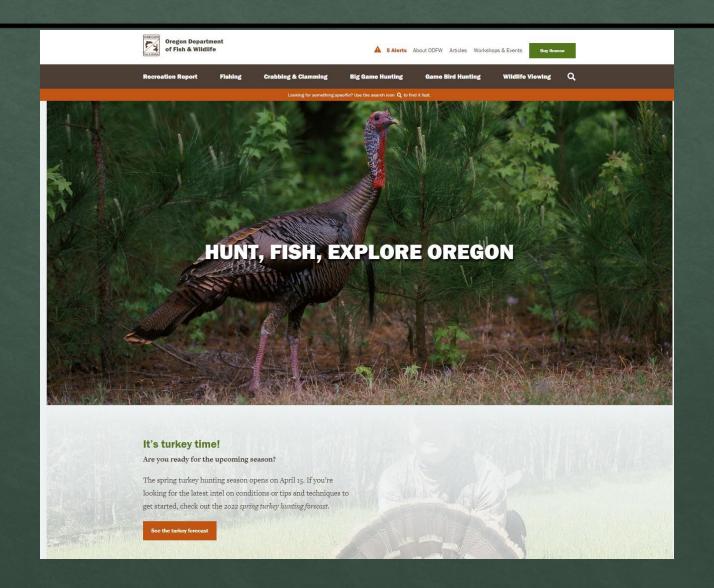


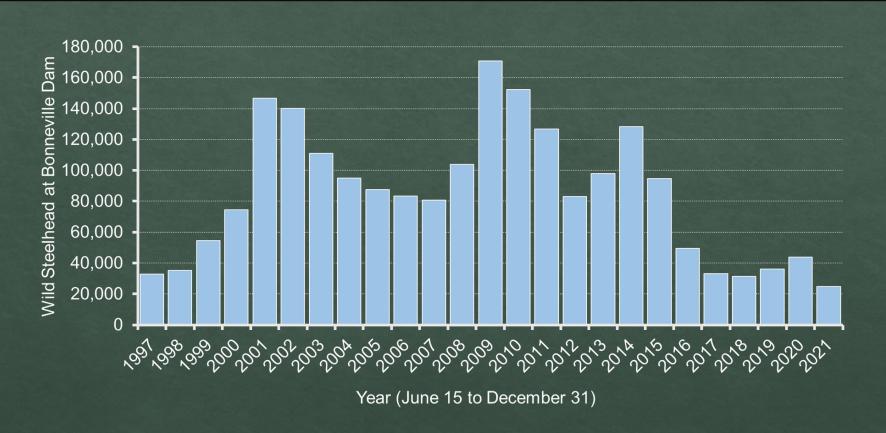


### Submit a Question





#### Columbia River Wild Steelhead



Wild summer steelhead have been declining since 2009, and Bonneville counts in 2021 reached the lowest returns since 1997

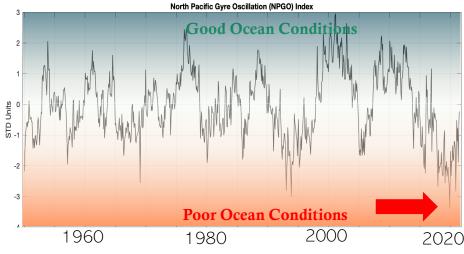


### Contributing factors



CR Hydrosystem is having long term negative impacts

Recent poor ocean conditions play a role, particularly in 2021





### Steelhead migration timing

After spending 1-2 years in the ocean, adult steelhead enter the Columbia River and begin a 10-12 month journey to spawning areas (or hatcheries)

- Adult summer steelhead enter the Columbia River from June-September and begin their upstream migration.
- Those same steelhead spawn during spring of the following year.
- This journey straddles two calendar years:
  - Run year = the year that adult steelhead enter the Columbia River
  - Spawn year = The year that adults spawn and complete their life cycle (Run year + 1)
- With a long residence period, steelhead are more susceptible to capture in recreational fisheries





#### Steelhead management foundations

ODFW Mission: To protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations

- - Endangered Species Act
  - ♦ Recovery Plans
  - ♦ U.S. vs. Oregon
  - ♦ Program Goals
  - Agency Policy
  - Fisheries Management and Evaluation Plans

Conservation

Steelhead management

Connection



#### Fishery management factors

Management strategies and impact assessments varies across the Columbia basin due to the following factors (including but not limited to):

- Timing of the fishery in relation to steelhead run
- Is the fishery mixed-stock (mainstem) or stock-specific (tributary)?
- Status and resilience of local wild steelhead populations
- Presence and role of hatchery steelhead
- Fishery characteristics
  - Angler effort
  - ♦ Encounter rates
- Availability and quality of population and fishery data



### Abundance Threshold Terminology

- Abundance thresholds were generated in the early 2000's by independent scientific panels as part of steelhead recovery processes.
- These thresholds provides benchmarks to assess the viability of steelhead populations, or long-term persistence
- Thresholds were based on estimates of the relative amount of historical spawning and rearing habitat with each population.

Two thresholds are used to guide fishery management:

- Minimum Abundance Threshold (MAT): Level at which a population is viable and has a <u>low risk</u> of extinction.
- Critical Abundance Threshold (CAT): Level at which a population is <u>at</u> higher risk of extinction.



### Steelhead management glossary

- Escapement: The number of steelhead that survive the upstream journey (escaped the various mortality factors) to spawn. Another term for population abundance.
- Encounter / Encounter Rate: A catch-and-release event. The proportion (%) of a steelhead run that are caught-and-released at least once in a fishery.
- Impact / Incidental Mortality: A non-target (wild) steelhead that is killed as a result of being encountered in a fishery.
- Impact / Incidental Mortality Rate: The proportion (%) of a steelhead run that are killed as a result of being encountered in a fishery. Often calculated as 5% of all encounters for a run.
- Smolt to Adult Return (SAR): The proportion (%) of outgoing smolts that survive to return as adults.



### Steelhead management glossary

- PIT Tags: Passive Integrated Transponder. A small (grain of rice) tag that can be implanted into fish (typically juveniles). Each tag provides an individual fish a unique code, and antennas throughout the migration corridor detect fish as they pass through. Allows biologists to estimate abundance, survival, migration timing, and other metrics.
- Redd / Redd count or survey: The location where steelhead excavate the stream bottom to deposit eggs (a nest). Redds are visible for a short period of time, and biologists can assess the spawning population by walking spawning areas and counting the number of redds.



Megan S. Jones, PhD Oregon Cooperative Fish and Wildlife Research Unit

Key takeaways from the Spring 2022 listening survey on Columbia and tributaries summer steelhead



### Objective of the listening survey

To help ODFW better understand the perspectives and concerns of the public who are interested in the management of summer steelhead in the Columbia River and its tributaries, including the Deschutes, John Day, Umatilla, Walla Walla, Imnaha, and Grande Ronde Rivers.



# How were people informed?

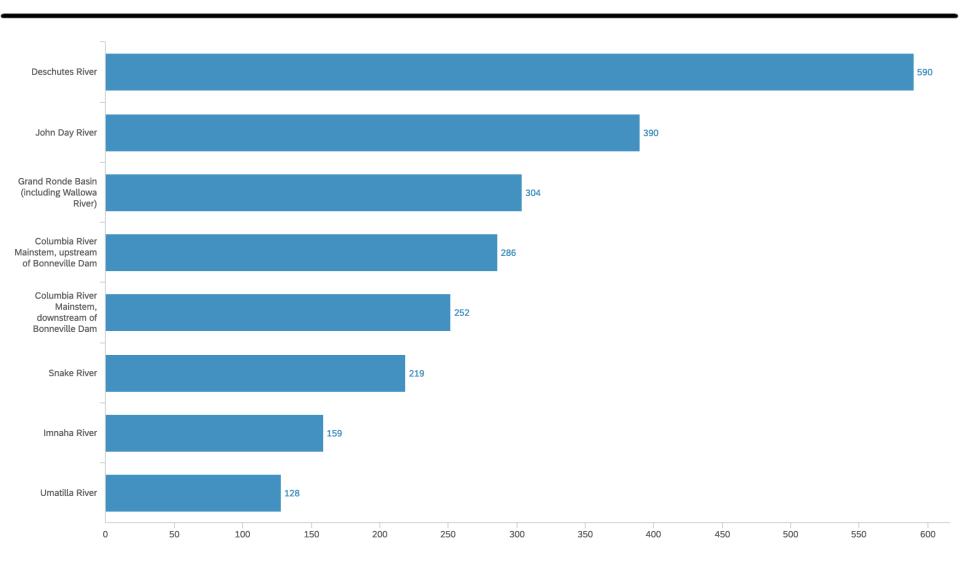
In late March ODFW distributed a press release with information about the listening survey to 150 state news outlets. It was also shared on social media

Who did we reach?

Likely to be interested audiences already paying attention to this issue and/or ODFW communication channels



### Rivers of interest



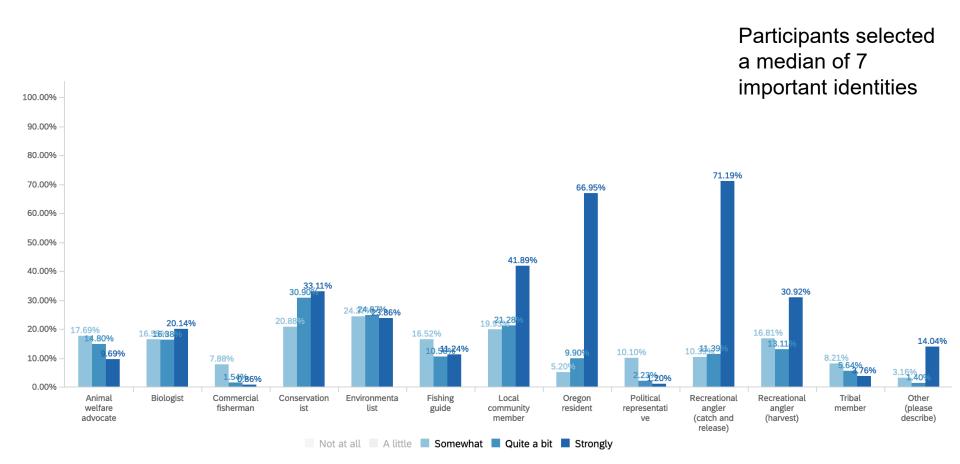


# How survey participants described themselves

	Survey participants	Oregon Census data
Median age	55	39
Percent white	88.7%	86%
Percent male	93%	49.6%



