
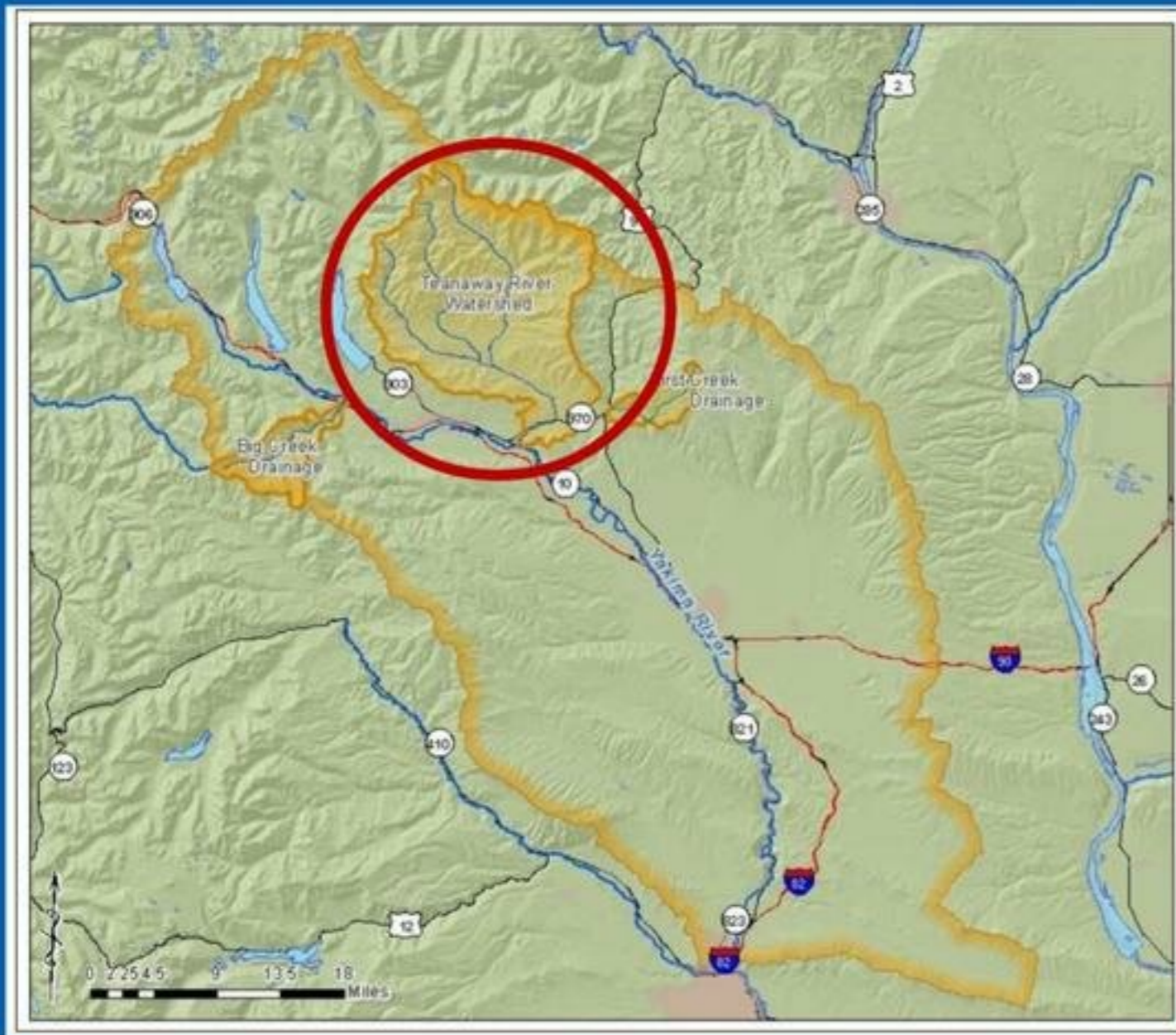


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Teanaway River Trust Water Rights Acquisition Program

