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Oregon

January 8, 2019

MEMORANDUM

TO: Council Members

**FROM: Mark Fritsch,
Nancy Leonard,**

**SUBJECT: Developments in Sharing Yakama Nation Fish and Habitat
Information**

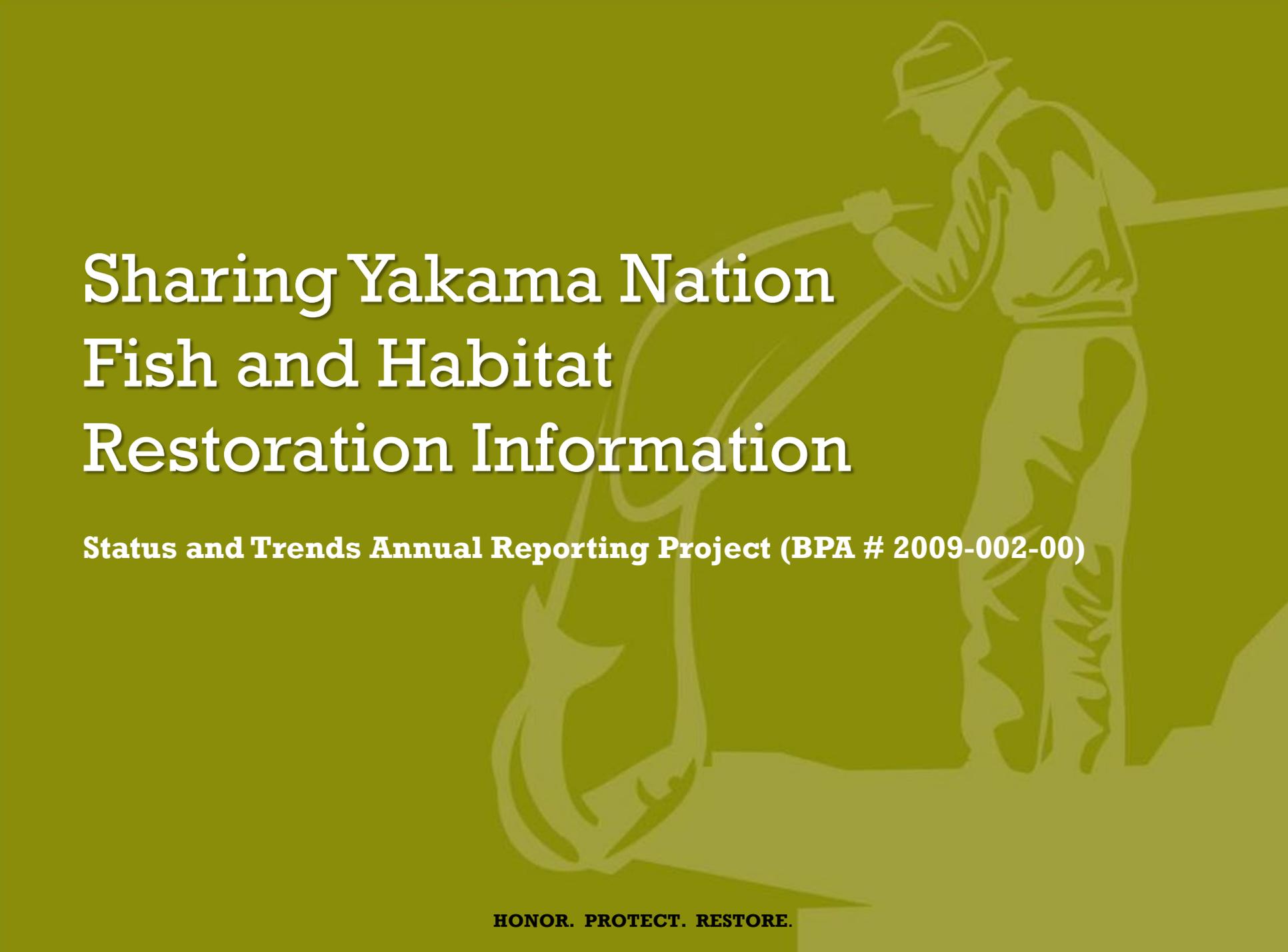
BACKGROUND:

Presenter: Michelle Steg-Geltner and Steve Parker, Confederated Tribes and Bands of the Yakama Nation (YN).

Summary: Michelle and Steve will present what has been accomplished with this project over the past seven years and will demonstrate products to date and where they intend to take this project and its tools into the future years.

Background: On January 12, 2010 the Council supported proposal #2009-002-00, Status and Trend Annual Reporting for implementation. The goal of this Accord project was to support mitigation described in the 2008 FCRPS Biological Opinion and the obligations of the Council's Fish and Wildlife Program by annually reporting progress towards salmon recovery efforts. Products developed include an annual comprehensive report covering implementation of all BPA funded Yakama Nation projects, the status and trend of target species, and other relevant impacts and benefits. Additional developments include online interactive resources, processing and sharing efficiencies, and regional reporting services.

More Info: <http://dashboard.yakamafish-star.net/>



Sharing Yakama Nation Fish and Habitat Restoration Information

Status and Trends Annual Reporting Project (BPA # 2009-002-00)

**That's a lot of
project
information to
summarize!**



13

Million Acres



1,812

Restoration Sites*



9

Species and Runs

Methow

Entiat

Wenatchee

Yakima

Klickitat Rock Cr.

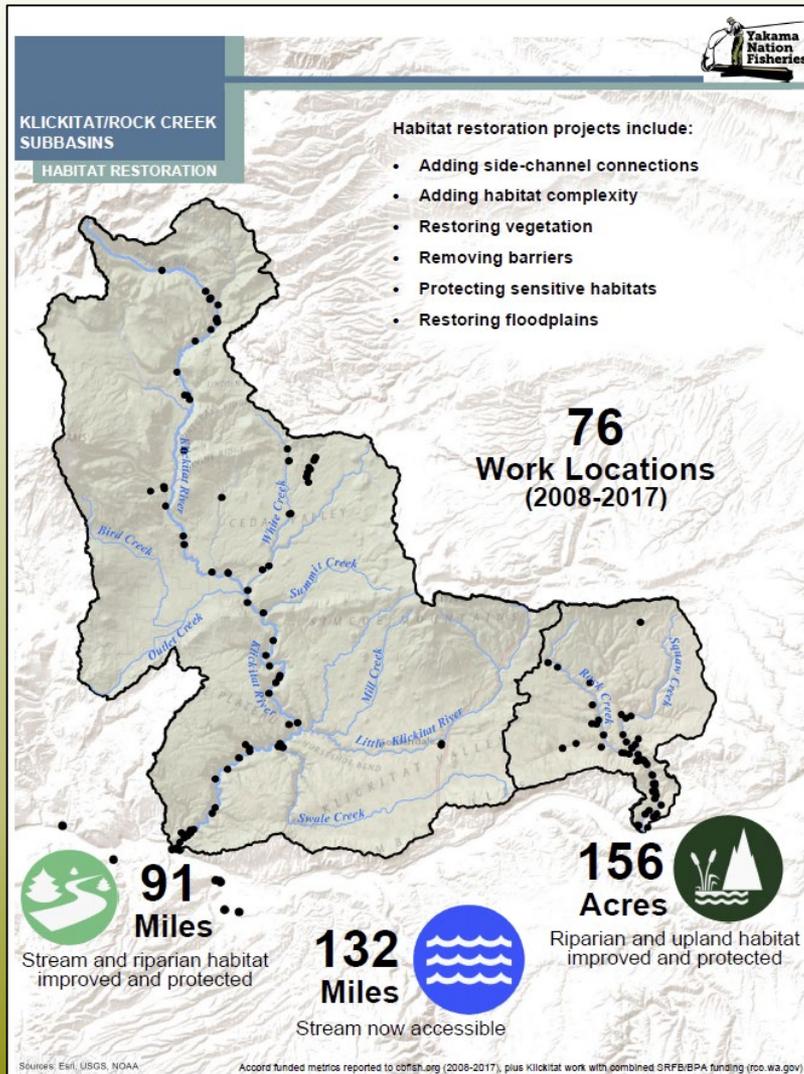
*2008-2018, BPA Accord funded

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Flexibility to Accommodate Many Audiences



Presentation Overview



1. Describe the **role** of the STAR Project
2. YN **process** for developing, sharing information, project structure
3. How is it being **used?** (*Examples*)

