WHATCOM COUNTY
PUBLIC WORKS DEPARTMENT

ELIZABETH KOSA
DIRECTOR

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MEMORANDUM

TO: The Honorable Members of the Whatcom County Flood Control Zone District Board of Supervisors

THROUGH: Elizabeth Kosa, Public Works Director

FROM: Julie Anderson, River and Flood Manager
Gary Stoyka, Natural Resources Manager

RE: University of Washington Interlocal Agreement for DELFT Sediment Modeling

DATE: April 1, 2025

Enclosed are two (2) originals of an Interlocal agreement (ILA) between the Whatcom County Flood Control Zone District (FCZD) and the University of Washington (UW) for your review and signature.

Requested Action
Public Works respectfully requests that the County Council, acting as the FCZD Board of Supervisors, enter into an interlocal agreement with the UW to assess the Nooksack River's morphodynamic response to potential channel and floodplain modifications, to better understand the sensitivity of the river's response to discharge magnitude and to support ongoing sediment work underway in the FLIP process.

Background and Purpose
Whatcom County is leading the Floodplain Integrated Planning (FLIP) Project to identify mitigation measures and update the 1999 Lower Nooksack River Comprehensive Flood Hazard Management Plan. Because sediment transport has been changing the dynamics of the flow split at Everson, the FCZD has retained consultants to evaluate the impacts to sediment movement associated with potential mitigation options. Some of the mitigation options being considered are focused on trying to restore a more natural flow of sediment near Everson to reduce the variability of the flows going to the Everson-Sumas overflow corridor and downstream to Bellingham Bay.

The state-of-the-art models used in the consulting practice are limited and only partially represent the natural process associated with sediment transport in gravel-bed rivers. The UW has developed a more sophisticated morphodynamic model of the Nooksack River that can represent river processes more comprehensively, but requires the use of supercomputers that limit the simulation timeframes. The FCZD requests assistance from the UW to utilize their model of the Nooksack to support the ongoing sediment work underway on the FLIP team.

Funding and Source
The proposed contract amount is $114,000. The 2025 FCZD Budget has adequate budget authority for this work. This work is being funded through the current State Proviso through the Department of Ecology that supports the FLIP work.

Please contact Julie Anderson at extension 6258, if you have any questions or concerns regarding the terms of this Contract.