



2015-17 Small Projects Recruitment Form

"Additional Local Flood relief Projects" (for 2015-17 biennium)

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.

What are additional local flood relief projects? – Additional local flood relief projects are small projects seeking to utilize surplus 2015-17 small project monies as a result of other small projects coming in under budget, being re-scoped or otherwise resulting in surplus resources. Additional local flood relief projects, like small projects are to be completed within the funding cycle, supported by the jurisdiction within which the project is proposed, and vetted and advanced through the Chehalis River Basin Flood Authority's Chehalis Basin Projects Committee.

Instructions:

- Please submit additional local flood relief project requests (via this form) to Scott Boettcher (scottb@sbgh-partners.com) no later than 5:00 p.m. April 1, 2016.
- Please submit individual project request forms for each project in your jurisdiction, even those projects previously or partially funded in the past.
- 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:	April 1, 2016
2. Project Name:	Phase 2 China Creek Flood and Habitat Mitigation Project
3. Project Location -- Please identify the location of the project as precisely as possible, preferable with latitude/longitude coordinates.	The approximate center of the project is located at 46.725828 N lat. -122.947219 W long.
4. Project Contact -- Please identify who will be	Kahle Jennings Public Works Director, City of



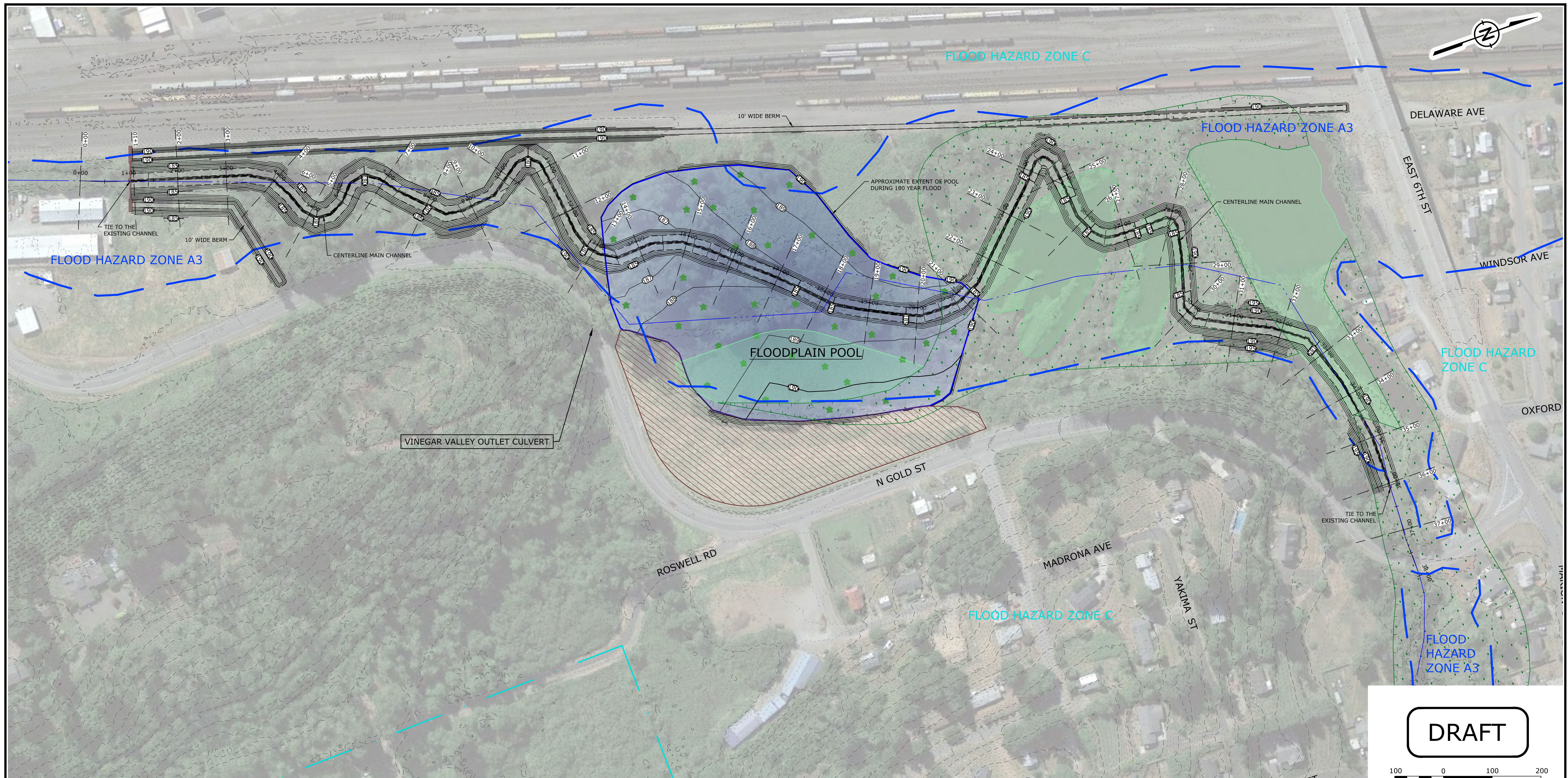
responsible for overseeing and managing the project (i.e., name, email, telephone number, etc.).	Centralia (360)330-7512 kjennings@cityofcentralia.com
5. Lead Organization -- Please identify the lead organization, agency, entity, etc. responsible for this project. Please identify key partners responsible for assisting in the delivery or implementation of the project.	City of Centralia. The Chehalis Tribe is a partner in the project.
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.	Centralia is applying for funds to complete hydraulic modeling, design, permitting and baseline fish monitoring as part of the second phase of the China Creek Flood and Habitat Mitigation Project. Phase 1 has been funded and is moving towards construction in 2016. Each phase will provide for temporary storage of high flows and will help extend flows in China Creek farther into the summer when it typically is dry, helping to retain year-round fish habitat. Delaying the peak flow runoff from the upper basin (approximately 70% of the watershed, generating 40% of the runoff flow) will allow China Creek to transport runoff from the urbanized middle basin (approximately 15% of the watershed, generating 50% of runoff flow), reducing the frequency and/or intensity of flooding in downtown Centralia. The benefits of the project include reduced/eliminated flooding of downtown businesses, preserving access along main travel corridors for emergency vehicles and the public, improved emergency response time during flood events and new/improved fish habitat.
7. Project Timeline -- Please describe the overall timeline for completion of the project as well any interim stages or phases.	Hydraulic modeling, design and permitting: June-August 2016; cultural resources assessment: July-August 2016; SEPA September-December 2016; JARPA and permitting December-June 2017.
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>The modeling, design, permitting and baseline monitoring cost estimate for this project is \$200,000.</p> <p>This project is being designed to incorporate characteristics of natural stream channels and natural water storage features. There should be minimal on-going maintenance and operation requirements for the flood mitigation components of the project. The flood mitigation M&O requirements that do exist will be</p>



