

Scott Boettcher

From: Scott Boettcher
Sent: Tuesday, July 3, 2018 3:30 PM
To: Betsy Dillin
Cc: Ann Weckback; Rodney Lakey; Tim Fife; Malcolm Bowie; colronjanaverill@comcast.net
Subject: RE: Lewis County Public Works - 2019-21 Local Project Application

Thank you Betsey. Your proposal has been rec'd on time.
Scott

Scott Boettcher, Staff
Chehalis River Basin Flood Authority
360/480-6600
scottb@sbgh-partners.com

From: Betsy Dillin <Betsy.Dillin@lewiscountywa.gov>
Sent: Tuesday, July 3, 2018 3:09 PM
To: Scott Boettcher <scottb@sbgh-partners.com>
Cc: Ann Weckback <Ann.Weckback@lewiscountywa.gov>; Rodney Lakey <Rodney.Lakey@lewiscountywa.gov>; Tim Fife <Tim.Fife@lewiscountywa.gov>; Malcolm Bowie <Malcolm.Bowie@lewiscountywa.gov>
Subject: Lewis County Public Works - 2019-21 Local Project Application

Scott,
Please see the attached Project Recruitment Form and the associated attachments for a channel realignment and fish passage culvert proposed by Lewis County Public Works. Please contact me if you have any questions.

Thank you,

Betsy Dillin, PE
Senior Utilities and Surface Water Engineer

Lewis County Public Works
2025 NE Kresky Ave
Chehalis, WA 98532
Phone: (360) 740-1138

Betsy.Dillin@lewiscountywa.gov



**2019-21 Local Projects Recruitment Form
Chehalis Basin Local Flood Relief**

A. What are local flood relief projects? -- In general, local projects provide predominantly localized, quantifiable benefit, are capable of being completed within the funding cycle, are supported by the jurisdiction within which the project is proposed, and are vetted and advanced through a public entity like a City, County, Conservation District, Port, etc. Local projects are additionally envisioned as helping with local flood relief (reducing flood damage and impacts), not adverse to fish, wildlife, or habitat, and (where possible) providers of multiple, quantifiable benefits (per Part IV below).

B. What kinds of local flood relief projects are likely to be logical funding candidates for 2019-21?

- Projects that complete an effort previously funded/started.
- Projects that advance improved emergency response.
- Projects that advance improved public infrastructure protection.
- Projects that advance improvements in local or community flood hazard reduction, including local flood proofing projects (e.g., elevations, buy-outs, foundation venting, etc.).
- Projects that advance Conservation District initiated flood hazard reduction (e.g., farm pads, evacuation routes, bank erosion/bank stabilization, etc.)
- Projects that demonstrate innovation (e.g., thinking beyond traditional bank stabilization techniques in favor of natural system designs), partnerships, cost-sharing/leveraging resources, multiple benefits, public engagement and community planning, and proactive vetting with agencies and tribes.
- Projects that demonstrate informed decision-making through hydraulic analysis/understanding.
- Projects that demonstrate early planning involvement, information exchange with regulatory agencies.
- Projects typically not in excess of \$3M for the stage/phase being funded.

C. Are there projects that would not be good candidates?

- Projects that seek to utilize State Capitol Budget dollars for uses not typically allowed (e.g., maintenance and repair work, cost-sharing under select circumstances, etc.).
- Projects likely to increase potential for flood damage upstream or downstream.
- Projects with unmitigable adverse environmental impacts, significant uncertainty regarding potential environmental impacts, or significant concerns about obtaining regulatory approval.
- Projects not sponsored by a public entity.
- Projects not located in the Chehalis Basin.
- Projects that do not show quantifiable benefit.

