbia River resources. Contaminants from these sites are being released to the Columbia River system through deposition, runoff, groundwater mixing, direct and



Holden mine.  
Photos courtesy of Washington State Archives

indirect discharge, or a combination of them all. Once contaminants enter the aquatic environment, salmonids can experience sub-lethal or lethal effects through direct contact or uptake through the food web which can result in bioaccumulation and bioconcentration in tissues.

The Lower Columbia River Salmon Recovery Plan has identified contaminants as a limiting factor for several stock types. Toxics and related impacts are now widely accepted as a major issue to be addressed to reach salmonid recovery and restoration goals in the Columbia Basin. Recognition of issues associated with toxics has been included in recent revisions to the *Wy-Kan-Ush-Mi Wa-Kish-Wit* and the Northwest Power Conservation Council Fish and Wildlife Program. Although, there is movement towards addressing the impacts to fish from contaminants, funding for this important issue is extremely limited and contaminated sites continue to affect tribal treaty fishing rights.

Contaminants in the Columbia River Basin are known to adversely affect salmonid fecundity, predator avoidance, immune system, and lipid content. Three to 10 percent of juvenile mortality in the estuary has been attributed to immunosuppression from contamination based on stock



Holden Mine site before (above) and after (below) remediation efforts.



type. Poly Aromatic Hydrocarbons (PAHs) have been shown to reduce salmonid lipid content and it has been documented that fish with less than one percent lipid content in the estuary will perish. Olfaction disruption occurs at copper concentrations of 1–2 micrograms/liter; a USGS survey of 811 stream sites detected a median copper concentration of 1.2 micrograms/liter. The impairment of olfaction is probably widespread in salmonids. These are just a few examples of toxic effects to salmonids in the Columbia River.



Hanford Nuclear Reservation (and Superfund site) is the most polluted area in the United States.

Upper photo credit: "1963... N reactor- Hanford", James Vaughan, Flickr

Priority sites were identified to support federal and state agencies conducting comprehensive site investigations that will lead to cleanup decisions that are protective of the fishery resource and tribal health. Focusing our work on a subset of priority sites allows us to work directly with potential responsible parties, state, and federal entities under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund.

**Our goal is simple:  
clean, healthy fish  
that are safe to eat.**

Our engagement at contaminated sites includes working with federal and state agencies to:

- » Initiate the planning and investigation of contaminated sites,
- » Review cleanup decisions to promote adequate protection of aquatic resources, and
- » Discuss the establishment of site-specific monitoring requirements to support a regionally based toxics monitoring network for the Columbia River.

