

Griffin Creek Pilot Project

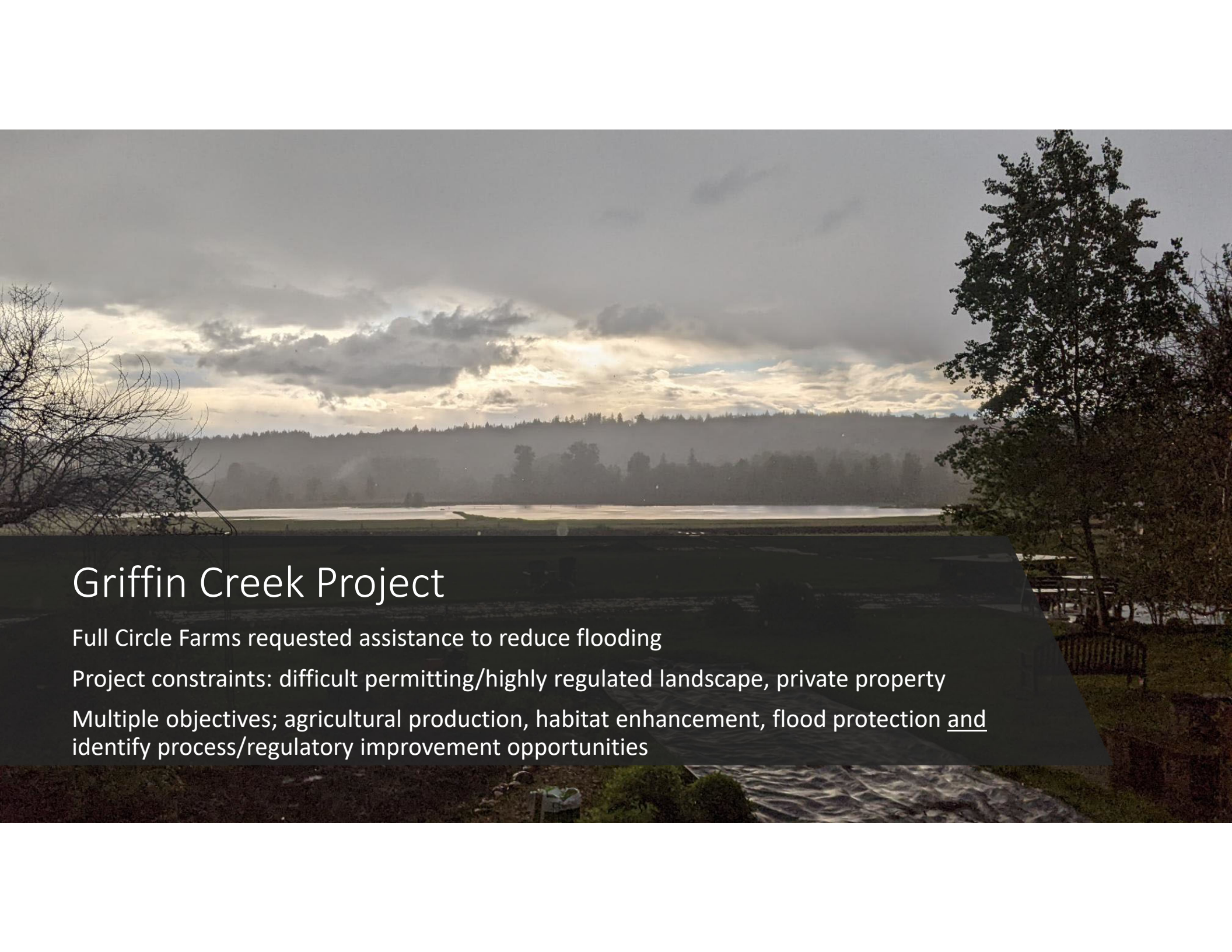
July 14, 2022





Integrated Drainage Projects (IDP)

- Fish, Farm, Flood; farmers asked for drainage assistance beyond ADAP
- IDP is aimed at providing county wide drainage services, in larger systems &/or more complex projects than ADAP
- Focused on agricultural drainage; projects overlap with salmon recovery, flood hazard mitigation objectives
- Projects take place on private ownership; landowners have final say on what projects will take place



Griffin Creek Project

Full Circle Farms requested assistance to reduce flooding

Project constraints: difficult permitting/highly regulated landscape, private property

Multiple objectives; agricultural production, habitat enhancement, flood protection and identify process/regulatory improvement opportunities

