

Teanaway Community Forest: Habitat Restoration and Grazing

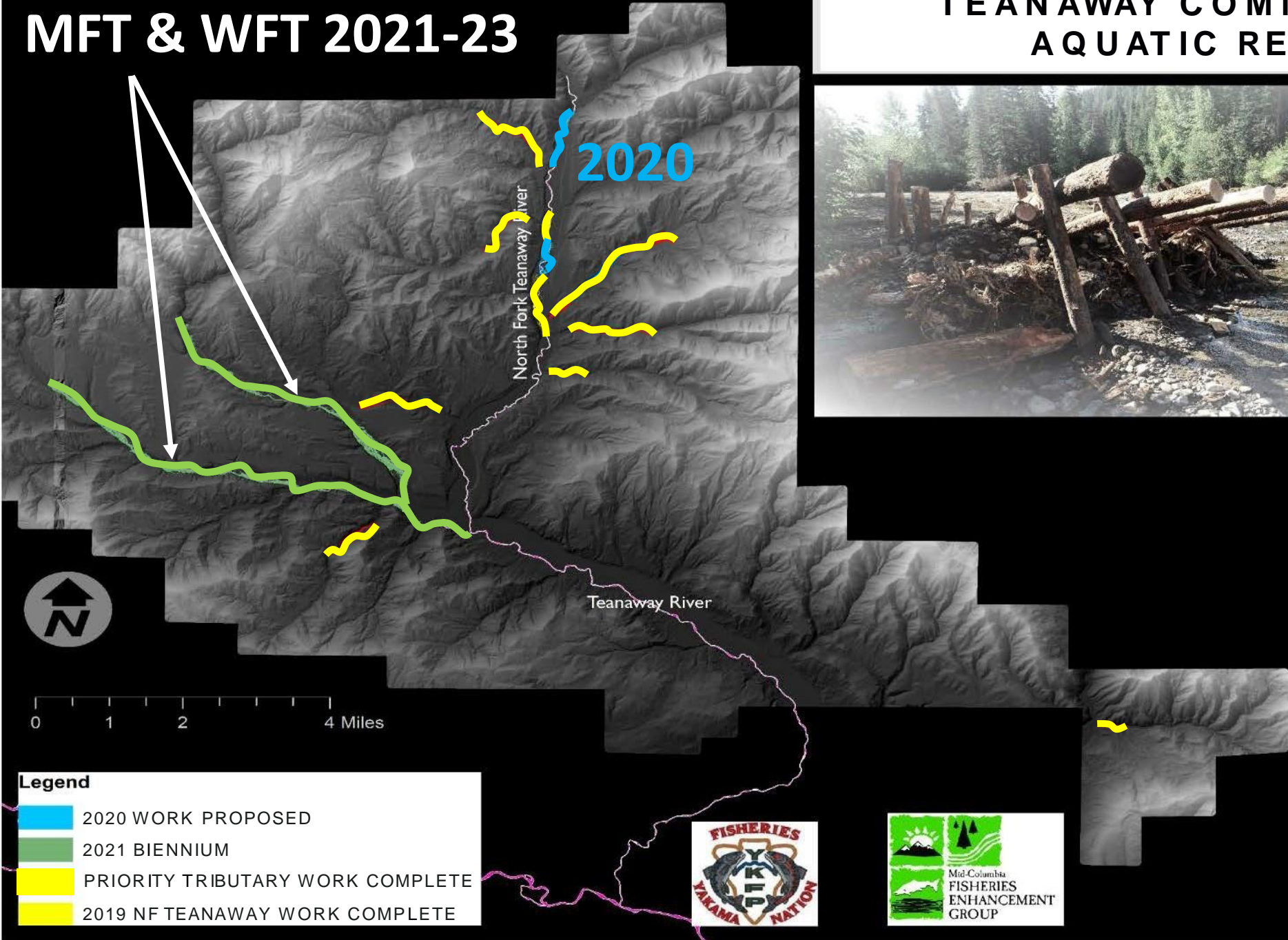
Presentation to
Teanaway Advisory Committee: April 16th, 2020
WDFW, YKFP, MCF, WDNR

Aquatic Restoration and Grazing management

- Where we've been
- Where we're going
- 10 Minutes!