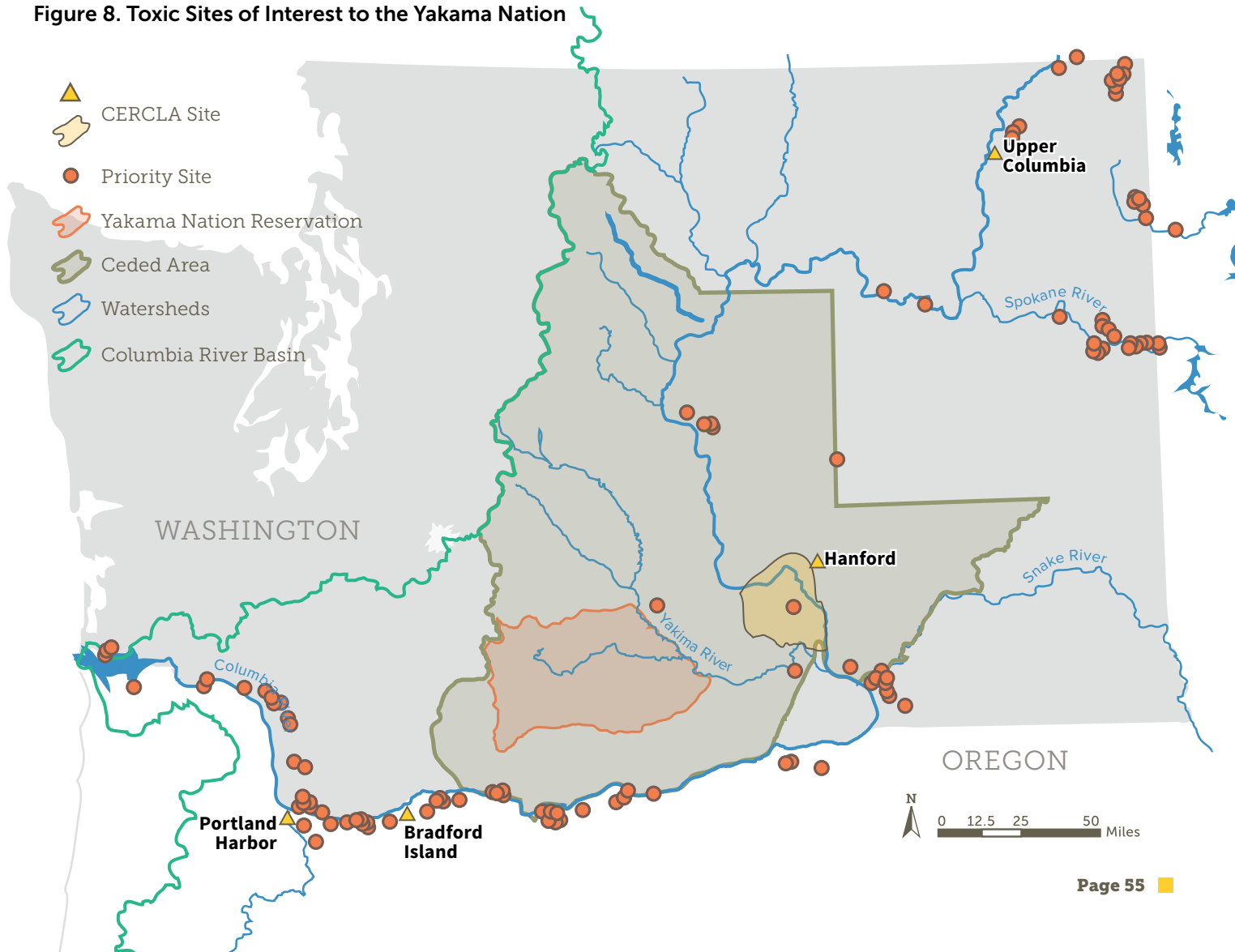
Our work is an independent analysis of the release of contaminants from hazardous waste sites to the mainstem Columbia River. For many of these sites, toxic chemicals are



Contamination from Portland Harbor continues to affect fish as they migrate to and from the ocean.

present in the sediment and surface water at dangerous levels that exceed acceptable ecological and human health risks. The YN works hard to encourage cleanup decisions that are focused on the protection and restoration of aquatic resources for the direct benefit of salmonids listed under the Endangered Species Act and their habitat. Our goal is simple: clean, healthy fish that are safe to eat.

**Figure 8. Toxic Sites of Interest to the Yakama Nation**



High level summary reports reflect the status of the YN's habitat restoration, production, and water management actions, as well as the status and trends of target species.

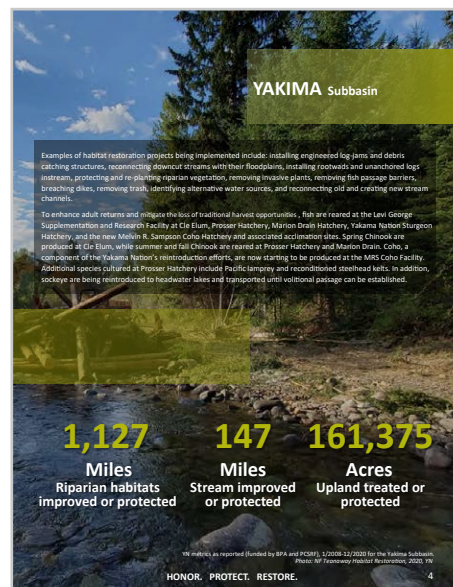
## 2.13 Information Management and Sharing

As described in Section 2.8, monitoring and evaluating hatchery and natural-origin fish and their habitats is essential to assessing progress towards our goals. Adequate monitoring and evaluation results in large volumes of data such as adult and juvenile abundance, adult and juvenile biometrics, redd counts, spatial distribution, productivity metrics, genetic and other diversity characteristics, water quality and quantity metrics, and habitat quality metrics. By developing information management tools and tracking the status and trends of indicator species, we have the ability to evaluate whether the right actions are being taken and having the desired effect. Ensuring the trends continue in the right direction will help us reach the restoration and recovery goals for our salmon and our people.

