

2015-17 Small Projects Recruitment Form

Chehalis River Basin Flood Relief

What are small projects? -- In general, small projects are those projects that provide predominantly localized 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 the Chehalis River Basin Flood Authority's Chehalis Basin Projects Committee.

Instructions:

- a. Please submit project requests (via this form) to Scott Boettcher (scottb@sbgh-partners.com) no later than 5:00 p.m. September 10, 2014.
- b. Please submit individual project request forms for each project in your jurisdiction, even those projects previously or partially funded in the past.
- c. Note: Parts III and IV below [marked by "(**)"] will be scored as part of the Chehalis Basin Projects Committee's review and evaluation. Part I and II will not be scored.

Part I General	
1. Date:	09/08/2014
2. Project Name:	Black River- Gate Road/ Hunter Road Floodplain Connectivity
3. Project Location -- Please identify the location of the project as precisely as possible, preferable with latitude/longitude coordinates.	Nine sites on Hunter Road and Gate Road in western Thurston County east of Capital Forest. A project location map with latitude and longitude for each site is attached.
4. Project Contact -- Please identify who will be responsible for overseeing and managing the project (i.e., name, email, telephone number, etc.).	Application contact: Jeanne Kinney, Environmental Coordinator kinneyj@co.thurston.wa.us , 360-867-2344 Authorizing and managing the project: Scott Lindblom, acting County Engineer, lindblos@co.thurston.wa.us , 360-867-2329

5. Lead Organization -- Please identify the lead organization, agency, entity, etc. responsible for this project.	Thurston County Public Works 9605 Tilley Rd SW Olympia, WA 98512-9140 360-867-2300
Part II Description, Timing and Cost	
6. Project Description -- Please describe the project, what it is intended to accomplish, and the benefits that will accrue and to whom.	<p>Thurston County has recently compiled a database of culverts that are recurring problems for flooding, fish passage or where maintenance or replacement costs are unusually high. . In western Thurston County, runoff comes off the mountains in Capital Forest during storm events and floods several sections of Hunter Road SW and Gate Road SW, resulting in recurring road closures along these roads. Nine sites in the database are along Gate and Hunter Roads. As shown on the accompanying aerial map, all the proposed culverts are at the base of the Black Hills mountain range where the high velocity of runoff coming down the steep slopes meets the low gradient of the floodplain. The nine culverts are all undersized, causing water to back up that floods the roadway and adjacent private properties. This project proposes to replace the nine undersized culverts and improve downstream riparian habitat along Gate and Hunter Roads with structures sized to enhance floodplain connectivity, decrease flood damage to county infrastructure and private property and increase conveyance for sediment and woody debris.</p> <p>Thurston County is also submitting a separate grant application for elevating properties subject to flooding, one of which is on Hunter Road, which compliments this project.</p>
7. Project Timeline -- Please describe the overall timeline for completion of the project as well any interim stages or phases.	Design: 2015, permitting and right-of way agreements if needed: 2016, construction, 2016-17
8. Project Cost and Funding -- What is the cost of this project? What are the on-going maintenance and operation requirements? Is it clear who will be responsible for on-going maintenance and operations costs?	Amount requested is \$1,500,000 (includes all nine sites- project may be scaled down depending on funding.) Costs are based on the assumption that work will be contracted out. Significant savings could occur if county crews area able to do some or most of the work, but at this time, it is not known if their workload would accommodate this in the timeframe requested. All sites are on county roads, and will be part of on-going regular, routine inspection and maintenance, insuring that grant dollars will provide long term benefit.

9. Other Funding -- Please explain the extent to which other funding sources or funding partners are available.	No other funding has been secured. County staff may be able to complete engineering design, permit applications, surveying, inspection and right of way services in house depending on work load, which would lower costs. Some of the construction work may be done by county road crews using county equipment, resulting in cost savings.
Part III (**) Completion and Doability by June 30, 2017	
10. Project Completion -- Does the funding requested complete (or substantially complete) a project that has already been started? If so, please explain.	No
11. Project Doable -- Can this project or the stage/phase for which funding is sought be completed by June 30, 2017?	Yes, some preliminary designs have been done and the sites lend themselves to relatively straight forward designs and permitting.
12. Project Impacts -- Please identify how any project impacts will be mitigated and if that mitigation will be accomplished by June 30, 2017?	The projects are largely self mitigating from an environmental standpoint. Installation of larger culverts will enhance fish passage and habitat features will be incorporated into design according to WDFW Stream Crossing Guidelines. Projects will meet current stormwater standards, improving water quality above current conditions.
Part IV (**) Benefits Stated and Quantified	
13. Emergency Response -- Please explain how this project enhances our ability to respond in a flood emergency (e.g., does it keep critical access roads, transportation facilities, etc. open and functional.)	<p>This project will directly enhance flood emergency response by keeping a key transportation corridor open and functional.</p> <p>Currently, water over the roadway creates hazardous driving conditions. Flooding combined with freezing conditions creates extreme hazards for the public as well as emergency vehicles. Several hundred homes are affected on side roads accessing Hunter and Gate Roads as well as the main roads. When these sections of road flood, there are no alternative routes, so residents cannot get out and emergency services cannot get in. School busses cannot operate and residents cannot get to work, causing significant economic impacts. This project will alleviate flooding, facilitating travel by emergency services personnel, school busses and daily commuters.</p>
14. Essential Infrastructure Protection -- Please explain how this project protects essential infrastructure (as well the risks or consequences of not acting this funding cycle).	Constant saturation of the roadbed is contributing to failure of the pavement. All of these culverts are undersized and high flows cause scour and incising as well as contribute to flooding. Several of the culverts are deficient or failing as indicated on the attached cost analysis. The road typically floods at least once each winter and remains flooded for several days. Each winter that passes without repairs to the infrastructure results in economic hardship and danger to life and property.