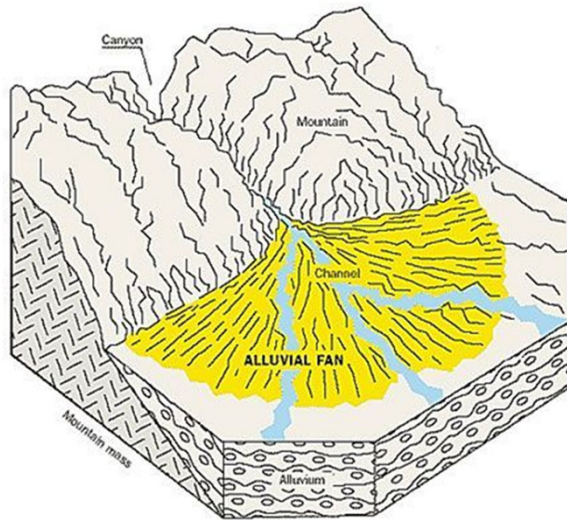




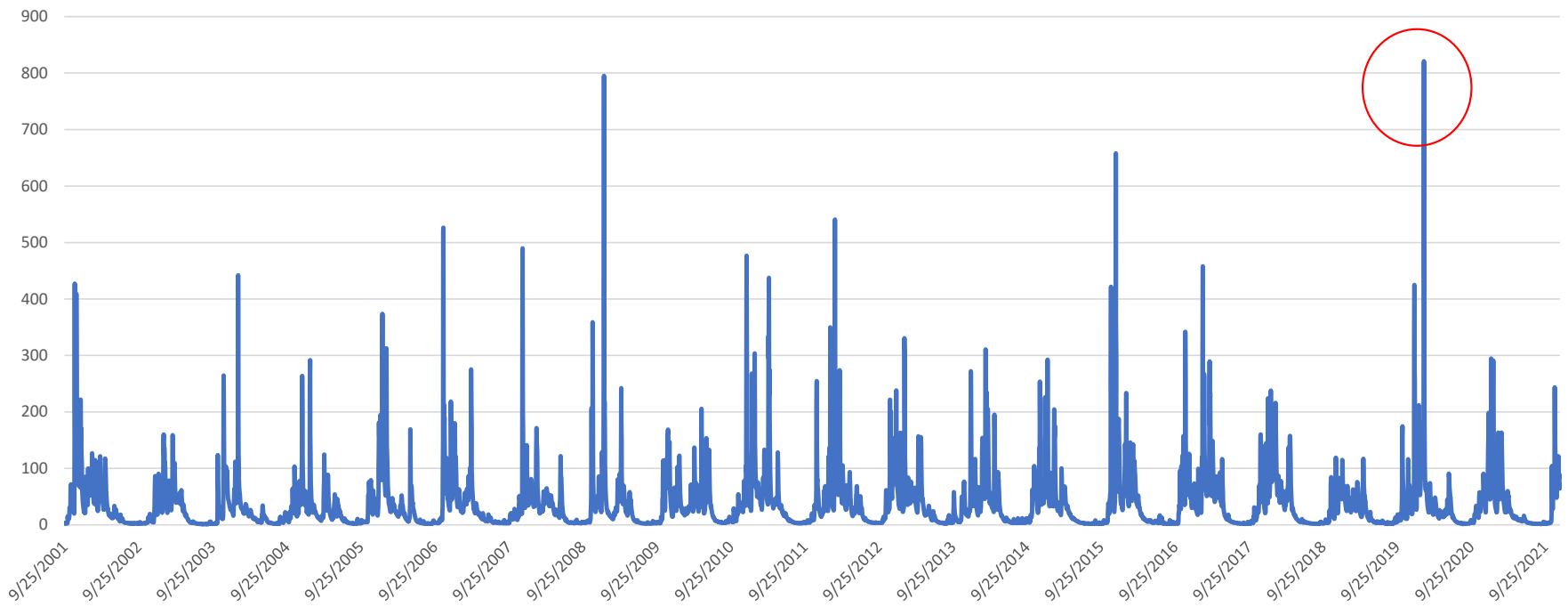
BE17

near
current : clear

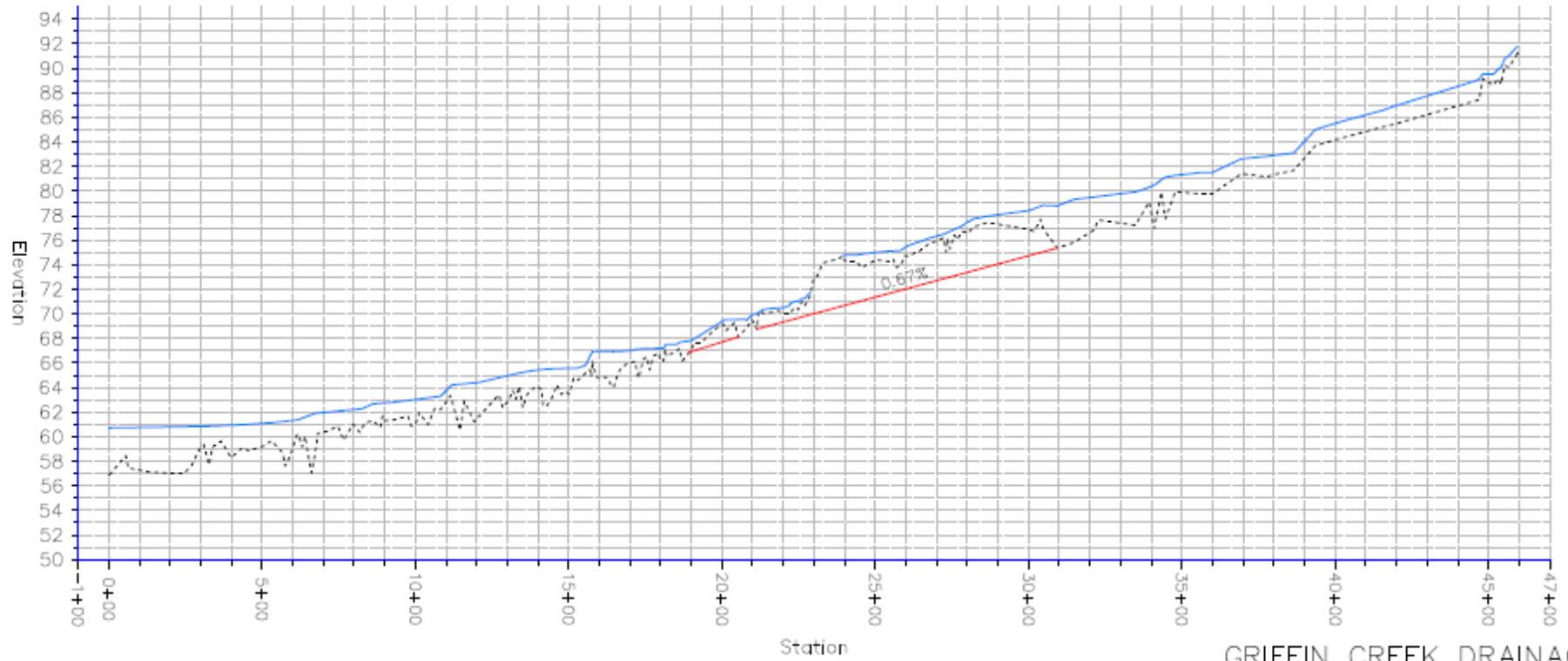
Alluvial Fans are Common in the Snoqualmie Valley & Contribute to Flooding of Agricultural Lands



Discharge (cfs)