MFT & WFT 2021-23

TEANAWAY COMMUNITY FOREST AQUATIC RESTORATION





2019 North Fork
Teaway
Large Wood Additions



Wood Trapping Structures



Helicopter Placed Log Jams

3,438,500 POUNDS OF WOODY MATERIALS PLACED AND STAGED WITH HELICOPTER OVER 25.4 HOURS



Beaver Activity
~1 week!





January
2020

Preliminary Results



Gravel Deposition

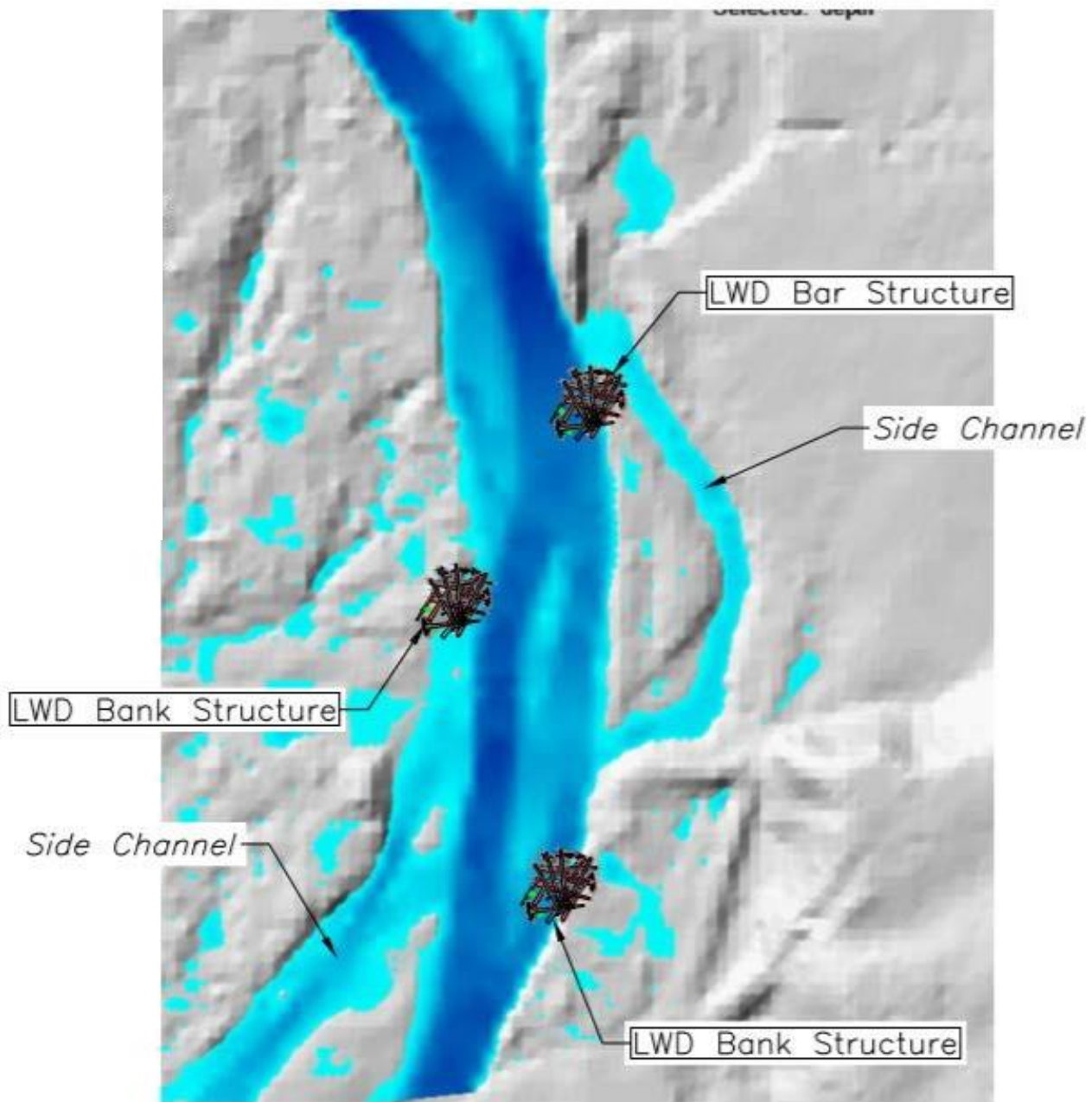


Some Wood Mobilization

January 2020



2020 North Fork
Teaway
Restoration Actions



RAS 2D Depth Model - Existing 2 Year Flood
Scale: NTS

Wood Trapping Structures

ALTERNATIVE 2 - partial removal of artificial topography

- Remove the bare minimum of artificial topography to allow for a more natural channel evolution process, while providing a sediment source for the downstream reach