Project Role: Answers to Common Questions

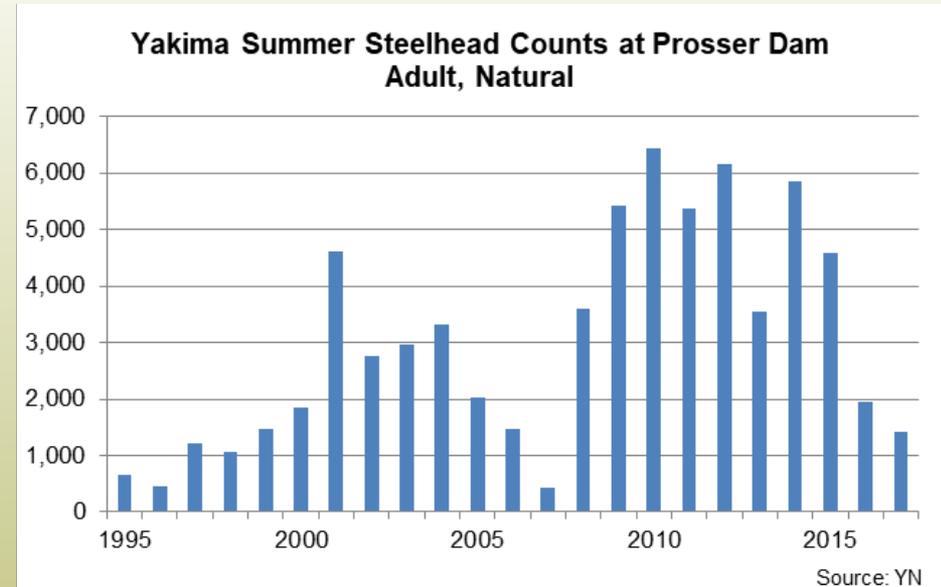


Photo Credit: Tony Grover, Flickr

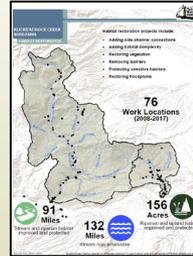
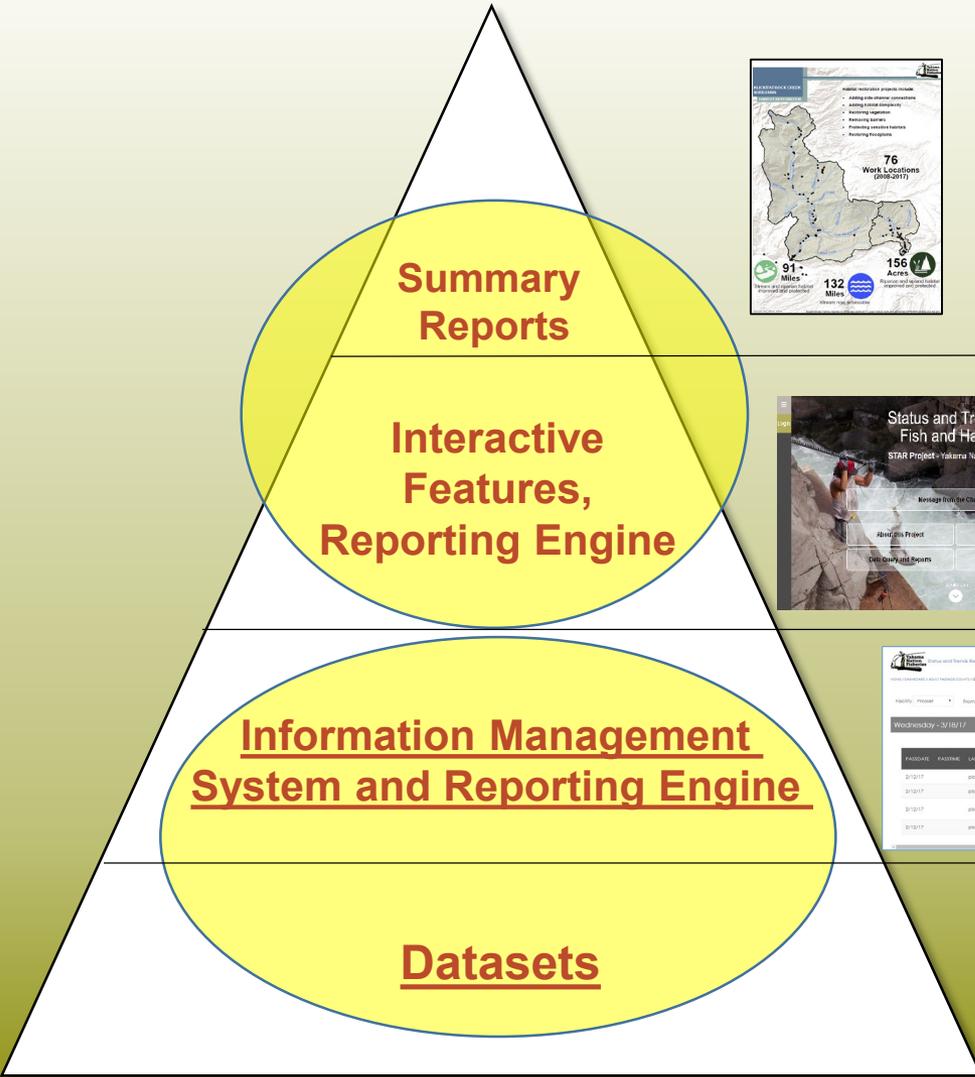
Developing our Methods

Guiding Questions:

- Who is the **audience**?
- What is the **message**?
- Is appropriate **data available**?
- Is it **intuitive**?



Our Products, Systems and Tools



Target Audience:
- Non-technical



Target Audience:
- Non-technical and technical

FAIDATE	FAIRNA	LADCODE	SPROCODE	PRID	JURTAG	AGE	SEX	FORGENA	POREGENA	MELCODE
2/12/17	050	W000			F	72	02			
2/12/17	050	W000			F	72	02			
2/12/17	050	W000			F	66	02			
2/12/17	050	W000	001-1000000001		F	64	02			



Target Audience:
- Technical

How is STAR being used?

1) Resource for Tribal Council decisions

- Evaluation of past agreements, support for future agreements
- Species status and trend
- Accomplishments, need, benefits

➤ ***High level***



Example: High-Level Summaries



EXECUTIVE SUMMARY

Accomplishments by the Yakama Nation during the 2008-2017 Accord

Between 2008 and 2018, the Yakama Nation implemented Accord-funded projects throughout the Tribe's reservation and Treaty territories to conserve and restore fish populations and their habitat. These efforts have improved the quality and quantity of stream habitats important to the survival and recovery of species that are vital to the Yakama Nation. During this period, the Tribe has seen an increase in the number of fish returning and harvested. Although some improvements have been made, many ecological risks remain that must be addressed before the Tribe's fish population and harvest goals can be achieved.

108,575 acres
habitat protected/improved

1,812 locations
where work was performed

798 miles
riparian habitat protected/
improved

48,693 people
educated and informed

20,000+ coho
record-setting return

66 miles
stream habitat
improved/created

258 miles
stream now available to fish
following removal of barriers

105,655 fish
average annual Tribal harvest
increase compared to 2000-2007

Source: Accord-funded metrics reported to cbfish.org (7/11/2017), plus Klickitat work with combined SRFB/BPA-funding (rco.wa.gov)

Example: Infographics



YAKIMA SUBBASIN

SPECIES RESTORATION

By the 1980's, salmonid stocks were gone or severely depressed. Hatchery supplementation/reintroduction are essential to restoring sustainable and harvestable populations.

5
Species being restored

Average Annual Returns

Prosser Dam counts, all fish species*



8
Hatchery/reintroduction projects restoring species

11
Times more lamprey returned in 2017

811
More Chinook harvested annually since 2000

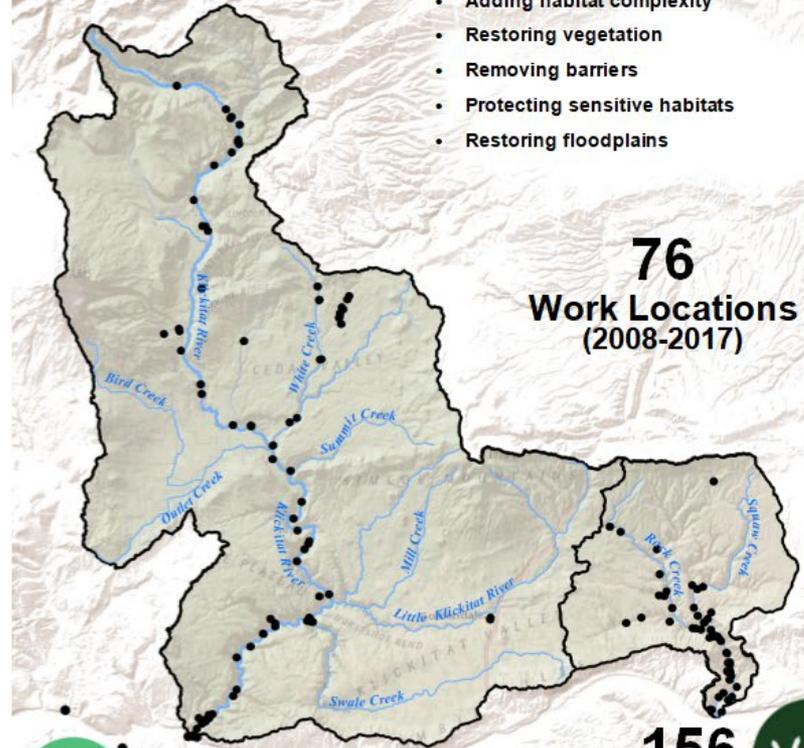
*Correction 7/2018 of graph numbers shown in previously printed report. Trend and ratios shown in the graph were and are correct, however. Source: Columbia River DART (www.cbr.washington.edu/dart)

