



2017-19 Local Projects Recruitment Form

Chehalis Basin Flood Relief

A. What are local flood relief projects? -- In general, local projects are those projects that provide predominantly localized and 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, Agency, etc. Furthermore, local projects are envisioned as helping with flooding, not adverse to fish or habitat and (where possible) providers of multiple, quantifiable benefits.

B. What kinds of local flood relief projects are likely to be logical funding candidates for 2017-19?

- 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/opening, 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, and proactive vetting with agencies and tribes.
- 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 or significant uncertainty regarding potential environmental impacts.
- Projects not sponsored by a public entity.

Instructions:

- Please submit local flood relief project requests (via this form) to Scott Boettcher (scottb@sbgh-partners.com) no later than 5:00 p.m., Friday, August 12, 2016.
- Please submit one request form for each project proposed, even those past projects previously or partially funded.
- Note: Parts III and IV below [marked by "(**)"] will be scored as part of the Flood Authority Projects Committee's review and evaluation. Part I and II will not be scored.



Part I General	
1. Date:	November 15, 2016
2. Project Name:	North Shore Levee – Final Design
3. Project Location -- Please identify the location of the project as precisely as possible, including providing decimal degree latitude/longitude coordinates.	The project is located in the Cities of Aberdeen and Hoquiam. The project is generally bound on the west by the Hoquiam River, on the east by the Wishkah River, and on the south by Grays Harbor and the Chehalis River. Approximate latitude and longitude: 46°58'00" N, 123°50'00" W
4. Project Contact -- Please identify who will be responsible for overseeing and managing the project (i.e., name, email, telephone number, etc.).	Kris Koski, City Engineer City of Aberdeen Public Works 200 East Market Street, Aberdeen, WA 98520-5207 (360) 537-3218 kkoski@aberdeenwa.gov
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.	The City of Aberdeen will administer the project. The project will occur in the Cities of Aberdeen and Hoquiam.

Part II Description, Timing and Cost	
6. Project Description -- Please describe the project, what is intended to be accomplished, the benefits to be accrued, and to whom.	The project will produce a final design for the North Shore Levee project, continuing where the 60% design and CLOMR package – currently in process – will end in June 2017. The project, once constructed, will remove large areas of Aberdeen and Hoquiam from the floodplain and will place them in a mapped Zone X through a Letter of Map Revision (LOMR) from the Federal Emergency Management Agency (FEMA). Protected properties will benefit from the elimination of mandatory flood insurance through the National Flood Insurance Program (NFIP) for mortgages while also providing comprehensive protection to frequently flooded areas. The levee system will include a levee and an interior drainage pump system as required by FEMA. The objective of this project is to produce a final design



	<p>package for permitting and construction of the levee system. At a minimum, the levee design will meet existing FEMA requirements for a LOMR. To account for potential future sea level rise, the levee design height will be increased wherever feasible. Allowance for future expansion and modification will also be included wherever possible. The goal is to anticipate future conditions and maximize the lifespan of the levee, maximizing the value of the investment and benefit to the community.</p> <p>Additionally, the Cities of Aberdeen and Hoquiam and the levee design team will work proactively with local, state, and federal authorities to identify, understand, and document regulatory requirements for future construction and operation of the levee system.</p>
<p>7. Project Timeline -- Please describe the overall timeline for completion of the project as well any interim stages or phases.</p>	<p>Incorporating 60% design and CLOMR work currently in process, the project timeline is as follows: 1/2017-1/2018 – Secure construction funding 4/2017 – Begin permitting based on 60% design 6/2017 – CLOMR obtained for 60% design 7/2017-6/2018 – Final design and permitting 7/2018-10/2020 – Construction 2021 – Certification and FEMA accreditation of levee</p>
<p>8. Project Cost and Funding -- What is the cost of this project? 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>	<p>Estimated project costs are as follows: 60% design – \$988,000 – FUNDED AND IN PROCESS 100% design and permits – \$1,500,000 – THIS REQUEST Construction – TBD</p>
<p>9. Other Funding -- Please explain the extent to which other funding sources or funding partners are available.</p>	<p>The Chehalis River Basin Flood Authority (Flood Authority) is the sole funding source for this phase of the overall project. Construction funding may come from a variety of local, state, and federal sources.</p>

Part III (**) Completion and Doability by June 30, 2019	
<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>This funding will compliment 60% design funds previously awarded and will allow the City to produce a final (100%) design to be used for final permitting, bidding, and construction.</p>
<p>11. Project Doable -- Can this project or the stage/phase for which funding is sought be</p>	<p>The project provides funds to produce a final (100%) design for final permitting, bidding, and construction. It is</p>



