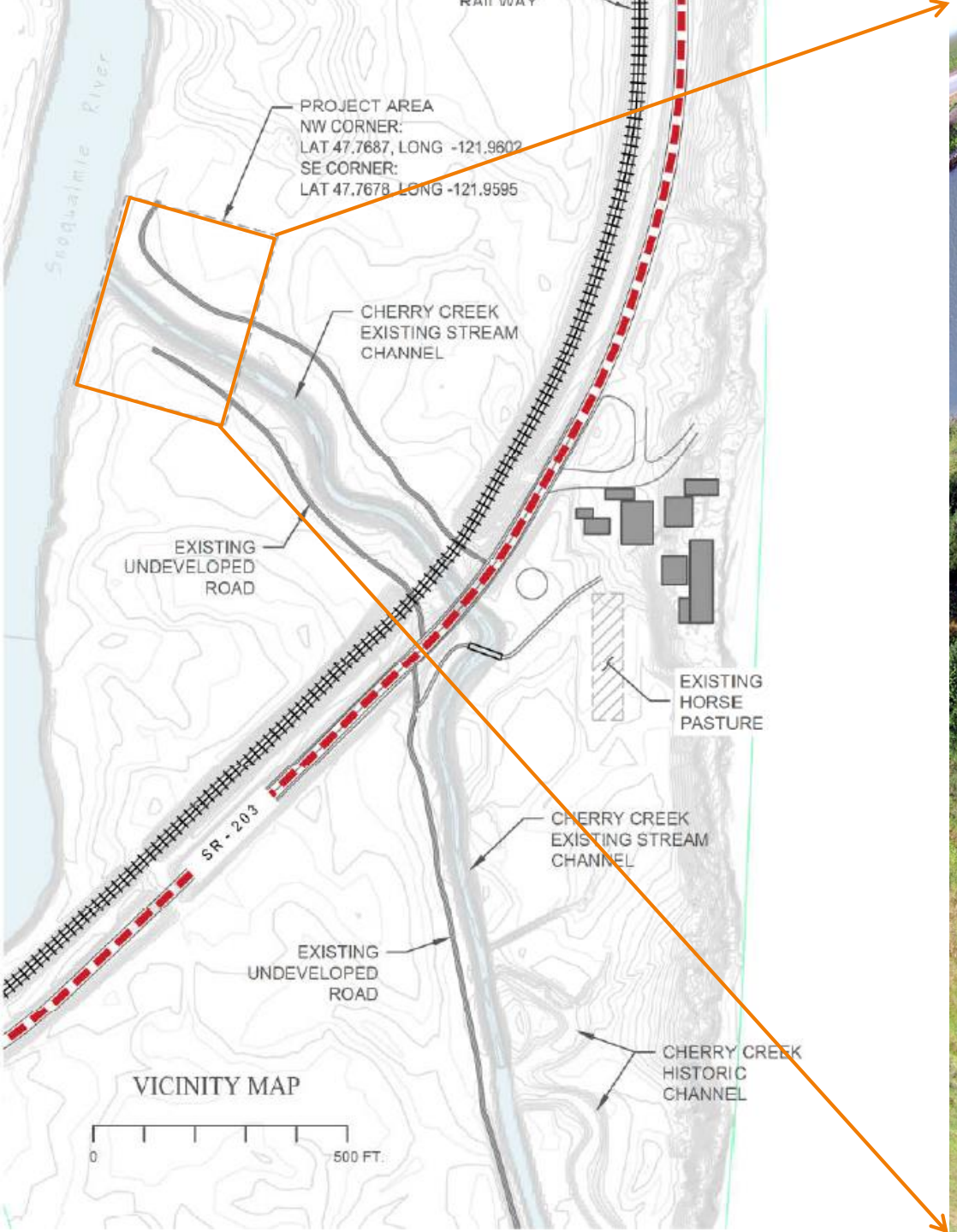
Cherry Creek Phase I Construction Update