KLICKITAT/ROCK CREEK SUBBASINS

HABITAT RESTORATION

Habitat restoration projects include:

- Adding side-channel connections
- Adding habitat complexity
- Restoring vegetation
- Removing barriers
- Protecting sensitive habitats
- Restoring floodplains



76
Work Locations
(2008-2017)

91
Miles
Stream and riparian habitat improved and protected

132
Miles
Stream now accessible

156
Acres
Riparian and upland habitat improved and protected

Sources: Esri, USGS, NOAA

Accord funded metrics reported to: cbfish.org (2008-2017), plus Klickitat work with grant funded SRFB/BPA funding (rcowa.gov)

Example: Comprehensive Report

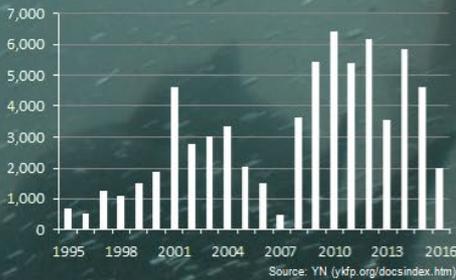


YAKIMA SUBBASIN

SPECIES STATUS

By the 1970s and 1980s, all of the Yakima River salmonid stocks were either extirpated or severely depressed. Summer-run Chinook were extirpated from the Yakima Basin by 1970, while coho were declining until they were gone by the early 1980s. By the 1980s and 1990s, adult spring Chinook and steelhead returns were less than 3,500 and 1,000, respectively. To restore these culturally and economically important species, the Yakama Nation is applying a combination of habitat restoration and hatchery supplementation/reintroduction efforts to restore the ecosystem with sustainable and harvestable populations of salmonids and other at-risk species.*

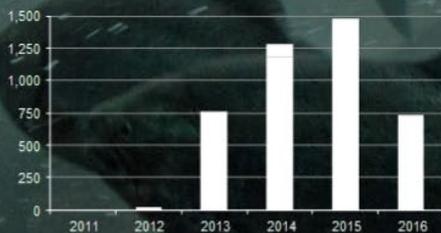
Natural Adult Summer Steelhead Counts at Prosser Dam



Steelhead

- **Returns:** Returns increased by 2,444 fish per year (annual average) 2008-2016 versus 1999-2007
- **Redd counts:** Increased somewhat through the Accord period
- **Wild smolt-to-adult index 2002-2013:** 4.67% (average, McNary-McNary)

Adult Summer Chinook Counts at Prosser Dam



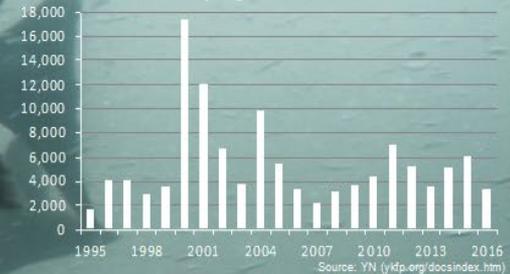
Summer Chinook

- Extirpated from the Yakima Subbasin by 1970
- Reintroduced with Yakama Nation juvenile releases starting in 2009
- **Goal:** Self-sustaining locally-adapted population contributing to the fishery

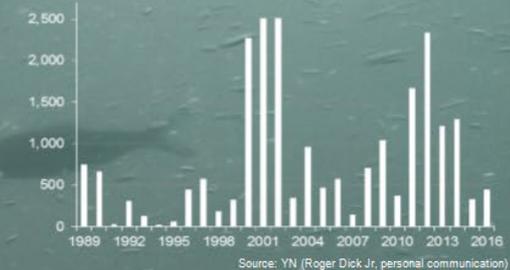
Spring Chinook

- **Returns:** Although not as high during the Accord period as in the early 2000s, annual increases have been observed
- **Redd counts:** Lower during the Accord period than in the early 2000s; however, spatial distribution increased in underutilized habitat; Wild smolt-to-adult Index 2002-2013 is 2.37% (average, McNary-McNary)
- **Harvest:** On average, significantly increased starting in 2000 compared to the 1990s.

Adult Natural Spring Chinook Counts at Prosser Dam



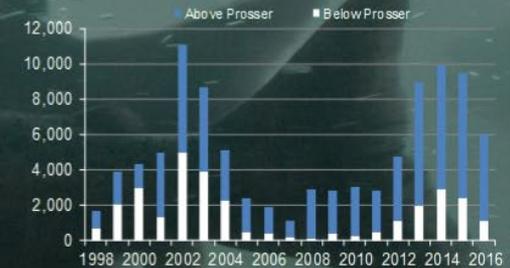
Yakima River Spring Chinook Harvest (Tribal)



Fall Chinook

- **Escapement:** Greater in 2002, 2014, and 2015 than any previously recorded year (above Prosser Dam)
- **Spatial distribution:** Increasing for spawners throughout the Yakima Subbasin
- **Harvest:** Contributing substantially to Zone 6 Treaty fisheries as well as the ocean and lower Columbia River fisheries

Adult Fall Chinook Escapement Estimate



*See page 16 for Yakima Subbasin sockeye and coho information.

(Photo Credit: Tony Grover, Flickr)

Example: Topic-Based Summaries



ECOLOGICAL CONCERNS IN THE YAKIMA SUBBASIN

Ecological Concern	YN Addressing*
Predation**	●
Temperature	●
Decreased water quantity	●
Altered primary productivity**	○
Floodplain condition	●
Riparian vegetation	●
Man-made barriers	●
Large wood recruitment	●
Bed and channel form	○
Instream structural complexity	●
Side channel/wetland conditions	●
Altered flow timing	○
Reduced genetic adaptiveness**	●
Increased sediment quantity	●
Competition	○

Projects addressing: ● Numerous ○ Many ○ Some ○ Not directly
(Rankings relative within this subbasin only)



Taneum Creek Wood Replenishment (YN)

*Major ECs affecting listed salmonids, as identified in CRITFC PATS local expert evaluation (2015). ECs being addressed by Accord-funded projects as of 07/11/2017, as reported in cbfish.org. EC assignments from BPA, HWS reference, refined by STAR. Additional ECs possibly not listed.

**Predation and genetic adaptiveness being addressed by fisheries projects. Primary productivity indirectly addressed through vegetative restoration.

STREAM FUNCTIONS RESTORED*

Since 2008, the Yakama Nation has completed a number of projects that have restored stream functions to sustain salmon and steelhead in the Yakima Subbasin.

Fish Passage

- 4 barriers removed
- 4 barriers improved
- 122 miles of habitat now accessible

Instream Habitat

- 230 structures installed
- 2,550 logs installed (10,000 in progress)
- 40 miles of stream improved
- 1 mile of dike removed/modified
- 8 exclusion structures installed
- 1.75 miles of stream channel created

Wetland Habitat

- 1,330 acres protected
- 4,000 acres improved

Riparian Habitat

- 66 miles protected (33 miles by fence)
- 640 miles improved

Upland Habitat

- 4 miles of road blocked/removed/improved
- 9,000+ acres treated/improved
- 74,500 acres protected