	performed by the City of Centralia, owner of the project area.
9. Other Funding -- Please explain the extent to which other funding sources or funding partners are available.	City of Centralia owns the property. Centralia has paid for wetland delineation (completed) and initial hydraulic modeling and design.
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.	The funding requested will complete all necessary steps to bid construction of China Creek Phase 2. This is an addition to the China Creek Phase 1 project which is underway.
11. Project Doable -- Can this project or the stage/phase for which funding is sought be completed by June 30, 2017? Does the project face problem areas that could impact its doability and timeline, e.g., permitting or regulatory unknowns.	The project elements will be completed by June 30, 2017. At this stage of a project there are always some permitting and regulatory unknowns but the time allowed should be sufficient unless some extraordinary circumstance arises.
12. Project Impacts -- Please identify how any project impacts will be mitigated and if that mitigation will be accomplished by June 30, 2017?	<p>This project is being designed to provide a net benefit to both fish and water quality as well as reduction of flooding in Centralia. Restoring China Creek to approximately its original meandering channel along with restoration of fish friendly channel characteristics and improving/adding off-channel rearing habitat will benefit fish and water quality. Riparian planting will eventually grow to mature size stabilizing the banks, providing shade to cool the water and providing a source of nutrients for the aquatic ecosystem. The temporary storage of high flows will help extend flows in China Creek farther into the summer when it typically goes dry.</p> <p>There will be no permanent negative impacts to water quality or fish habitat from this project. All work will be done under conditions specified in the applicable permits.</p>
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.)	This is the second phase of a project that will reduce flooding in downtown Centralia. China Creek flooding closes several main emergency travel routes in downtown Centralia including Main, Pearl and Tower, Maple, Silver, Iron and Rock Streets.
14. Essential Infrastructure Protection -- Please explain how this project protects essential	This project will help protect transportation infrastructure along China Creek. Reducing the frequency and