SFRB 2023 Application 23-1197 ACQ



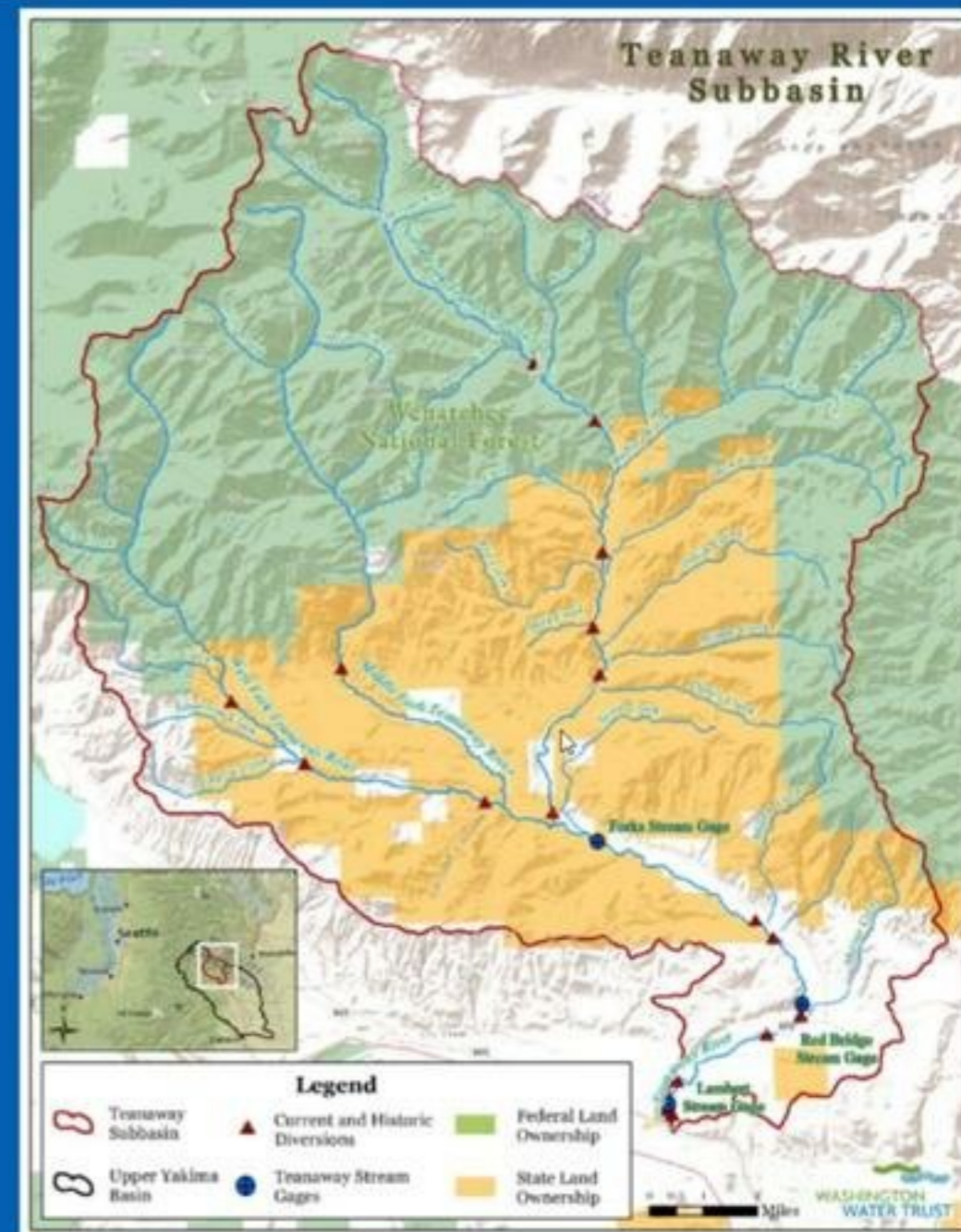


Priority Steelhead Recovery Planning Area

- Low flow and high water temperatures are limiting factors identified in both the *Middle Columbia River Steelhead Distinct Population Segment ESA Recovery Plan* and the *Yakima Steelhead Recovery Plan* in the upper Yakima tributaries.
- 2020 Yakima Basin Fish & Wildlife Recovery Board's Focus Project List TAG Focus Action #16
"Projects that result in **permanent and quantifiable increases in stream flows in the Teanaway**, its forks and Swauk Creek by reducing water diversions or **acquisitions of water rights**"