Water Quality

- 4,000 pounds of trash collected

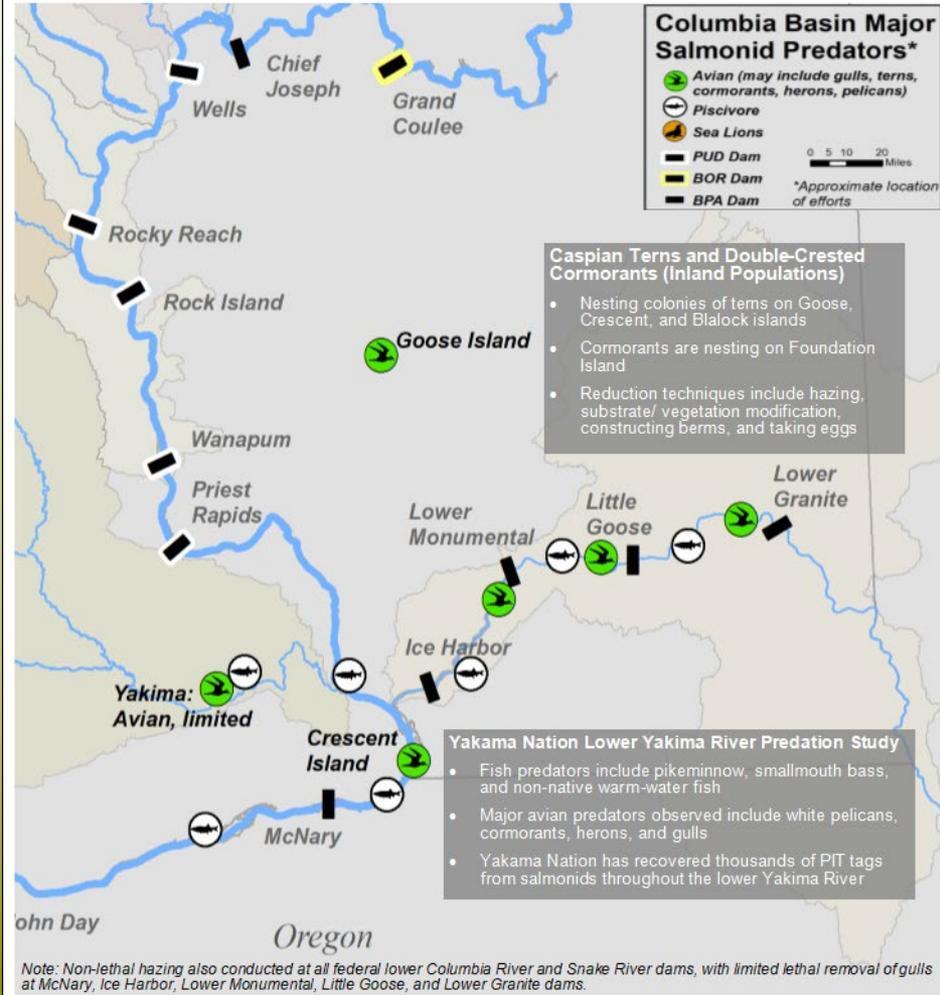
Water Quantity

- 2 alternative sources identified

Outreach

- 22,700 people contacted

*BPA-funded metrics reported to cbfish.org 1/1/2008- 07/11/2017



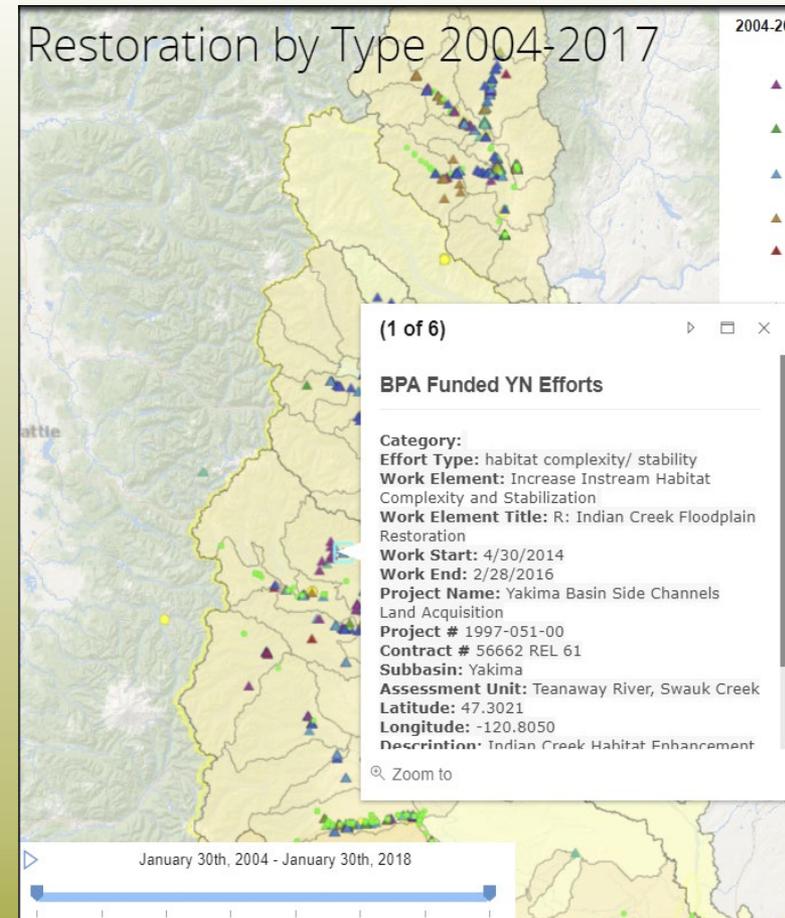
How is STAR being used?

2) Resource for managers

- Engage partners
- Tools to answer specific questions
- Progress, updates
- Easily accessible

Resources found at STAR's
Online Interactive Dashboard:

dashboard.yakamafish-star.net





Login

Status and Trends of Fish and Habitat

STAR Project - Yakama Nation Fisheries

Message from the Chairman

About this Project

Subbasin

Data Query and Reports

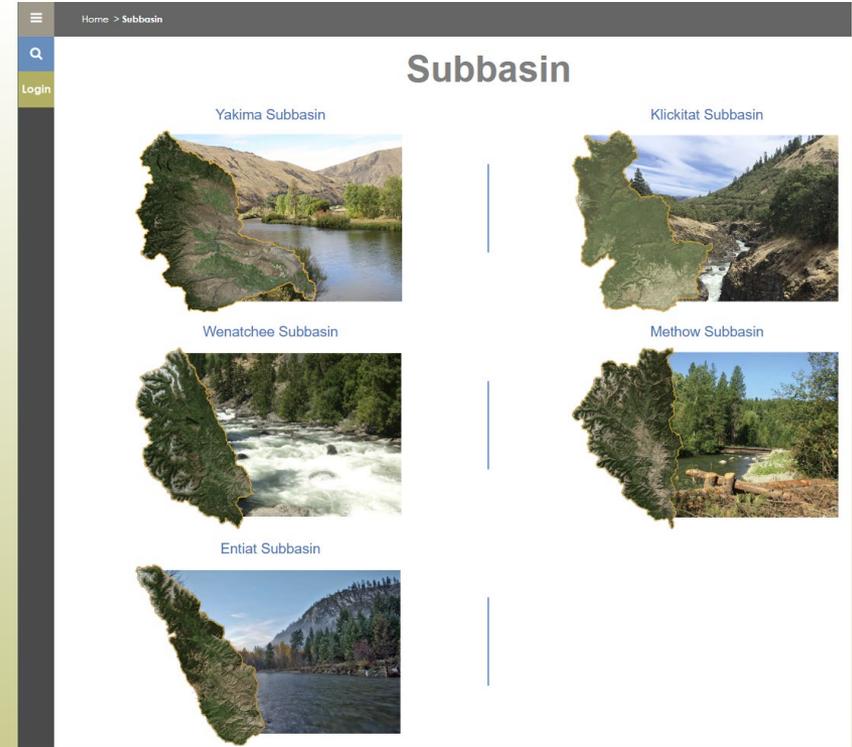
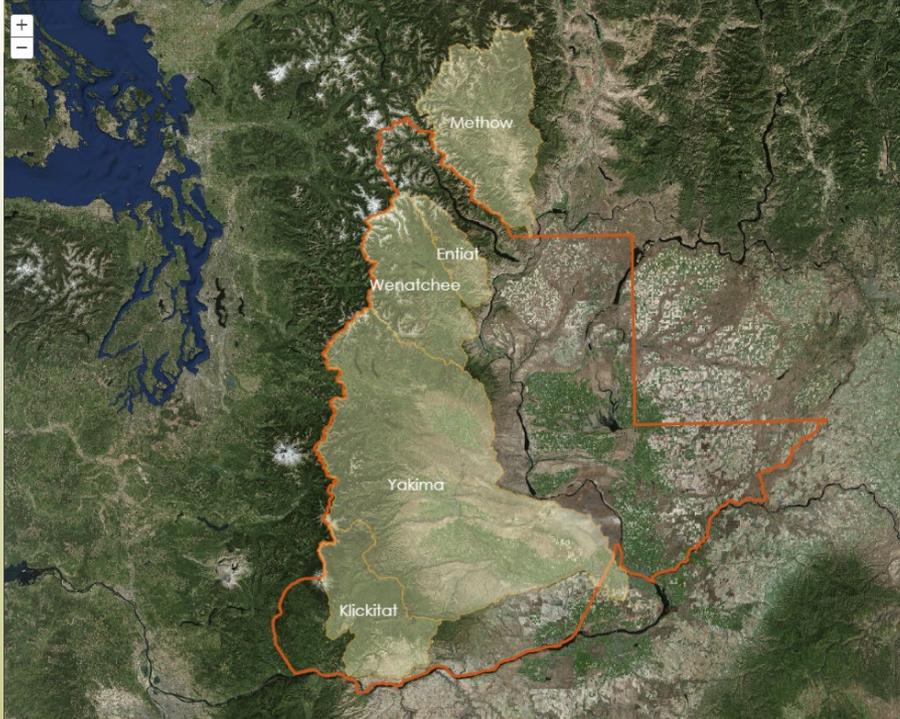
Restoration Stories

Scroll Down



Navigate by Subbasin or Topic

To learn about our efforts to make our fish and lands the way there were click on an area of interest on the map



Status and Trends



Summary or Drill-Down Interactive

Status and Trends - Habitat



Yakima Subbasin

Salmon and steelhead populations are impaired in the Yakima Subbasin due to a number of limiting factors. Primary limiting factors include riparian vegetation, streambed and channel form, and in-channel complexity. Secondary limiting factors affecting fish include altered primary productivity and food competition, altered hydrology, side channel/wetland connection, and water quantity. Since 2008, we have completed a number of projects that have restored stream functions needed to sustain salmon and steelhead in the subbasin.