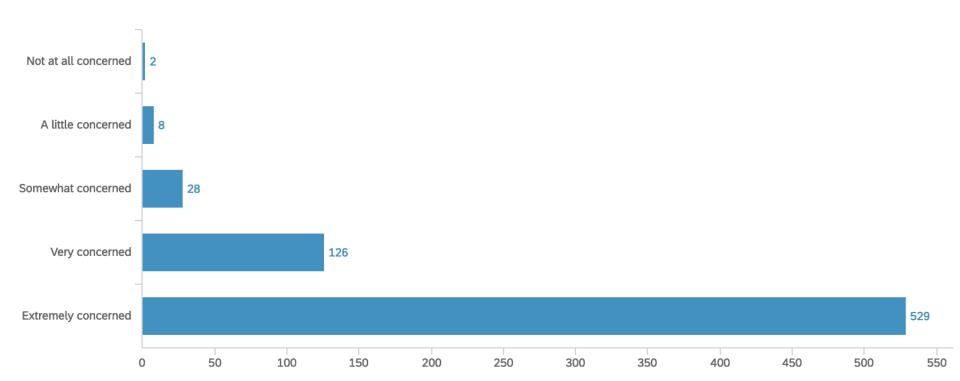
### How survey participants identified



**Figure 1.** Social identities of the participants in this listening survey (n=598)



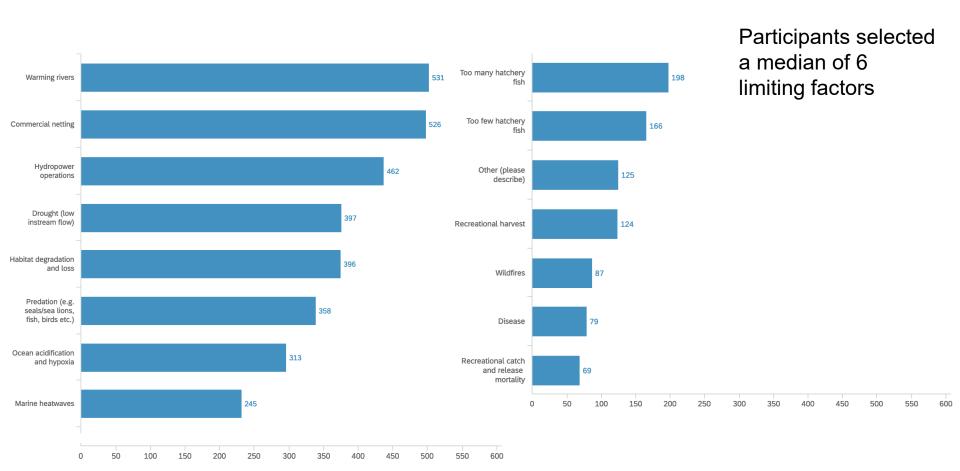
### Survey participants are concerned about summer steelhead



**Figure 2.** Concern about the future viability of wild summer steelhead in the Columbia River Basin (n=693, mean=4.69)



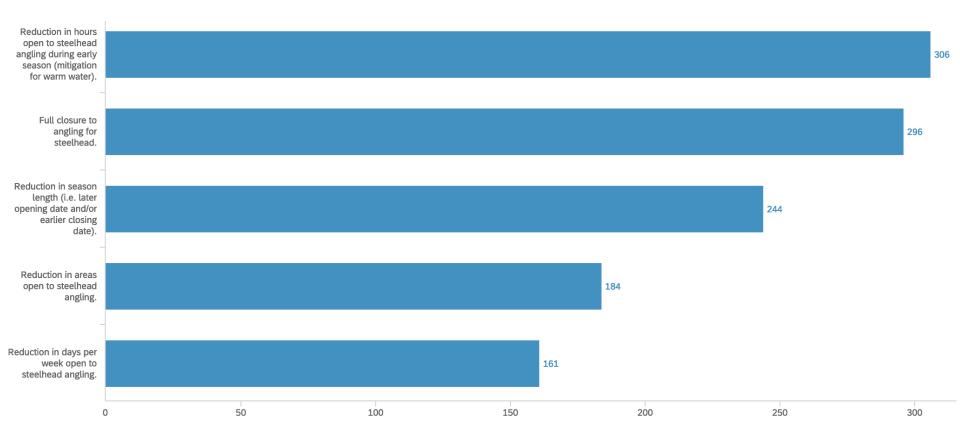
### Survey participants are concerned about summer steelhead



**Figure 3.** Perceived factors most limiting rebound of wild summer steelhead in the Columbia River Basin (n=694)



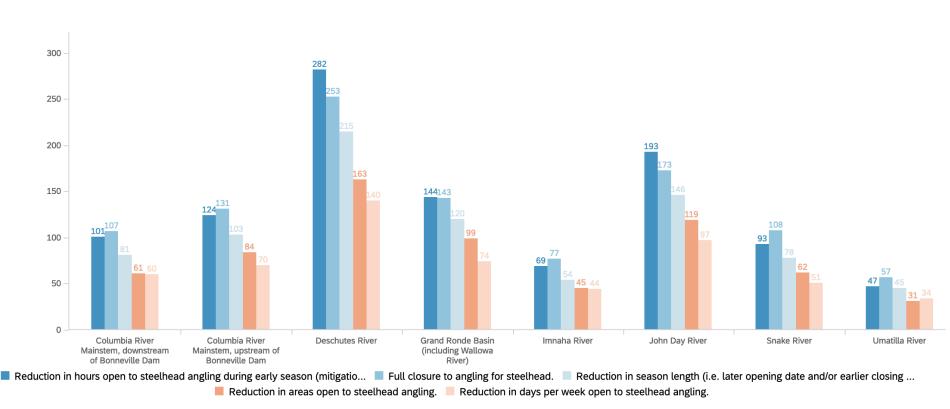
# 3) Survey participants prefer a variety of management responses



**Figure 4.** Survey participants' preferred management responses to poor returns in the Columbia River Basin (participants could select multiple options, n=594)



# Survey participants prefer a variety of management responses



**Figure 5.** Variation by river segment in survey participants' preferred management responses to poor returns in the Columbia River Basin (participants could select multiple options, n=594)



#### In sum...

- We heard from people who are very concerned about summer steelhead recovery
  - And especially interested in the Deschutes and John Day
- Participants...
- Identified many limiting factors to summer steelhead recovery
  - Varied in their preference for management responses to poor returns,
     with about half supporting reduce hours or full closure
- This survey is just one small (non-representative) window into an ongoing process



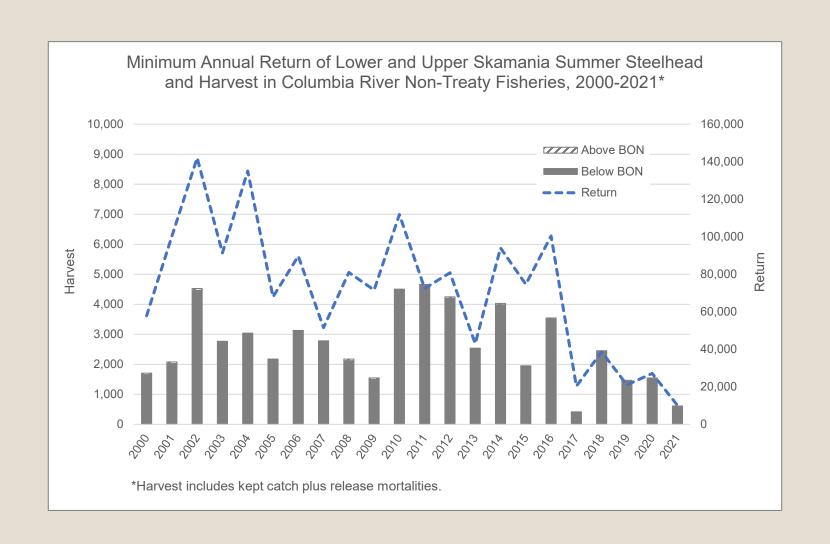




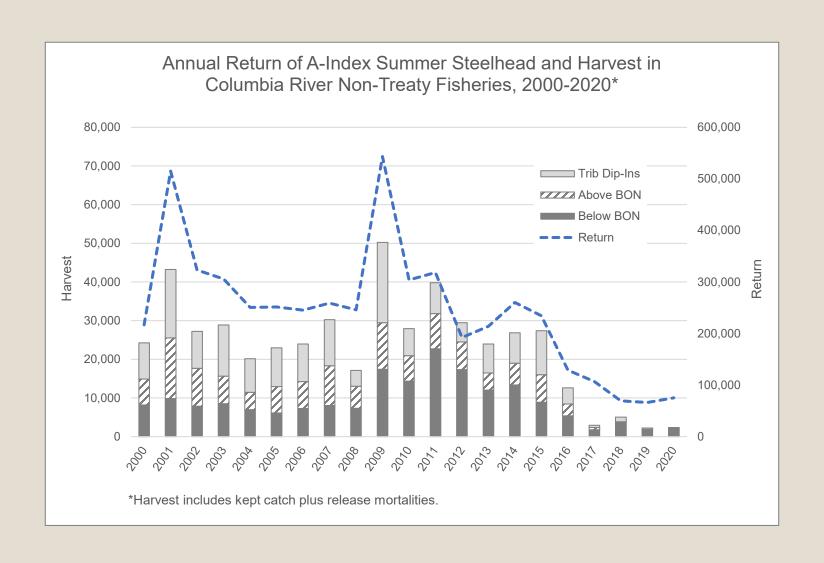
## Summer Steelhead "Stocks" in Mainstem Columbia River Fisheries

- Groupings based on timing of dam passage, harvest, and/or fish size
  - Used for fishery management purposes; does <u>not</u> necessarily equate to population stocks used by NMFS for ESA
- Summer Steelhead
  - ♦ Skamania
  - ♦ A-Index
  - ♦ B-Index