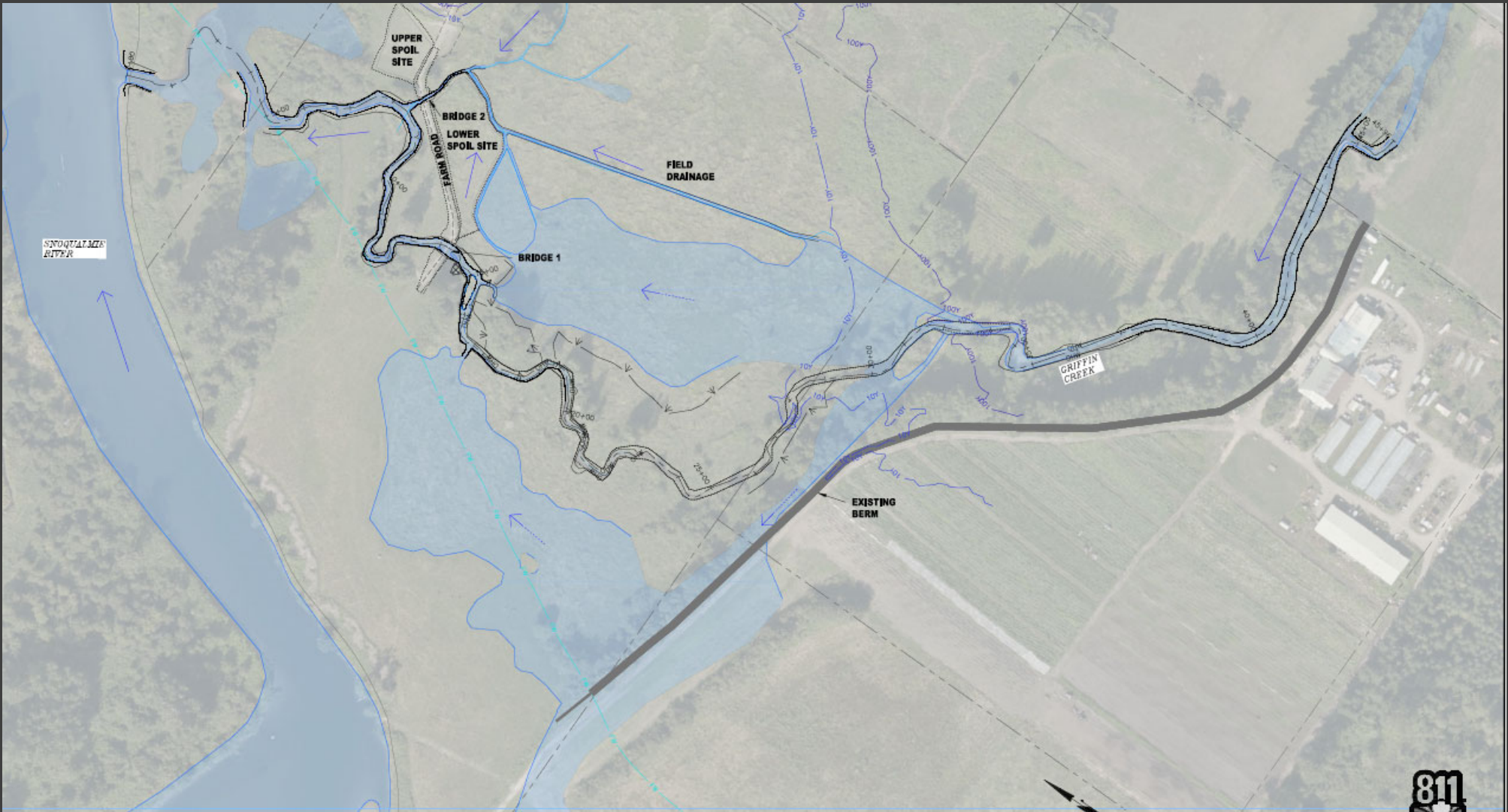
Griffin Creek Thalweg Profile



GRIFFIN CREEK DRAINAGE
MAINTENANCE (PHASE 1)

DRAFT

- Existing Channel Bottom (at thalweg)
- Approximate Excavation
- Water Surface (Jan. 26, 28, Feb. 4)



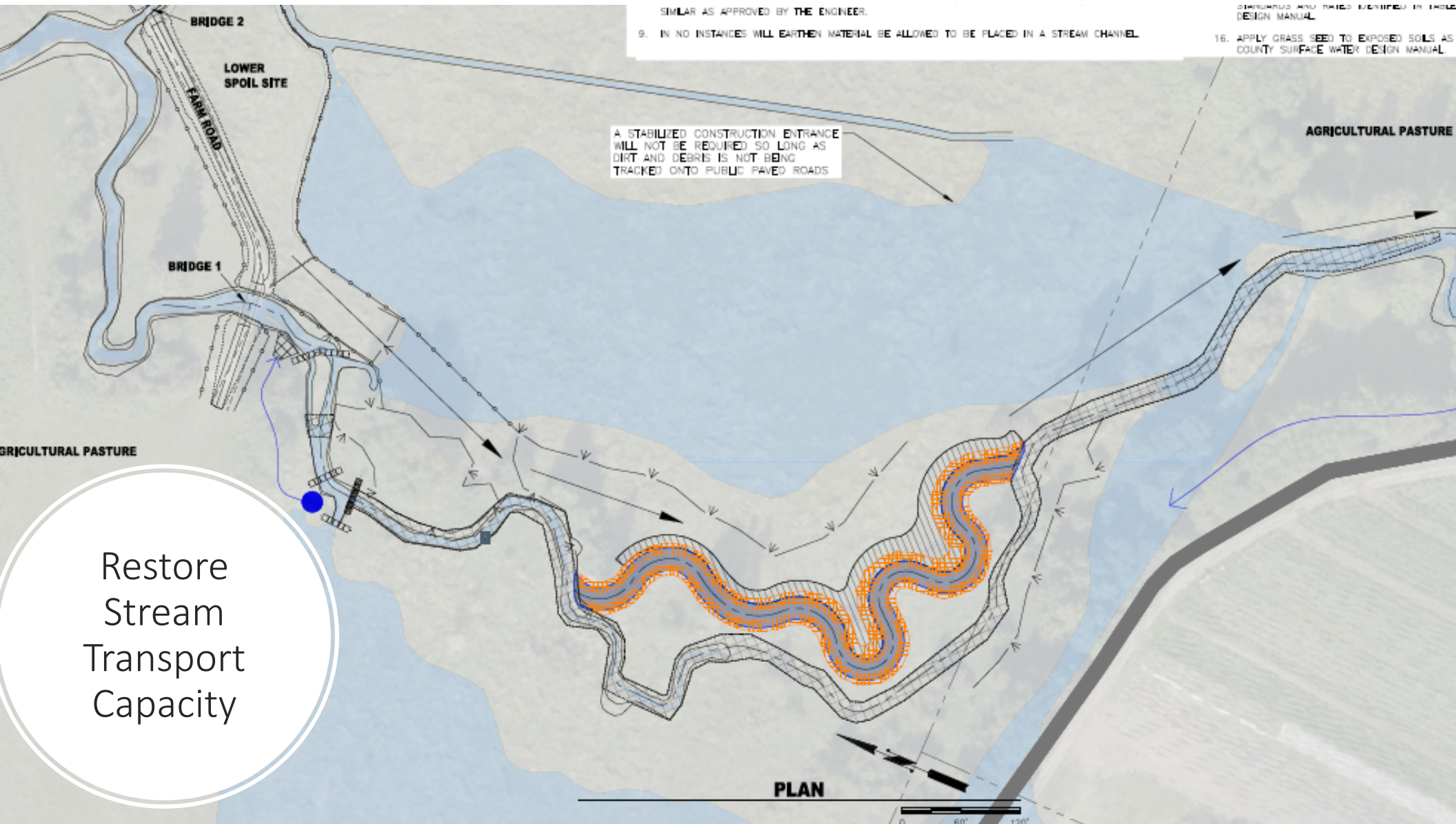




Restore stream transport capacity

- Remove gravel from portion of Griffin Creek with single thread channel
- Repair degraded streambank
- Reestablish consistent channel gradient
- Decrease flooding up to 1.5 yr. events
- Reestablish habitat forming processes: transport of wood water and sediment
- Provide for fish passage at usual stream flows