infrastructure (as well the risks or consequences of not acting this funding cycle).	magnitude of flooding will reduce the scouring risk to the 20 bridges crossing China Creek through downtown Centralia. It will also help protect the recently restored stream section on the Centralia College campus.
15. Public Health, Safety and Welfare -- Please explain how this project protects public health, safety and welfare.	Public health, safety and welfare depend upon access. By preventing or reducing flooding on main traffic corridors emergency response vehicles will have access, or quicker access, to residents and areas of town needing assistance.
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.).	China Creek flooding has direct and indirect impacts in the community. Direct impacts include flooding of businesses and homes adjacent to the creek channel. Indirect impacts include loss of business revenue, disruption of travel and disruption of emergency services during the times streets are impassible. China Creek flooding has historically been observed when 2.5 inches of rain falls during a 24-hour period. This occurs at a frequency of once every 3.5 years. Phase 2 of the project will reduce the magnitude of flooding and the frequency of medium floods that occur once every 25 years.
17. Other Project Impacts -- Please explain how this project impacts or is potentially impacted by another project.	Although this project is not designed to prevent flooding when the Chehalis River floods and flows under Interstate 5 into the lower China Creek basin, when completed this project will reduce the flow from China Creek that contributes to that flooding.
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.	See attached design concept and location map.



DRAFT

100 0 100 200

SCALE IN FEET

REV.	DATE	DR.	CH.	REVISION
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PRELIMINARY PLANS
OVERALL GRADING PLAN

CHINA CREEK RESTORATION PROJECT
AGNEW MILL PONDS
LEWIS COUNTY, WASHINGTON



PREPARED BY: FK/GR	DATE: 11/23/2015	DRAWING 8
DRAFTED BY: BSC	SCALE: 1" = 100'	
APPROVED BY: FK	PROJECT: 3034761D	

BCARRIERE 11/23/15
F:\3034761_CHINA CREEK\PHASE 2\DESIGN < GRD_XSECT_CHINA CREEK_3034761 >

NOTES:

1. USE WILLOW, DOGWOOD, COTTON-WOOD, SALMON-BERRY AND PINE BARK TREES IN RIPARIAN BUFFER.
2. USE RUSHES, SEDGES, FERNS AND LEGUMES IN HERBACEOUS PLANT ZONE.
3. "THE CITY WILL EQUIP VINEGAR VALLEY / ROSWELL ROAD CULVERT WITH A FLAP GATE OPEN TOWARDS CHINA CREEK (AND PREVENTING BACKFLOW)".
4. THE WESTERN TOE OF THE BERM FOLLOWS THE BNNR PROPERTY LINE.

LEGEND

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- Legend:
- 195 --- LIDAR ELEVATION CONTOUR (MAJOR)
 - 194 --- LIDAR ELEVATION CONTOUR (MINOR)
 - 185 --- PROPOSED ELEVATION CONTOUR (MAJOR)
 - 184 --- PROPOSED ELEVATION CONTOUR (MINOR)
 - APPROXIMATE BOTTOM OF BANK
 - WETLANDS (FRESHWATER FORESTED/SHRUB)
 - WETLANDS (FRESHWATER POND)
 - RIPARIAN VEGETATION
 - EXISTING CHANNEL
 - FEMA ZONE LIMITS
 - 100-YEAR FLOOD BOUNDARY

SOURCES:

1. AERIAL IMAGERY: Google Earth Pro®, Imagery Date 7/16/2014.
2. EXISTING TOPOGRAPHY: LIDAR DATA COLLECTED BY WATERSHED SCIENCES, INC. WHO CREATED THIS DATA SET FOR THE PUGET SOUND LIDAR CONSORTIUM. DATA SET: 2009 PUGET SOUND LIDAR CONSORTIUM PSLC TOPOGRAPHIC LIDAR DATA COUNTY OF KING AND SNOHOMISH COUNTIES ASSEMBLED INTO 7.5-MINUTE USGS QUADRANGLES AND FURTHER BROKEN DOWN TO 3.75 MINUTE QUARTER QUADS.
3. WETLAND BOUNDARY: OBTAINED FROM THE U.S. FISH AND WILDLIFE SERVICE NATIONAL WETLANDS INVENTORY (WETLAND MAPPER WEB SITE. CHINA CREEK WETLANDS, DATED DEC. 3, 2011).
4. FEMA FLOODPLAIN DESIGNATIONS: FIRM FLOOD INSURANCE RATE MAP, CITY OF CENTRALIA, WASHINGTON, LEWIS COUNTY, PANEL 1 OF 2, COMMUNITY PANEL NUMBER 531013 0001 B, EFFECTIVE DATE: JULY 1, 1982, FIRM FLOOD INSURANCE RATE MAP, CITY OF CENTRALIA, WASHINGTON, LEWIS COUNTY, PANEL 2 OF 2, COMMUNITY PANEL NUMBER 531013 0002 B, EFFECTIVE DATE: JUNE 1, 1982.