

Scott Boettcher

From: Scott Boettcher
Sent: Tuesday, July 3, 2018 2:22 PM
To: 'Mara Healy'
Cc: colronjanaverill@comcast.net
Subject: RE: 19-21 Local Projects Application

Thank you Mara. 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: Mara Healy <MHealy@thurstoncd.com>
Sent: Tuesday, July 3, 2018 1:20 PM
To: Scott Boettcher <scottb@sbgh-partners.com>
Subject: 19-21 Local Projects Application

Hi Scott,

I hope you're well. Attached is an application for the 2019-2021 biennium local projects recruitment application form for our Allen Creek hydrologic study project and a document with some maps and photos of the flooding referenced in the application. Please let me know if you need any additional information, and thank you for your consideration!

Take care,

Mara Healy
Habitat Technician
Thurston Conservation District
mhealy@thurstoncd.com
360.754.3588 **New Extension- 125**



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:

- Please submit project requests (via this form) to scottb@sbgh-partners.com no later than 5:00 p.m., 7/03/2018.
- Please submit one request form for each project proposed, even past projects previously or partially funded.
- 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:	6/28/2018
2. Project Name:	Allen Creek Hydrologic Assessment
3. Project Location -- Please identify location of the project as precisely as possible, including providing decimal degree latitude/longitude coordinates.	Thurston County, Chehalis Basin, Black River watershed, Allen Creek, Scott Lake Community. The area of study includes Allen Creek from Scott Lake, to Case Road, or as determined by hydrologist to be the extent of influence from in-stream structures between Scott Lake and Case Rd. Lat: 46.918666 Long: -122.939943
4. Project Contact -- Please identify who will be responsible for overseeing and managing the project (i.e., name, email, telephone number, etc.).	Mara Healy, Thurston Conservation District mhealy@thurstoncd.com 360-754-3588 x 125
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.	Thurston Conservation District, partnered with the Scott Lake Drainage District board, Thurston County Public Works, Thurston County Water Resources

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.).	<p>This project intends to answer the question: Can we reduce flooding experienced by the Scott Lake Community from Allen Creek? This will be done by completing a hydrologic and hydraulic assessment that includes all of the crossings from Case Rd (or further downstream) upstream through Scott Lake, an alternatives analysis to decrease flood duration and severity, and a feasibility analysis of the alternatives. The project will assess the cause of flooding that impacts the entire 1,400 person population of the Scott Lake Community. Over 55 landowners live along Allen Creek and experience flooding on their property, and the majority of the community experiences access issues during flood events.</p> <p>Community and stakeholder meetings show a definite need for flood reduction, and support from partners, but a complete study is sorely needed for this project to analyze the complex interactions of topography, ground water, storm water and community planning.</p>
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.	2013-2015: Mason CD initiated work with one landowner on Allen Creek to reduce flooding. Flood reduction project taken up by Scott Lake Drainage District (SLDD). Stop-gap measures taken to clear Allen Creek of excess natural debris temporary fix.

	<p>2015-2018: Thurston CD identifies need for further investigation of flooding and engages SLDD. Takes on flood reduction project as manager to scope issues, build partnerships and complete initial phases of modeling and culvert assessment. Stakeholder meetings with WDFW, SLDD, Engineer Gavin Glore, Thurston County Public Works and Thurston County Water Resources indicate the need for a full hydrologic assessment and alternatives analysis as the next phase.</p> <p>2019-2021: Vetting and hiring a hydrologist to complete a full hydrologic assessment and alternatives analysis to identify the cause of the flooding and potential solutions.</p>
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?	<p>This phase of the project is estimated to cost \$50,000. This assessment will determine if the next phase of construction is reasonable, and at what scale, or if flood risk reduction measures should be pursued. In this phase Thurston Conservation District will continue acting as project manager with a 25% salaries and wages component totaling \$12,500. Total project ask: \$62,500.00</p>
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.	<p>Thurston CD, SLDD and several private landowners have contributed funding and volunteer time to addressing the problematic funding situation. Depending on the outcome of the study, our partners at Thurston County Public Works are willing to participate in engineering and implementation where appropriate. <u>An</u> alternatives analysis with recommendations also provides leverage to future grant applications to fund construction and implementation that will reduce flooding in the Scott Lake Community.</p>

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 funding requested would complete the current phase of the project and indicate the next steps needed if any.</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>This phase of the project will be easily completed by June 30, 2021. Exact time lines will be determined by the Hydrologist hired to complete the assessment, but coordination and collaboration with the county Public Works, Water Resources and WDFW is ongoing. The capacity of hydrologists could impact the time line, so if awarded, work will begin immediately to contact with an appropriate hydrologist to being work.</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.	Project alternatives include waiting for the in-stream structures in the project area to come up for replacement and living with significant flooding in the Scott Lake community, or pursuing the replacement of the Scott Creek Drive culvert. Replacing the culvert may help alleviate flooding, but without a full hydrologic assessment there is no way to know if taking that action will actually reduce flooding for the Scott Lake community. Rather than invest funds into a project that may or may not affect the flooding, Thurston CD would like to engage in a detailed assessment of the source of the problem and explore solution alternatives.
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?	This phase of the project won't garner project impacts that require mitigation.