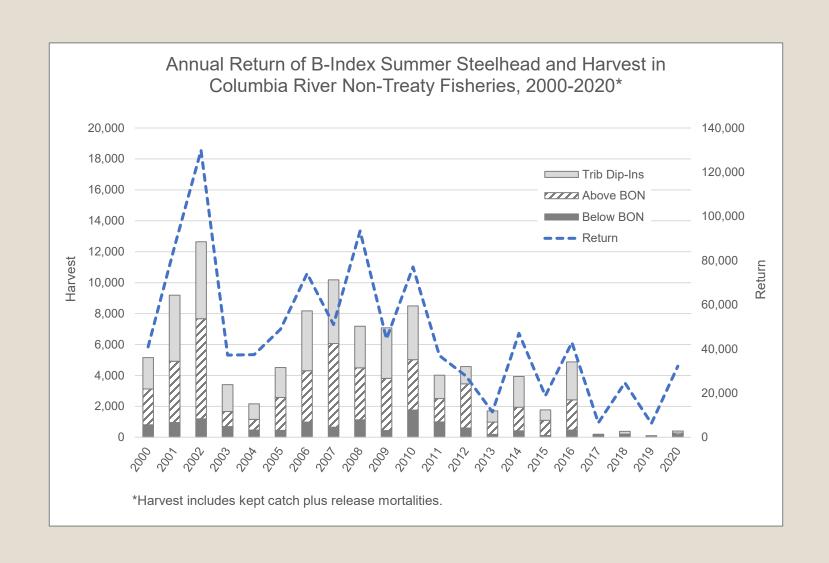














## Summer Steelhead Regulations in Mainstem Columbia River Fisheries

- Permanent Regulations
  - Non-Treaty Commercial Fisheries
    - Steelhead retention prohibited since 1975
    - Rivermouth sanctuaries in place
  - Treaty Fisheries have own impacts under US v Oregon Management
     Agreement
  - Recreational Fisheries
    - Barbless hooks; 2 hatchery steelhead per day when open for retention
    - ♦ Buoy 10 to Tongue Pt-Rocky Pt: Open Aug 1—Dec 31
    - ♦ Tongue Pt-Rocky Pt to I-5 Bridge: Open May 16—Dec 31
    - ♦ I-5 Bridge to Hwy 395 Bridge (Pasco, WA): Open Jun 16–Dec 31



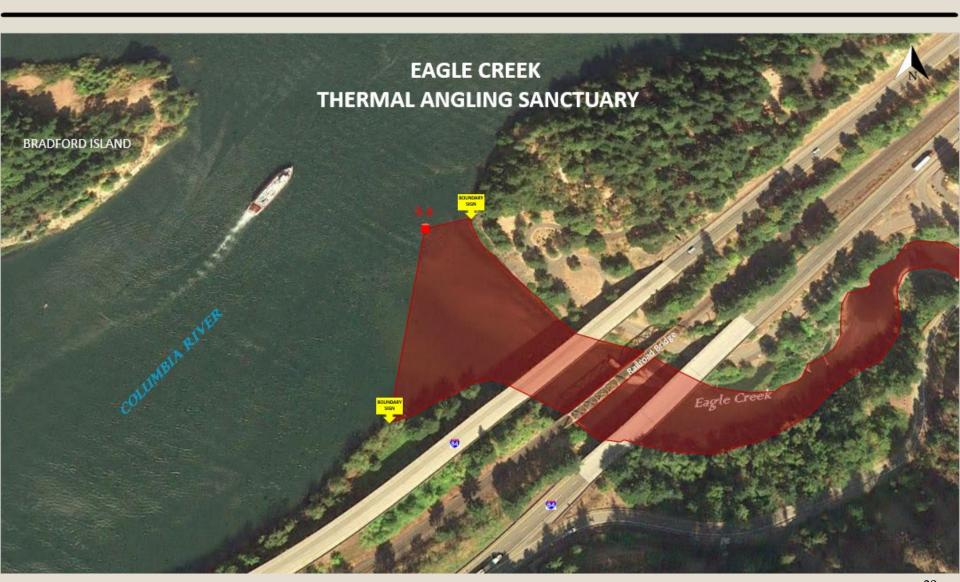
### Summer Steelhead Regulations in Mainstem Columbia River Fisheries (cont'd)

- ♦ Expected 2022–2023 Regulations
  - ♦ Recreational Fisheries
    - Barbless hooks; hatchery steelhead only when open for retention

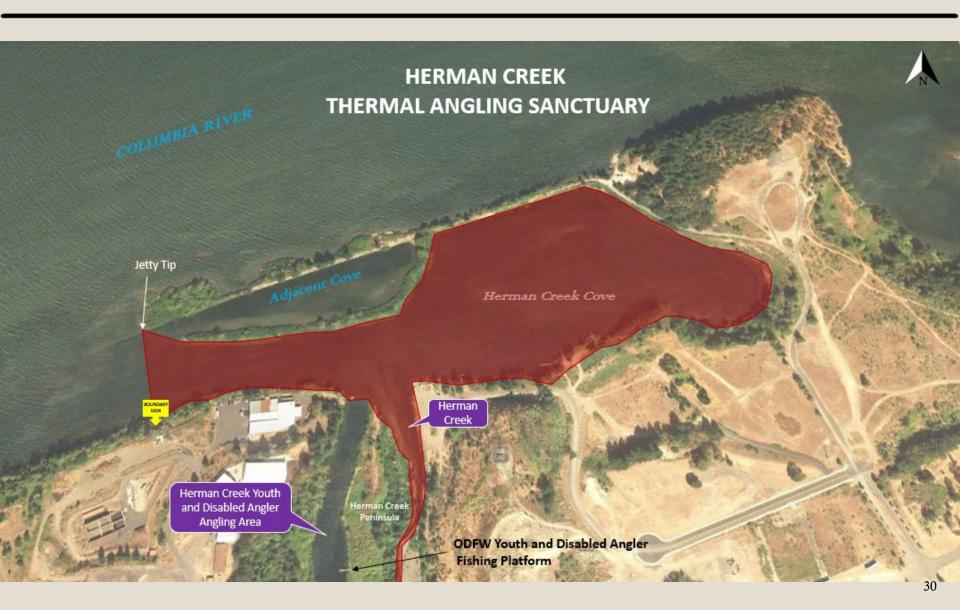
Mainstem Columbia River Summer Steelhead Regulation Summary for 2022–2023 Season										
Area	Jun 16–30	Jul	Aug	Sep	Oct	Nov	Dec	Jan-Mar		
Buoy 10–Tongue Pt/Rocky Pt	Perm. Regs. (Closed to retention)					•				
Tongue Pt/Rocky Pt-I-5 Bridge	Daily Limit 1		Clo	Closed to retention		Perm. Regs. (Daily Limit 2)				
I-5 Bridge–The Dalles Dam										
The Dalles Dam–Hwy 395 Bridge	Daily Limit 1		Closed to retention							

Regulations may be modified in-season based on run size updates from the *U.S. v Oregon* Technical Advisory Committee

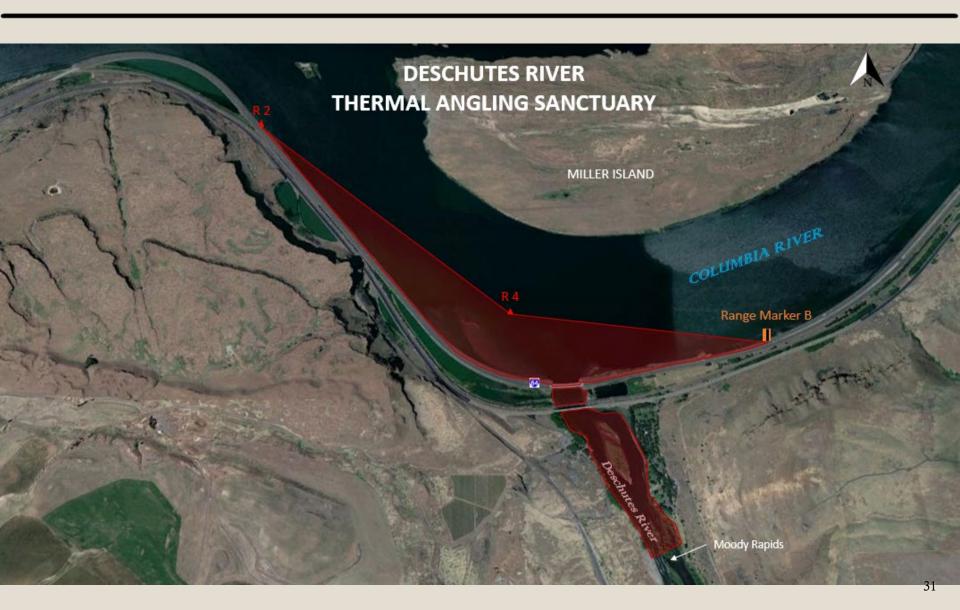










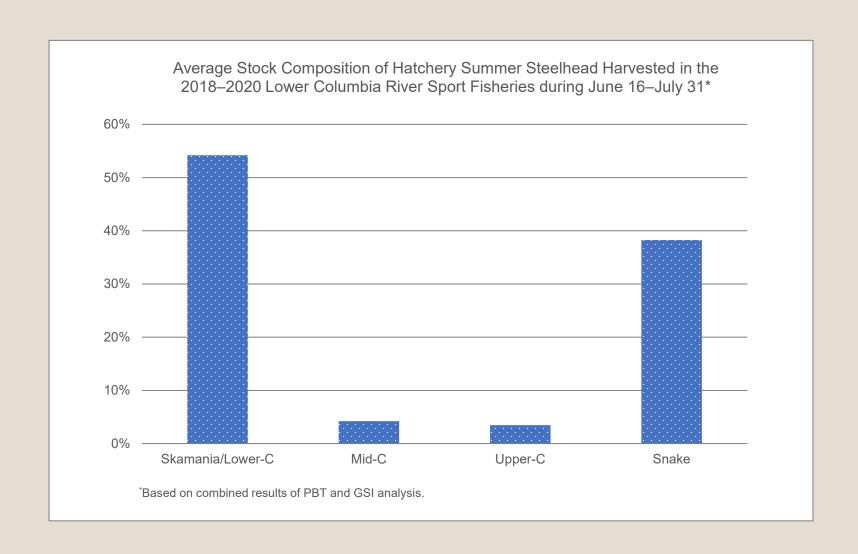




Summer Steelhead Impact Rates in Columbia River Mainstem Non-Treaty Fisheries, 2000–2020								
Run	Lower	Skamania	Upper Skamania		A-Index 1		B-Index 1	
Year	Impact Rate	% of Allowed	Impact Rate	% of Allowed	Impact Rate	% of Allowed	Impact Rate	% of Allowed
2000	0.39%	20%	0.04%	2%	1.53%	38%	1.56%	39%
2001	0.27%	14%	0.03%	1%	1.18%	29%	1.26%	31%
2002	0.38%	19%	0.04%	2%	1.41%	35%	1.62%	41%
2003	0.35%	17%	0.01%	1%	1.91%	48%	3.17%	79%
2004	0.26%	13%	0.02%	1%	1.67%	42%	1.47%	37%
2005	0.37%	18%	0.03%	1%	1.58%	40%	2.13%	53%
2006	0.39%	19%	0.03%	1%	1.58%	40%	2.11%	53%
2007	0.64%	32%	0.04%	2%	1.43%	36%	2.69%	67%
2008	0.32%	16%	0.05%	2%	1.26%	31%	1.21%	30%
2009	0.25%	12%	0.04%	2%	1.61%	40%	2.00%	50%
2010	0.52%	26%	0.02%	1%	1.56%	39%	1.79%	45%
2011	0.72%	36%	0.02%	1%	2.23%	56%	2.40%	60%
2012	0.59%	29%	0.06%	3%	3.00%	75%	2.60%	65%
2013	0.66%	33%	0.07%	3%	2.31%	58%	2.90%	72%
2014	0.48%	24%	0.04%	2%	2.01%	50%	1.66%	41%
2015	0.27%	13%	0.02%	1%	1.75%	44%	2.00%	50%
2016	0.39%	19%	0.05%	3%	1.77%	44%	1.71%	43%
2017	0.24%	12%	0.00%	0%	1.49%	37%	2.08%	52%
2018	0.84%	42%	0.00%	0%	2.05%	51%	1.11%	28%
2019	0.88%	44%	0.00%	0%	1.24%	31%	1.60%	40%
2020	0.69%	35%	0.03%	1%	1.06%	26%	1.00%	25%
Avg	0.47%	24%	0.03%	1%	1.70%	42%	1.91%	48%

<sup>&</sup>lt;sup>1</sup> Includes impacts accrued in fisheries during Jul-Dec of the current run year and between The Dalles Dam and Hwy 395 Bridge during Jan-Jun of the following year.







