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November 10, 2020

MEMORANDUM

TO: Fish and Wildlife Committee Members

FROM: Todd Ungerecht, Policy Analyst, Idaho Office

SUBJECT: Nov. 17th Presentation of Idaho Department of Fish & Game and Friends of the Teton River on the status of South Fork Snake River and Teton River Yellowstone Cutthroat Trout restoration efforts

Presenters: Brett High, Idaho Department of Fish and Game
Sarah Lien and Amy Verbeten, Friends of the Teton River

Summary: Mr. High, Mrs. Lien, and Mrs. Verbeten will update the Committee on the status of a successful Council-funded resident fish program (#2007-170-00) and ongoing Columbia Basin Water Transaction projects to restore Yellowstone Cutthroat Trout in the South Fork Snake and Teton Rivers.

Background:

The South Fork Snake River includes about 60 river miles from Palisades Dam to the Henrys Fork Snake River confluence, supports one of the few remaining functioning populations of Yellowstone Cutthroat Trout (YCT) within their native range, and is an economically important recreational fishery, along with brown trout, rainbow trout and trout hybrids.

Between the late 1990's and early 2000's, YCT experienced abundance and distribution reductions. Since 2004, the Idaho Department of Fish and Game (IDFG) has implemented intensive conservation management activities, including use of modified fish weirs and traps during spring migration to remove non-native rainbow trout to protect the

genetic integrity of YCT in four major spawning tributaries of the South Fork Snake River. Electric barrier weirs create an electric field that forces rainbow trout to turn sideways to the stream flow and they are swept downstream to fish traps. Since 2008, YCT have been tagged with passive integrated transponders (PIT) to track spawning behavior, movement patterns, survival rates and interactions with rainbow trout.

In addition to the South Fork Snake River, the upper Teton River Watershed is one of the few remaining geographies where YCT persist in the entire Greater Yellowstone Ecosystem (GYE), and is one of the predominant wild YCT fisheries left in the range. Historically, YCT occupied much of the GYE stretching across southern Idaho, Montana, northwestern Wyoming, and small regions of Nevada and Utah. Currently, non-hybridized YCT are found in 23% of their historic range, having been largely impacted by dewatered streams, habitat loss, and non-native competition. The fisheries data that FTR and its partners have collected in recent years has indicated that the Teton River watershed, and particularly the tributaries of Teton, Badger, Bitch and Canyon Creeks, provides some of the “last best” refugia and opportunity for the persistence of the species.

Friends of the Teton (FTR) is working collaboratively with IDFG, the Idaho Water Resources Board, farmers, ranchers, local governments and other entities to implement projects in the Teton River watershed, including projects to revegetate stream channels and riparian areas, improve water quality, improve fish passage, and restore floodplains. Importantly, FTR is working to restore flow to the Teton River and its tributaries to improve habitat availability and stream conditions for the benefit of YCT.