Instructions:

- a. Please submit project requests (via this form) to scottb@sbgh-partners.com no later than 5:00 p.m., 7/03/2018.
- b. Please submit one request form for each project proposed, even past projects previously or partially funded.
- c. Note: Parts III and IV [marked by "(**)"] will be scored for review/evaluation. Parts I, II, and V will not be scored.
- d. See Appendix A for overview of 2019-21 Local Projects Recruitment Process (and schedule), or https://www.ezview.wa.gov/site/alias_1492/37282/2019-21-Local-Projects-Recruitment-Process.aspx.

Part I General	
1. Date:	July 3, 2018
2. Project Name:	Unnamed Tributary to Stearns Creek (Pleasant Valley Road MP 4.25) Stream Realignment
3. Project Location -- Please identify location of the project as precisely as possible, including providing decimal degree latitude/longitude coordinates.	The proposed project is located on an unnamed tributary to Stearns Creek which crosses under Pleasant Valley Road at MP 4.25 near the City of Napavine; legal description Township 13N, Range 2W, Section 30.
4. Project Contact -- Please identify who will be responsible for overseeing and managing the project (i.e., name, email, telephone number, etc.).	Betsy Dillin Betsy.Dillin@lewiscountywa.gov (360) 740-1138
5. Sponsor -- Please identify the sponsor, lead organization, primary entity, etc. responsible for this project. Please identify key partners responsible for assisting in delivery or implementation of project.	Lewis County Public Works (LCPW). A key partner to the project is the Chehalis River Basin Flood Control Zone District

Part II Description, Timing, and Cost	
6. Project Description -- Please describe the project, what is intended to be accomplished, the benefits to be accrued (flood hazard reduction and otherwise) and to whom. Please also identify what phase/stage of the project funding is being sought for (e.g., planning, preliminary engineering, final design and permitting, construction, etc.).	The proposed project will reconnect tributary flow to Stearns Creek by replacing an undersized culvert with a fish passable culvert and re-aligning approximately 1,200 feet of fishbearing stream. The proposed channel design will utilize natural stream design techniques with meanders and incorporate large woody debris (LWD) structures. The project will eliminate the overtopping of Pleasant Valley Road, chronic destruction of roadway shoulders, and the infill of the roadway culvert with silt.
7. Project Timeline -- Please describe the timeline and phases for completion of the overall project and describe the timeline for completion of the phase to be funded by 19-21 funding.	If funds are awarded in June of 2019 survey and data collection is anticipated to begin in August of 2019; preliminary design will begin in October of 2019; permitting and ROW acquisition will begin in December of 2019; final design will be completed by April of 2020; permits will be acquired by July of 2019; the project would go to bid in January of 2020; project would be awarded in February of 2020; contract executed in April of 2020; and construction would begin in July of 2020 and be completed in October of 2020.
8. Project Cost and Funding -- What is the cost of the overall project (or anticipated cost)? What is the cost of the phase to be funded by 19-21 funding? What are the on-going maintenance and operation requirements and costs? Is it clear who will be responsible for covering on-going maintenance and operation costs?	The project is anticipated to cost \$846,000; broken down as: <ul style="list-style-type: none"> • \$466,525 for construction • \$70,000 for 100% PS&E • \$125,000 for environmental permits • \$47,000 for administrative costs such as construction management, grant administration,

	<p>contract administration, construction survey, construction inspection, and materials verification</p> <ul style="list-style-type: none"> • \$67,475 for Right of Way acquisition • \$70,000 for concept level contingency
9. Other Funding -- Please explain the extent to which other funding sources, funding partners are available for this phase and any other phase of the project.	This project does not currently have any other source of funding.