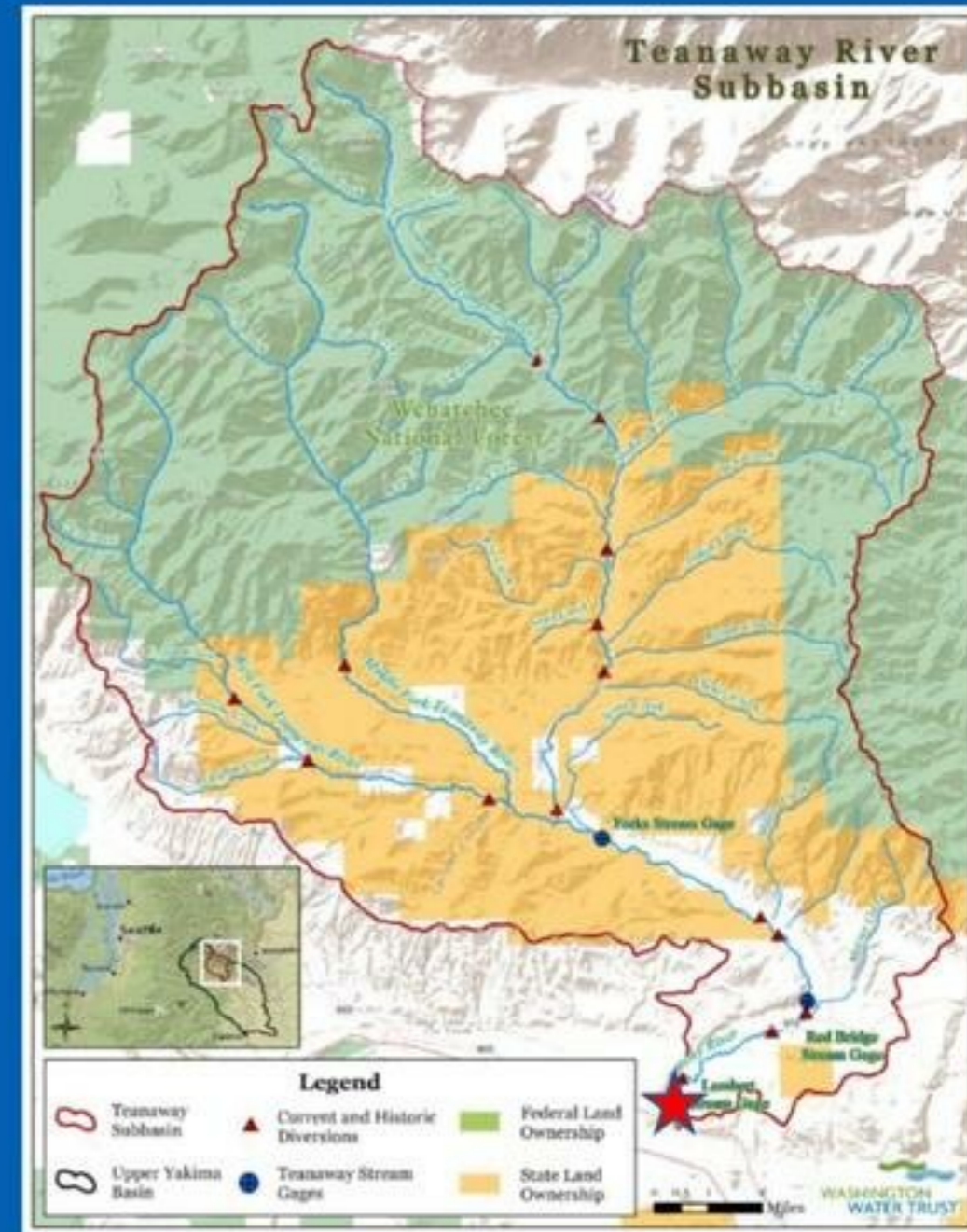
Fish Need Flow

- **MCR steelhead, coho, and spring Chinook**
 - Juvenile rearing habitat quality and quantity associated with low flows and high temperatures.
- **MCR steelhead, coho, and spring Chinook**
 - Summer juvenile outmigration or downstream migration impaired by low flows.
- **Coho and spring Chinook**
 - Summer and fall adult spawner upstream migration impaired by low flows.
- **Coho and spring Chinook**
 - Spawning habitat quantity decreased by low flows.
- Though **bull trout** are not believed to currently spawn in the Teanaway basin, late summer and fall flow restoration would improve migratory and rearing conditions for bull trout



Setting a Goal: Permanent Protection of 12 CFS at the RM 0.55 Critical Riffle in All Years

- Is sufficient for small salmonids (<6" fork length) passage at a critical riffle located 75 meters downstream of Lambert Rd. and serves as an indicator of passage conditions in the lower Yakima River.
- Acquisitions significantly increase the amount of juvenile coho, rainbow trout/steelhead, and spring Chinook habitat that is available, even during non-drought conditions.