232
Work
Locations
(2008-2017)



748 miles
Stream and riparian
habitat improved and
protected



122 miles
Stream now
accessible

Habitat Accomplishments

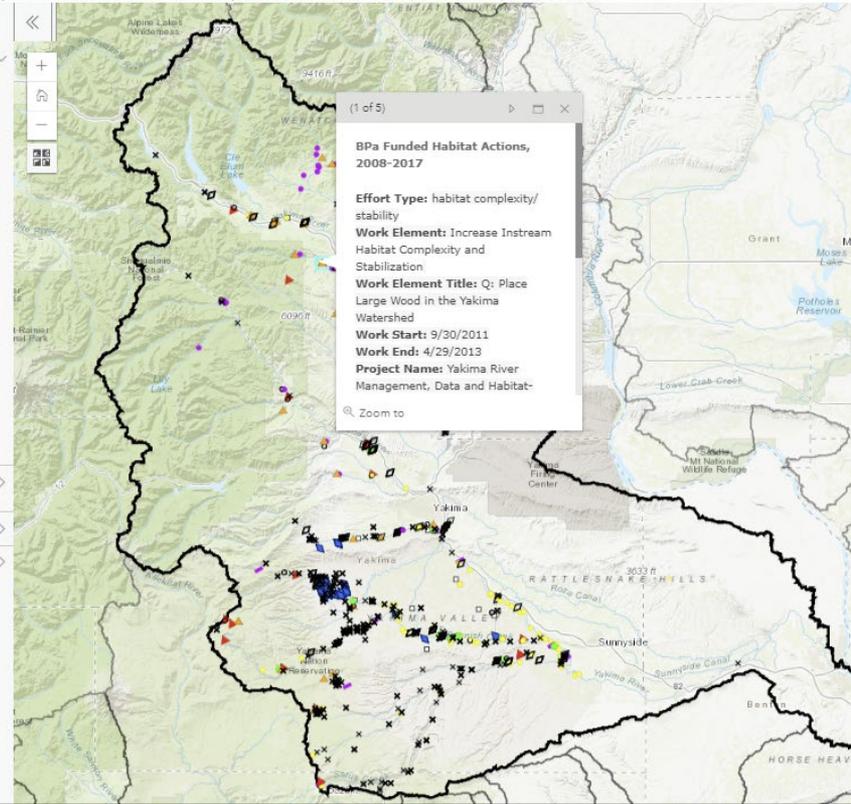
Since 2006, we have completed the following work to restore habitat for salmon and steelhead

Fish Passage	<ul style="list-style-type: none"> 4 barriers removed 4 barriers improved 122 miles of habitat now accessible
Instream Habitat	<ul style="list-style-type: none"> 230 structures installed 2,550 logs installed (10,000 in progress) 40 miles of stream improved 1 mile of dike removed/modified 8 exclusion structures installed 1.75 miles of stream channel created
Wetland Habitat	<ul style="list-style-type: none"> 1,330 acres protected 4,000 acres improved

Habitat Actions Map

Click on any of the icons located on the map to learn more about our actions that improved and restored fish habitat, at that location, in the subbasin.

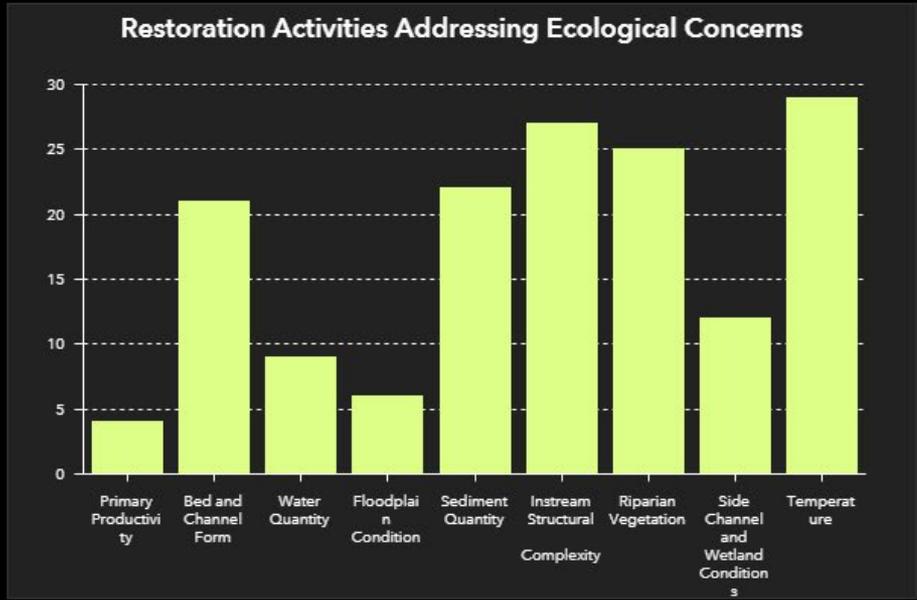
- Legend**
- BPA Funded Habitat Actions, 2008-2017
 - O&M (habitat)
 - RME (habitat)
 - channel complexity,
 - floodplain
 - habitat complexity/ stability
 - habitat protection
 - passage O&M
 - passage improvement
 - pre-work (design/construct) (habitat)
 - pre-work (protection)
 - reporting/ planning/ administration (habitat)
 - revegetate
 - road improvement
 - water quantity
 - BPA Funded Outreach Actions, 2008-2017 >
 - Subbasins Only Metrics - copy >
 - Subbasins >



Habitat Restoration

8

Locations



Fish Passage

2

Miles of Habitat Accessed

Riparian/Instream

20

Miles of Improved/Created

Wetland and Upland

359

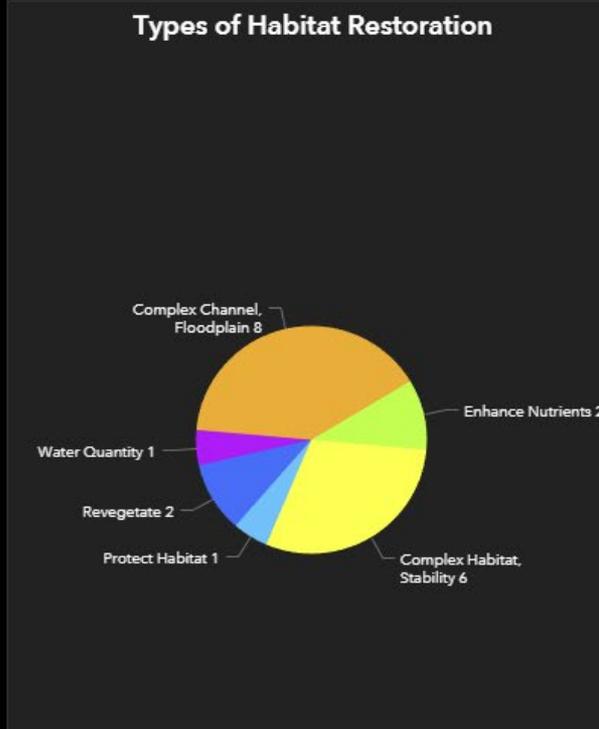
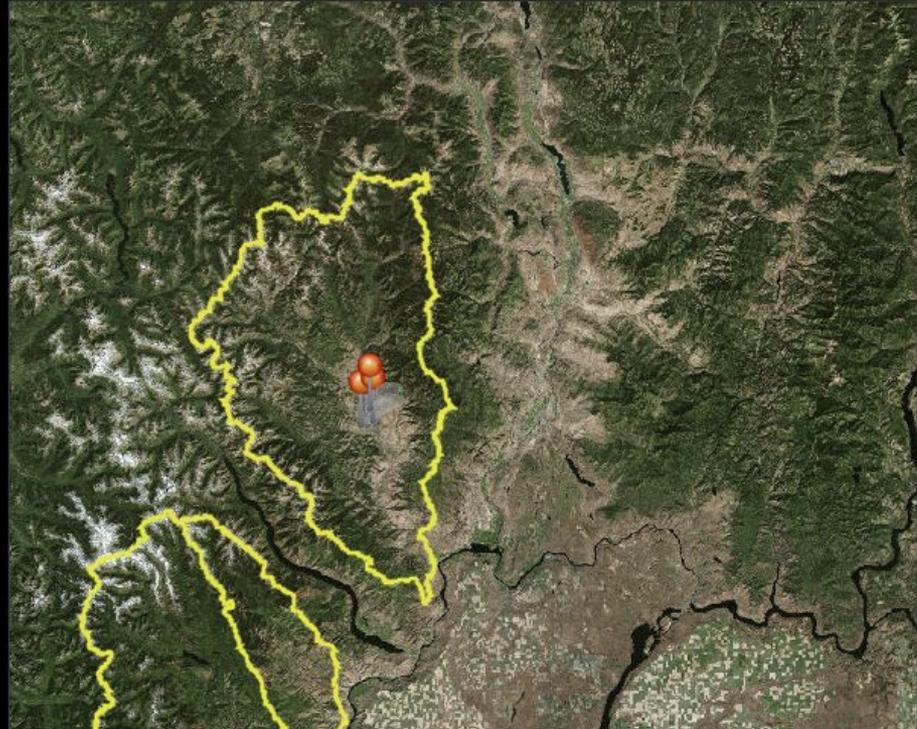
Acres Improved/Protected