SIMILAR AS APPROVED BY THE ENGINEER.

9. IN NO INSTANCES WILL EARTHEN MATERIAL BE ALLOWED TO BE PLACED IN A STREAM CHANNEL.

STREAMS AND DATES IDENTIFIED IN THE DESIGN MANUAL.

16. APPLY GRASS SEED TO EXPOSED SOILS AS COUNTY SURFACE WATER DESIGN MANUAL.

A STABILIZED CONSTRUCTION ENTRANCE WILL NOT BE REQUIRED SO LONG AS DIRT AND DEBRIS IS NOT BEING TRACKED ONTO PUBLIC PAVED ROADS.

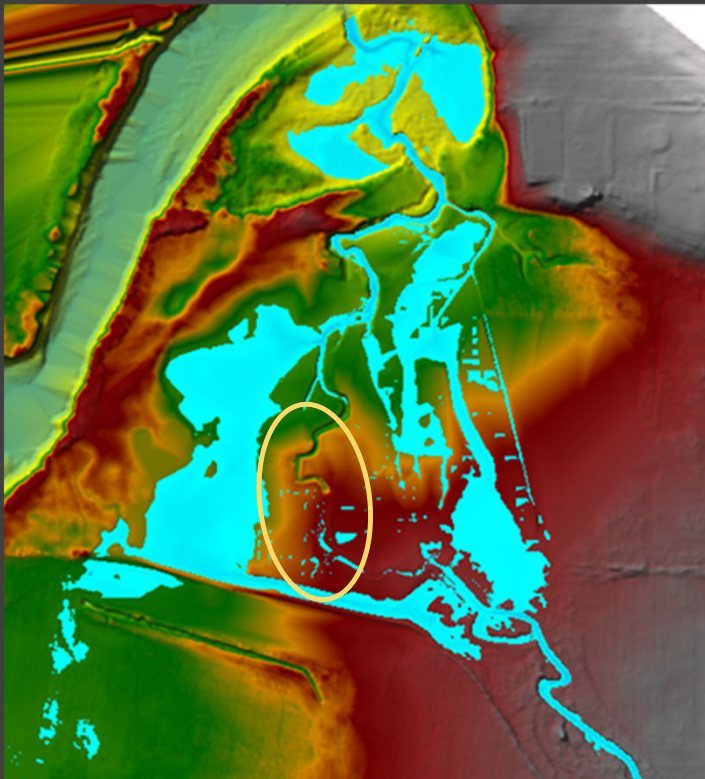
Restore Stream Transport Capacity