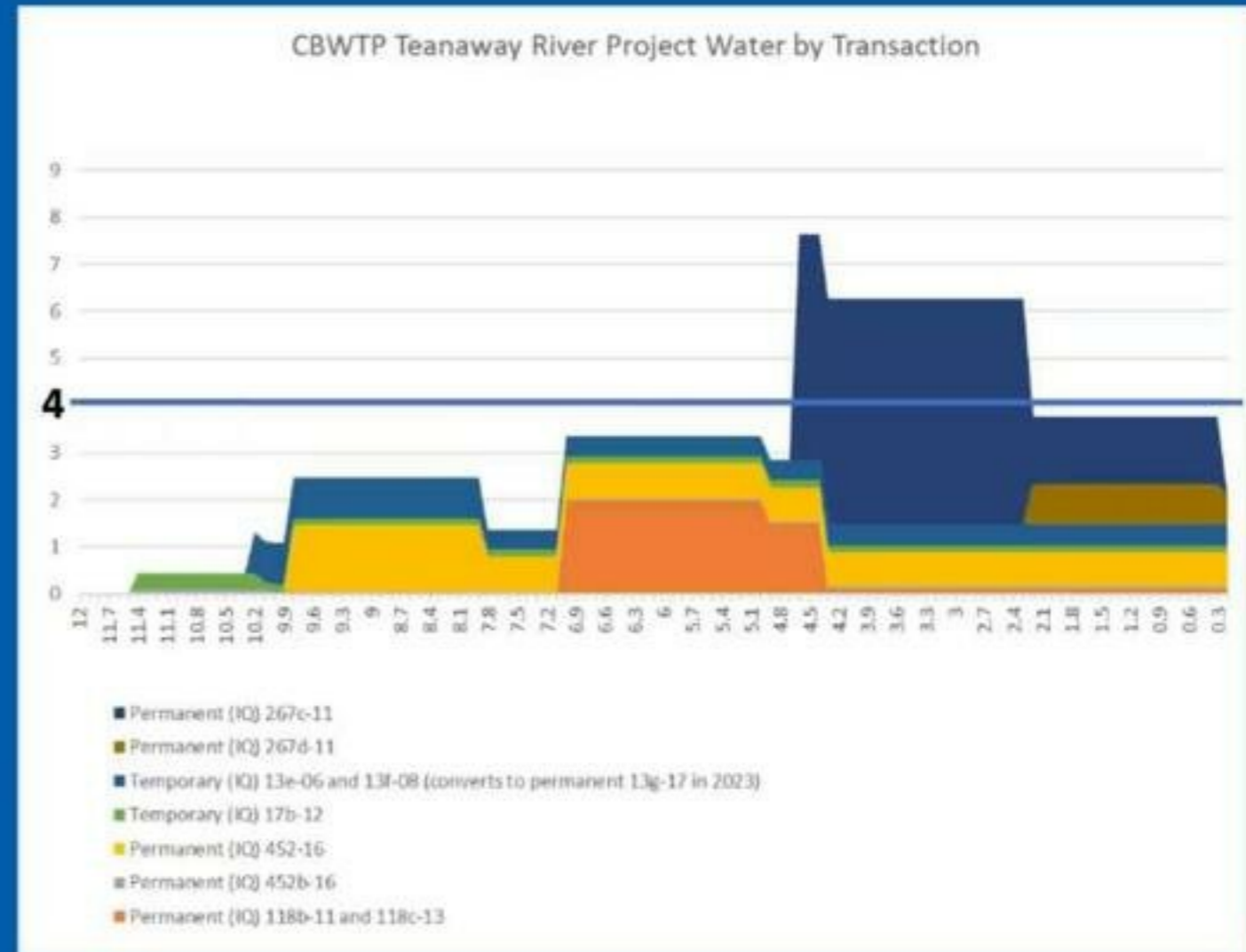