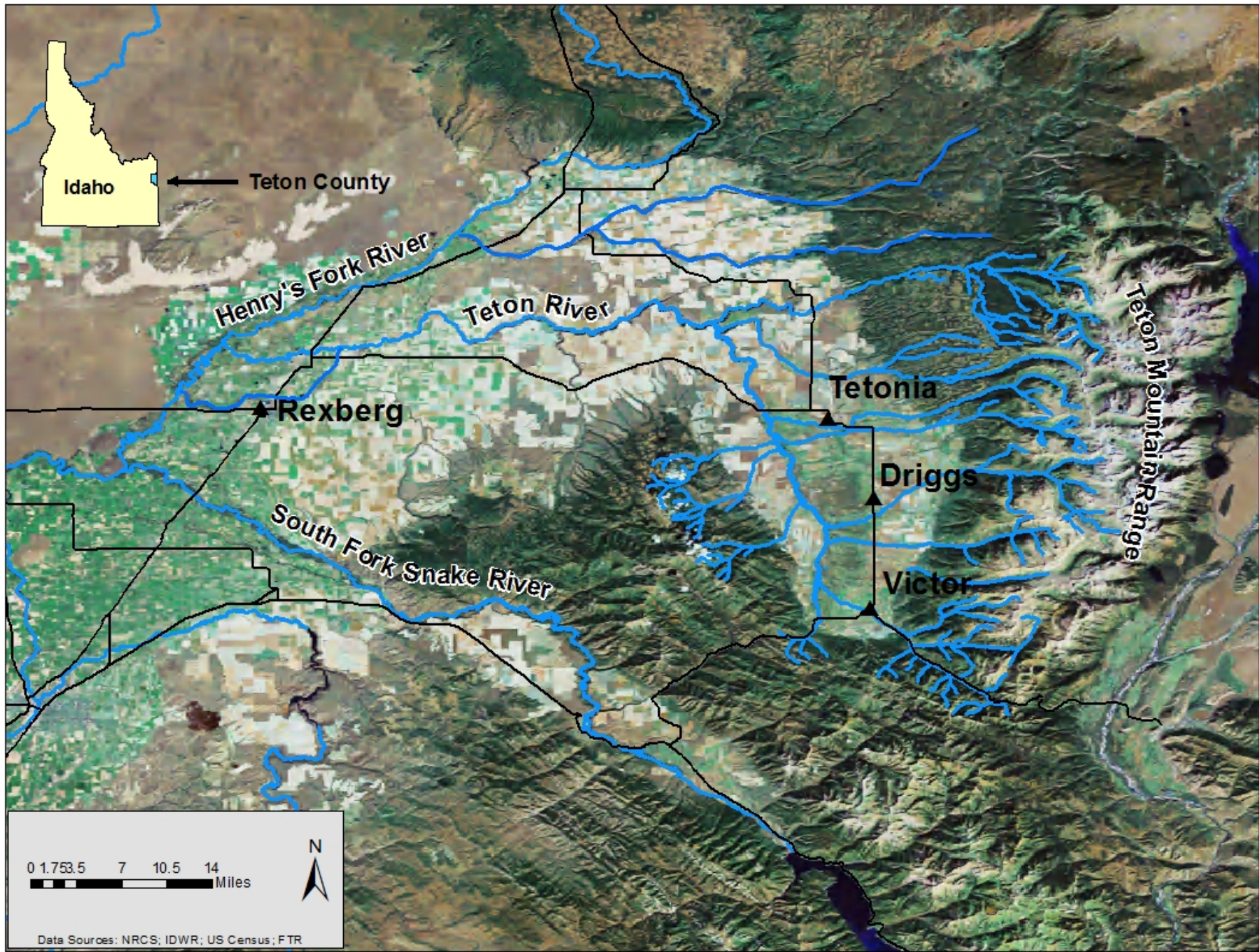
This year, the Council recommended two Columbia Basin Water Transaction projects totaling \$140,000 to improve stream flows and temperature conditions in the Teton River and its tributaries for YCT. Additionally, FTR recently began work on a streambank restoration project along the Teton River, at the Bates Banks public access park. The project will narrow the channel, maintain gravel, and provide shade for spawning YCT by planting willow shoots and other native vegetation.

The efforts of IDFG and its partners in the region seek to improve survival of native YCT populations, consistent with the Council’s objectives to “preserve, enhance, and restore native fish in native habitats,” and address limiting factors affecting resident fish. These efforts appear to be working, as evidenced by 2017 electrofishing survey results which found that the Teton River’s Nickerson electrofishing site experienced an increase in YCT densities from 14 per mile in 2003 to 936 per mile in 2017.