#### **Mainstem Columbia River Fisheries**

- Fisheries are actively managed in-season through the Columbia River Compact process
- As updated run-size and impact data becomes available fisheries can be scaled up or down as appropriate
- Columbia Basin Partnership identified threats to interior basin summer steelhead
  - Hydrosystem, habitat, and predation impacts, as well as blocked access to historic spawning areas, were consistently the highest ranked threats
- Recreational and commercial fisheries important part of the conservation picture



### Deschutes River



Lindsay Powell Asst. District Fish Biologist Middle Columbia District The Dalles

Jason Seals
District Fish Biologist
Middle Columbia District
The Dalles





### Deschutes River

#### **Presentation Outline**

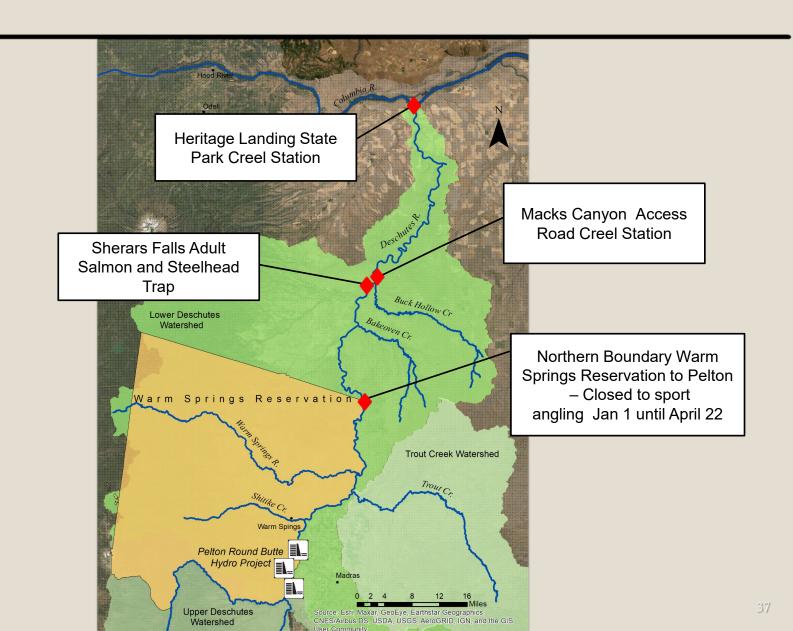
Background and Wild Steelhead Population Information

Wild Steelhead Captured, Mortality, and Population Impact

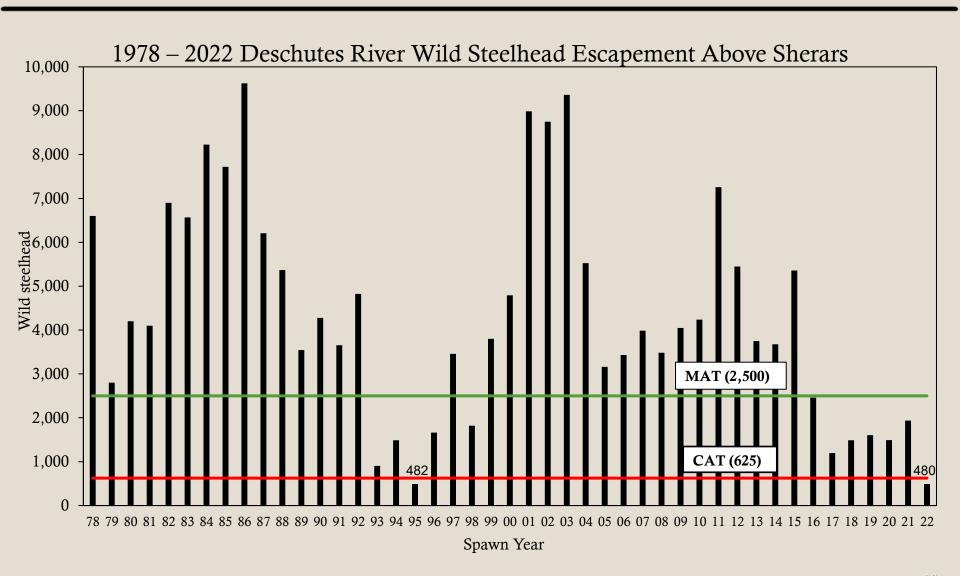
Proposed Fishery Framework

Resources for Public Information











#### Sport Fishery Encounters with Wild Fish (1990-2021)

#### **ODFW Creel Surveys:**

July 1 to Oct. 31

Estimate Wild Steelhead Caught and Released from Mouth to Buck Hollow Creek (Lower 40 miles)

Period	Annual Estimate 10-year average					
1990-1999	2,406					
2000-2009	4,728					
2010-2019	4,830					
LI: 1 (A LE (: (-) (O: -4000)						
Highest Annual Estimates (Since 1990)						
Year	Wild Steelhead Released					
2014	9,704					
2009	8,140					
2010	6,714					
2001	6,525					
2013	6,326					
Lowe	est Annual Estimates (Since 1990)					
Year	Wild Steelhead Released					
2021	559*					
1994	1,192					
1998	1,464					
2017	1,754					
2020	1,817					
* Steelhead sport fishery closed Sept. 1, 2021 under temp. rule						



#### Sport Fishery Encounters with Wild Fish

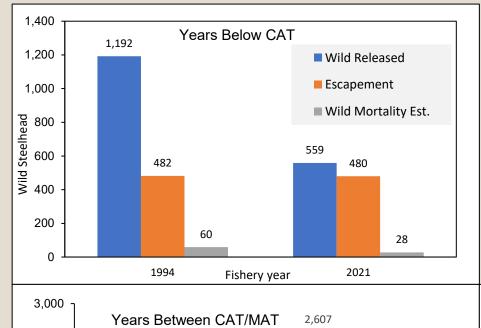
	Wild Steelhead Released					
Year	Deschutes Lower 40 miles	Umatilla	John Day Cottonwood to Rock Cr	Grande Ronde	Imnaha	Columbia Zone 6 Fall Sport Fishery
2010	6,714	533	1,605	3,163	1,500	
2011	6,205	637	1,053	3,518	238	
2012	5,336	609		1,811	206	
2013	6,326	1,147		1,205	279	
2014	9,704	1,567		2,621	442	
2015	5,454	1,346		2,962	119	
2016	2,190	379		383	63	
2017	1,754	610		726	103	
2018	2,011			454*	38	
2019	2,607			483*	94	200
2020	1,817			654*	240	164



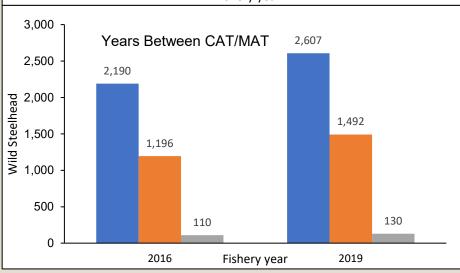
#### Catch and Release Mortality of Wild Steelhead

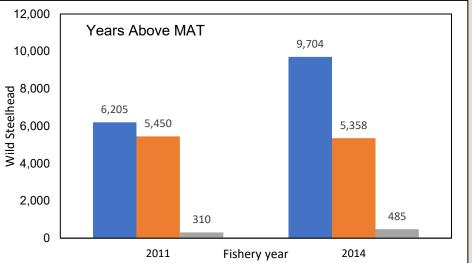
- Deschutes Fishery on an assumed catch and released mortality rate of 5%
- Consistent with other Columbia Basin Fisheries (John Day, Grande Ronde, Columbia River)
- Based on Literature
- No specific rate determined in the Deschutes because of the challenges associated with these types of studies





Wild Mortality Estimate = 5% of Wild Released







#### Proposed Deschutes Fishery Framework

#### Goal

Develop established standards for managing Deschutes steelhead sport fishery

- Long-term framework
- Clearly defined standards
  - ♦ Fishery closed if escapement ≤CAT
- ♦ Transparent to public



#### Proposed Deschutes Fishery Framework

#### **Development**

Evaluate the best method for predicting wild steelhead returns to Deschutes River to determine if sport fishery allowable or if conservation measures necessary

- Use in-season return data, not pre-season Columbia basin forecasts
- Use wild steelhead passage over Bonneville Dam by certain dates to predict if escapement of wild steelhead above Sherars Falls will be above CAT



#### Proposed Deschutes Fishery Framework

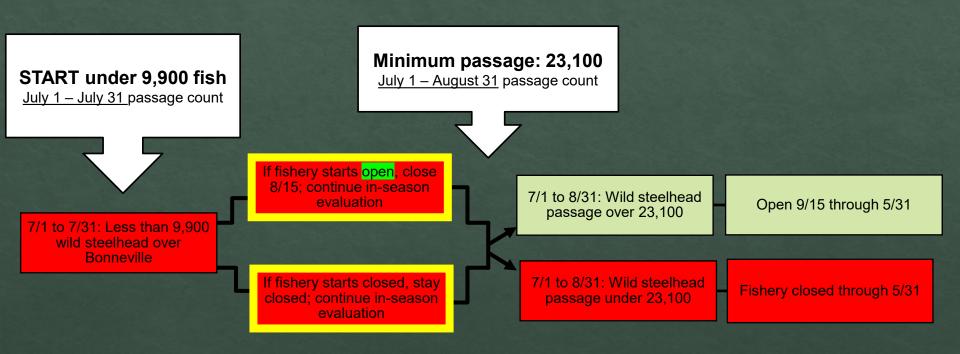
#### Framework & Timeline:

February: Share how preliminary Sherars escapement estimate is trending

- May 1: Escapement Estimate of wild steelhead above Sherars finalized
- June 1: Fishery opened or closed based on escapement a) > 625 Open, ≤ 625 Close
- July 1: In-season passage of wild steelhead over Bonneville begins
- July 31: Passage Evaluation, July 1 July 31
  - a) Minimum: 9,900 fish (Close or Open August 15)
  - b) Optimal: 18,700 fish (Open within 10 days)
- August 31: Passage Evaluation, July 1 August 31
  - a) Minimum: 23,100 fish (Close or Open Sept 15 May 31)

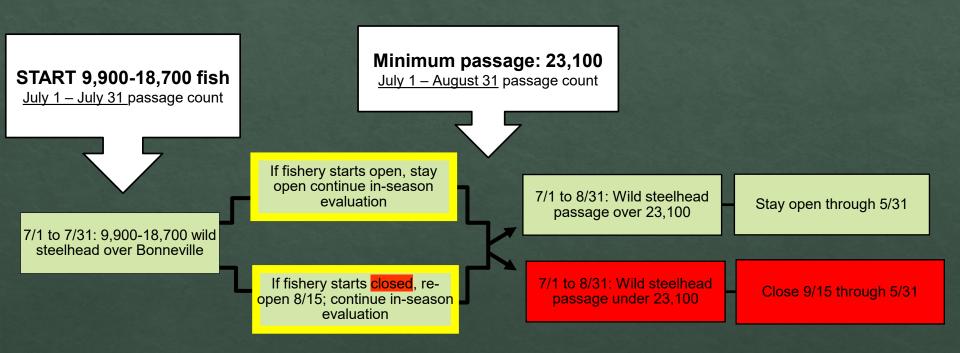


Scenario #1 (Potentially below CAT)





Scenario #2 (Likely above CAT but below MAT)





Scenario #3 (Likely above MAT)

START over 18,700 fish July 1 – July 31 passage count



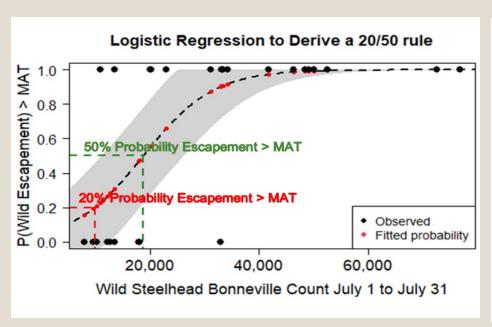
7/1 to 7/31: Bonneville wild steelhead passage over 18,700

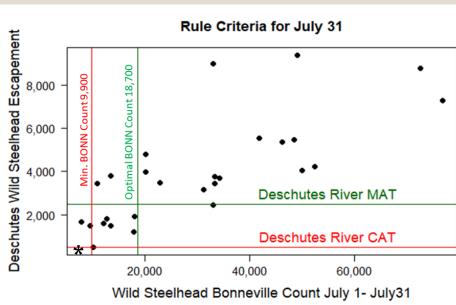
If escapement ≤625 and fishery starts closed, open within 10 days of passage exceeding 18,700; open through 5/31

If escapement >625 and fishery starts open, stay open through 5/31



# <u>July 1 – July 31</u> Threshold Analysis

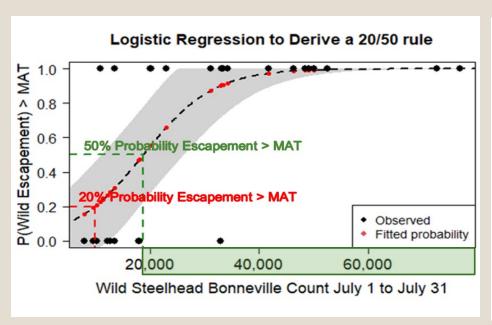


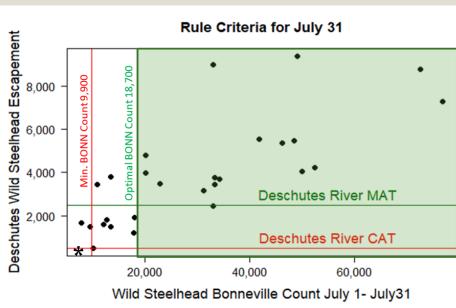


<sup>\* 2021-2022</sup> return/escapement not included in logistic regression analysis



# July 1 – July 31 Threshold Analysis

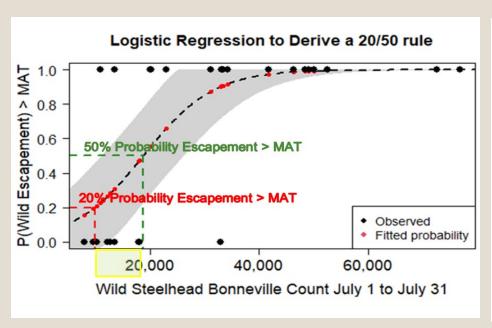


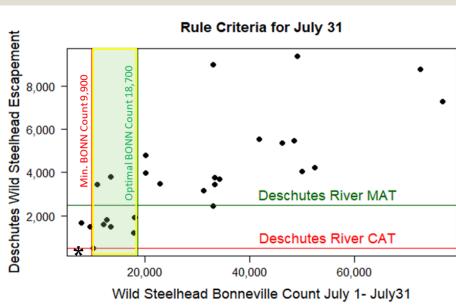


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# <u>July 1 – July 31</u> Threshold Analysis

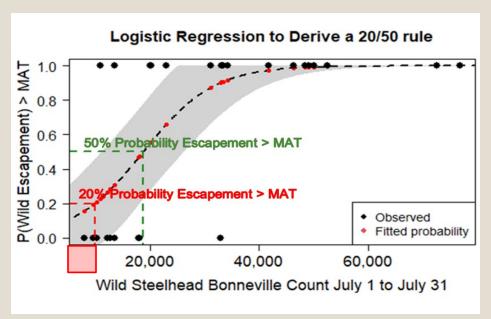


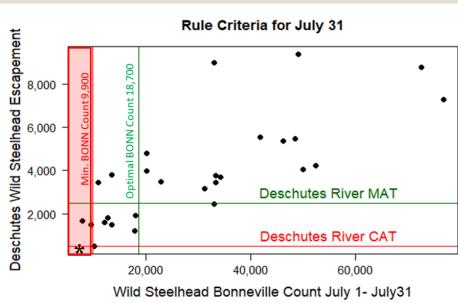


<sup>\* 2021-2022</sup> return/escapement not included in logistic regression analysis



# July 1 – July 31 Threshold Analysis

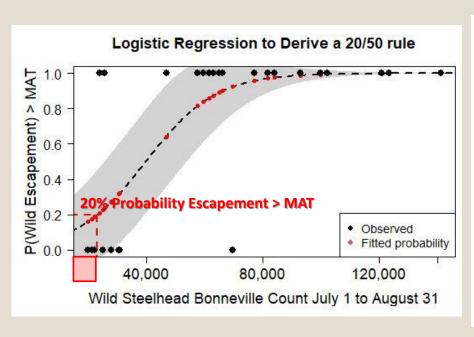


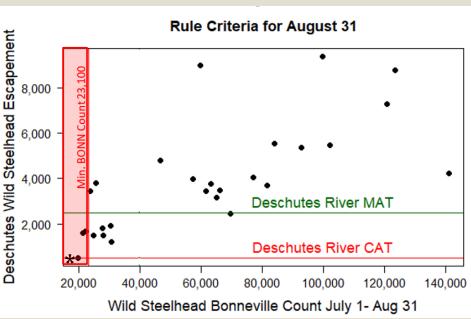


<sup>\* 2021-2022</sup> return/escapement not included in logistic regression analysis



# <u>July 1 – August 31</u> Threshold Analysis





<sup>\* 2021-2022</sup> return/escapement not included in logistic regression analysis



1994-2021 wild steelhead passage over Bonneville

July 1 – July 31 **Minimum 9,900** 

July 1 – August 31 **Minimum 23,100** 

Deschutes Escapement

**CAT > 625** 

Run - Spawn	Deschutes		
Year	Escapement	Wild over Bonn July 1 - July 31	Wild Over Bonn July 1 - Aug 31
1994-1995	482	10,195	19,758
1995-1996	1,662	7,921	22,179
1996-1997	3,458	10,939	23,760
1997-1998	1,820	12,745	27,745
1998-1999	3,800	13,492	25,516
1999-2000	4,790	20,168	46,710
2000-2001	8,985	33,130	59,637
2001-2002	8,749	72,609	123,375
2002-2003	9,363	49,045	99,688
2003-2004	5,524	41,817	84,073
2004-2005	3,161	31,199	65,044
2005-2006	3,432	33,289	61,487
2006-2007	3,986	20,114	57,393
2007-2008	3,482	22,974	66,199
2008-2009	4,048	50,057	77,039
2009-2010	4,236	52,524	141,152
2010-2011	7,257	76,892	120,691
2011-2012	5,450	48,545	102,181
2012-2013	3,749	33,412	63,082
2013-2014	3,677	34,228	81,701
2014-201	5,358	46,295	92,839
2015-2016	2,457	33,025	69,532
2016-2017	1,196	17,960	30,773
2017-2018	1,487	<mark>9,527</mark>	24,877
2018-2019	1,605	12,196	<mark>21,231</mark>
2019-2020	1,492	13,470	27,935
2020-2021	1,935	18,064	30,449
2021-2022	480	6,736	16,023



What does the 2022 Fishery look like under this proposal?