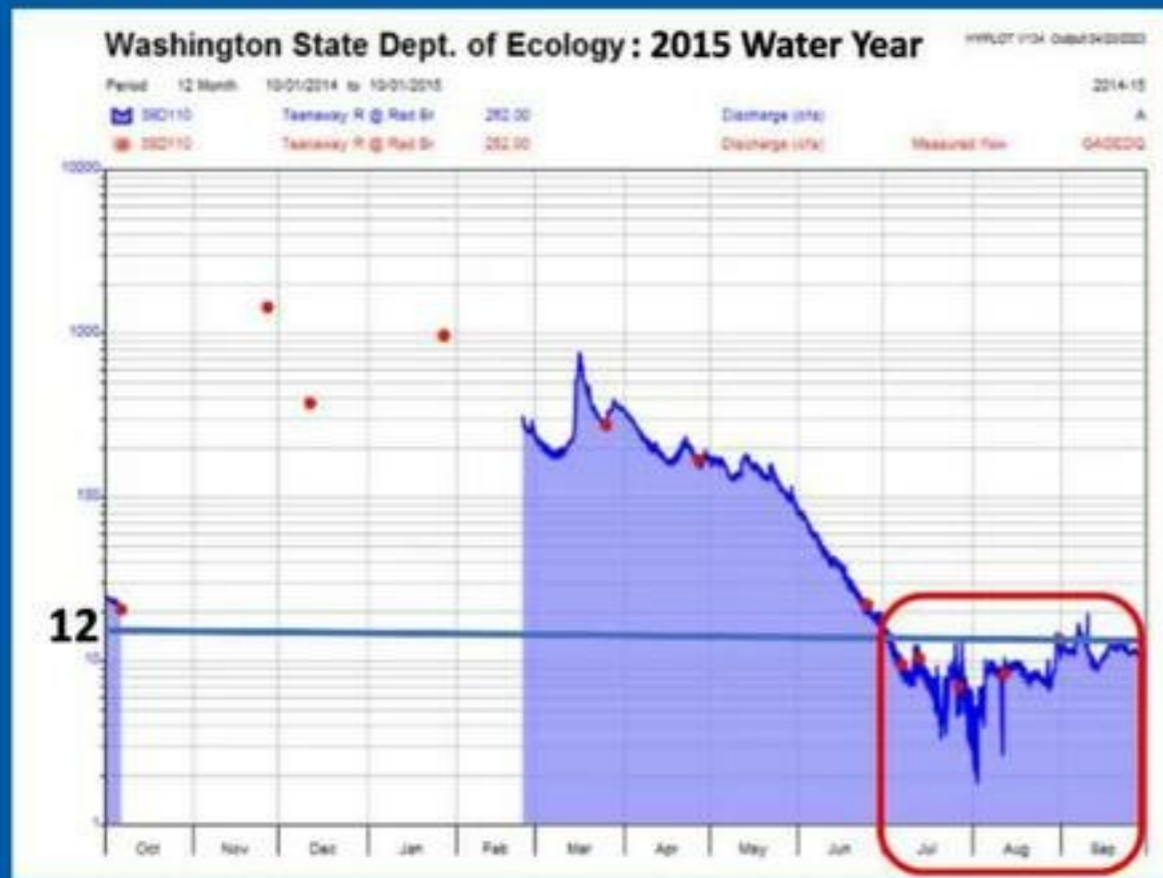
Low Flow Conditions