- 4 sections of the berm (up to 2,100 CY), and a remnant levee (up to 400 CY) to be removed. Total removal: 2,500 CY

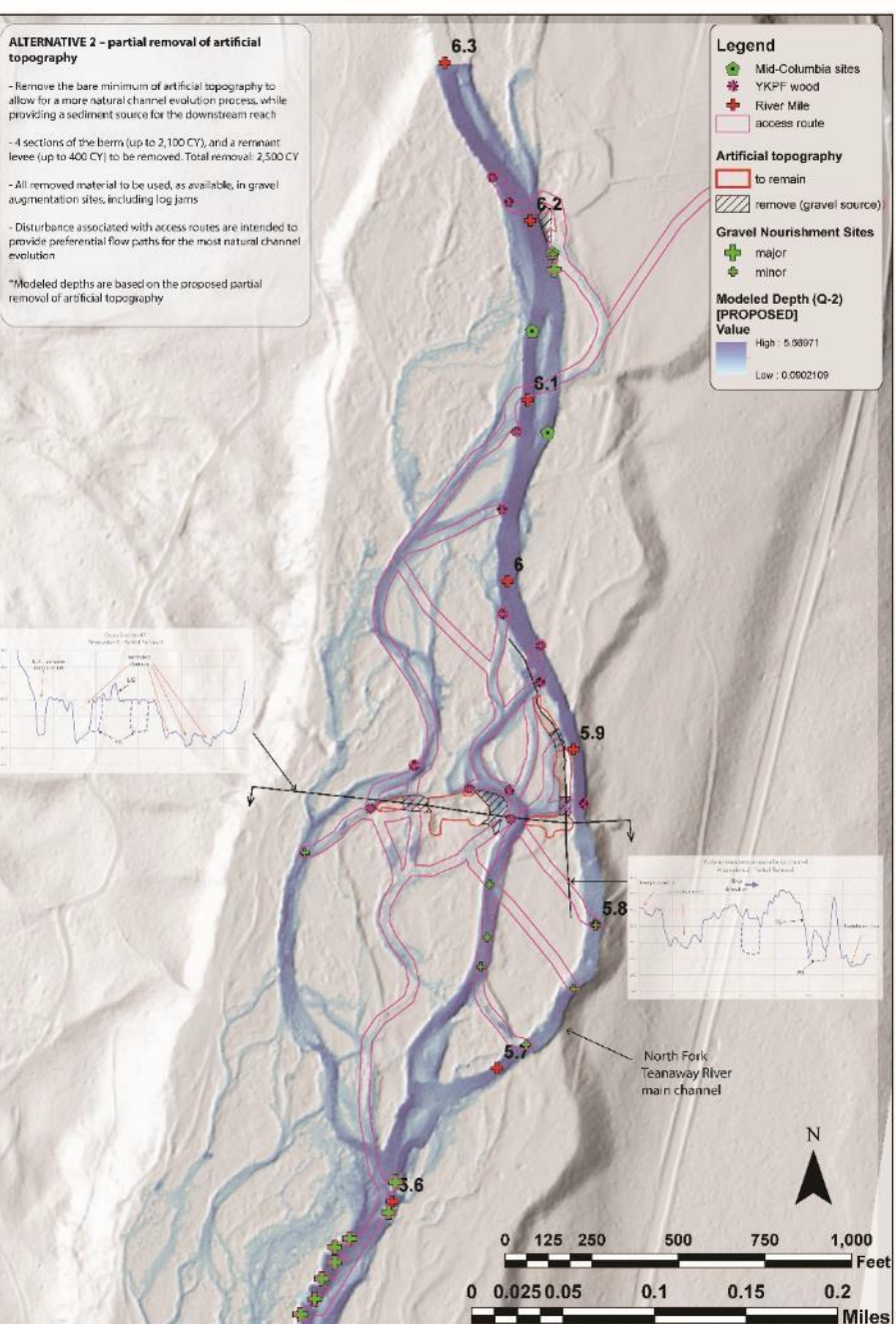
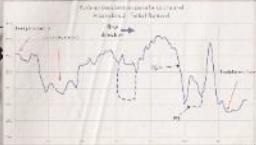
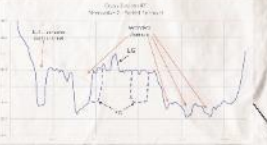
- All removed material to be used, as available, in gravel augmentation sites, including log jams