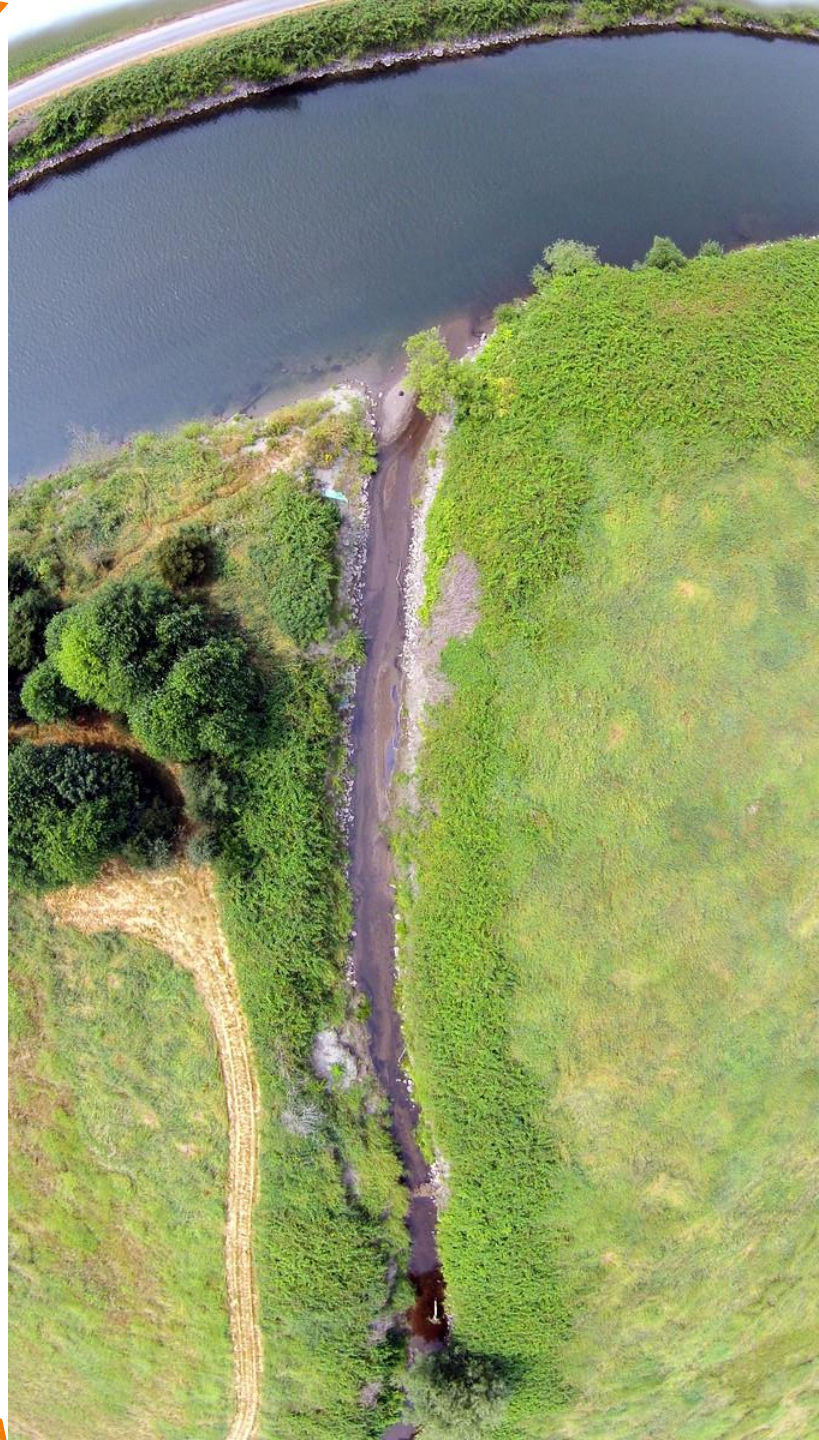
Wayne Gullstad, landowner

SOUND SALMON SOLUTIONS

LOWER CHERRY CREEK PROJECT AREA
203
Snoqualmie River
WDFW CHERRY VALLEY UNIT
Google

y Valley
PH1
PH2
Creek
288th Ave NE
PH3
vall Monroe Rd NE
288th Ave NE
DD7
Cherry Creek
WDFW
Google


RAILWAY
Snoqualmie River
PROJECT AREA
NW CORNER:
LAT 47.7687, LONG -121.9602
SE CORNER:
LAT 47.7678, LONG -121.9595
CHERRY CREEK
EXISTING STREAM
CHANNEL
EXISTING
UNDEVELOPED
ROAD
EXISTING
HORSE
PASTURE
SR - 203
CHERRY CREEK
EXISTING STREAM
CHANNEL
EXISTING
UNDEVELOPED
ROAD
CHERRY CREEK
HISTORIC
CHANNEL
VICINITY MAP
0
500 FT.



