



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:	September 9, 2014
2. Project Name:	Elma WWTP Outfall Embankment Stabilization Project
3. Project Location -- Please identify the location of the project as precisely as possible, preferable with latitude/longitude coordinates.	The outfall is located at River Mile 23.3 on the Chehalis River. Latitude: 46 D, 59' 06" N Longitude: 123 D, 25' 32" W
4. Project Contact -- Please identify who will be responsible for overseeing and managing the project (i.e., name, email, telephone number, etc.).	Jim Starks Public Works Director (360) 470-9604 jim@cityofelma.com
5. Lead Organization -- Please identify the lead organization, agency, entity, etc. responsible for this project.	City of Elma



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.

The Elma wastewater treatment plant has been discharging treated effluent to the current outfall location at the Chehalis River since the 1950's. The existing outfall location is generally along the outside of a meander of the Chehalis River to the south of Wenzel Slough Road at approximate river mile 23.3. The outfall pipe passes through an easement across parcel number 170603340010. The outfall diffuser pipe in the River was upgraded in 1985 to a multi-port diffuser.

Progressive erosion has occurred along the riverbank at the outfall location. Approximately 12 to 15 feet of horizontal erosion has occurred. The erosion has removed a significant amount of dirt and rocks away from the buried portion of the outfall pipe that was originally installed in the riverbank. A significant portion of the pipe is now exposed.

If no action is taken, the erosion caused by flooding events will continue to undermine the pipe and the pipe will continue to be subject to damage from debris. If the pipe fails, Department of Ecology (Ecology) will order the City to immediately construct a temporary outfall pipe. Failure would almost certainly occur during or right after a flood event making any work near the pipe location very difficult and more costly than making repairs when river flow is low. A temporary pipe will be subject to further damage because it will likely not be as protected as a permanent solution.

The City hired Gibbs & Olson, Inc. to prepare an evaluation report and make a recommendation on the best method to protect the outfall pipe. The March 2013 Assessment Report recommends keeping the outfall in the same location. Keeping the outfall pipe at the same location entails relocating the piping further into the remaining riverbank and armoring the riverbank to prevent further erosion. Armoring will be similar to recent county road work just downstream of the outfall diffuser. The armoring will extend at least 40 feet upstream and 15 feet downstream of the outfall location.

The City of Elma and its citizens will benefit from completion of this project by being proactive and armoring the river bank before there is a failure that would result in compliance issues and more costly construction. Protecting the outfall pipe in its current location is the best long term and affordable solution for the City.



<p>7. Project Timeline -- Please describe the overall timeline for completion of the project as well any interim stages or phases.</p>	<p>Once funding is made available, the City will hire Gibbs & Olson to design the pipe repair and riverbank armoring including securing required permits and determining the mitigation measures required. This will take approximately 6 months. Once complete, construction will start in the early summer when flows are low enough to install the cofferdam. Construction will take approximately 4 months.</p>
<p>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?</p>	<p>The estimated project cost is \$367,900 all inclusive. Once complete, there will be no on-going O&M costs.</p>
<p>9. Other Funding -- Please explain the extent to which other funding sources or funding partners are available.</p>	<p>There are no other viable other funding sources available at this time.</p>
<p>Part III (**) Completion and Doability by June 30, 2017</p>	
<p>10. Project Completion -- Does the funding requested complete (or substantially complete) a project that has already been started? If so, please explain.</p>	<p>No, the project has not been started.</p>
<p>11. Project Doable -- Can this project or the stage/phase for which funding is sought be completed by June 30, 2017?</p>	<p>Yes</p>
<p>12. Project Impacts -- Please identify how any project impacts will be mitigated and if that mitigation will be accomplished by June 30, 2017?</p>	<p>It is anticipated that WDFW mitigation measures will be required to allow the placement of riprap in the Chehalis River. Although the mitigation measures are not known at this time, we are confident that all required mitigation can be accomplished by June 30, 2017.</p>
<p>Part IV (**) Benefits Stated and Quantified</p>	
<p>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>	<p>This project does not affect emergency response to flood events.</p>
<p>14. Essential Infrastructure Protection -- Please explain how this project protects essential</p>	<p>This project will assure that the Elma WWTP outfall is secure for many years to come. Under present conditions, the outfall pipe is</p>



<p>infrastructure (as well the risks or consequences of not acting this funding cycle).</p>	<p>in immediate danger of failing during a flood event. Should it fail, emergency repairs will be required which will be much more costly to perform as the work will be with high water and unstable bank conditions.</p>
<p>15. Public Health, Safety and Welfare -- Please explain how this project protects public health, safety and welfare.</p>	<p>This project will protect public health by assuring that the WWTP outfall and river diffuser continue to function in the way that it was intended and permitted by the Department of Ecology in order to protect fish (salmon) and water quality in the Chehalis River.</p>
<p>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.).</p>	<p>This project will protect all Elma residents and businesses that pay for the sewer system from costly emergency repairs should the outfall pipe fail during a flood. If it fails, the Washington State Department of Ecology will issue an Order for Elma to Make repairs post haste. Stabilizing the river bank and repairing the outfall pipe will be more cost effective than emergency repair work.</p>
<p>17. Other Project Impacts -- Please explain how this project impacts or is potentially impacted by another project.</p>	<p>Not applicable.</p>
<p>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.</p>	