Part III (**) Completion, Doability, Alternatives, and Impacts	
10. Project Completion -- Does the funding requested complete, substantially complete, or continue a project already started? If so, please explain.	<p>The project will eliminate repetitive roadway flooding and the need for annual clean out of the existing culvert and regrade of roadside ditches.</p> <p>This project will synergize with recent and proposed fish passage restoration/enhancement in the Stearns Creek Subbasin. Since 2000, nineteen barrier culverts have been replaced with fish passable structures (9 by timber owners, 7 by the Lewis County Conservation District, and 3 by LCPW) and 2 more are proposed to be replaced by LCPW by 2020. One of these recently installed fish passable structures is located approximately 1,110 ft upstream of the proposed project. See attached map.</p>
11. Project Doable -- Can this project or the stage/phase for which funding is sought be completed by June 30, 2021? Please describe any circumstances with potential to impact the project's doability or timeline (e.g., permitting or regulatory unknowns, lack of availability of other cost-share funding resources, etc.). Please describe any advance coordination or vetting with agencies, tribes, other entities, etc. and the outcomes of that effort.	<p>Yes, as shown in the schedule provided on page 2 the project will be completed by June of 2021. While the project will require permits from the USACE, WDFW, LCCD, and potentially the DOE the project has been discussed with the USACE and DOE and it is anticipated that the project may be authorized and certified under Nationwide Permit 27- Aquatic Habitat Restoration, Establishment and Enhancement.</p> <p>An onsite meeting was held with the primary property owner, Ernie Clark, in June of 2017 and he is supportive of the project.</p>
12. Project Alternatives -- Please describe alternatives to the project that were considered (including doing nothing), and the rationale for selecting the project described, proposed here.	<p>Alternatives to the project included: doing nothing, various channel realignment options, replacing the culvert without a stream realignment, and a stream realignment without a culvert replacement.</p> <p>Doing nothing has resulted in continued maintenance efforts and safety concerns as water overtops the road for a significant amount of time annually causing hazardous driving conditions. During freezing conditions this section of Pleasant Valley Rd becomes extremely hazardous.</p>

	<p>Various channel realignments have been proposed at this site though many are not feasible due to the lack of landowner support.</p> <p>Preliminary hydraulic analysis has shown that realigning the stream and replacing the culvert must be completed in conjunction to alleviate the flooding issue across the road. Doing either action separately will not adequately solve the flooding issue.</p>
13. Project Impacts Avoided, Mitigated -- Please identify how project impacts will be avoided and mitigated, and if that mitigation will be accomplished by June 30, 2021?	<p>It is anticipated that this project will improve aquatic habitat by restoring stream connectivity. The new stream alignment is planned in a manner that will result in the smallest impact to wetlands possible. If it is determined that wetlands will be impacted, the County will mitigate through either on-site wetland re-establishment or through use of bank credits.</p> <p>This project has been discussed with the USACE, DOE, WDFW, and LCCD and all agencies are supportive of the project.</p>

Part IV (**) Benefits Stated and Quantified	
14. Emergency Response Benefits -- Please describe (and quantify) how this project enhances emergency response in a flood emergency (e.g., does it keep critical access roads and transportation facilities open/functional, does it enable easy movement of cattle, equipment and farm chemicals out of harm's way, is it part of a larger hazard mitigation plan, etc.).	<p>This culvert crossing silts in annually resulting in water over the roadway in the winter months. Due to hydraulic permit restrictions the culvert cannot be cleaned out until summertime. This situation results in a freezing hazard that closes the road and causes a 3 mile detour onto less desirable rural roads.</p> <p>Pleasant Valley Rd runs parallel to Hwy 603 and allows for an additional access route between Hwy 6 and the Napavine/Winlock area.</p>
15. Essential Infrastructure Protection Benefits -- Please describe (and quantify) how this project protects essential infrastructure and the risks or consequences of not acting this funding cycle.	<p>This project will protect Pleasant Valley Rd. Pleasant Valley Rd runs parallel to Hwy 603 and allows for an additional access route between Hwy 6 and the Napavine/Winlock area.</p>
16. Public Health, Safety and Welfare Benefits -- Please describe (and quantify) how this project protects public health, safety, and welfare.	<p>This area floods annually during the winter months as the culvert silts in, and due to hydraulic permit constraints, it cannot be cleaned out until the summer. Freezing causes hazardous driving conditions, putting the public and the County at high risk of injury or property damage.</p>
17. Residential, Commercial and/or Agricultural Protection Benefits -- Please describe (and quantify) how this project protects residential communities, commercial, and/or agricultural interests and benefits of acting (or consequences of not acting)	<p>The land uses in the area of the project are rural residential, agriculture, and forest. The flooding issue affects the culvert and road, it does not threaten any residential or commercial buildings. The frequent flooding does block access resulting in a detour, which is</p>