Phase 1 Project Site – downstream

Phase 1 Project Site – upstream

Project Need – Mainstem Snoqualmie

Section 11.6 of the *Snohomish River Basin Salmon Conservation Plan (SRBSCP)* states:

"loss of rearing habitat quantity and quality is the primary factor affecting population performance" in the mainstem Snoqualmie

"…edge habitat is critical for juvenile salmon, particularly Chinook, because they rear primarily in mainstem channel margins.

"…the greatly diminished quantity and quality of rearing habitat, particularly along the channel margins, is thought to be the primary bottleneck"

"Shoreline hardening reduces rearing capacity and productivity by reducing the availability and accessibility of off-channel habitat and decreasing cover along the channel edge"

"…[and] coho pre-smolts in winter, coho parr (young salmon living in freshwater) in summer, and sub-yearling Chinook are two, four, and five times as abundant, respectively, when observed in association with wood cover, relative to riprap"

Even though this project is named after the tributary, Phase 1 is essentially and critically, a mainstem Snoqualmie project

Project Need – Lower Cherry Creek

Cherry Creek is the most downstream major tributary of the Snoqualmie and designated as core summer habitat for aquatic life uses (WAC 173-201A- 602) due to the known presence of coho, chum, Chinook, pink, winter steelhead, and coastal cutthroat in the drainage (*SalmonScape*, WDFW).

Holds the highest potential to support Chinook salmon recovery among the lowland tributaries of the Snohomish Basin; however, habitat conditions need to be improved substantially in order to meet its potential (*Snoqualmie Water Quality Synthesis*, Kaje 2009).

Coho salmon and winter steelhead are known to spawn in the upper reaches and tributaries are known to provide rearing habitat for coho and cutthroat.

Extensive portions of Cherry Creek and its tributaries have been highly modified to benefit agriculture. The lower reach of Cherry Creek is currently channelized, riprap armored, and dominated by invasive species, leaving the lower reach without complexity or sufficient shade.

Phase 1 functions as the vital connection between the mainstem and millions in investments in upper Cherry Creek habitat restoration projects including Phases 2 & 3

Project Goals

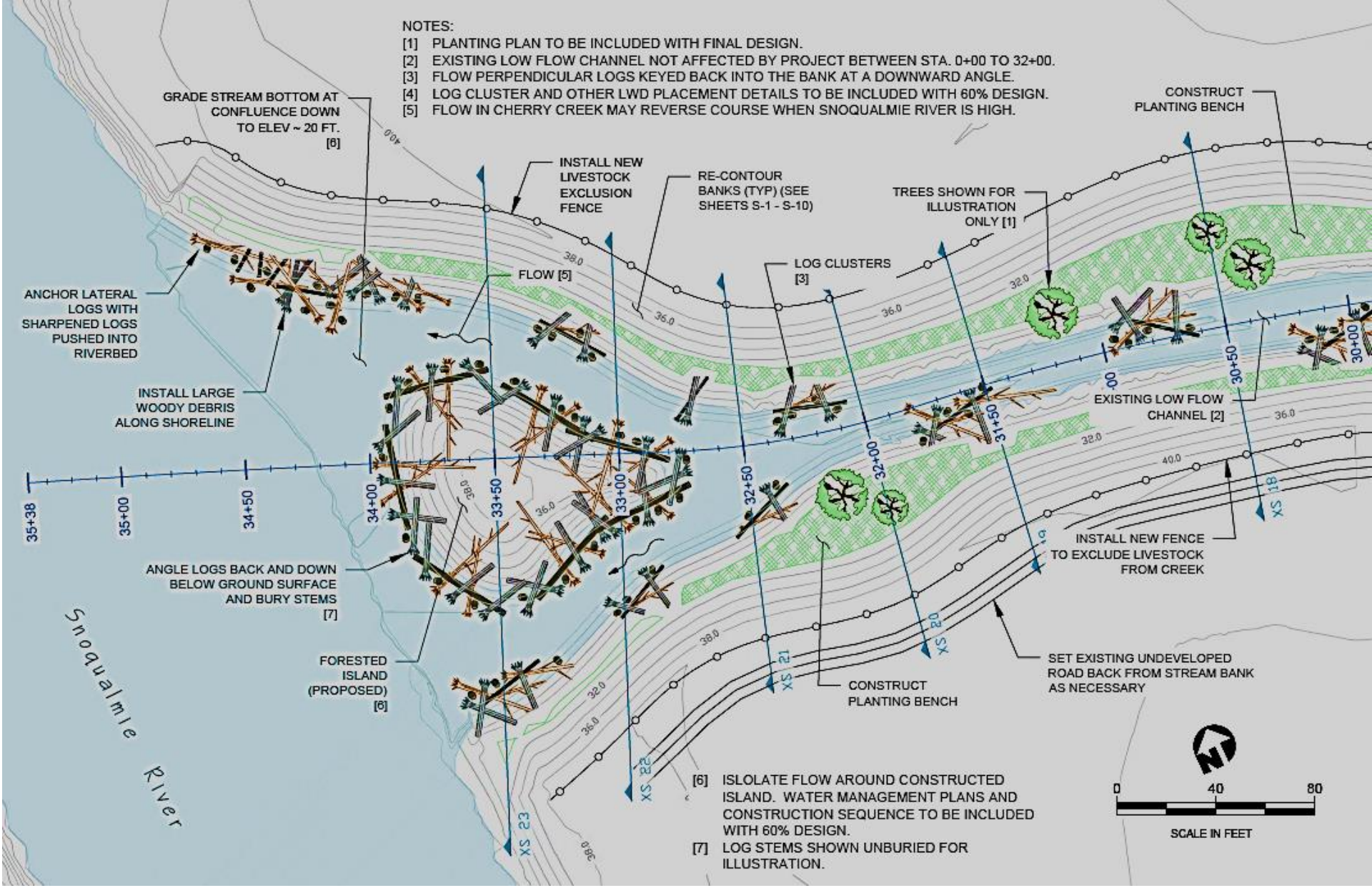
Improve Chinook and other salmonid spawning & rearing habitat along the mainstem Snoqualmie at the mouth of Cherry Creek by:

- Increasing complex in-stream edge habitat by 850’
- Reducing and attenuating water temperatures at the mouth of Cherry Creek
- Maximizing allowable riparian planting surfaces within limitations of the Farmland Preservation Program
- Establishing higher quality, more complex habitat connection between mainstem Snoqualmie and upstream Cherry Creek habitat and future habitat projects

Project Objectives

- Remove existing ~200’ of rip rap at the mouth
- Remove invasive species via excavation
- Widen the mouth of Cherry Creek and create an LWD island with a perimeter of 360’ at the confluence
- Install bank anchored LWD jams along Cherry Creek
- Create planting benches and stabilize soils with a native grass seed mix in preparation for future riparian plantings

Completing this project requires excavating and finding disposal/reuse for extensive volumes of soils



Phase 1 Project – The Plan

Project Challenges - Saga of the Spoils

Plan A – Utilize majority of excavated soils for farm building pad at nearby property.

Problem: Soils found to be unsuitable for supporting structures.

Plan B – Utilize spoils for nonstructural farm pad on Gullstad property.

Problem: Currently not permittable by King County.

Plan C– Maximize use of spoils on-site at Gullstad property, haul rest to off-site disposal.

Problem: Puts project overbudget, additional funding needed and sought.

Plan D– In the midst of securing funding for Plan C, concurrent Diking District #7 (DD7) levee improvement project just upstream needs and agrees to accept spoils

Problem: Funding secured thus far almost covers budget overrun but not quite; extended time needed to secure spoils disposal option adds to budget as well as increases in constructions and material costs since grant application in 2014.