Friends of the Teton River

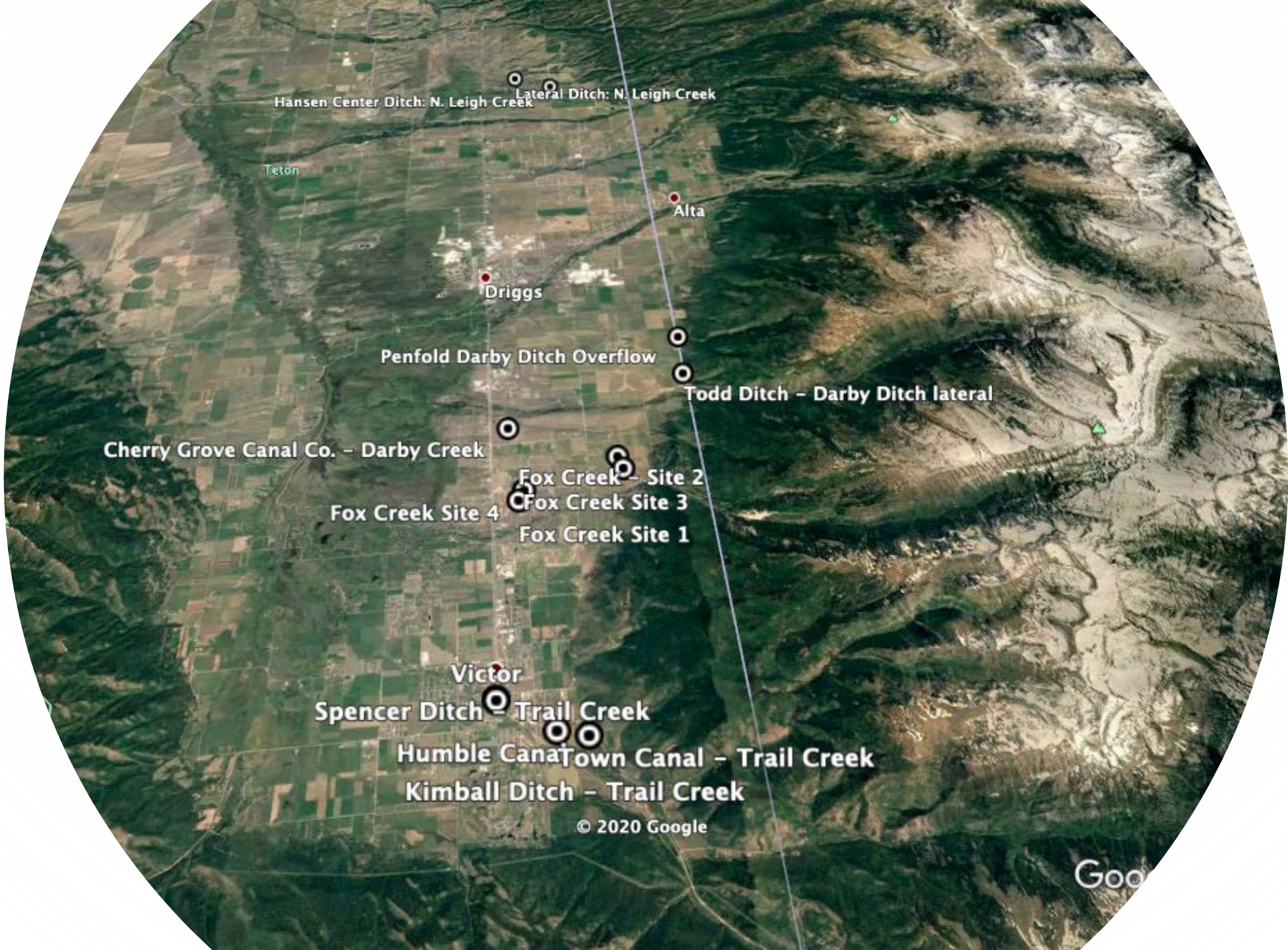


Working for clean water, healthy streams
and resilient fisheries



VIDEO

LIFEBLOOD: FROM FARMS TO FISH



Hansen Center Ditch: N. Leigh Creek

Lateral Ditch: N. Leigh Creek

Teton

Alta