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.).	The Scott Lake community is home to approximately 1,400 Thurston County residents. The neighborhood is based around a loop shape, with very few access points in and out of the community. Scott Creek DR SW is the only paved access road into the community, and in severe flood events, water over Scott Creek DR SW creates access issues both for emergency response and residents of the community. Alternative routes in and out of the community consist of long detours on gravel roads over private property.
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.	Completing this study will allow us to move forward with flood prevention if it is possible, or flood risk reduction if not. Either of these outcomes will protect the homes of the Scott Lake community residents who experience flooding on their property, and in severe cases, into their homes.
16. Public Health, Safety and Welfare Benefits -- Please describe (and quantify) how this project protects public health, safety, and welfare.	The Scott Lake community includes about 580 homes, most built 1960-70, each of which has a septic tank. Reducing flooding in the Scott Lake community reduces the risk of flood water contamination in the Chehalis Basin.
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) 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.	There are 55 homes and families living immediately adjacent to Allen Creek in the Scott Lake Community that are impacted by flood events. When the access road of the community are flooded, about two thirds of the 1,400 person community experience restricted access and can be stranded in or out of the community for days, as the high ground water prevents flood waters from receding. The past 5 years the community has not seen a

	severe flood event, but according to Thurston County Water Resources, past severe floods are congruent with 50 Year floods and have happened regularly. There is a sense of “any time now” in the community regarding the next flood event and simply waiting is not a desirable option.
18. Habitat Benefits – Please describe (and quantify) how this project benefits or improves existing or future habitat conditions.	This study will scrutinize the impacts of in-stream structures in the study area, including several that are fish passage barriers. The topography, ground water and storm water impacts the conveyance of Allen Creek. Low conveyance creates high turbidity and poor scour conditions, which are poor habitat conditions. Allen Creek supports a run of ---. As noted above, reducing flooding in the Scott Lake community decreases the risk of flood water contamination by up to 580 aging septic systems.
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): <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"> \$62,500.00 Avoids potentially millions in ineffective culvert fixes due to lack of complete hydrologic data. Additionally repeated 50 Year Flood damages to the homes of more than 55 families and Scott Lake community infrastructure. If the study indicates a reasonable alternative to reduce flooding, funds will be sought to pursue that alternative. The study will indicate rough estimates of any alternatives. The benefit of this study includes the potential identification of a flood reduction alternative, or the knowledge that flood reduction is not reasonably possible for the Scott Lake community and flood damage reduction actions should be taken. This knowledge gives the 1,400 residents the ability to make informed decisions about their land management and the level of risk they are willing to live with. There are no impacts incurred due to this study. This flooding issue is well known, but is not a good fit for many other funding sources available, which has made progress on this project challenging. Every winter there is a risk of severe flood events in the Scott Lake community.
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.	The Scott Lake community represents an underrepresented area of our county that has a severe need, but has been often overlooked. Completing this project would serve an entire community of 1,400 residents.

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.	Please see attached maps and photos detailing the flood impacts to the Scott Lake community.
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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	1,390 benefits	0	\$62,500.00
Describe	Provides vital info for path towards flood reduction or mitigation that will: -Improve access for emergency response vehicles to approximately 950 residents and 380 homes -Reduce flood water contamination -Reduce residential flooding of more than 55 homes -Improve fish passage on Allen Creek -Improve water quality in Allen Creek	There are no immediate impacts due to the completion of this study.	Costs associated with this study will pay for a hydrologic and hydraulic assessment that includes all of the crossings from Case Rd (or further downstream) upstream through Scott Lake, an alternatives analysis to decrease flood duration and severity, and a feasibility analysis of the alternatives (to include rough cost estimate). As well as continued project management, community support and stakeholder communication and organization.