2021-2022 Wild Steelhead Escapement Estimate: 480 fish

Per proposed framework (escapement ≤625): Start closed June 1 In-season run evaluations begin July 1

Concurrent salmon fisheries with high steelhead encounters - Closed

Trout fishery – Open



#### Resources

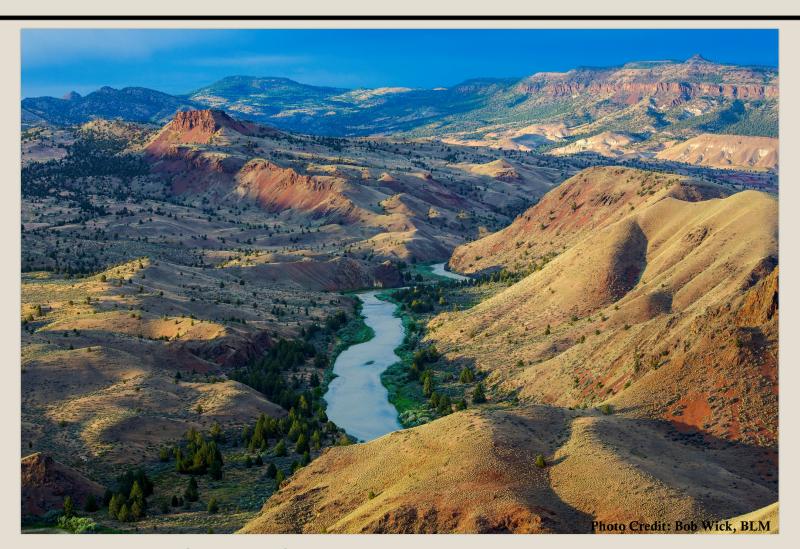
#### Monitoring in-season wild steelhead returns over Bonneville

- Counts begin July 1
- myODFW.com, Fish counts at major dams <a href="https://myodfw.com/fish-counts-major-dams-and-fish-traps">https://myodfw.com/fish-counts-major-dams-and-fish-traps</a>
- DART <a href="https://www.cbr.washington.edu/dart/query/adult\_daily">https://www.cbr.washington.edu/dart/query/adult\_daily</a>
- Fish Passage Center <a href="https://www.fpc.org/adults/Q">https://www.fpc.org/adults/Q</a> adults passagedata.php

#### Review Deschutes Steelhead Fishery Framework

- Slides posted
- Finalized document will be released





<u>District Fish Biologist</u>: Stephan Charette Stephan.r.charette@odfw.oregon.gov

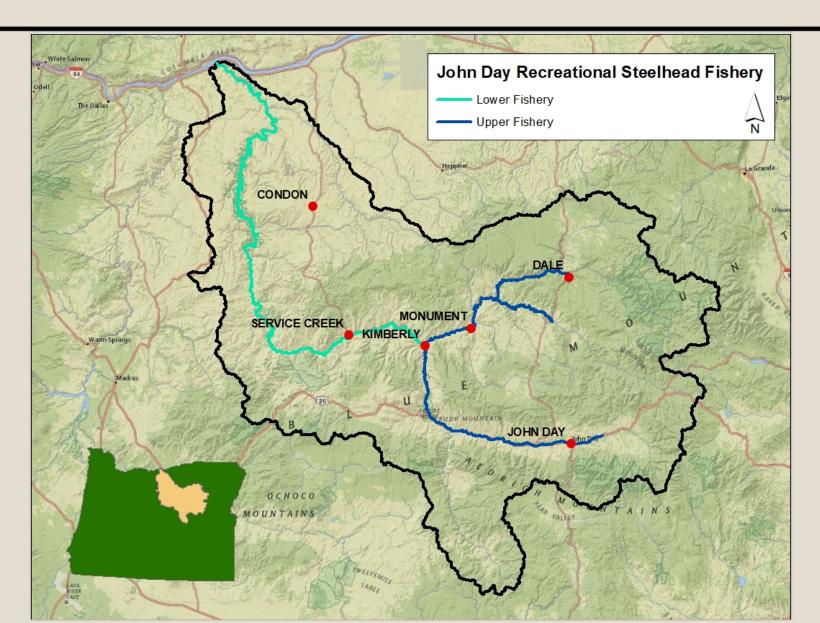
Assistant District Fish Biologist: Brent Smith Brentton.a.smith@odfw.oregon.gov 57



#### ♦ John Day Basin Summer Steelhead Overview

- Wild fishery, only hatchery fish in the system are strays predominantly from Snake River Basin. A goal of the recreational fishery is the targeted removal of hatchery strays.
- Unique issues for the John Day include high frequency (up to 60%) of adult overshoot John Day mouth. Adults often spend time in the Deschutes and overshoot the John Day where they go above McNary before falling back to find the John Day entrance.
- Screw traps for smolt abundance, PIT tagging efforts to estimate SAR, surveys conducted to estimate redds in order to determine adult returns.

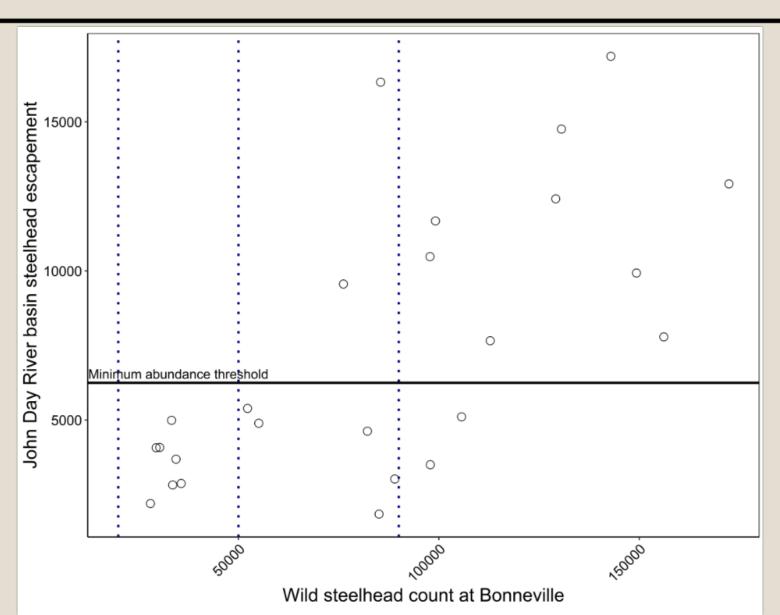




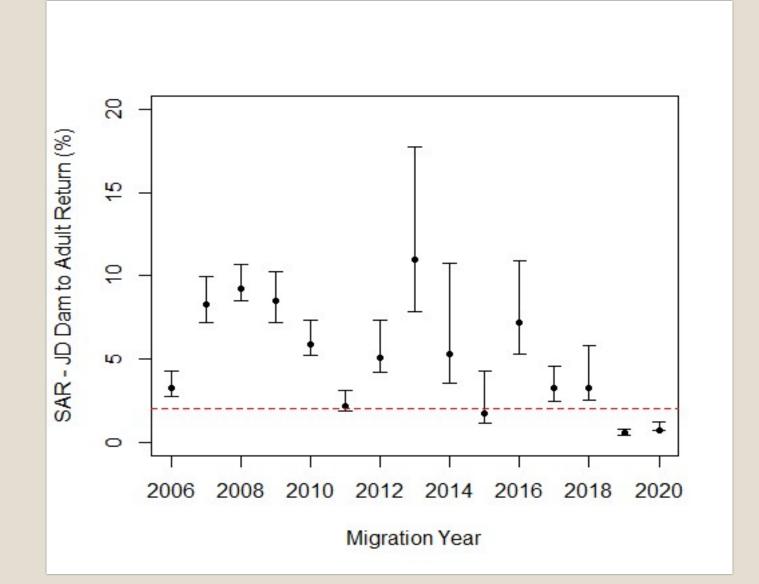


John Day Steelhead Recreational Fishery abundance matrix						
		John Day or Mid-C SAR				
Bonneville Wild A Count	< 2%	2-4%	4-6%	6-8%	>8%	
< 20,000	Fishery Management Actions Required	Potential Action Required	Potential Action Required	Minimum Threshold Met	No Action Required	
20,001-50,000	Potential Action Required	Potential Action Required	Minimum Threshold Met	No Action Required	No Action Required	
50,001-90,000	Potential Action Required	Minimum Threshold Met	Minimum Threshold Met	No Action Required	No Action Required	
>90,000	Minimum Threshold Met	No Action Required	No Action Required	No Action Required	No Action Required	

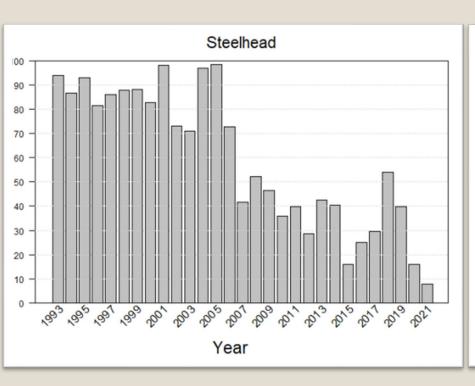


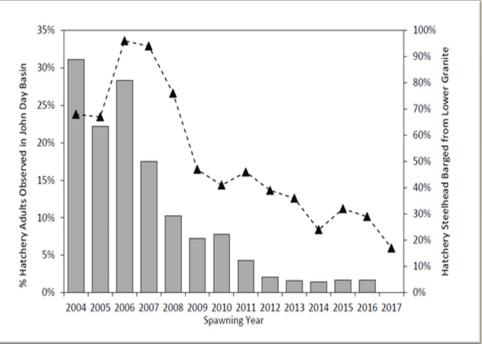








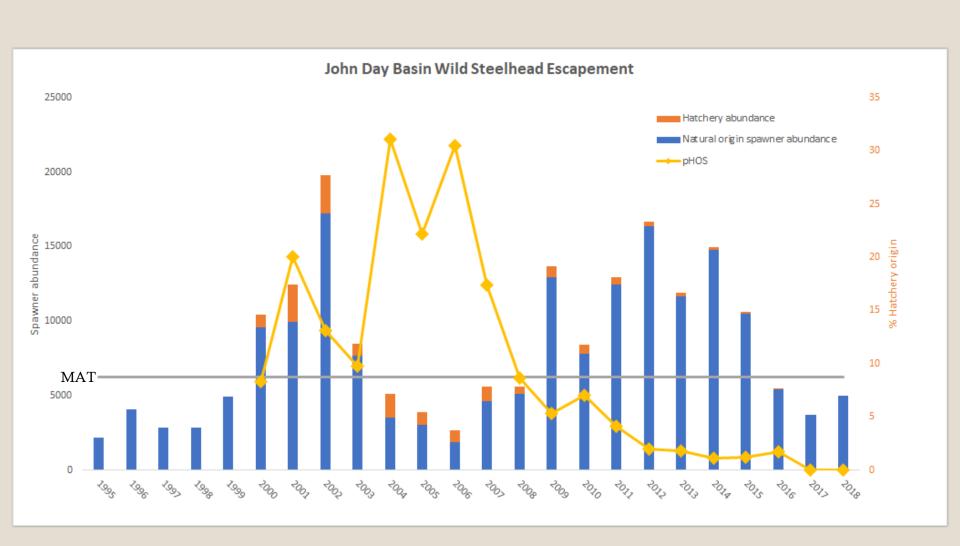




Percent Snake River Smolts Transported Below Bonneville

Percent Hatchery Origin Adults Observed in the John Day







- Current permanent steelhead angling regulations for the John Day
  - Open year-round from mainline RR bridge to North Fork John Day confluence
  - North and Middle Fork downstream of Hwy 395, and sections of upper mainstem John Day below Indian Creek open September 1-April 30
  - ♦ C&R for wild fish, bag limit of 3 hatchery fish per day
  - Subject to change based on current year forecasts
- 2022 Proposed Regulations Closed with final decision by September 1st
  - 2022 early TAC forecast suggests overall Wild A returns around 28K
    - Wild steelhead counts of 50,000 or less over Bonneville by September 1st likely will not meet MAT target
    - Final 2022 proposal based on dam counts in late August as well as PIT tag detections to estimate SAR
    - Recent record low smolt transport means very low probability of significant hatchery stray rates into the John Day
    - Bass and catfish to remain open year-round below North Fork confluence. OSP enforcement presence to ensure no steelhead gear/fishing