Driggs

Penfold Darby Ditch Overflow

Todd Ditch - Darby Ditch lateral

Cherry Grove Canal Co. - Darby Creek

Fox Creek - Site 2

Fox Creek Site 4

Fox Creek Site 3

Fox Creek Site 1

Victor

Spencer Ditch - Trail Creek

Trail Creek

Humble Canal

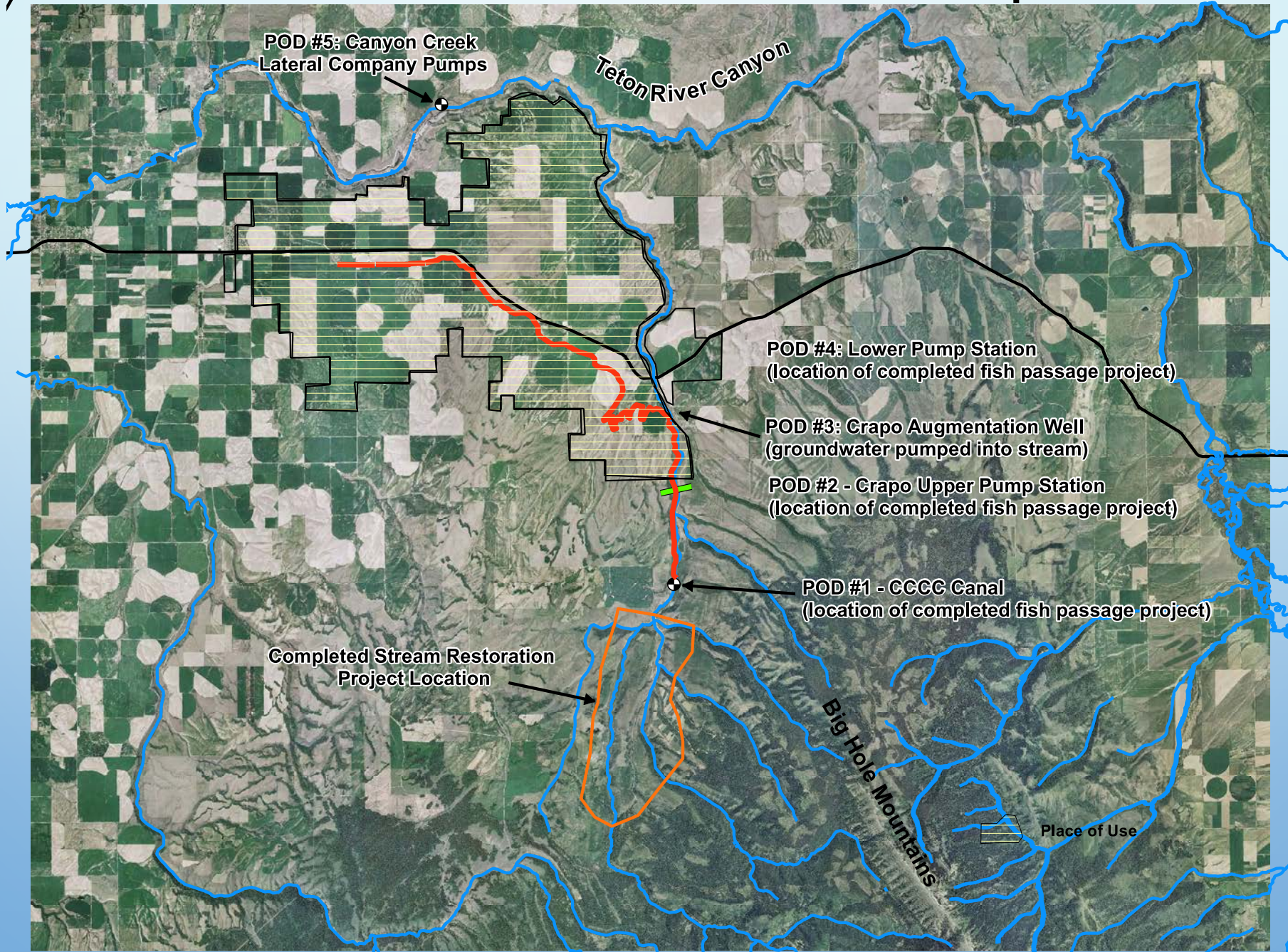
Town Canal - Trail Creek

Kimball Ditch - Trail Creek

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Go

n Creek Flow Restoration Map





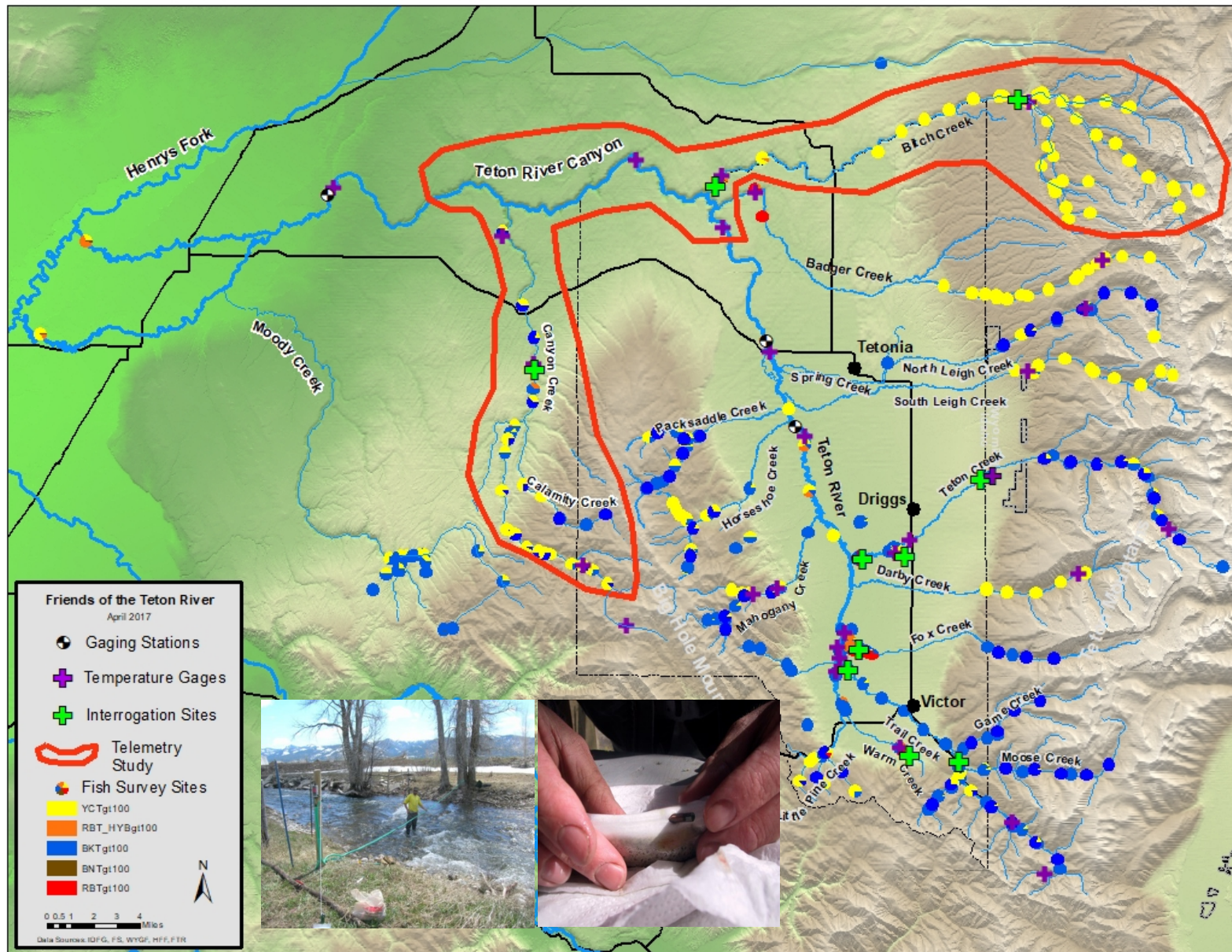
☀ 1°N (T) 🌑 43°50'4"N, 111°26'22"W ±32ft ▲ 5746ft