15. Public Health, Safety and Welfare -- Please explain how this project protects public health, safety and welfare.	Replacement of the undersized culverts will reduce flooding and provide safe transportation routes for residents and emergency services. Improved stormwater collection and treatment will improve water quality. Some sites also include reconfiguration of the channel, adding sinuosity for greater capacity of flood flows and a more natural riparian corridor.			
16. Residential, Commercial and/or Agricultural Protection -- Please explain how this project protects residential, commercial and/or agricultural interests and communities and the benefits of acting (or consequences of not acting) this funding cycle. Consider factors like number of structures at risk, number of people at risk, historic frequency of flood damage, magnitude of benefit to be gained for the cost, etc.).	Three residences on Hunter Road have recorded flood losses and one is proposed to be elevated above the documented high water level. High sediment loads coming off Capital Forest lands, especially after upslope land management activity, clog the culverts and discharge onto agricultural lands. Sediment has impacted the railroad tracks of the rail line serving Elma, which is expected to see increased traffic in coal shipments. A derailment in the area due to sediment or flooding of the tracks could cause extensive environmental damage to the sensitive wetlands and salmon habitat just downstream of the Hunter Road culverts. The railroad siding next to Hunter Road contains several industrial buildings which are subject to flood damage. These buildings are used for storing commodities for transport by rail. As noted above, several hundred people are affected usually at least once a year in the winter by flood waters closing the roads and preventing access into or out of the area.			
17. Other Project Impacts -- Please explain how this project impacts or is potentially impacted by another project.	Thurston County is also applying for grant funds to elevate several homes out of the floodplain due to past flooding. One of these parcels is at 12717 Hunter Road near Site 2 described in this grant application. Other properties with documented flooding of structures include 12832 Hunter Road and 12925 Hunter Road.			
18. Anything Else -- Please feel free to offer any additional information (e.g., photos, maps, drawings, etc.) that would be helpful to better understand the scope, timeline and benefits of this project.	<table border="1"> <tr> <th colspan="2" data-bbox="746 924 1932 984"> <h2 style="margin: 0;">Budget</h2> </th></tr></table>		<h2 style="margin: 0;">Budget</h2>	
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	<div style="text-align: right;">Subtotal Costs</div>			
	Gate-Hunter Road Flooding and Fish Passage budget			
	#1 - Hunter Road SW Culvert Replacement & stream passage improvement (Fish Bearing)			
	<div style="text-align: right;">Replace with 46" x 36" Pipe Arch -</div>	\$100,000.00		
Work includes channel modification, installing new fish friendly culvert, replacing two shotgun culverts with one (see #2), road base and repaving 300 feet of roadway				
Historically Road Operations staff spend 30-40 hours annually at this site, which, during the wet season, floods and strands fish. The pavement is failing due to the constant saturation in the base.				

	#2 - Hunter Road SW Culvert Replacement - replace existing shotgun pipes 24"	\$100,000.00
	Replace with 46" x 36" Pipe Arch	
	This will take seep from historic channel	
	#3 - Gate Road SW - Culvert replacement - (Non-Fish Bearing)	
	Replace with 36" HDPE	\$30,000.00
	Currently it is an undersized 18" culvert w. debris blocking inlet & incising is occurring	
	#4 - Gate Road SW 11308 Gate Road- Culvert replacement - (Fish Bearing)	
	Replace with 46" x 36" Pipe Arch	\$100,000.00
	The existing structure is separated and undersized for fish passage	
	#5 - Gate Road SW - Culvert Replacement - Fish Bearing	
	Replace with 46" x 36" Pipe Arch	\$100,000.00
	Undersized culvert with incising occurring	
	#6- Dunnagan Creek - Culvert & Stream Modification	
	Replace with 57" x 38" Pipe Arch	\$250,000.00
	Annually the roadway floods (and freezes which impacts transportation) and field operations staff spend 20-25 hours on cleaning debris and putting out road signage for flooding. The road pavement is failing prematurely due to constant saturation.	
	#7- Gate Road SW - Culvert Replacement - Fish Bearing	
	Replace with 46" x 36" Pipe Arch	\$100,000.00
	Undersized culvert - structurally sound - some incising and scour	
	#8- Gate Road SW - Culvert Replacement - Fish Bearing	
	Replace with Concrete Bridge Deck	\$300,000.00
	Old concrete culverts which are separating and undersized.	
	#9- Gate Road SW - Culvert Replacement - Fish Bearing	
	Replace with 46" x 36" Pipe Arch	\$100,000.00
	Undersized culvert with incising occurring	
	misc driveway culverts	\$20,000.00
		\$1,200,000.00

	Engineering, Inspection, Surveying, Permitting, R/W Administrative	\$300,000.00	
	Total	\$1,500,000.00	