- Disturbance associated with access routes are intended to provide preferential flow paths for the most natural channel evolution

*Modeled depths are based on the proposed partial removal of artificial topography

Legend

- Mid-Columbia sites
 - YKPF wood
 - River Mile
 - access route
- Artificial topography**
- to remain
 - remove (gravel source)
- Gravel Nourishment Sites**
- major
 - minor
- Modeled Depth (Q-2) [PROPOSED]**
- Value
- High : 5.06971
 - Low : 0.0602109



Splitters, Deflectors,
Levee Removal and
Gravel Augmentation

Historic Teanaway Splash Dam



Velocity

Value

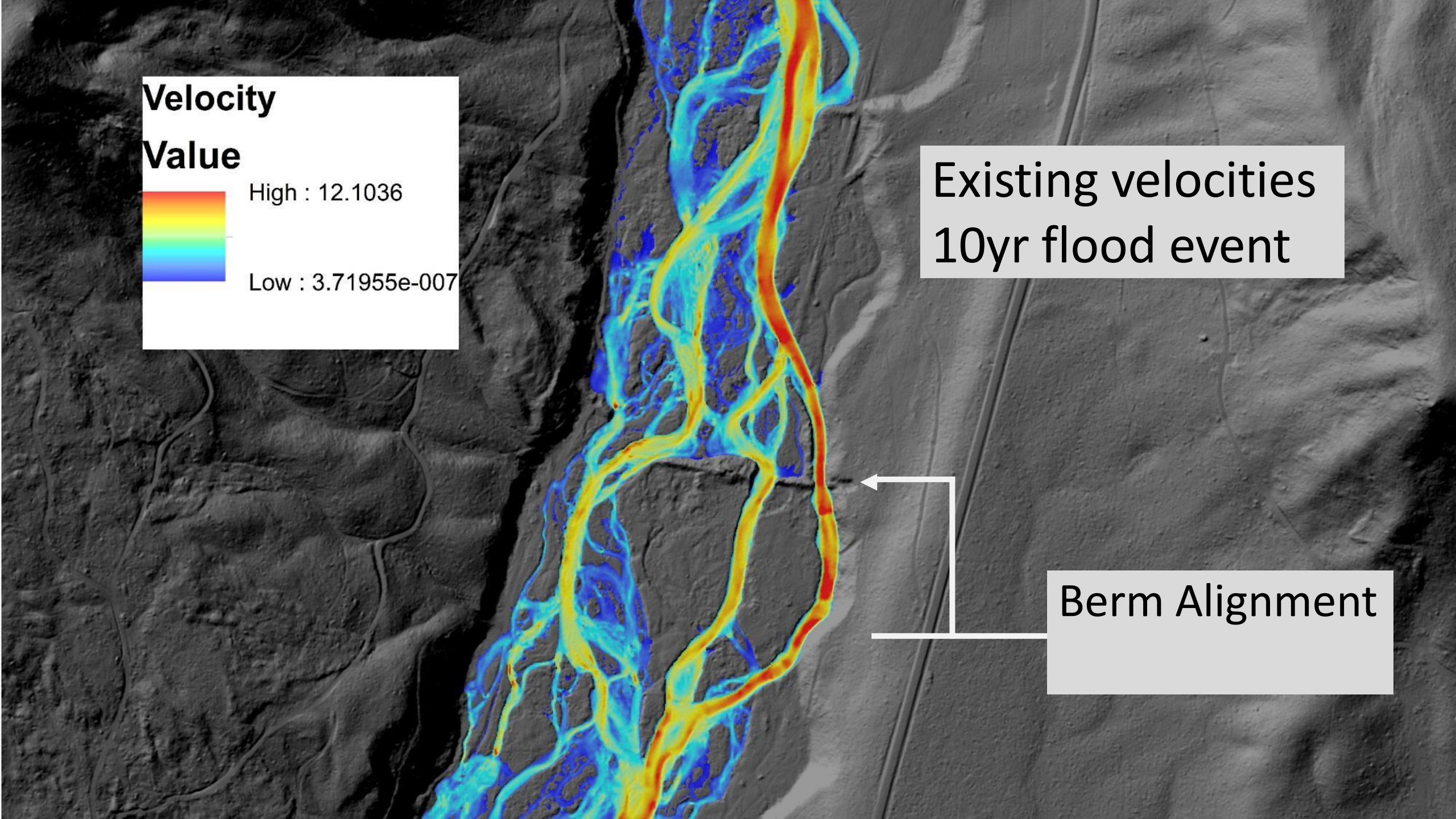


High : 12.1036

Low : 3.71955e-007

Existing velocities
10yr flood event

Berm Alignment