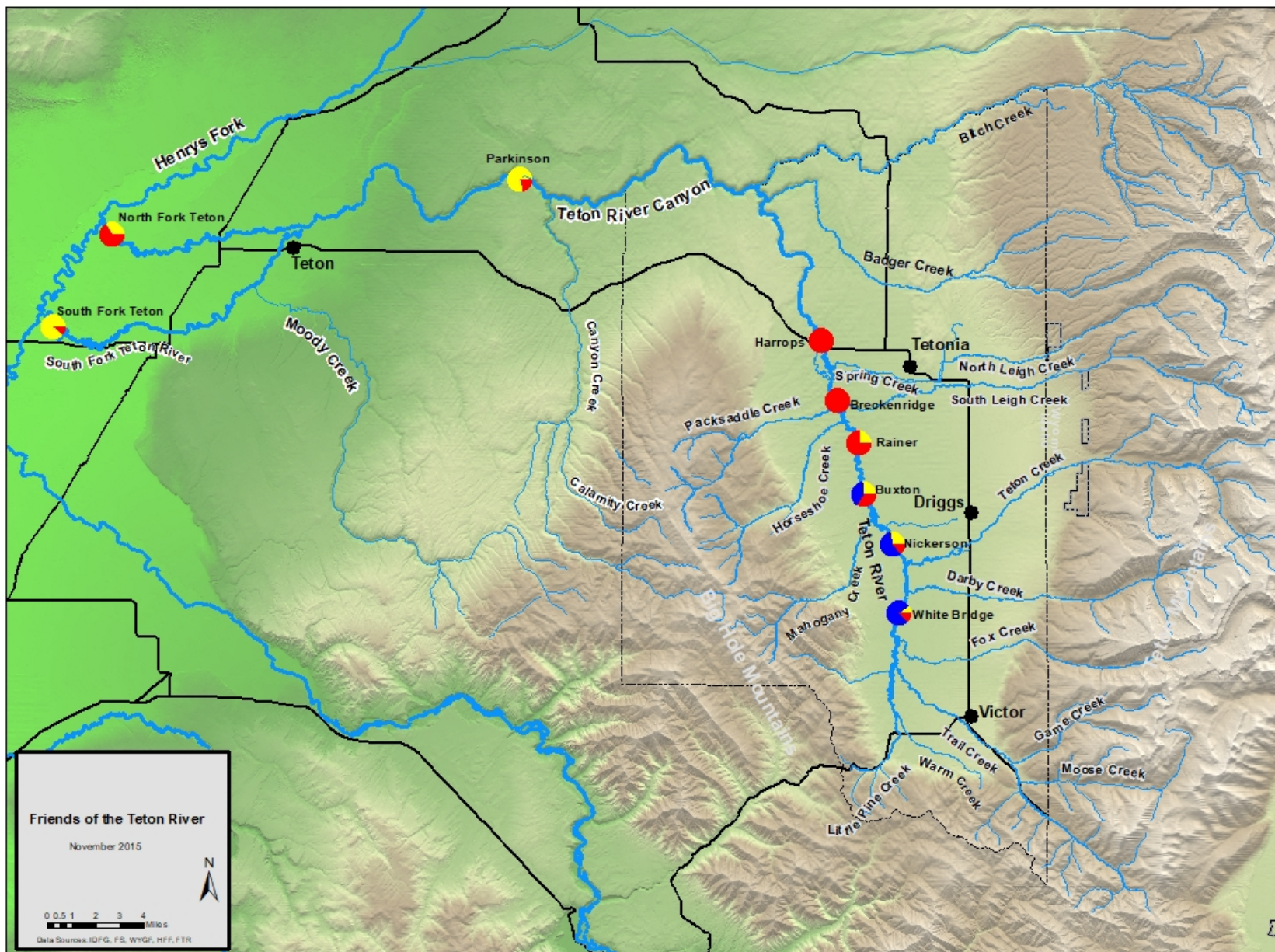
Canyon creek site 2
Your Watermark - See Settings