Information management with a focus on reporting status and trends of our fisheries resources and their habitats, and how they are being managed and restored, provides a means to evaluate progress toward the stated objectives of this Strategic Plan. Another benefit of improvements to data management is to address the increasing need to efficiently fulfill data sharing and reporting requirements, and to reduce the burden on staff responding to individual requests. Improvements to data entry, consolidation, remote review and internal sharing, interactive query and automated reporting can also potentially improve data quality and help align metrics between projects. When timely and flexible access to data is improved, it supports adaptive management and ease of sharing real-time data with the public as needed. Such improvements are being implemented by YNF incrementally, as time and resources allow. The goal is to eventually improve data management and flow for all priority projects for which there is a need, to centralize and align relat-

ed projects where possible, as well as to incorporate priority legacy data, enabling the most effective and efficient use for evaluation and natural resource management.

We have built status and trends reports from YNF project databases and used project reports to create summaries of fish population and habitat information at high level to detailed scales. We have built tools that generate custom reports and presentations to communicate key summary information to the YN Tribal Council, managers, and the general public, while at the same time providing a flexible resource for practitioners to answer management questions. High level summary reports reflect the status of the YN's habitat restoration, production, and water management actions, as well as the status and trends of target species. One of our goals is to further develop and integrate our information management systems with our status and trend reporting system and YNF web site (<http://yakamafish-nsn.gov/>).

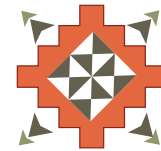


Presentations, reports and educational resources such as these are available on the YNF website: [yakamafish-nsn.gov](http://yakamafish-nsn.gov)





Prosser Hatchery Manager, Michael Fiander, processing broodstock.



## 2.14 Education and Outreach

The culture and traditions of the Yakama Nation are deeply embedded within the management of the YNF program. As such, employment by the program carries the responsibility to help preserve and promote tribal and community values.

YNF values and promotes diversity, teamwork and efficient decision-making for a shared vision. Our goal is to develop a highly trained, diverse, professional, and effective work force, taking advantage of new and current learning models with a commitment to educational excellence. We promote tribal member employment as well as career advancement,

**Our goal is to develop a highly trained, diverse, professional, and effective work force.**

continuing education, and training for all employees. All employees have the opportunity to voice concerns and recommendations to advance fisheries management on behalf of the YN and all other resource users. By working toward these goals, we will maintain program excellence into the future.

Tribal data sovereignty, and the need to develop cohesive data governance and sharing policies, is an effort that has gained increased urgency in recent years. There is increasing pressure to share data with regional regulatory, reporting, and funding entities, as well as with the public. These pressures can be especially prevalent within natural resource programs funded via mitigation measures, such as in the Columbia River Basin, where the Bonneville Power Administration leverages regional ratepayer dollars to partially mitigate for the impacts of the FCRPS on anadromous fish. In these situations, there is often an expectation that the data collected under mitigation dollars are open access and available to the public. While the “open data” movement tends to focus on facilitating the ease of data sharing among

collaborators and co-managers, the pressure for tribes to share data often ignores historical power differentials and context. Historically, many tribal cultures, resources, and peoples have been subjected to or exploited by western science, where data was extracted by non-tribal researchers without consultation and used without authorization or collaboration.

Asserting indigenous data sovereignty principles is critical to tribal self-determination, cultural values, and equitable outcomes. YNF needs to assert control in how their fisheries data is collected, managed, protected, shared and interpreted. Currently we are developing data governance policies and procedures to address concerns regarding proper data attribution, documentation and potential misuse. Establishing data governance is critical for the YN Fisheries program to clearly communicate our rights, protect our interests, and effectively engage in decision making processes, while maintaining positive relationships with comanagers.