<p>completed by June 30, 2019? 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>	<p>a continuation of the work currently underway for 60% design and CLOMR which will be finished by June 2017. The 100% design will start in July 2017 and is anticipated to take one year to complete. Coordination and vetting with WDFW and DOE will continue to occur concurrently with design. The levee is anticipated to be located entirely above the ordinary high water mark to simplify permitting and timelines.</p>
<p>12. Project Impacts -- Please identify how any project impacts will be mitigated, funded and if that mitigation will be accomplished by June 30, 2019?</p>	<p>There are no physical impacts with this phase of work (design). Impacts will be identified as design progresses and mitigation will be proposed where needed. The levee is anticipated to be located entirely above the ordinary high water mark to minimize impacts to shoreline habitat.</p>

<p align="center">Part IV (**) Benefits Stated and Quantified</p>	
<p>13. 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 and functional, does it enable easy movement of cattle, equipment and farm chemicals out of harm's way, etc.).</p>	<p>This phase of the project provides a 100% design for final permitting, bidding, and construction. After the levee system has been constructed, the protected area will benefit from comprehensive flood protection including a levee and an interior drainage pump system.</p>
<p>14. 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>	<p>The completed levee system will provide comprehensive flood protection to large areas of Aberdeen and Hoquiam, including fire stations in both cities, Aberdeen's police station and jail, Aberdeen schools, and other essential infrastructure. It is estimated that 3,400 parcels in Aberdeen and Hoquiam that are under an estimated Base Flood Elevation (BFE) of 13.5 feet NAVD88 will be protected by the levee. The final BFE or BFEs and number of protected parcels will be determined as design progresses.</p> <p>The consequences of not acting this funding cycle could include stalling the design process, prolonging the negative economic effects of the Cities being located in the floodplain, and leaving the area susceptible to damages from the 100-year flood event.</p>



<p>15. Public Health, Safety and Welfare Benefits -- Please describe (and quantify) how this project protects public health, safety and welfare.</p>	<p>Chronic flooding has resulted in depressed property values and rising flood insurance rates. In a community suffering from long-term economic depression, reducing flood insurance costs and increasing property values will greatly benefit the community's welfare.</p> <p>The constructed levee will provide comprehensive flood protection. The LOMR obtained after final construction will eliminate mandatory flood insurance for mortgages in the area. Citizens in the Cities of Aberdeen and Hoquiam paid over \$2.3 million in flood insurance premiums in 2014. Since the NFIP's adoption in the Cities of Aberdeen and Hoquiam in 1984 and 1979, total paid claims have totaled approximately \$5.1 million, but prior to the January 2015 storm, total paid claims totaled only \$900K. The project goal is to provide flood protection and to eliminate systemic economic losses due to flood insurance premiums. Historic flood insurance data from NFIP was requested through a Privacy Act Request and is currently being analyzed to provide more detailed statistics on the economic drain.</p>
<p>16. Residential, Commercial and/or Agricultural Protection Benefits -- Please describe (and quantify) 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>It is estimated that 3,400 parcels in Aberdeen and Hoquiam that are under an estimated Base Flood Elevation (BFE) of 13.5 feet NAVD88 will be protected by the levee. As described above, the constructed levee will curb significant long-term economic losses in these areas. Flood insurance payments have historically been subsidized. Recent federal legislation has dramatically increased flood insurance premiums by as much as 500% as full-risk premiums are implemented. The consequence of not proceeding with this project would be continued flooding, increasing economic loss due to rising flood insurance premiums, and missed opportunity to work in conjunction with the Timberworks Resiliency and Restoration Master Plan as described below.</p>
<p>17. Other Project Impacts -- Please explain how this project impacts or is potentially impacted by another project.</p>	<p>This project will occur concurrently with implementation of the Timberwork Resiliency and Restoration Master Plan (Master Plan) that was kicked off in Aberdeen and Hoquiam in January 2016. The Master Plan will be completed by December 2016, providing a summary of recommended projects, their benefits, and approximate costs. It will be used as a tool to prioritize and fund flood-relief projects that will be complimentary to and work in conjunction with the North Shore Levee's internal</p>