<p>this funding cycle. Consider factors like number of structures and people at risk, historic frequency of flood damage, magnitude of benefit for the cost, etc.</p>	<p>an undesirable solution for emergency access, agricultural equipment movement, or logging truck transport.</p>
<p>18. Habitat Benefits – Please describe (and quantify) how this project benefits or improves existing or future habitat conditions.</p>	<p>This project will create aquatic species habitat for 1.5 stream miles. In its current condition, the downstream outlet to Stearns Creek is completely graded over, and does not allow any aquatic species access except during high flows, during which time fish enter the creek and become trapped.</p>
<p>19. Costs and Benefits – Project funders (and the public they represent) value cost-effective, sound funding decisions. To that end, please describe (and quantify) in general terms benefits gained for funds requested and frequency, time-scale benefits will be realized. Please also describe (and quantify):</p> <ol style="list-style-type: none"> Funds requested. Costs avoided if funded (and on what frequency, time-scale). Costs incurred if funded (and on what frequency, time-scale). Benefits gained if funded (and on what frequency, time-scale). Impacts incurred if funded (and on what frequency, time-scale). Impacts and implications of not funding (and on what frequency, time-scale). <p>Guidance Note (1): For this question, it will be helpful to think in terms of what will be the dollar value of assets protected, dollar value of impacts avoided, dollar value of monies retained or recouped, etc. for the amount of public monies invested.</p> <p>Guidance Note (2): Part V is intended to help project reviewers concisely summarize, compare funding requests. Answers here (and in related questions on this form) should be consistent with Part V.</p>	<ol style="list-style-type: none"> Total funds requested are: \$846,000. Costs avoided – at least \$5,000 is spent annually on maintenance. However the cost of a traffic accident or blocking access in an emergency has not been quantified. If funded, this project will not result in additional costs incurred. It is expected to reduce substantially or eliminate the County’s need to frequently maintain this culvert. This project will benefit: <ul style="list-style-type: none"> Aquatic species by creating access to 1.5 miles of habitat County road maintenance will be greatly decreased A frequent road hazard will be eliminated The County does not anticipate any negative impacts if this project is funded. Impacts and implications of not funding will allow the road hazard to remain and the risk of traffic accidents and emergency access delays will remain high.
<p>20. Other Project Benefits -- Please describe (and quantify) any other project benefits not already discussed. This could include how this project compliments, leverages, or implements another project or planning process already underway.</p>	<p>This dual benefit project is in line with the objectives of the Flood Authority, the Chehalis River Basin Flood Control Zone District, and environmental conservation groups in the basin.</p>
<p>21. Anything Else -- Please offer any additional information (e.g., photos, maps, video, drawings, drone, etc.) that would help to better understand the scope, timing, and benefits of this project.</p>	<p>Project area map, basin wide culvert map, and preliminary cost estimate are attached.</p>

Part V Summary of Benefits, Impacts, Costs			
	22. Benefits – Please summarize, tally project economic and non-economic benefits as described.	23. Impacts -- Please summarize, tally project economic and non-economic impacts as described.	24. Costs -- Please summarize, tally project economic and non-economic costs as described.
Quantify	This project will save the county about \$5,000 annually for maintenance costs. It will also benefit aquatic habitat by restoring 1.5 stream miles of habitat. The risk reduction associated with the project has not been quantified.	The impact to wetlands has not been quantified at this time.	The project is anticipated to cost \$846,000.
Describe	This project will benefit: <ul style="list-style-type: none"> • Aquatic species by creating access to 1.5 miles of habitat • County road maintenance will be greatly decreased • A frequent road hazard will be eliminated 	The new stream alignment is planned in a manner that will result in the smallest impact to wetlands possible. If it is determined that wetlands will be impacted the County will mitigate through either on-site wetland re-establishment or through use of bank credits.	Components of total cost are: <ul style="list-style-type: none"> • \$466,525 for construction • \$70,000 for 100% PS&E • \$125,000 for environmental permits • \$47,000 for administrative costs such as construction management, grant administration, contract administration, construction survey, construction inspection, and materials verification • \$67,475 for Right of Way acquisition • \$70,000 for contingency