Hatchery tours educate tribal members and the public.

YNF recognizes our most important resource is our employees.



## 2.15 Administrative Support

Administrative support is an operational support priority that is integrated into tribal operations in every territory. Support is provided to enable YNF supervisory staff and employees to work more efficiently and within tribal policies and directives. Services provided fall into four areas described here.

### 2.15.1 Human Resources

YNF recognizes our most important resource is our employees. For this reason, our goal is to develop a team that uses the best available science and traditional ecological knowledge to support our mission. We believe in a respectful and productive work environment where all employees are valued and heard. In addition, we strive to provide an efficient structure and organization within the YN Department of Natural Resources that allows a direct chain of command and connection to our Tribal Leadership.



YN Fisheries employees pose outside the Toppenish Headquarters in 1983; formerly a gas station. From its humble beginnings, the program now boasts a staff of over 200 and has significant restoration successes under its belt.

YNF is dedicated to understanding and following all YN human resource policies and regulations. These policies, rules, and regulations are included in the Yakama Nation Personnel Policy. The following regulations are extremely important and relevant to the short- and long-term strategies of the YNF:

- » All Yakama Nation programs are to provide hiring preference for Yakama Nation enrolled members. Although the Yakama Nation honors and values our non-tribal employees and neighbors, we hire qualified tribal members whenever possible.
- » The YNF strives to maintain competitive and reasonable compensation while following the rules and regulations of the YN policies and wage schedules.
- » Training and Education: YNF works closely with the Yakama Nation Higher Education Program to provide eligible Yakama tribal members the opportunity to attend an accredited post-secondary institution and earn college degrees which will enhance their careers. This will enhance the Yakama Nation workforce and provide much needed tribal succession within our programs.
- » All disputes and personnel conflicts are dealt with pursuant to YN Personnel Policy guidelines.

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### 2.15.2 Accounts Payable and Receivable

YNF projects are expansive, incredibly diverse, and as described above, cover a wide geographic range. For these reasons, our needs for goods and services are equally broad. Our projects require everything from utilities and rental payments, vendors for supplies and equipment, professional services, to vehicle and operation and maintenance costs and suppliers. To maintain our ability to successfully channel funds to these much needed suppliers and contractors, we have a dedicated team of accounts payable administrative personnel.

The YNF accounts payable staff record all outstanding debts and invoices as well as provide financial, administrative, and clerical support to our fisheries programs. This work includes receiving invoices, accurate record keeping of expenses and outstanding amounts owed, completing payments, and controlling expenses by processing, verifying and reconciling invoices.

Likewise, our accounts receivable staff maintain accurate records to ensure that the YN is appropriately compensated by our funding partners and agencies. These two accounting teams manage the flow of funding to ensure that our projects can meet their goals and accomplishments.

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### 2.15.3 Grants and Contracts

Grants and contracts are proposed and negotiated through various funding sources for project operations. It is our goal to comply with all required rules and regulations to ensure deliverables are met and fiscal accountability is maintained so the YN is successful with the projects awarded.

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### 2.15.4 Property and Acquisitions

Property and acquisitions are maintained in accordance with funding guidelines for all assets: land, building/facilities, equipment, and intellectual property including software. This also includes construction, manufacturing, lease-purchases, exchange and capital leases. Acquisition guidelines are followed under generally accepted accounting principles and other federal, state, tribal rules, laws and regulations. This level of record-keeping and maintenance of assets is essential for accountability and auditing purposes.

**119**

Tribal employees (54%)

Restoration work implemented in over **12 million** acres of territory

**~2,000**

work locations from 2008 to 2020

**1,483 miles**

stream & riparian habitat improved, treated, or protected\*

**12,264 acres**

wetland habitat improved or protected\*

**3,140**

pools & large wood habitat structures created instream\*

**447 miles**

habitat made accessible to fish\*

\*Restoration Accomplishments from 2008 through 2020 with BPA and/or PCSRF funding.