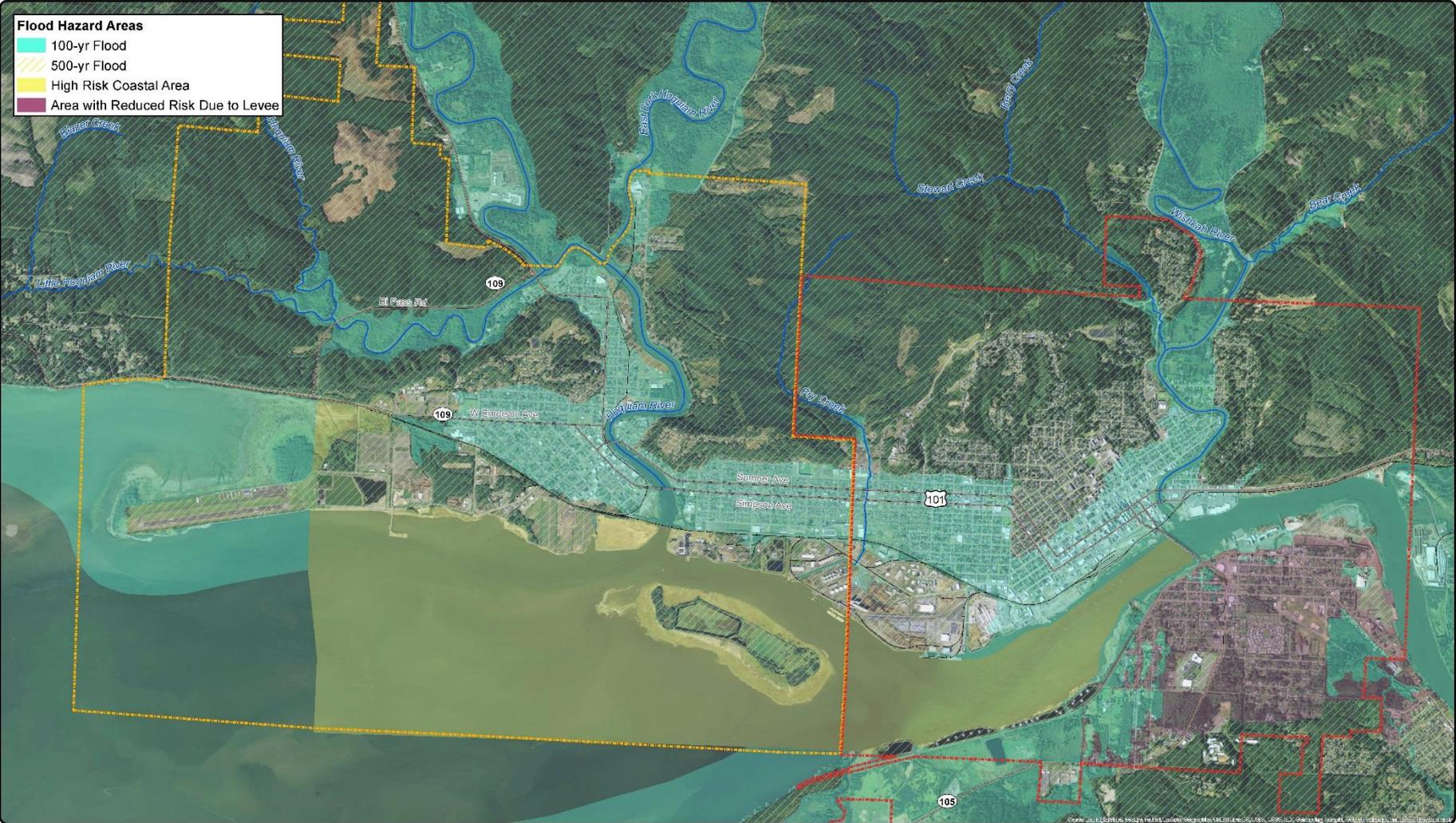


	drainage conveyance and storage improvements.
18. Anything Else -- Please feel free to offer any additional information (e.g., photos, maps, video, drawings, etc.) that would help to better understand the scope, timing and benefits of this project.	Attachment 1: Flood Hazard Map Attachment 2: Preliminary Levee Alignment

Appendix A

Process/Schedule (current as of 7-22-2017)	
July 21, 2016 (FA In-Person Mtg.)	<ul style="list-style-type: none"> • Post and distribute local projects recruitment request on 7/22/2016 following Flood Authority review/discussion at their 7/21/2016 meeting. • Allow three weeks for project proposals/submittals (i.e., due no later than 5:00 p.m., Friday, August 12, 2016).
August 18, 2016 (FA Conf. Call Mtg.)	<ul style="list-style-type: none"> • Receive proposals/submittals. • Update Flood Authority at their 8/18/2016 meeting on number received, type of projects received, distribution, etc.
September 15, 2016 (FA In-Person Mtg.)	<ul style="list-style-type: none"> • Update Flood Authority at their 9/15/2016 meeting on status of Projects Committee's effort to review, rank, discuss with Tribes, discuss with agencies, preliminarily sort and rank, etc.
October 20, 2016 (FA In-Person Mtg.)	<ul style="list-style-type: none"> • Review/discuss DRAFT ranked and prioritized list with Flood Authority at their 10/20/2016 meeting.
November 17, 2016 (FA Conf. Call Mtg.)	<ul style="list-style-type: none"> • Seek Flood Authority approval of FINAL ranked and prioritized list at their 11/17/2016 Flood Authority meeting.

Flood Hazard Map





- LEGEND
- CONCRETE WALL
 - SHEET PILE WALL
 - EARTHEN DIKE
 - STOPLOG CLOSURE
 - HIGH GROUND

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NORTH SHORE LEVEE
ABERDEEN/HOQUIAM, WA

NO	DATE	BY	CHK	APPR	REVISION

DRAWING

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