Appendix A

Process/Schedule Overview (current as of 6-12-2018)	
June 12, 2018	<ul style="list-style-type: none"> Post and distribute local projects recruitment request. Allow three weeks for project proposals/submittals (i.e., due no later than 5:00 p.m., Tuesday, July 3, 2018). Due to Scott Boettcher, scottb@sbgh-partners.com.
July 3, 2018	<ul style="list-style-type: none"> Receive proposals/submittals.
July 5, 2018 (or July 12, 2018)	<ul style="list-style-type: none"> Update Chehalis Basin Board on numbers received, types of projects received, distribution, dollar value, etc.
July 19, 2018 (or August 16, 2018)	<ul style="list-style-type: none"> Update Flood Authority on numbers received, types of projects received, distribution, dollar value, etc.
September 20, 2018	<ul style="list-style-type: none"> Update Flood Authority on status of Projects Committee's effort to review, rank, discuss with Tribes, discuss with agencies, sort and rank, etc. Review/discuss PRELIMINARY DRAFT ranked and prioritized list.
October 4, 2018	<ul style="list-style-type: none"> Update Chehalis Basin Board on status of Projects Committee's effort to review, rank, discuss with Tribes, discuss with agencies, sort, and rank, etc. Review/discuss DRAFT ranked and prioritized list.
October 18, 2018 (SPECIAL MEETING)	<ul style="list-style-type: none"> Seek Flood Authority approval of FINAL ranked and prioritized list.
November 8, 2018	<ul style="list-style-type: none"> Seek Chehalis Basin Board approval of FINAL ranked and prioritized list.
June 2018 through November 2018	<ul style="list-style-type: none"> Work with agency, OCB, and CBB technical staff on refining and finalizing recruitment instrument, scoring criteria, scoring instrument, categorization, and ranking, developing draft and final lists, etc.

Legend:

Chehalis Basin Board	Flood Authority
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**Pleasant Valley Rd MP 4.25 Flood Relief Project
Concept Estimate
July 2, 2018**

2021 Construction Costs
Pleasant Valley Rd MP
4.25
(Unit prices
based on 2018 LC projects
with 2.5%/year increase for
inflation until 2021 Constr.)