Velocity

ft/sec

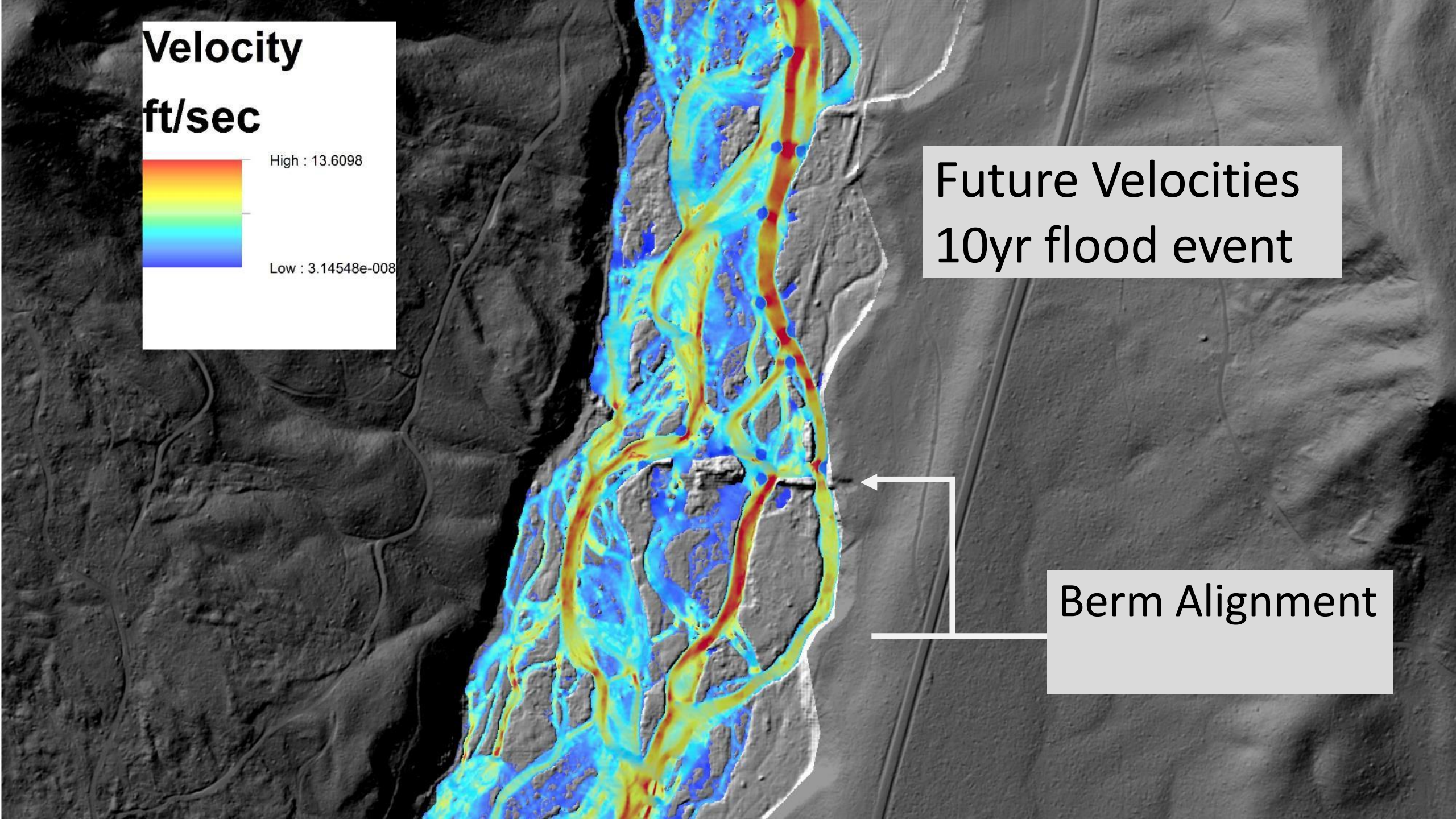


High : 13.6098

Low : 3.14548e-008

Future Velocities
10yr flood event

Berm Alignment



2020 Work: 29 Pines to Stafford Creek = ~ 1 Mile

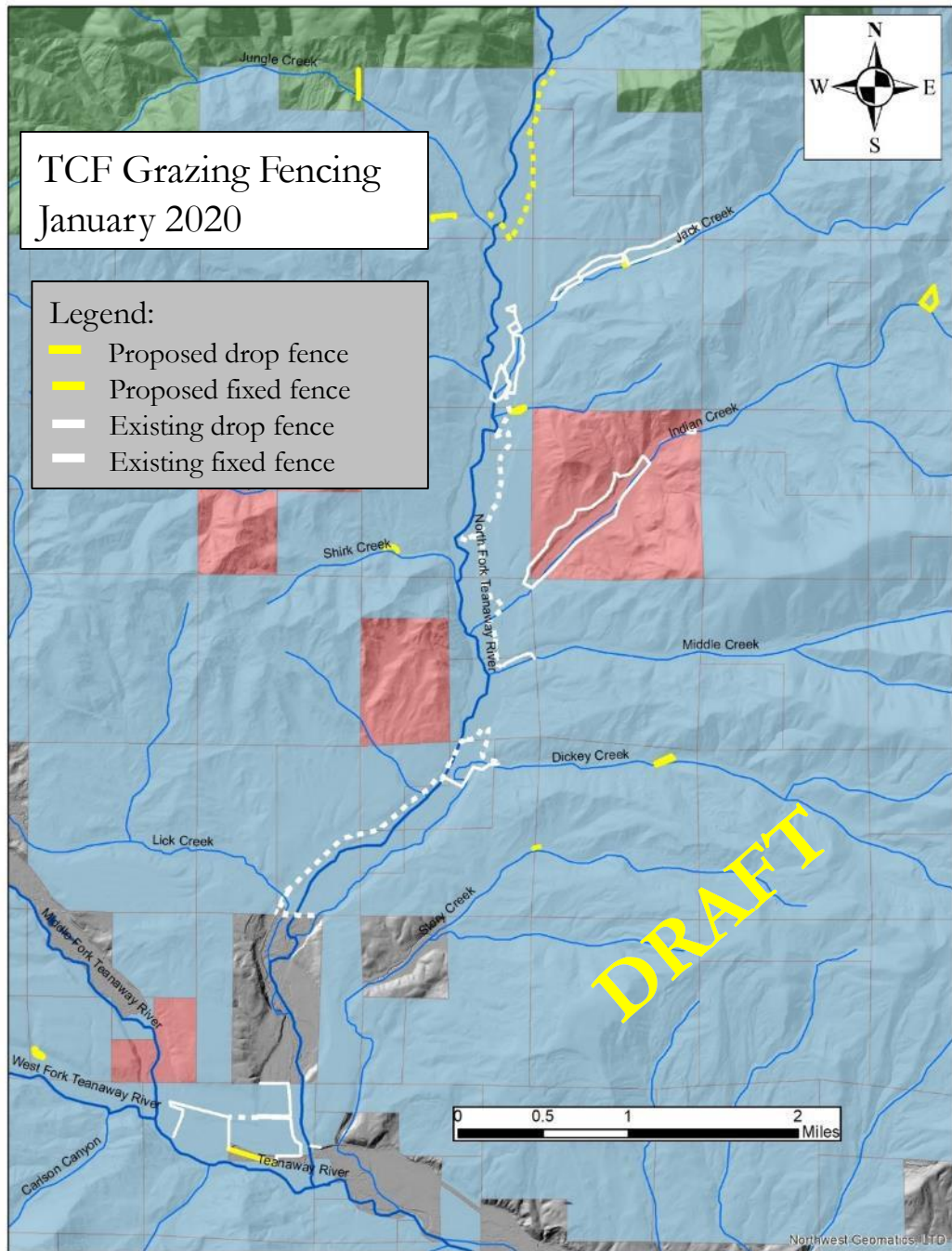




MF & WF Teanaway
Geomorphic
Assessment
2020-21

TCF Grazing Update





Existing fence at TCF creation:

~5.5-6.5 miles fixed fence

Fence constructed since TCF creation:

~4.2 miles drop fence

~2.2 miles electric fence

Proposed additional fence in 2020:

~1.3 miles drop fence

~2.5 – 3.2 miles fixed fence

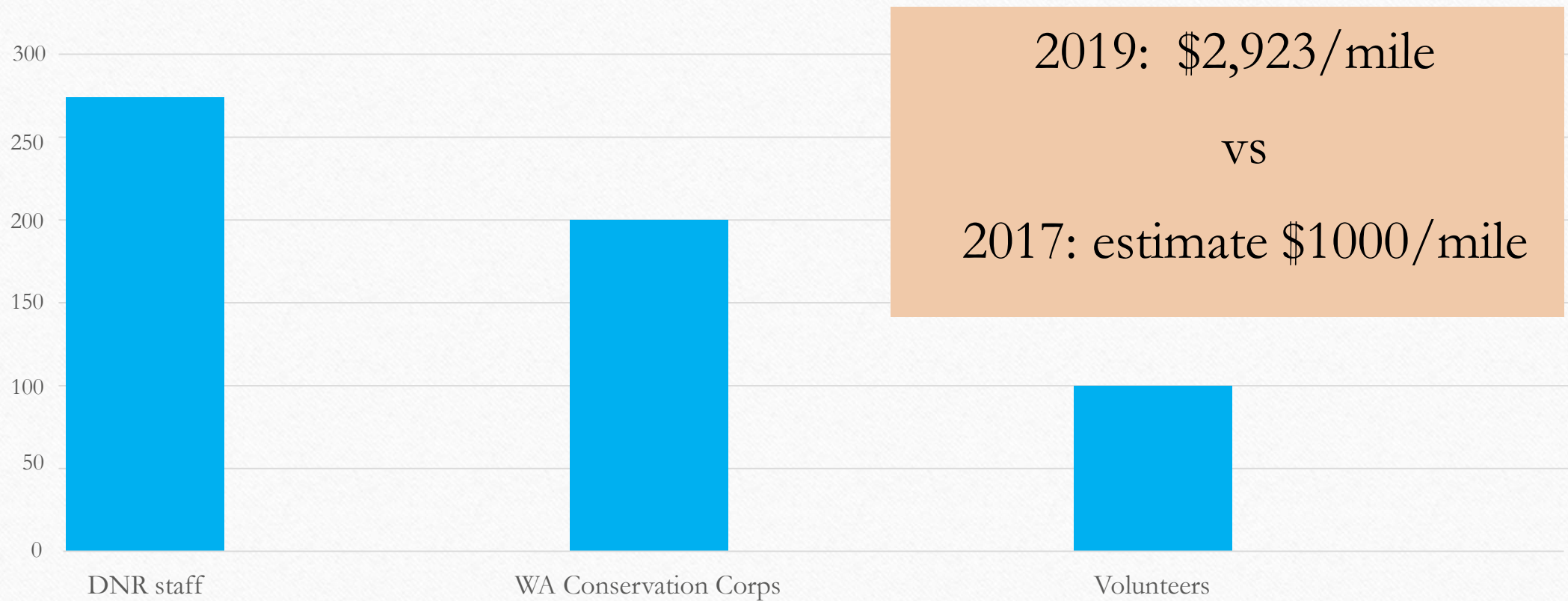
TCF Grazing Management:

Probably no scenario where full floodplain exclusion makes sense

1. Maintenance workload exceeding capacity, so \$ from KCCD/RCP
2. Lease language not written clearly – Clarifying for future
3. New fence – up to 4.2 miles + continued monitoring should lead to additional improvements.

TCF Grazing Management Time & Expense

2019 TCF fence maintenance hours



TCF: Why are livestock challenging?

- Balance between Aquatic Restoration and Grazing Goals
- Building fence works, but is time/\$ intensive; cow behavior
- We expect active and passive restoration will be successful in improving riparian function and aquatic habitat

A photograph of a forest scene with a river. Two people are visible in the foreground, one in a green jacket and one in a blue shirt, both using long poles to interact with the riverbank. The background is a dense forest of evergreen trees. The word "Questions?" is written in a large, white, serif font across the center of the image, with a thin white horizontal line underneath it. The entire image is framed by a white border and set against a dark brown background with two dark grey rectangular bars on the left and right sides.

Questions?