Flow monitoring
21 Apr 2020, 14:28:14

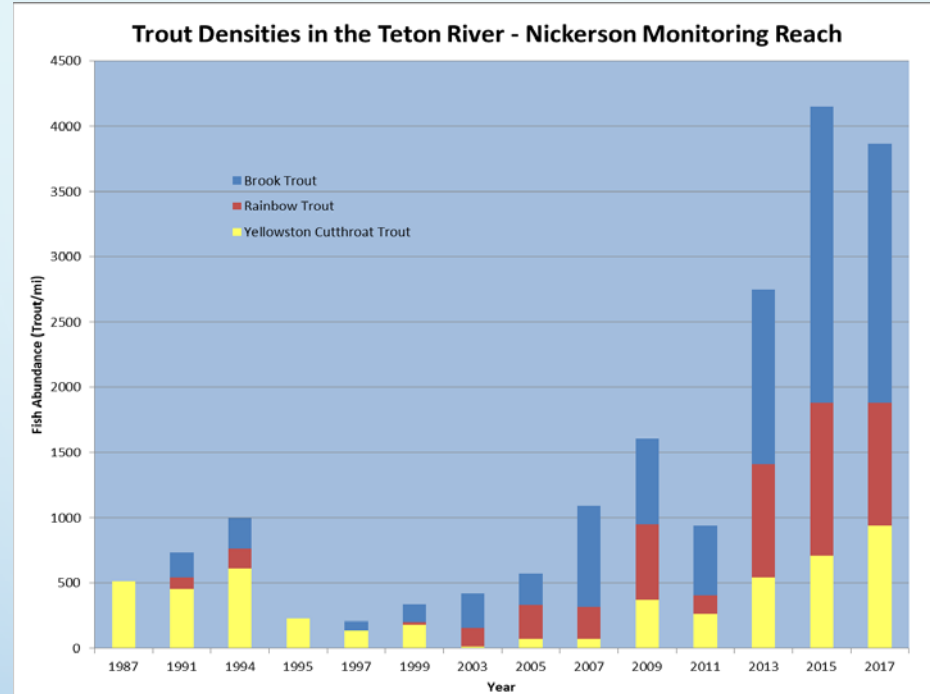
On-going Monitoring



IDFG Teton River Sites



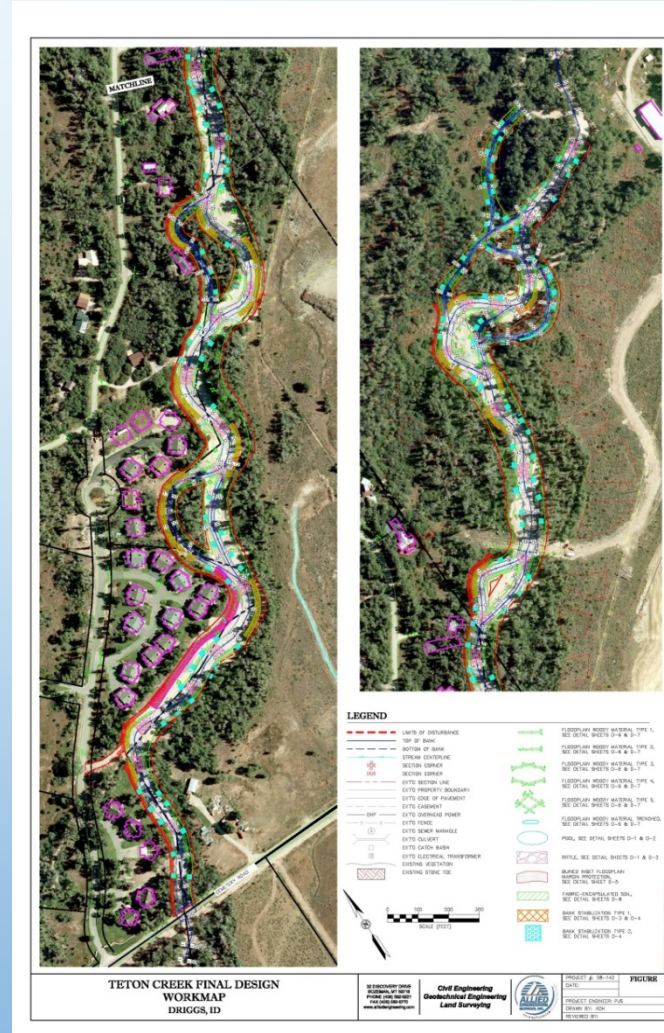
TETON RIVER NICKERSON SITE POPULATION TRENDS