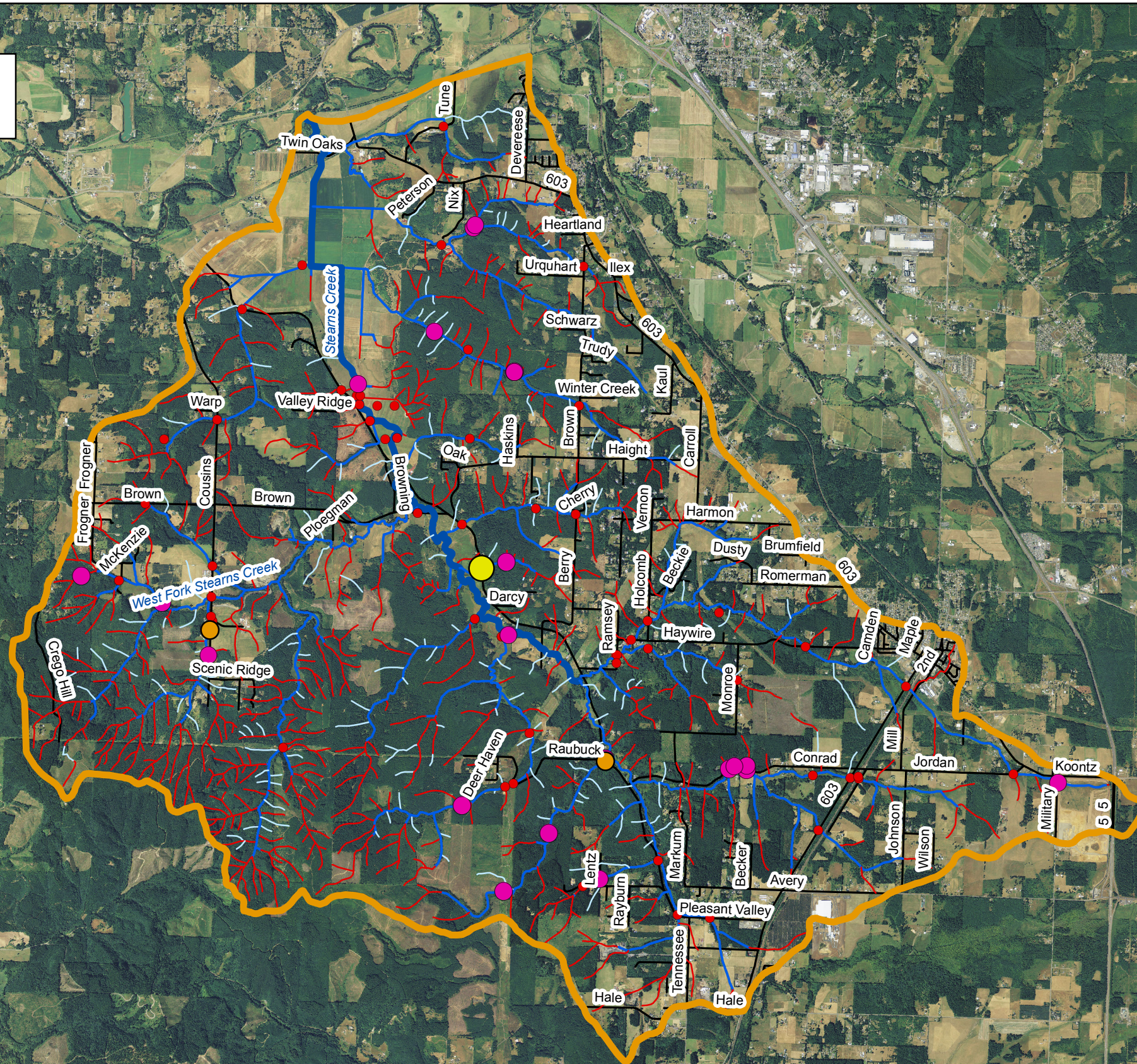
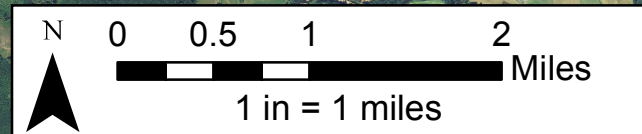
Additional Bid Item Information