Water Quantity

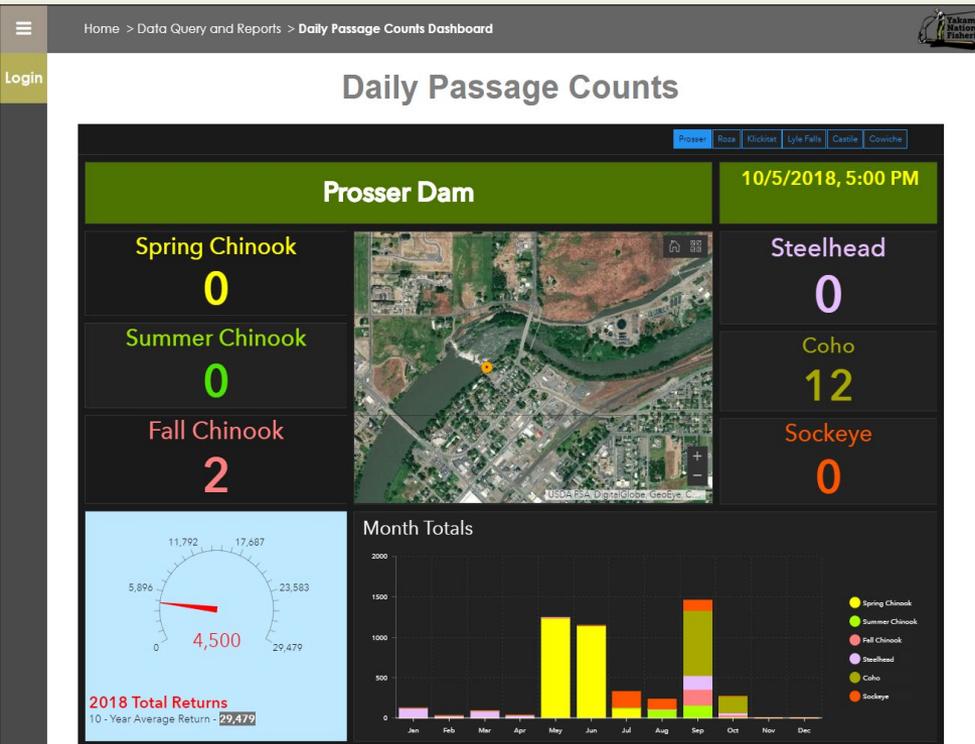
28

Miles of Improved Water

- ### Individual Projects
- Poorman Creek Road (2014)
 - Twisp RM 3 (2014)
 - M2 1890s Side Channel (2014)
 - Two Channels (M2 LWD) (2014)



Real-Time Passage, Species Status and Trends Summaries



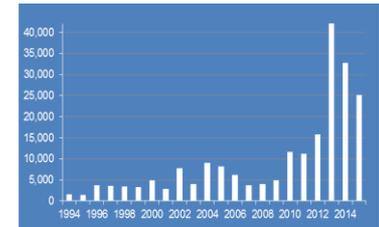
Adult Chinook

Spring Chinook

- Most spawning occurs in the upper middle Klickitat River
- Recolonization slow above Castle Falls
- 5.1 million smolts (570,248/year average) released since 2008

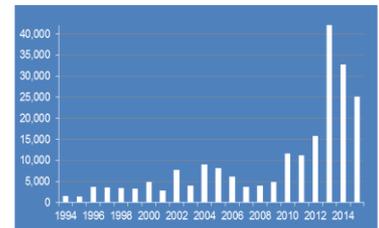
Fall Chinook

- Population sustained by hatchery production with most spawning occurring from the Klickitat Hatchery downstream to Twin Bridges
- Returns in recent years have been strong
- 30.8 million smolts (3.4 million/year average) released since 2008
- On average, 12,655 more fall Chinook harvested annually 2008-2015 versus 2000-2007



Adult Steelhead

- Spatially diverse population spawning throughout the lower and middle sections of the Klickitat Subbasin
- Majority of adult Skamania Hatchery fish returning from Klickitat River smolt releases do not appear to spawn in the wild
- Research into species status and needs, as well as priority habitat restoration for Rock Creek steelhead, is currently underway
- 94,500 smolts released in 2015 by WDFW (Non-Accord funded)



Klickitat Fish Restoration Stories
[View all Klickitat stories](#)

Klickitat Population Monitoring
Monitoring project assessing the status and trends of fish populations.
[View Story](#)

How is STAR being used?

3) Evaluations for planning and implementation

- Regional partners
- Interactive maps, library of source material, datasets



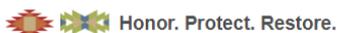
Online Interactive Dashboard:
dashboard.yakamafish-star.net

Below is a query of consolidated data, meant to be used as a quick overview of implementation. Please refer to the Notes at bottom/end of the report and References (Source: BPA project reporting system, www.cbfish.org, also YN STAR Coordinator) for and caveats necessary for interpretation or use.

Project Title: Contract: View Revisions

Category: Start: End:

Navigation: 1 of 9 | 100% | Print | Refresh



Habitat Metrics by Project/Contract

Project: All Contract: All Category Type: All Years: 2008-2016
Data as of: 4/18/2016 Date Printed: 12/10/2018

Background:
Yakama Nation Fisheries protects and restores the Columbia River Basin and the fish that it supports. Through more than 100 current projects, we restore habitat, ensure harvest, and supplement stocks with refined hatchery practices and by mitigating the effects of hydropower. Every day, we work to honor, protect and restore the Columbia River for the good of the Yakama people and everyone in our region.

Description:
On May 2, 2008, the Yakama Nation signed the Columbia Basin Fish Accord Memorandum of Agreement which provides funds to implement fish and wildlife restoration projects throughout areas utilized by our aquatic treaty-trust species. Restoring the natural habitats needed by salmonids and other migratory fishes is among the highest priorities for Accord funding. Species must be able to sustain themselves in their natural habitats, thus their habitats must be healthy, accessible, and abundant to reach recovery goals. The goal of the Yakama Nation is for sustainable and harvestable populations of all pre-treaty era species. Together with innovative partnerships and other funding sources, the Yakama Nation is implementing a broad set of actions to restore natural stream and ecosystem function that support all species throughout the region. This report summarizes restoration metrics (or measurements of work) that are being, or have been, implemented with Accord funding, January 2008 - April 2016. Shown is work as it was reported to BPA.

Project	Contract	Summary Category	Metric	Planned	To Date
Klickitat River Design and Construction-Yakima/Klickitat Fisheries Project (YKFP) 1988-115-35	46273 REL 12	Fish passage improved	install fish passage structure/ passage improvement	1	1
Klickitat River Management, Data and Habitat-Yakima/Klickitat Fisheries Project (YKFP) 1988-120-35	44613	Outreach/education	# people reached/ educated	110	110
	56662 REL 69	Outreach/education	# people reached/ educated	120	120
	56662				



DRAFT Upper Columbia Assessment Unit Map

DRAFT interactive map for exploring the assessment units and subreaches for the Upper Columbia region. Sources: Upper Columbia RTT, UCSRB, YN.

[Click here to view this map in ArcGIS Online.](#)

Legend

- Wenatchee Reach Breaks Points >
- Wenatchee Reaches >
- Entiat Reach Breaks Points >
- Entiat Reaches >
- Methow Reach Breaks Points >
- Methow Reaches >
- USGS River Miles >
- UC New Aus 11 19 2018 Only >
- 2018 Assessment Units Mainstem 400 ft buffer >
- 2014 AUs with ECs, BS Tier Rankings
- 2014 AUs, Plain Symbols

- Home > Data Query and Reports > Reports
- Login
- Request Login

Reports

Filter by report type and subbasin, and/or type in key words for reach/AU or title to find reports.

Type: Subbasin:

Project: Title:

TYPE	SUBBASIN	PROJECT	TITLE	REPORT DATE	REPORT SUMMARY
Other (Habitat)	Wenatchee	Upper Columbia Habitat Restoration Project (#2009-003-00)	Upper Wenatchee Recreation Assessment	2012	In 2012, the Yakama Nation Fisheries hired MIG, Inc.
Annual Report (for BPA)	Wenatchee	Yakama Nation Ceded Lands Lamprey Evaluation and Restoration (2008-470-00)	Wenatchee Subbasin Larval Lamprey Monitoring Report, 2016	2016	Annual report for the Yakama Nation Ceded Lands Lamprey Evaluation and Restoration Project, covering larval surveys in the Wenatchee Subbasin confluence

How is STAR being used?