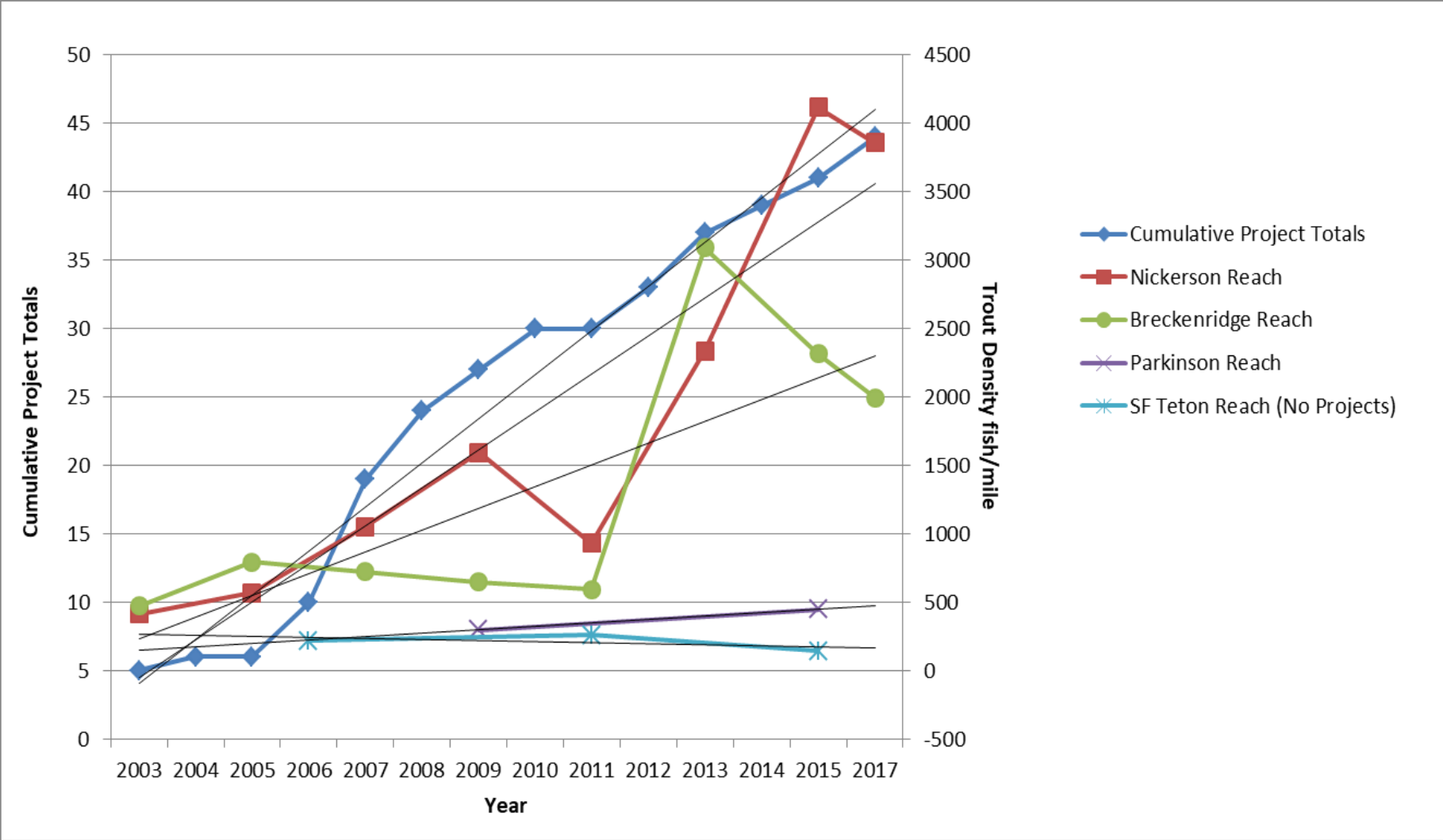
Data Source: IDFG

SIGNIFICANT CONSERVATION PROJECTS STARTED IN EARNEST IN 2003:

- 26 STREAM RESTORATION PROJECTS: 5.6 MILES OF STREAMBANK. SEDIMENT LOAD REDUCTION: 4,500 TONS/YEAR (**DEQ: 3,169 TONS/YEAR**)
- 3 FISH SCREENS
- 7 FISH LADDERS/FISH PASSAGE PROJECTS
- RESTORED FLOW=MORE WATER
- MANAGEMENT OF CANALS (SLOW RAMP-DOWN)



UPPER TETON RIVER TROUT DENSITIES AND CONSERVATION PROJECT CORRELATION



Data Source: IDFG



Partners Make our work Possible!

QUESTIONS?