TOTAL BID			\$466,525.00			
1	MOBILIZATION	1	L.S.	45,000.00	45,000.00	Typically 10% of Project Costs
2	CLEARING AND GRUBBING	1	L.S.	2,000.00	2,000.00	
3	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	1	L.S.	1,500.00	1,500.00	Small existing structure
4	ROADWAY EXCAVATION INCL. HAUL	125	C.Y.	15.00	1,875.00	
5	STRUCTURE EXCAVATION CLASS A INCL. HAUL	900	C.Y.	17.00	15,300.00	
6	DITCH EXCAVATION INCL. HAUL	50	C.Y.	30.00	1,500.00	Restore roadside ditches at culvert
7	CHANNEL EXCAVATION INCL. HAUL	1,750	C.Y.	25.00	43,750.00	Construct 1100-ft of stream channel
8	SELECT BORROW	650	TON	18.00	11,700.00	Backfill at new concrete culvert
9	STREAMBED MIX	375	TON	70.00	26,250.00	4-ft wide by 1-ft deep streambed mix channel bottom
10	QUARRY SPALLS	15	TON	40.00	600.00	
11	TEMPORARY STREAM DIVERSION	1	L.S.	15,000.00	15,000.00	
12	GRAVEL BACKFILL FOR UNSUITABLE BASE MATERIAL	150	TON	50.00	7,500.00	Quarry spalls below culvert to stabilize soft material
13	GRAVEL BACKFILL FOR WALL	25	C.Y.	40.00	1,000.00	
14	PRECAST CONC. SPLIT-BOX CULV. (10'Wx6'Hx50'L) w/ WINGWALLS	1	L.S.	110,000.00	110,000.00	Purchase, transport, crane, weld ties, grout and waterproofing
15	CRUSHED SURFACING BASE COURSE	475	TON	22.00	10,450.00	
16	SHOULDER FINISHING	95	TON	75.00	7,125.00	
17	HMA CL. 1/2 IN PG 64-22	125	TON	250.00	31,250.00	
18	EROSION / WATER POLUTION CONTROL	1	CALC.	5,000.00	5,000.00	Additional stormwater control if necessary
19	LARGE WOODY DEBRIS	4	EA.	1,500.00	6,000.00	
20	PLANTING MITIGATION (50' riparian buffer ea. side of 1,100' new channel)	1	L.S.	40,000.00	40,000.00	Trees, shrubs and willows from the streambed out 50-ft each side.
21	SEEDING AND MULCHING	0.5	ACRE	10,000.00	5,000.00	
22	STABILIZED CONSTRUCTION ENTRANCE	140	S.Y.	50.00	7,000.00	
23	HIGH VISIBILITY SILT FENCE	1,200	L.F.	7.50	9,000.00	
24	WATTLE	100	L.F.	15.00	1,500.00	
25	BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL	3	EA.	3,000.00	9,000.00	
26	BEAM GUARDRAIL TYPE 31 - 6FT LONG POST	100	L.F.	35.00	3,500.00	
27	BEAM GUARDRAIL TYPE 31 ANCHOR TYPE 10	1	EA.	1,750.00	1,750.00	
28	PAINT LINE	325	L.F.	3.00	975.00	
29	PROJECT TEMPORARY TRAFFIC CONTROL	1	L.S.	17,500.00	17,500.00	Road closed and detour sign installation, maintenance, and removal.
30	TRIMMING AND CLEANUP	1	L.S.	1,500.00	1,500.00	
31	REIMBURSEMENT FOR THIRD PARTY DAMAGE	0	EST.	0.00	0.00	
32	MINOR CHANGE	1	CALC.	25,000.00	25,000.00	Bid Items for addressing unanticipated construction items or changes.
33	SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN	1	L.S.	2,000.00	2,000.00	

Estimated 2021 Construction Costs \$466,525.00
100% PS&E \$70,000
Environmental Permits \$125,000
Construction Management \$47,000
Concept Level Contingency \$70,000
Right of Way \$67,475