# Umatilla and Walla Walla Rivers



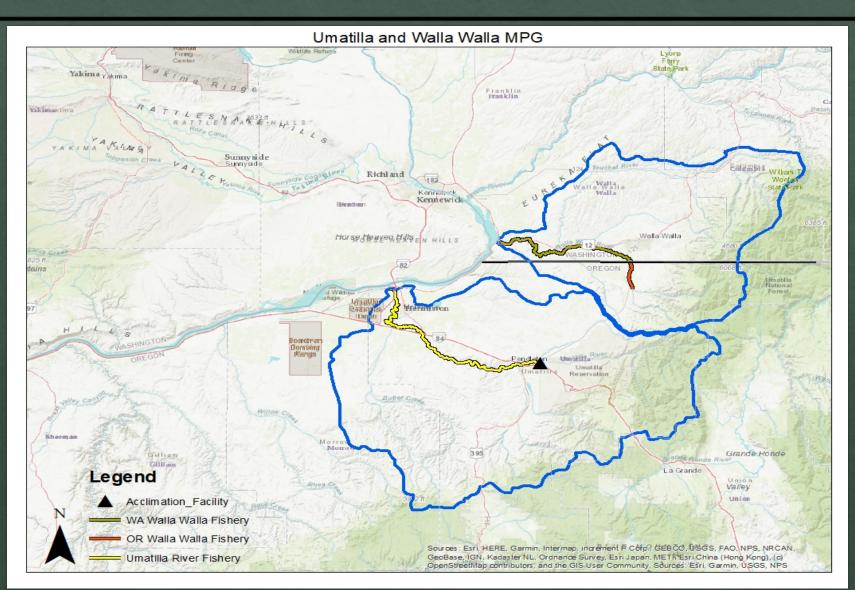
District Fish Biologist: Taylor McCroskey

<u>Taylor.McCroskey@odfw.Oregon.gov</u>

541-276-2344



# Umatilla and Walla Walla Rivers





## Umatilla and Walla Walla River

#### Key Differences between other Fisheries

- Access & Landownership
- Angling Pressure & Encounter Rate
- ♦ Dams
- Research Monitoring and Evalution
- Broodstock Program



## Umatilla and Walla Walla River

#### Fishery Management

#### ♦ Umatilla

- Co Management with Confederated Tribes of Umatilla Indian Reservation (CTUIR)
- Fisheries Management and Evaluation Plan Goals

#### Walla Walla

- Co Management with CTUIR and Washington Department of Fish and Wildlife
- Fisheries Management and Evaluation Plan Goals



#### Umatilla and Walla Walla River

#### Current Permanent Steelhead Fishery Regulations

#### Umatilla River

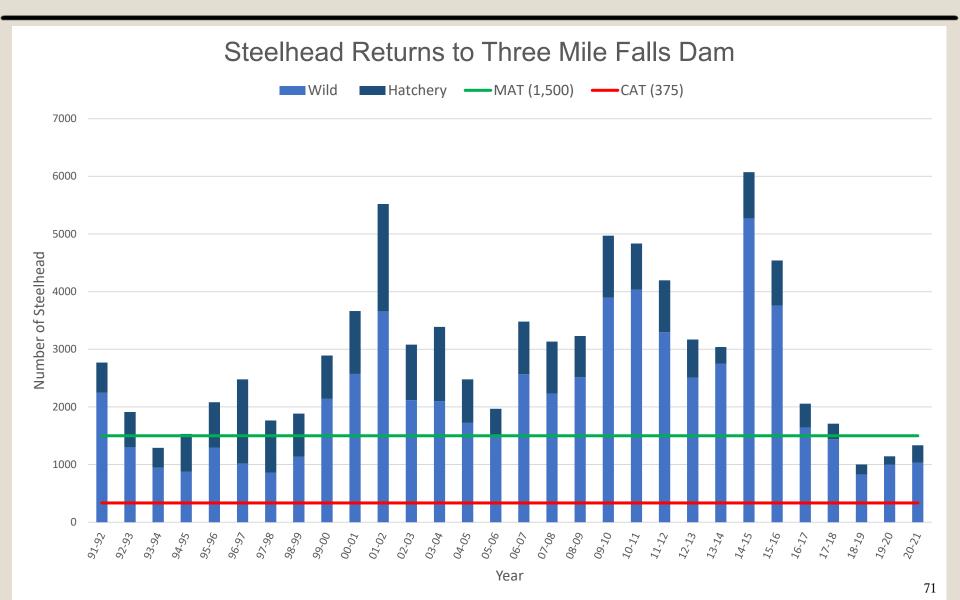
- ♦ Season: September 1 April 30
- Concurrent Seasons (Fall Chinook and Coho Salmon): Sept. 1 –
   November 30
- Bag Limit: 3 adult fall Chinook, Coho or hatchery Steelhead in aggregate per day
- Use of bait allowed
- All wild steelhead must be released unharmed

#### Walla Walla River

- ♦ Season: September 1 April 30
- Bag Limit: 3 adult hatchery Steelhead
- All wild steelhead must be released unharmed