Teanaway below Red Bridge 8/20/2015

- Annual late summer low flow conditions in the lower Teanaway River continue to inhibit the recovery of anadromous and resident fish populations.
- In the last 15 years, at least half the years flows fell below 10 cfs, and flows as low as 5.5 cfs were recorded.
- Irrigation withdrawals in the lower ~11 miles of the Teanaway in the late summer significantly reduce already low base flows.
- Climate change is leading to a flashier system with low flow conditions occurring earlier, lasting longer, and dropping lower than reference conditions.

Setting a Goal: Permanent Protection of 12 CFS at the RM 0.55 Critical Riffle in All Years



Programmatic Water Right Acquisition Program

FIGURE 1: Historic \$/AF values for CU Water, by Priority Date, in 2015 Dollars



Based on the review of previous water trust deals, and given the estimated value of non-interruptible consumptive use water of \$3,000/acre-foot, we have weighted suggested values of water rights according to Table 2. These proposed current values are shown in orange in the scatterplot in Table 1 above.

TABLE 2: Water Rights Weighted Value, by Priority Date Class

Year	Pre 1884	1884-1885	1886-1889	1890-1894	1895-1899	1902-1904
Weight	1.0	.9	.8	.7	.6	.5
\$/AF	\$2,700 -	\$2,400 -	\$2,100 -	\$1,800 -	\$1,500	\$1,200 -
CU	\$3,000	\$2,700	\$2,400	\$2,100	\$1,800	\$1,500

• Target Water Rights

- Water Rights with 1883 to 1905 priority dates that divert from the Teanaway River
- 2005: 25-50 Year Drought
 - Curtailed water rights down to 1902
- 2015 : 500+ Year Drought
 - Curtailed water rights down to 1886

• Water Right Pricing

- WWT valued water rights by priority date and benchmarked pricing against a review of similar water transactions in the Yakima Basin.

Programmatic Water Right Acquisition Program

- **Goals**

- Decrease transaction costs associated with instream donations and leases and incentivize permanent transactions.
- Provide environmental water right pricing stability and assurance.
- Leverage 20 year's of trust and relationships developed in the watershed
- Permanently restore critical flows to the Teanaway River.



Teanaway at Red Bridge 8/17/2016

2023 Program Opportunity

- 8 opportunities to add up to:
 - 3.8 cfs and 940 acre-feet/year of water in the primary reach
 - 2.0 cfs and 348 acre-feet of consumptive use water in the secondary reach.
- Perusing Landowner Acknowledgment Forms from targeted opportunities. Landowner willingness remains the largest challenge to the program.
- Significant cost share of acquisitions via National Fish and Wildlife Columbia Basin Water Transaction Program.
- Acquired instream flow placed in WA Trust Water Rights Program with monitoring by WWT/WDFW and enforcement by local Ecology water master.

Questions?



**Ethan Lockwood,
Project Manager**