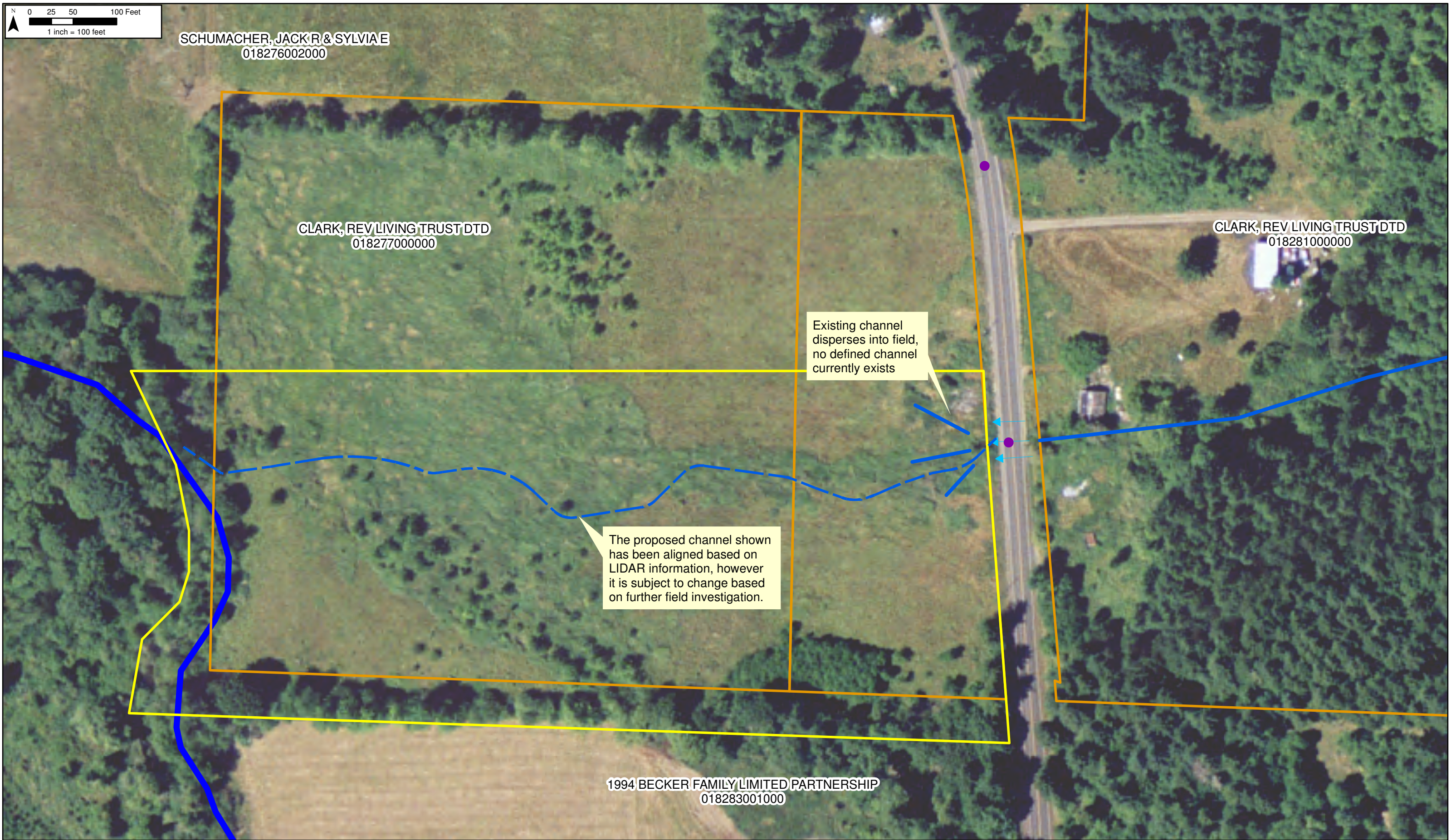
Total Project Cost \$846,000

Topo, Geotech, 30/60/90 plans, site eval., provisions, est., etc.
Wetland Delineation, Report, and 0.5-Acre Bank Purchase
10% of Constr. for surv., inspection, materials testing, & admin.
15% of Construction Costs
5-acres total from two parcels, appraisals, and negotiations



Stearns Creek Subbasin Map

June 29, 2018



- Culverts
- Existing Overflow Path
- Existing Stream Alignment
- Proposed Stream Alignment - Concept
- Shoreline of Statewide Significance
- Project Area
- Parcel Boundary

Project Area
Pleasant Valley Rd MP 4.25
Section 30, T13N, R2W