Project Solutions – Story of the Levee

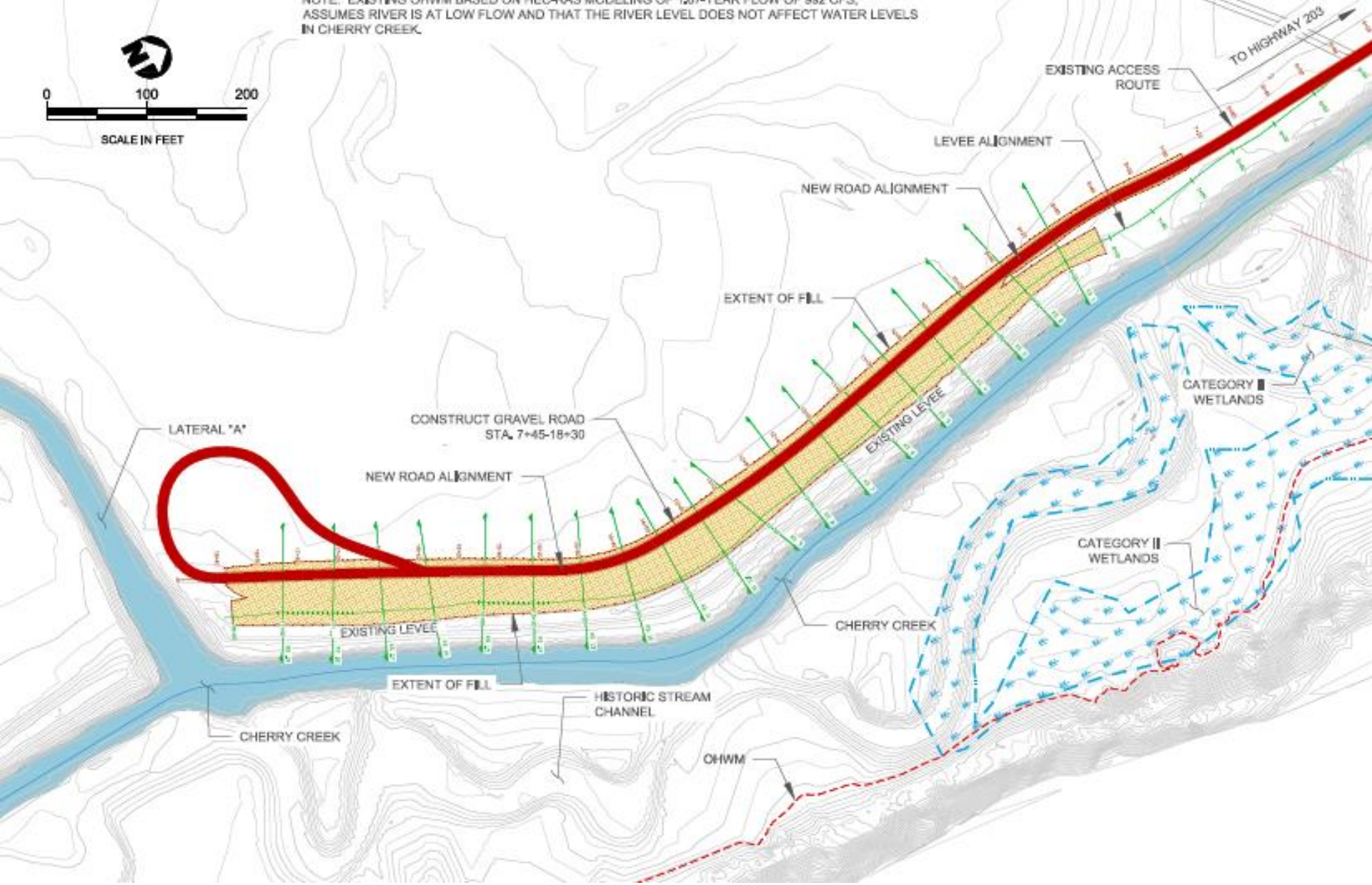
DD7 applied for and received King County Flood Control District (KCFCD) Flood Reduction Grant for emergency improvements for failing sections of levee upstream of Phase 1 project

DD7 project includes levee widening and road relocation on left bank over private and WDFW property

DD7 project will accept ~5000 CY of spoils from Phase 1 project that will be used on a small portion the levee project that entirely lies private property – no future levee setback due to FPP

Mutually beneficial arrangement between Phase 1 and DD7 project – significantly reduces cost for both projects through single construction contractor coordination, sharing WFC permitting and design services, and spoils disposal (PH1) and soils purchase (DD7) costs.

Last Project Challenge: ~$50,000 project costs remain uncovered to guarantee project completion by end of summer this year. Must be constructed this summer, no more extensions. Sealevel Bulkhead Builders have been secured as construction contractors. See budget sheet handouts for details.


NOTE: EXISTING OHWM BASED ON HECRAS MODELING OF 100-YEAR FLOW OF 332 CFS, ASSUMES RIVER IS AT LOW FLOW AND THAT THE RIVER LEVEL DOES NOT AFFECT WATER LEVELS IN CHERRY CREEK.
0
100
200
SCALE IN FEET
TO HIGHWAY 203
EXISTING ACCESS ROUTE
LEVEE ALIGNMENT
NEW ROAD ALIGNMENT
EXTENT OF FILL
CATEGORY I WETLANDS
EXISTING LEVEE
CONSTRUCT GRAVEL ROAD STA. 7+45-18+30
LATERAL "A"
NEW ROAD ALIGNMENT
CATEGORY II WETLANDS
CHERRY CREEK
EXISTING LEVEE
EXTENT OF FILL
HISTORIC STREAM CHANNEL
CHERRY CREEK
OHWM

Thank you!
Questions?