PLAN

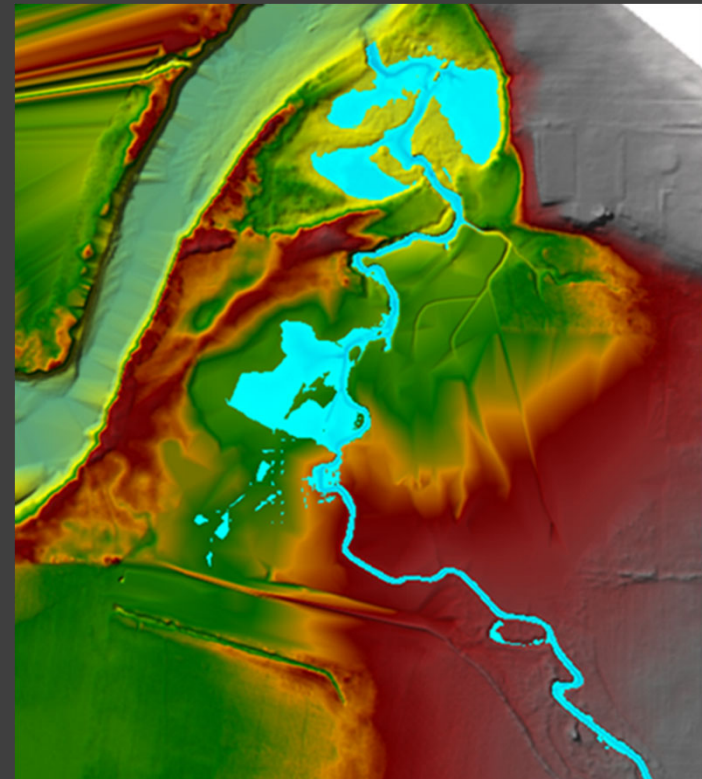
Restoring channel transport capacity

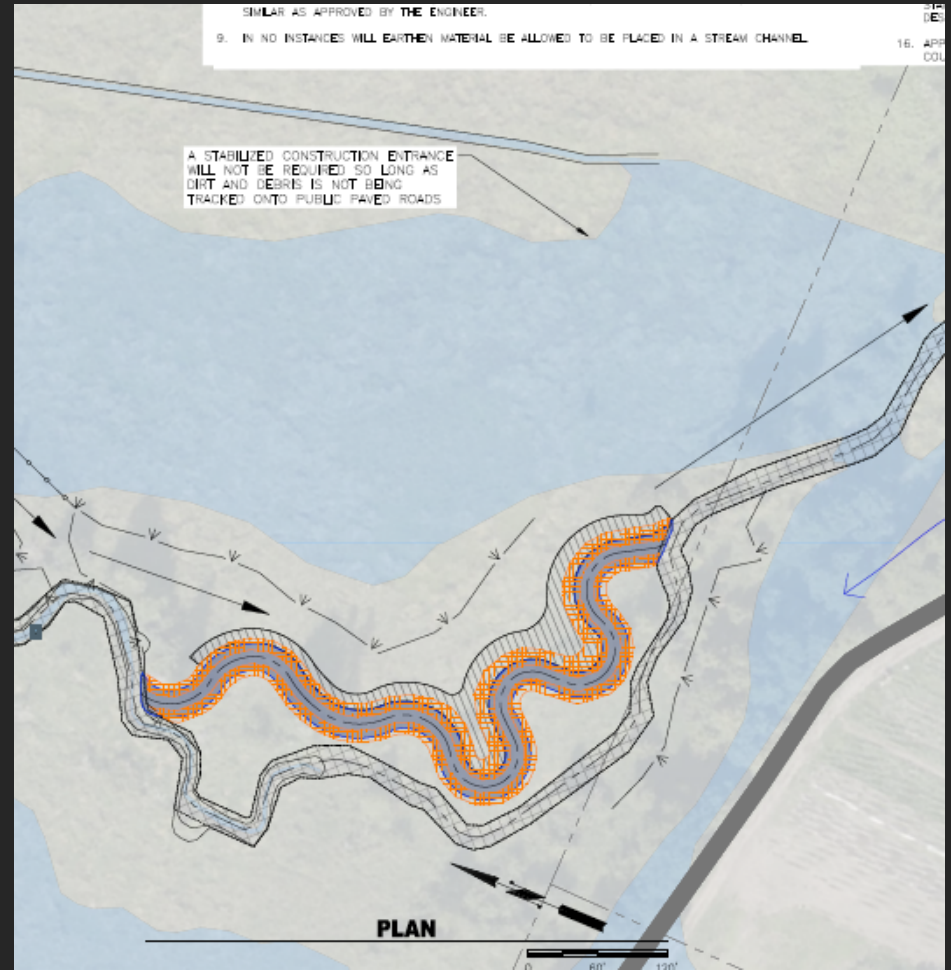
HEC RAS 2D model output @100 cfs

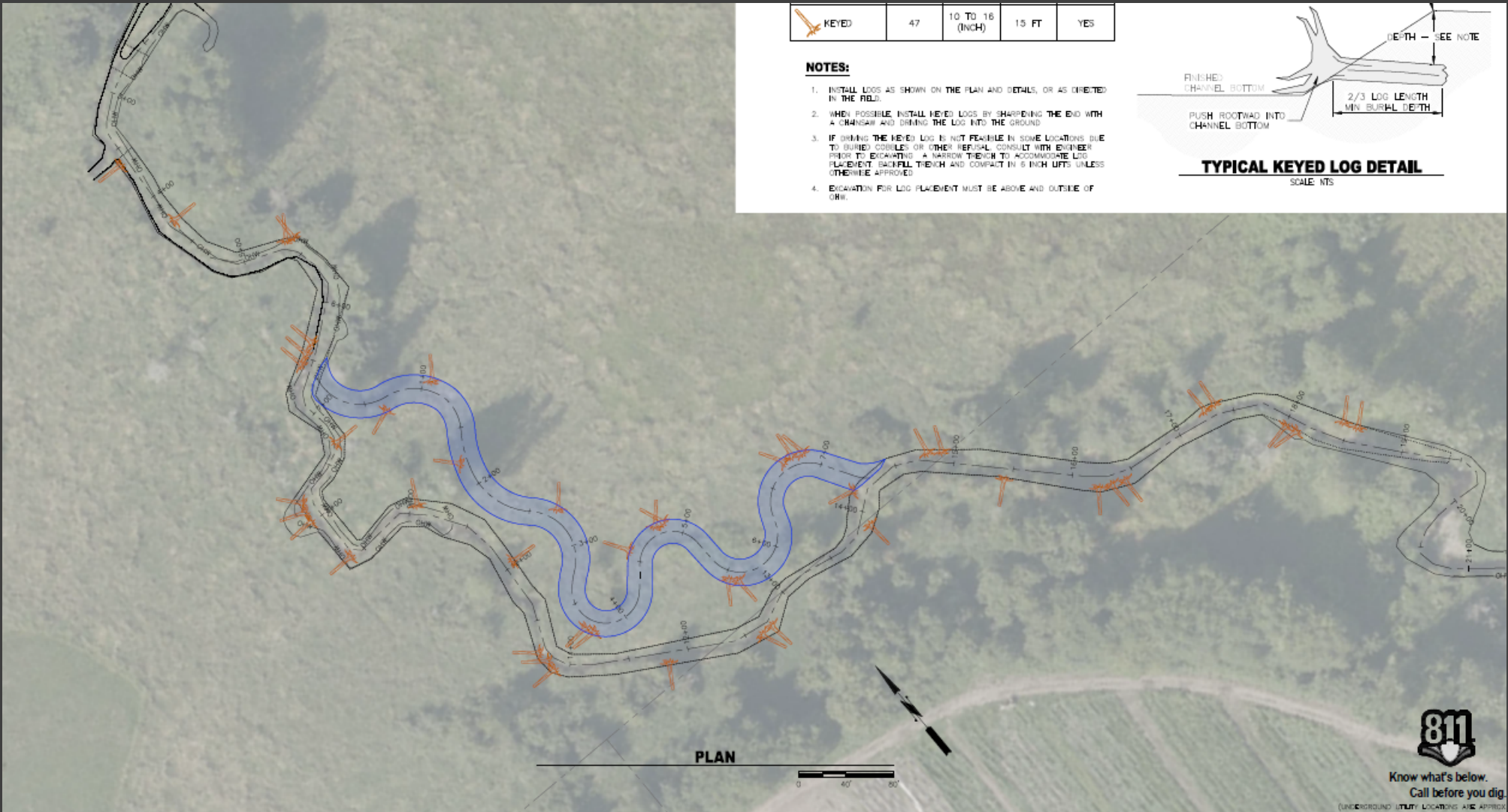
Current Conditions



With Gravel Removal



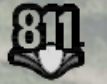
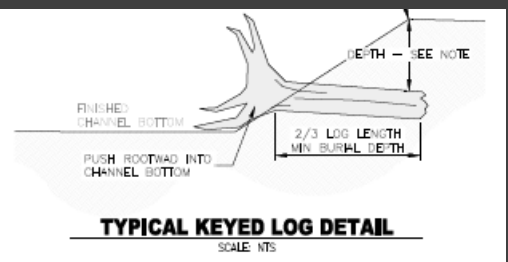




	KEYED	47	10 TO 16 (INCH)	15 FT	YES
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NOTES:

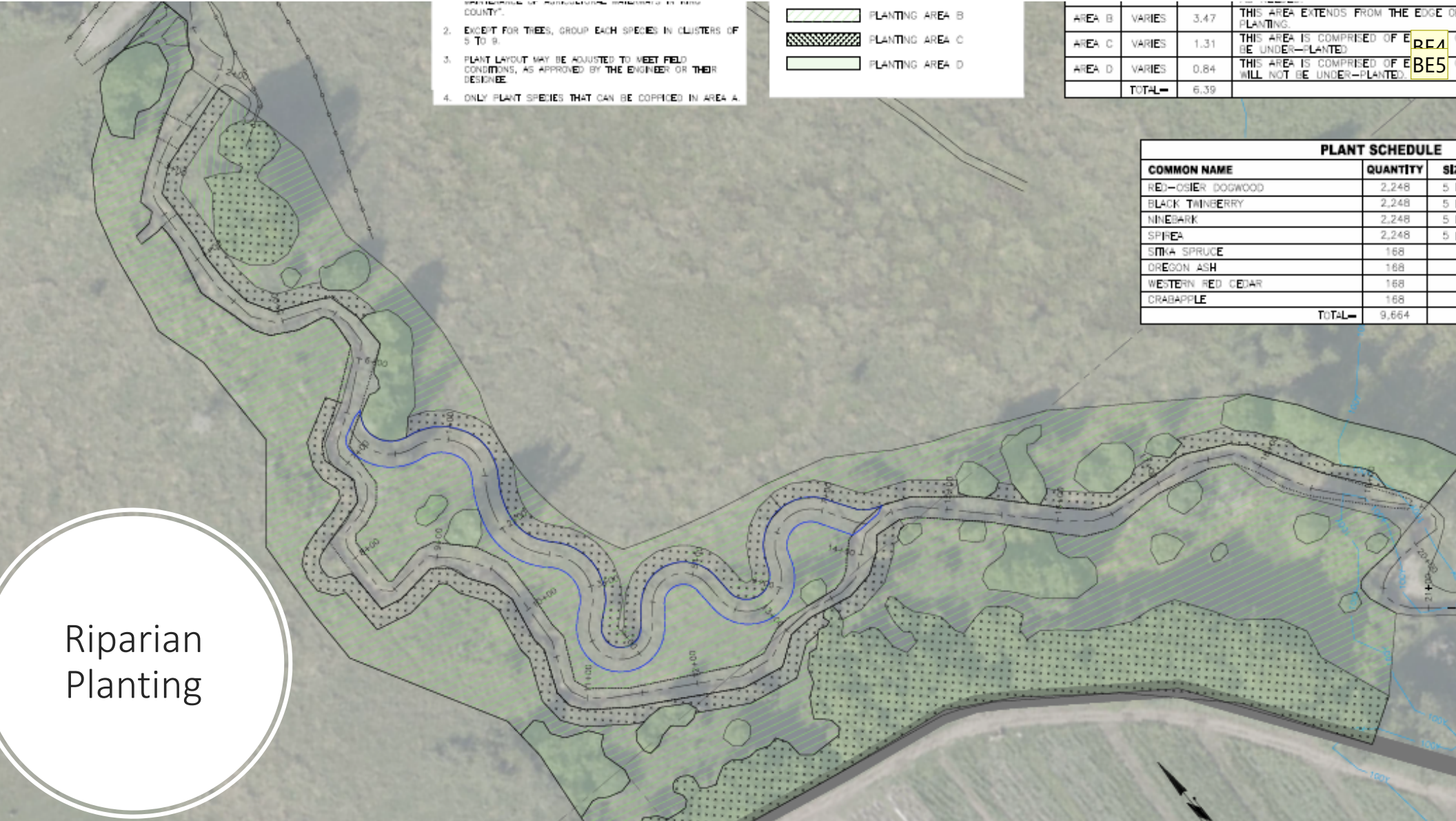
1. INSTALL LOGS AS SHOWN ON THE PLAN AND DETAILS, OR AS DIRECTED IN THE FIELD.
2. WHEN POSSIBLE, INSTALL KEYED LOGS BY SHARPENING THE END WITH A CHAINSAW AND DRIVING THE LOG INTO THE GROUND.
3. IF DRIVING THE KEYED LOG IS NOT FEASIBLE IN SOME LOCATIONS DUE TO BURIED COBBLES OR OTHER REFUSAL, CONSULT WITH ENGINEER PRIOR TO EXCAVATING A NARROW TRENCH TO ACCOMMODATE LOG PLACEMENT. BACKFILL TRENCH AND COMPACT IN 6 INCH LIFTS UNLESS OTHERWISE APPROVED.
4. EXCAVATION FOR LOG PLACEMENT MUST BE ABOVE AND OUTSIDE OF ORW.



Know what's below.
Call before you dig.

(UNDERGROUND UTILITY LOCATIONS ARE APPROX.)





1. EXCEPT FOR TREES, GROUP EACH SPECIES IN CLUSTERS OF 5 TO 9.
2. EXCEPT FOR TREES, GROUP EACH SPECIES IN CLUSTERS OF 5 TO 9.
3. PLANT LAYOUT MAY BE ADJUSTED TO MEET FIELD CONDITIONS, AS APPROVED BY THE ENGINEER OR THEIR RESIGNEE.
4. ONLY PLANT SPECIES THAT CAN BE COPICED IN AREA A.

PLANTING AREA B
 PLANTING AREA C
 PLANTING AREA D

AREA B	VARIABLES	3.47	THIS AREA EXTENDS FROM THE EDGE OF PLANTING.
AREA C	VARIABLES	1.31	THIS AREA IS COMPRIED OF E BE UNDER-PLANTE)
AREA D	VARIABLES	0.84	THIS AREA IS COMPRIED OF E WILL NOT BE UNDER-PLANTE)
TOTAL=		6.39	

REA
BE5

PLANT SCHEDULE		
COMMON NAME	QUANTITY	SD
RED-OSIER DOGWOOD	2,248	5
BLACK TWINEERRY	2,248	5
NINEBARK	2,248	5
SPIREA	2,248	5
SITKA SPRUCE	168	
OREGON ASH	168	
WESTERN RED CEDAR	168	
CRABAPPLE	168	
TOTAL=		9,664

Riparian
Planting



Project Timeline

Summer 2022: Complete Design, State and Local Permitting

Fall 2022: Sediment removal, Wood placement, Bridge Replacement

Spring 2023: Riparian planting

Fall 2023: Side channel construction

Learnings & Opportunities

- County response to landowners with flooding from tributary streams
 - Needs to be timely
 - Will require an emergency action permit pathway
 - Internal county process needs to be resolved, ideally truncated
 - Currently a gap in service provision
 - Flood Control District focus is on existing facilities
 - Is IDP the right approach? Requires funding and staff
- Partnering with Service Districts, Tribes and Conservation Groups, may be the best approach
 - Allows work to proceed without the onerous KC procurement process
 - Can draw on resource professionals from the different organizations
 - Gets buy-in on the project from the various stakeholder during design