4) Outreach materials

- general public, non-technical
- Scalable to regions, projects, or program-wide
- Tailored to specific audiences, topics



Yakama Nation Fisheries

Yakama Nation Sturgeon Hatchery

Hatchery Background:
Since the 1990s, the Yakama Nation has been researching how to culture white sturgeon by rearing small numbers in Tribal hatchery facilities.
Our production efforts expanded in 2009, with the development of the Yakama Nation Sturgeon Hatchery.

Production Steps:

- 1) Collect wild adults:** To maintain diversity, every year about 8 female and 8-12 male sturgeon are captured from Bonneville, John Day,* and Wanapum** reservoirs as broodstock. *PUD efforts
- 2) Spawn the wild stock:** Broodstock are spawned at the hatchery, and then returned to their area of capture.
- 3) Fertilize, hatch and rear:** In isolated family groups, eggs are fertilized and hatched, and juveniles are reared for about a year.
- 4) Juveniles released spring:** 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.

Note: Sturgeon production/reintroduction projects receive funding from various sources (e.g. NOAA's PCSRF program, U.S. BOR, and Grant, Chelan and Douglas County PUDs). Future expansion is funded by the Bonneville Power Administration. Background photo: Juvenile sturgeon rearing at Marlon Drain (photos YN)

HONOR. PROTECT. RESTORE.

Storymaps!

Restoration Stories

Subbasin - Any -

Topic - Any -

Apply



Yakima Basin Helicopter Aquatic Restoration Project

Yakima Basin Helicopter Aquatic Restoration Project: To improve fish habitat complexity and stream function with very little impact upon the landscape, we used helicopters to return large wood to streams. [Learn more . . .](#)



Wenatchee and Methow Subbasins: Coho Reintroductions

Wenatchee and Methow Subbasins - Coho Reintroductions: Coho populations in the Wenatchee and Methow subbasins are now benefiting from our restoration actions. [Learn more . . .](#)



1890s Side Channel Restoration Project

1890s Side Channel Restoration Project: To restore habitat affected by construction of Highway 20, we recreated the historic channel west of the road. [Learn more . . .](#)



Chewuch River Right Side Channel

Chewuch River Right Side Channel: Habitat restoration by the Yakama Nation has improved conditions for juvenile and adult fish as the river has been reconnected to the floodplain and habitat complexity has been improved. [Learn more . . .](#)



Cle Elum Supplementation and Research Facility - Upper Yakima River Spring Chinook

Cle Elum Supplementation and Research Facility - Upper Yakima River Spring Chinook: In 1997, the Levi George Supplementation and Research Facility was opened to enhance spring Chinook returns, provide additional fishing opportunities and learn more about the performance of hatchery fish. [Learn more . . .](#)



Coho Reintroduction - Yakima Subbasin

Coho Reintroduction - Yakima Subbasin: Coho Reintroduction - Yakima Subbasin: To reestablish the extirpated coho population and fishery, the Yakama Nation initiated a reintroduction program in 1985. [Learn more . . .](#)



Chewuch River Mile 10 Fish Habitat



Marion Drain Tribal Hatchery - Mid-

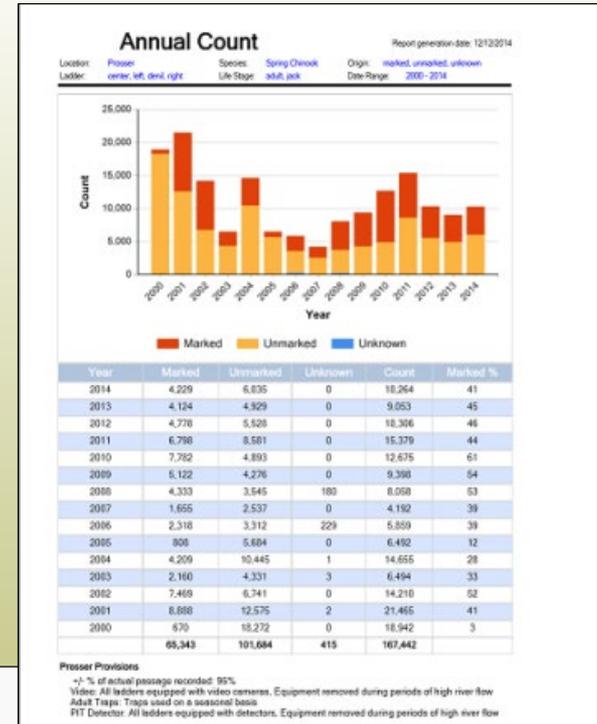


Teaway Community Forest

How is STAR being used?

5) Technical staff resource

- data sharing and management
- reporting tools



Hi test_nsl
 My account Log out

Yakama Nation Fisheries

HOME ABOUT FISH DATA HABITAT DATA REPORTS

DASHBOARD

HOME / DASHBOARD / FISH COUNTS / FC - SMOLT/PERREDD/SPAWNER

Steelhead Smolt Per Redd/Spawner

Location:

Year	Smolt Number at trap	Age 1	Age 2	Age 3	Year Class	Juveniles per Year Class	Redds	Spawner	Smolt per Redd	Smolt per Spawner
2005	36513	25960.743	10442.718	109.539	2004	35658	56	140	636.7428214	254.6971286
2006	33624	23873.04	9616.464	100.872	2005	31604	99	247.5	319.2320404	127.6928162
2007	26797	19025.87	7663.942	80.391	2006	25499	21	52.6	1214.256429	485.7025714
2008	22330	15854.3	6386.38	66.99	2007	24296	42	105	578.478881	231.3915524
2009	29045	20621.95	8306.87	87.135	2008	33588	68	170	493.9408235	197.5763294
2010	44981	31936.51	12864.566	134.943	2009	41729	79	197.5	528.2213418	211.2885367
2011	33820	24012.2	9672.52	101.46	2010	35557	105	262.5	338.6401333	135.4560533
2012	40152	28507.92	11483.472	120.456	2011	34514	100	250	345.14334	138.057336
2013	20514	14564.94	5867.004	61.542	2012	27958	46	115	607.7779565	243.1111826
2014	46470	32993.7	13290.42	139.41	2013	42816	78	195	548.9171795	219.5668718
2015	34142	24240.82	9764.612	102.426	2014	29728	134	335	221.8503582	88.74014328
2016	19076	13543.96	5455.736	57.228	2015	16537	112	280	147.6487857	59.05951429
2017	10464	7429.44	2992.704	31.392	2016	7429	43	107.5	172.7776744	69.11106977
2018										

1) These years include long periods when the screw trap was not operating due to high water and estimates are based on a large number of interpolated daily catches
 2) Year class 2015 and 2016 juvenile estimates are incomplete

Yakama Nation Fisheries

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DASHBOARD

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Name test_nsl

- Fish Counts
- Quality Assurance
- Field Data Entry
- Habitat Monitoring
- Technical Reports
- STAR Reports

Data Processing and Sharing Tools

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HOME / DASHBOARD / QUALITY ASSURANCE / TRAP SAMPLES QC ENTRY FORM

QC Form - Trap Samples

Facility code: pb - Prosser Denil Species code: All From Date: 09/04/2018 To Date: 09/12/2018

Note: For edits before 2017, please contact staff (Michelle Steg-Geltner).

EDIT	LADCODE	PASSDATE	PASSTIME	SPPCODE	CARCASSNO	PITTAG	JVPITTAG	STATUS	ORIGIN	AGE	SEX	FORKLE
<input type="checkbox"/>	Edit	pb	09/06/2018	11:29 AM	wsock			Wild Brood			Male	52
<input type="checkbox"/>	Edit	pb	09/06/2018	11:31 AM	wsock			Wild Brood			Female	48
<input type="checkbox"/>	Edit	pb	09/06/2018	11:32 AM	hjcoh			Pass/Release			Jack	26
<input type="checkbox"/>	Edit	pb	09/06/2018	11:34 AM	wsth	3DD.0077370983		Pass/Release			Male	56
<input type="checkbox"/>	Edit	pb	09/06/2018	3:00 PM	hjcoh			Pass/Release			Jack	33
<input type="checkbox"/>	Edit	pb	09/06/2018	3:02 PM	hacoh			Pass/Release			Male	56

Edit record

PassDate: 03/05/2018

PassTime: 6:08 PM
12 hour clock format

LadCode: If

SppCode: wsth

Viewer: W

EstFKLength:

MarkID:

QC Name: baquan

QC Comment:

Yakama Nation Fisheries

HOME ABOUT Q&A DASHBOARD STAR REPORTS

HOME / DASHBOARD / QUALITY ASSURANCE / CAX YAKIMA SPRING CHINOOK

CAX - Yakima Spring Chinook (NOSA)

review dataset and push to CAX (Streamnet)