**“If we’re going to catch fish, then we should help produce fish.”**

—Levi George, Hatchery Lead



## **2.16 Organization of Implementation, Priority Issues (Goals), Strategic Objectives and Action Plans**

As noted in Section 1.2, the purpose of this strategic plan is to organize YNF strategies to integrate the management and operation of activities in all territories. This plan provides the basis for a future structured process to develop a set of overall management tools, built upon tribal strategies, plans and visions, to more effectively conduct and evaluate overall YNF operations and programs.

YNF has on-going operations, projects and programs in six functional management areas (hatcheries, habitat, harvest, water management/ fish passage, predation control, and research/ monitoring/ evaluation) being planned and implemented across four large geographic territories (Section 1.2). Some of these programs and projects are interrelated; some are unique to a specific territory. Spanning each of these functional areas are eight centralized operational support areas that overlay or support all operations. These areas are climate change, cultural resource protection, Superfund, information management and sharing, human resources, administrative support, conservation enforcement, and education/training/ outreach. Generally, implementation is organized by each of the geographic areas.

In this section, we define priority issues which could be applicable to all territories and objectives unique to each. For each priority issue, a set of strategic objectives will be identified that are critical to addressing the issue. To meet each strategic objective, one or more actions will be identified, including key personnel, schedule, and budget.

### **2.16.1 Priority Issues**

Priority issues can relate to the conditions, outcomes or changes needed to support the tribe’s strategy, and the skills and resources needed to manage and sustain aquatic resources. A priority issue can be a general statement of what YNF wants to achieve, or more specifically, a milestone(s) in the process of implementing an overall management strategy. Examples of common priority issues are budgets and costs, program planning, organizational structure, core management processes, training and development, information systems (reporting, data and information management), capital planning and expansion and reporting requirements. A priority issue could also be referred to as a goal.

As previously mentioned, for the purposes of organizing the work YNF does, priority issues will be organized under the on-going operations, projects and programs in six functional management areas for each of the four large geographic territories. Some of these programs and projects are interrelated, and some are unique to a specific territory. There are also priority issues for the eight



Priority issues have the following general criteria:

- » **Understandable:** Is it stated simply and easy to understand?
- » **Suitable:** Does it guide implementation of work in a way that achieves the YNF vision?
- » **Acceptable:** Does it fit with the values of the YNF and its members/employees?
- » **Flexible:** Can it be adapted and changed as needed?

operational support areas that overlay or assist all operations, programs and projects. Under each priority issue are objectives (Section 2.16.2) expressed in specific metrics, and time-sensitive action plans (Section 2.16.3) defining the key steps needed to achieve the objective.

### 2.16.2 Strategic Objectives

Strategic objectives make it possible to measure how the tribe is performing on a priority issue—those issues where specific results must be achieved to execute a long-term strategy. For example, in the harvest category, YNF management must decide how it will measure success. If the priority issue is to provide access and opportunity to all historic fishing sites, there may need to be several corresponding objectives for tracking accountability to ensure progress on this issue. An objective turns a priority’s general statement of what is to be accomplished into a specific, quantifiable, time-sensitive statement of what is going to be achieved and when.

Objectives should generally meet the following criteria:

- » **Measurable:** What specifically will be achieved and when should it be achieved?
- » **Suitable:** Does it actually measure progress on the priority issue?
- » **Feasible:** Is it possible to achieve the objective?
- » **Commitment:** Are people committed to achieving the objective?
- » **Ownership:** Are the people responsible for achieving the objective included in the objective-setting process?

### 2.16.3 Action Plans

Priority issues and specific objectives to address that priority need to be translated into high-level action plans. Action plans are statements of specific actions and activities that will achieve or address the priority issue.

A single priority issue might include a number of objectives, each with one or more action plans. For example, a priority issue for hatchery production could be annual production planning. Each hatchery program would identify specific annual production objectives. Each step needed to achieve the production objective would be framed as an action plan. The action plan would identify the personnel, resources, approvals and schedule needed to meet that component of the annual production objective.

**“If the region is going to return these populations to their historical numbers, we need to diversify our restoration efforts.”**

—Patrick Luke



Hen Chinook on the spawning grounds.