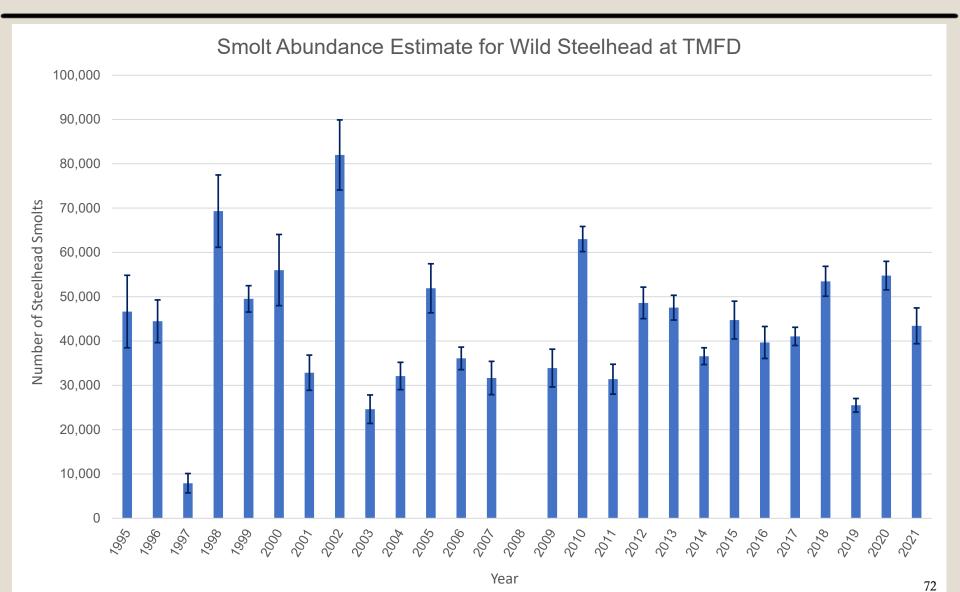


## **Umatilla River**



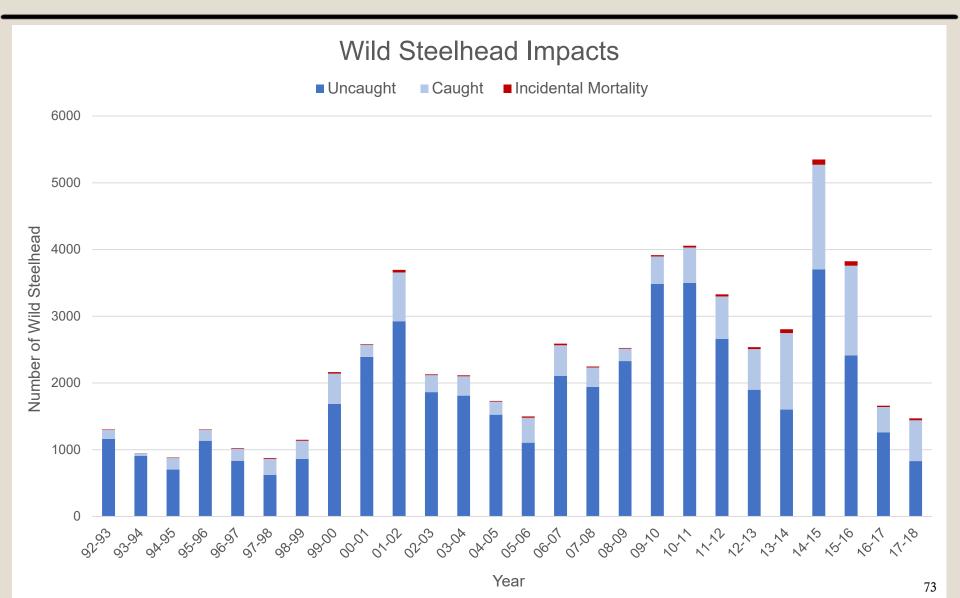


## **Umatilla River**



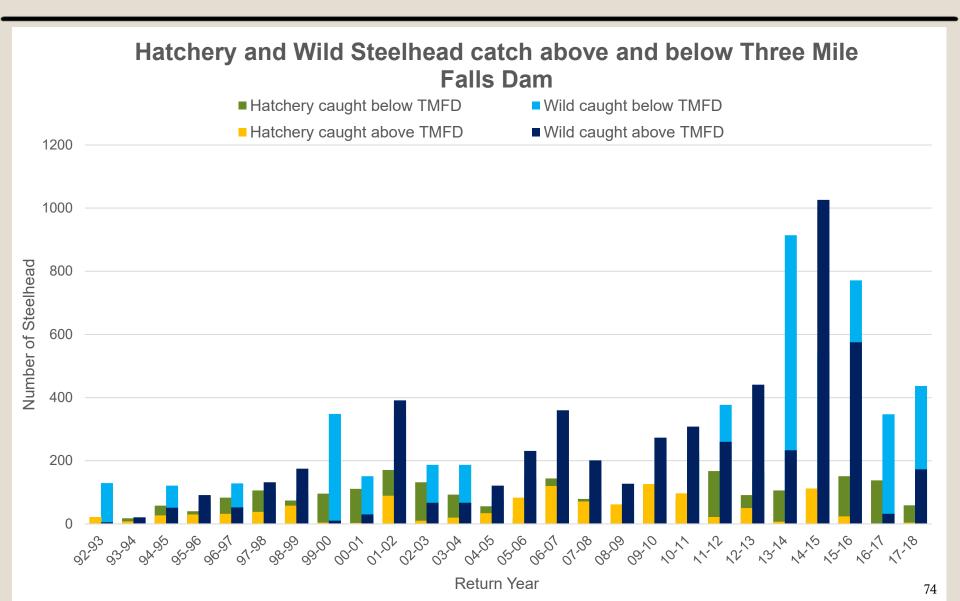


### **Umatilla River**



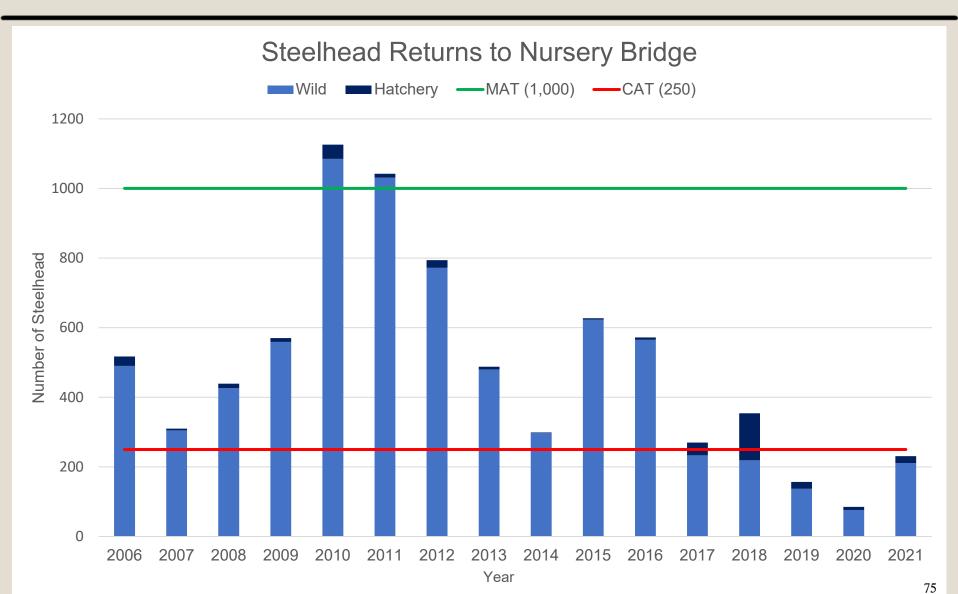


#### **Umatilla River**





### Walla Walla River





#### Umatilla and Walla Walla River

# Actions Being Taken to Improve Steelhead Returns

- ♦ <u>Umatilla River</u>
- Hatchery Program
- McKay Steelhead Outplant Study

- ♦ Walla Walla River
- Nursery Bridge Improvements
- Walla Walla 2050 Water and Implementation Working Group



#### Umatilla and Walla Walla River

#### ♦ 2022-2023 Proposed Regulations

#### ♦ Umatilla River

- Closed from Highway 730 Bridge to Threemile Dam. Open from Threemile Dam to Conf. Tribes of the Umatilla Indian reservation boundary.
- Reasoning for Closure below TMFD: Higher catch rates below TMFD. Need to collect hatchery steelhead at TMFD for broodstock and McKay Creek outplanting.

#### ♦ Walla Walla River

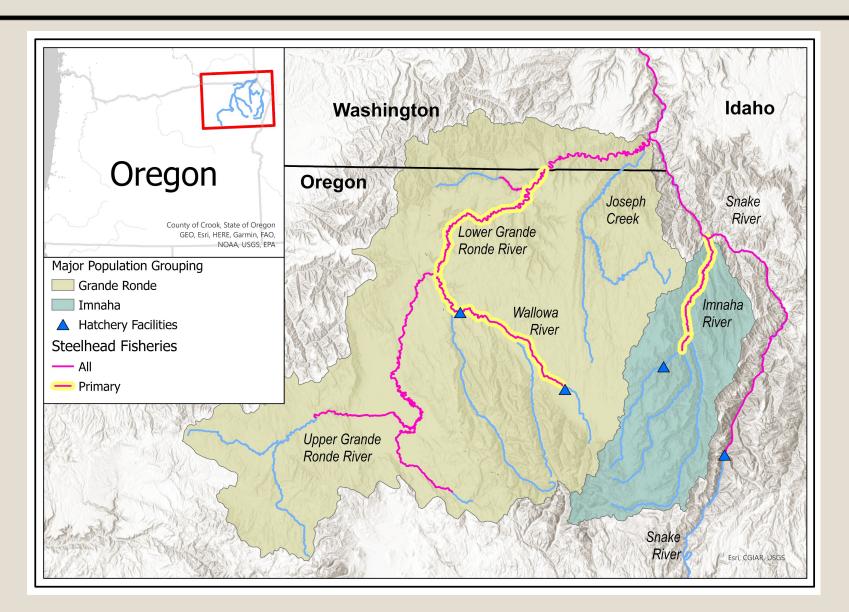
- ♦ Closed.
- Reasoning for Closure: Poor returns and below the critical abundance threshold for past 5 years.



Kyle Bratcher District Fish Biologist Wallowa District Enterprise Field Office Kyle.W.Bratcher@ODFW.Oregon.gov (541) 318-7928









#### Fishery Background

- Lower Snake River Compensation Plan
  - Funds hatchery production for harvest mitigation due to hydroelectric development
- Fisheries Management & Evaluation Plan
  - ♦ Approved by NOAA (2019)
  - Allows harvest of hatchery steelhead
  - Mitigates negative affects on wild steelhead

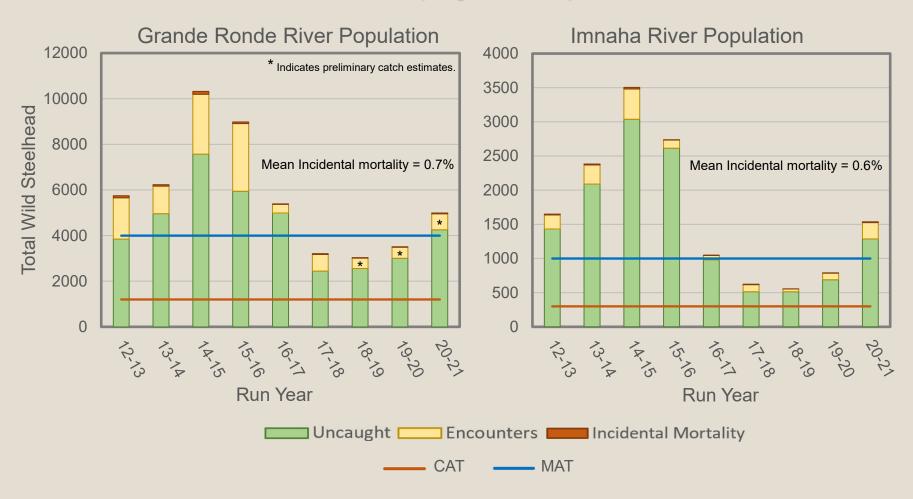


#### Recreational Fishery Regulations

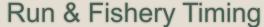
- Permanent Steelhead Regulations
  - ♦ Season: Open from September 1<sup>st</sup> to April 30<sup>th</sup>
  - ♦ Harvest: Three (3) hatchery steelhead per day
  - All wild steelhead must be released unharmed
  - Bait allowed
- Recent Emergency Regulations
  - ♦ Bag limit reductions from 2017-18 to 2020-21 (one or two fish daily limit)
    - Evaluation suggests limited-to-no benefit



## Recent Abundance & Recreational Fishery Impacts (Oregon Fisheries)



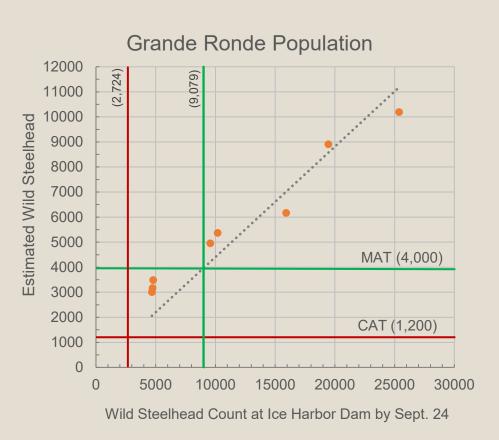


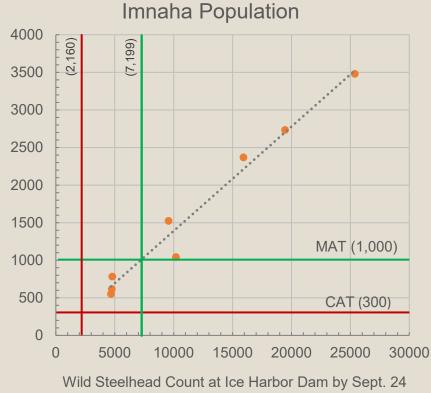






#### Recreational Fishery Modification Indicators







#### Recreational Fisheries Scenarios

- Permanent Regulations
  - Abundance exceeds CAT
  - (Proposed for 2022-23) Forecast suggest abundance approaching viable thresholds for both populations
- ♦ Closed to Steelhead Angling
  - Abundance does not exceed the critical threshold
- Annual communication as projections are developed
  - July to September 24
  - Final proposal based on counts at Ice Harbor



### Questions

- ♦ Go to myodfw.com
  - ♦ Search: Steelhead Management
  - ♦ Select link
  - ♦ Click on: Submit a question or a comment





## Thank you

- For more information visit
- www.myodfw.com
  - ♦ Search for steelhead management
  - ♦ Submit questions in the online form or to od Department of Fish & Wildlife r and Tributary Steelhead Webinar tly about \*