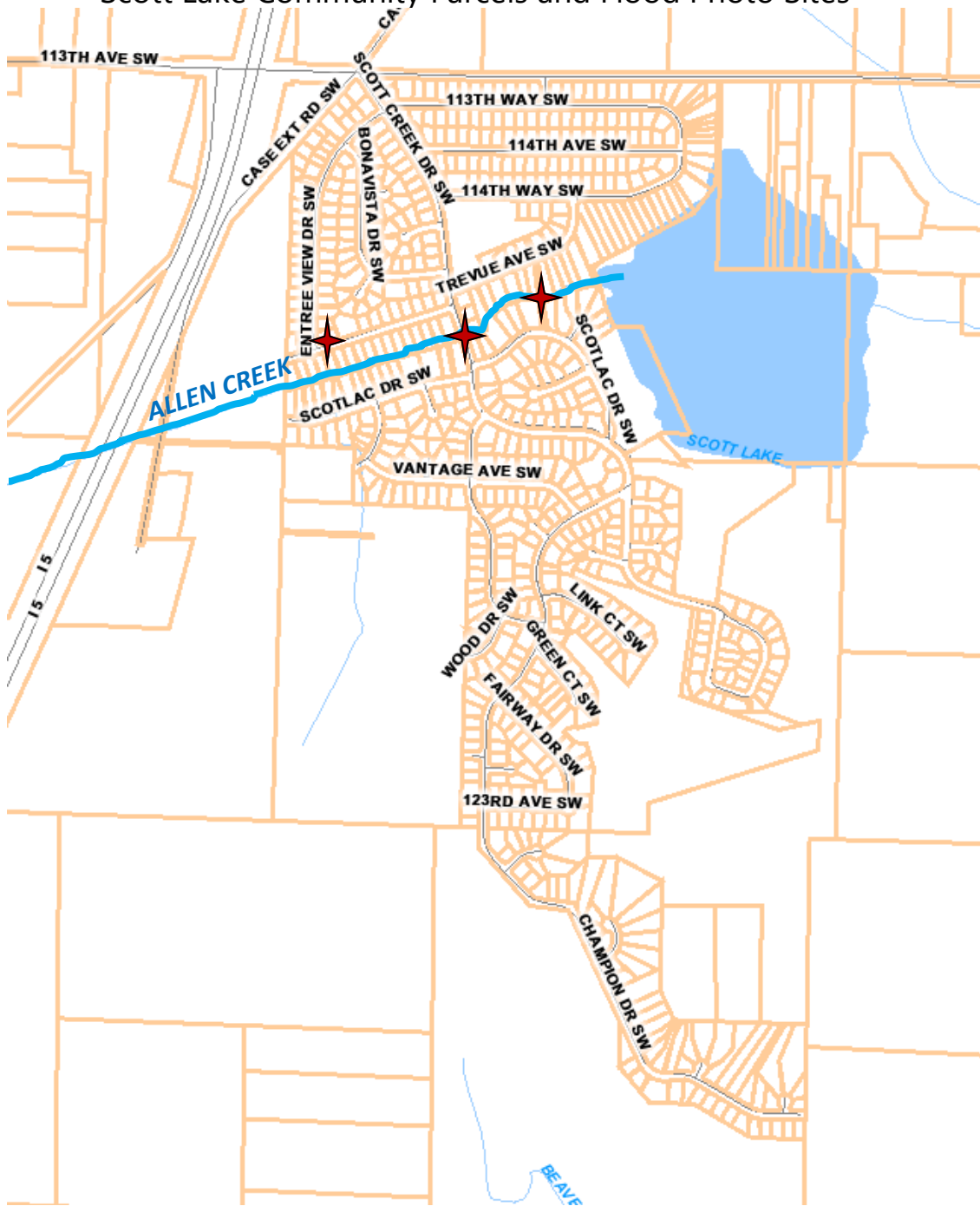
Appendix A

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.

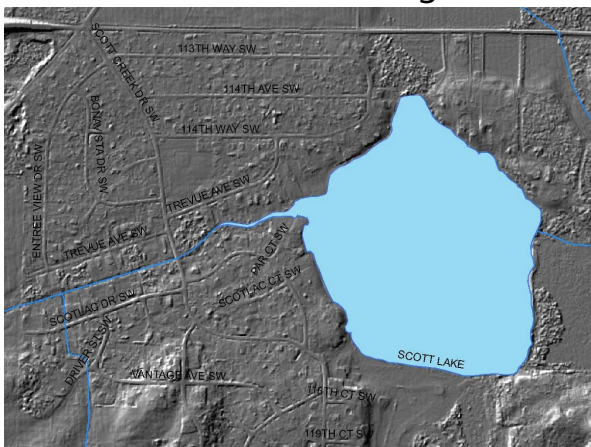
Legend:

Chehalis Basin Board	Flood Authority
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Scott Lake Community Parcels and Flood Photo Sites



LiDAR of Scott Lake Showing Elevation



Scott Creek Drive Culvert at Low Flow in June



1999 Allen Creek Flooding over Entree View Drive and Trevue Avenue



2011 Allen Creek Flooding over Scott Creek Drive and Trevue Avenue



Flooded buildings and Scott Creek Drive Culvert in 2015



Flooded Home Near Pedestrian Bridge and Allen Creek Outlet in 2015

