CHEHALIS RIVER BASIN FLOOD AUTHORITY

THE CHEHALIS TRIBE

ESB 5127-Jobs Now Act Section 313-Chehalis River Basin Flood Relief Projects Review and Approval Form

(Prepared for Flood Authority Action on 7/26/2012)

Proposed Project: Bucoda Levee (Phase I – Design).

Lead Agency: Town of Bucoda.

Budget: $42,000.

Description: The proposed project is to raise and extend an existing levee in order to fully encircle the Town of Bucoda's wellhead with a continuous levee system that protects the Town's drinking water system. The existing levee is approximately 500 feet long. The top of the existing levee varies in elevation from about 251 to 253 feet. The existing levee is shaped like a trapezoid. The elevation of the 2009 flood was approximately 253 feet. The elevation of the access road into wellhead site varies from about 251 to 254 feet. The proposed project is to raise and extend the existing levee in order to fully encircle the Town's wellhead with a continuous levee system with an average elevation of 256 and roughly 3 feet of freeboard. The existing levee was repaired by the US Army Corps of Engineers (Corps) in 2002. Town officials are seeking additional historic and technical information from the Corps. The Town's engineer estimates the proposed project will require about 300 cubic yards of material. The Phase I -- Design costs are estimated to be about $42,000 and 530 FTE hours. The Phase II -- Construction costs are not yet known but the work effort is estimated to be about 1,480 FTE hours. The Phase I -- Design will address the cost to improve the levee separate from the cost to repair the levee from any deferred maintenance as requested by the Office of Financial Management.

Flood Hazard Reduction Benefits: The proposed project is viewed as essential to protect the Town's drinking water system including the wellhead, pumps, generator and equipment from future floods. The proposed project is intended to protect the Town's wellhead infrastructure from direct flood velocity damage as well as backwater ponding.

Adverse Impacts/Effects: Watershed Science and Engineering determined there would likely be no observable difference of more than 0.01 feet above baseline at any location upstream or downstream as a result of the proposed project.

Project Feasibility: The scope and scale of the total proposed project (Phase I and Phase II) does not appear to raise any significant issue that would likely preclude (or significantly alter or hinder) the project.

Timeline: The Phase I -- Design portion of the proposed project is ready to go and is assumed to be able to be completed by October 1, 2012. The Phase II – Construction portion of the proposed project is assumed to be likely able to be completed by July 1, 2013 depending on the cost and available funding.

Authority: ESB 5127.

Jobs Supported: Phase I – Design = 530 FTE hours. Phase II – Construction = 1,480 FTE hours. Total = 2,010 FTE hours or roughly 1 FTE.

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Studies Completed: The proposed project was evaluated for upstream and downstream effects on 7/23/2012 using the Chehalis HEC-RAS model by Larry Karpack of Watershed Science and Engineering (email). Larry's analysis determined there would likely be no observable difference of more than 0.01 feet above baseline at any location as a result of the proposed project. Larry modeled for a February 1996 flood event (the biggest observed flood on the Skookumchuck system since the construction of the Skookumchuck dam).

Further Studies Needed: Studies and documentation necessary to support permitting and environmental review.

Current Project Status: Project design has not yet been completed.

By signing this review and approval form, we hereby agree to the following:

- We have received information from the project proponent and had the opportunity to ask questions or seek additional information.
- We understand that the proposed project fits the authorization allowed under ESB 5127, and will help provide or lead to a project to provide flooding relief within the Chehalis Basin while also providing jobs.
- We recommend that OFM allot funds to the project proponent.

Karen Valenzuela 7.26.12

Vickie L. Raines Chair, Flood Authority	Date	David Burnett Chair, Chehalis Tribe	Date