Last Updated: 4/3/17

Fields for defining a unique record														Indicators		M				
EDIT	ID	CommonName	Run	RecoveryDomain	ESU/DFIS	MajorPopGroup	PopID	CBFV/PopName	CommonPopName	PopFt	PopFw/ones	WaterBody	SpawningYear	TRTmethod	ContactAgency	MethodNumber	BestValue	NOSAJ	NOSAEL	
<input type="checkbox"/>	edit	aSpringChinookNOR	Chinook	Interior	Spring	Columbia	507	River Spring Chinook	Yakima Spring Chinook	Same	-	Yakima River	1936	(?)	Bands of the Yakama Indian Nation	171	Yes(?)	1,657		
<input type="checkbox"/>	edit	aSpringChinookNOR	Chinook	Interior	Spring	Columbia	507	River Spring Chinook	Yakima Spring Chinook	Same	-	Yakima River	1937	(?)	Bands of the Yakama Indian Nation	171	Yes(?)	1,204		
<input type="checkbox"/>	edit	aSpringChinookNOR	Chinook	Interior	Spring	Columbia	507	River Spring Chinook	Yakima Spring Chinook	Same	-	Yakima River	1938	(?)	Bands of the Yakama Indian Nation	171	Yes(?)	390		
<input type="checkbox"/>	edit	aSpringChinookNOR	Chinook	Interior	Spring	Columbia	507	River Spring Chinook	Yakima Spring Chinook	Same	-	Yakima River	1939	(?)	Bands of the Yakama Indian Nation	171	Yes(?)	10,211	9292.01	
<input checked="" type="checkbox"/>	edit	aSpringChinookNOR	Chinook	Interior	Spring	Columbia	507	River Spring Chinook	Yakima Spring Chinook	Same	-	Yakima River	2000	(?)	Bands of the Yakama Indian Nation	171	Yes(?)	11,864	10796.24	
<input type="checkbox"/>	edit	aSpringChinookNOR	Chinook	Interior	Spring	Columbia	507	River Spring Chinook	Yakima Spring Chinook	Same	-	Yakima River	2001	(?)	Bands of the Yakama Indian Nation	171	Yes(?)	12,087	10393.17	
<input type="checkbox"/>	edit	aSpringChinookNOR	Chinook	Interior	Spring	Columbia	507	River Spring Chinook	Yakima Spring Chinook	Same	-	Yakima River	2002	(?)	Bands of the Yakama Indian Nation	171	Yes(?)	8,073	7346.43	
<input type="checkbox"/>	edit	aSpringChinookNOR	Chinook	Interior	Spring	Columbia	507	River Spring Chinook	Yakima Spring Chinook	Same	-	Yakima River	2003	(?)	Bands of the Yakama Indian Nation	171	Yes(?)	3,341	3040.31	
<input checked="" type="checkbox"/>	edit	aSpringChinookNOR	Chinook	Interior	Spring	Columbia	507	River Spring Chinook	Yakima Spring Chinook	Same	-	Yakima River	2004	(?)	Bands of the Yakama Indian Nation	171	Yes(?)	10,377	9443.07	
<input type="checkbox"/>	edit	aSpringChinookNOR	Chinook	Interior	Spring	Columbia	507	River Spring Chinook	Yakima Spring Chinook	Same	-	Yakima River	2005	(?)	Bands of the Yakama Indian Nation	171	Yes(?)	5,713	5198.83	
<input checked="" type="checkbox"/>	edit	aSpringChinookNOR	Chinook	Interior	Spring	Columbia	507	River Spring Chinook	Yakima Spring Chinook	Same	-	Yakima River	2006	(?)	Bands of the Yakama Indian Nation	171	Yes(?)	3,378	3073.98	

Advanced Search Options

Facility codes: pb - Prosser Denil Species: All

From Date: 01/01/2018 To Date: 01/10/2018

From Time: To Time:

forklght from: forklght to:

pohlght from: pohlght to:

weight from: weight to:

dhasample: Pittag:

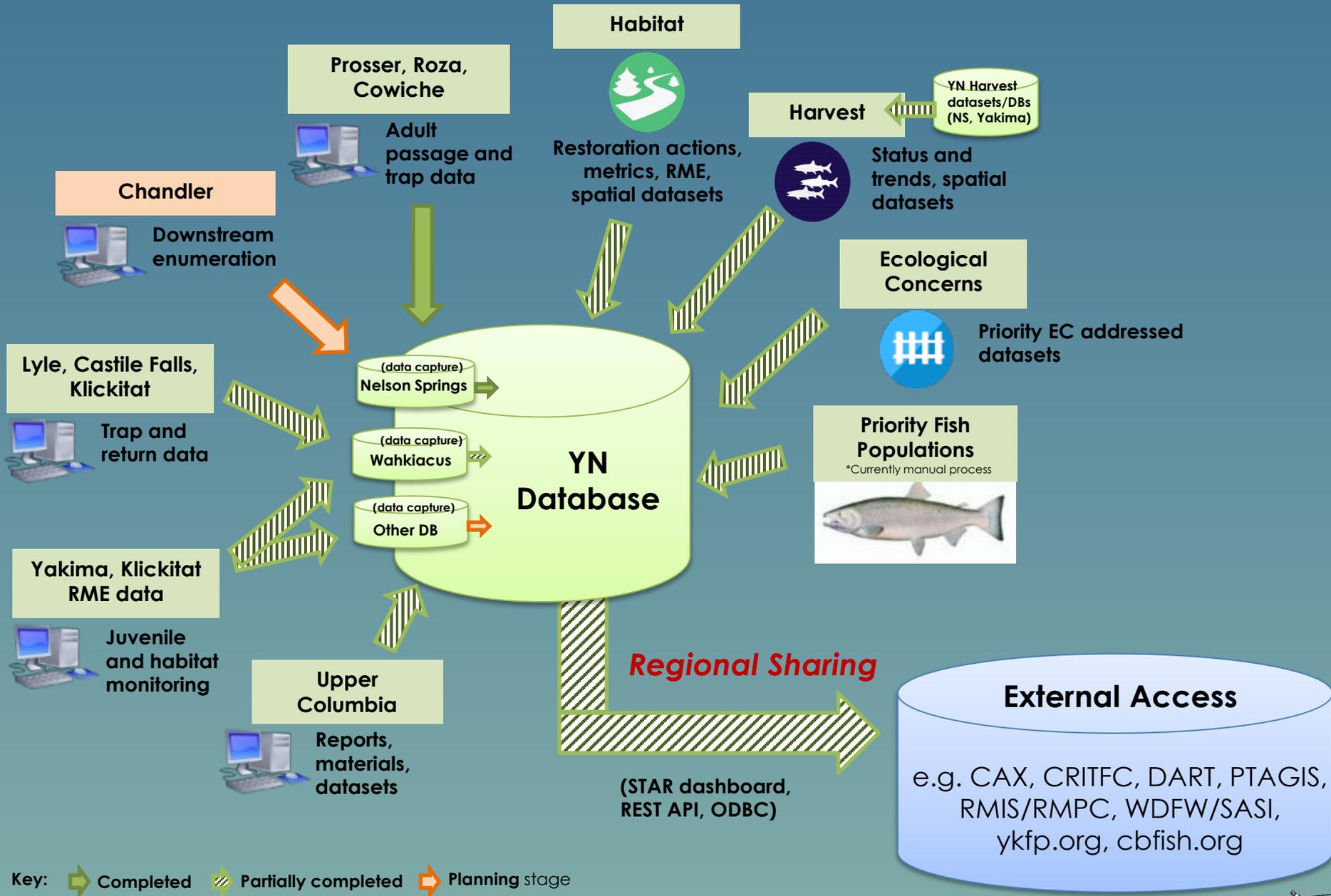
sex: - None - JvPittag:

CWTsnout status: - None -

Adclip origin: - None -

comment:

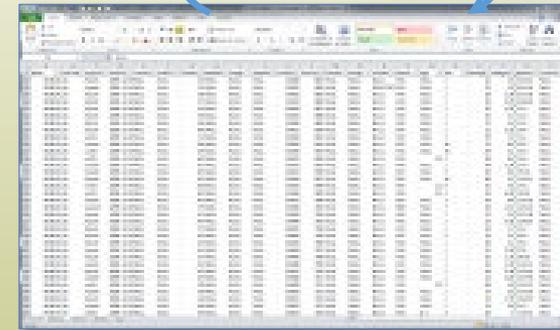
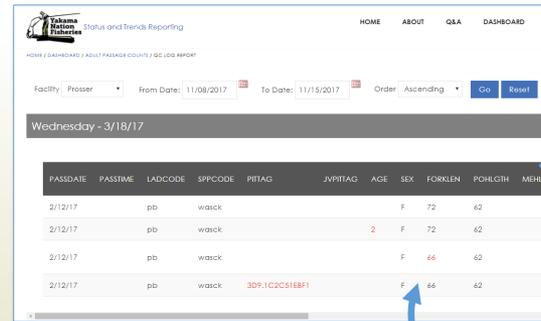
Technical Level: Dataset Consolidation, Regional Sharing



Project Future:

Continue to Develop:

- Consolidated **datasets** and **efficiencies**
- Support regional **reporting needs** and sharing
 - Adding datasets, connectivity





STAR's Online Interactive Dashboard:

dashboard.yakamafish-star.net

Contact:
stem@yakamafish-nsn.gov