

**WHATCOM COUNTY  
PUBLIC WORKS DEPARTMENT**

**Elizabeth Kosa  
Director**



**NATURAL RESOURCES**

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**MEMORANDUM**

**TO:** The Honorable Satpal Singh Sidhu, Whatcom County Executive, and The Honorable Members of the Whatcom County Council, collectively serving in their capacity as the Whatcom County Flood Control Zone District Board of Supervisors.

**THROUGH:** Elizabeth Kosa, Public Works Director

**FROM:** Gary Stoyka, Natural Resources Manager   
Chris Elder, Senior Watershed Management Planner

**DATE:** March 29, 2023

**RE:** Interlocal Agreement with WWU to assess impacts of forest cover on peak flows

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**Requested Action**

Attached for your review and approval is an interlocal agreement with Western Washington University to assess the impact of forest cover on peak flows in the Nooksack River basin.

**Background and Purpose**

This project includes modeling the historical and projected future hydrology in the Nooksack River with a focus on forest cover impacts in winter peak flows. Hydrologic modeling will employ the Distributed Hydrology Soil Vegetation Model (DHSVM), which uses physical characteristics of the basin and meteorological inputs to simulate snow accumulation and melt, evapotranspiration, soil moisture storage, and runoff. The project will expand upon current DHSVM modeling projects in the Nooksack in which the WWU research group is involved, including assessing projected peak flows based on the 2016 NOAA landcover and examining forest harvest scenarios in the South Fork of the Nooksack River watershed.

**Funding Amount and Source**

This project will be funded using Acme/VanZandt Subzone funding and is supported by the Acme Van Zandt Subzone Advisory Committee. There are sufficient funds in the 2023 budget for this expenditure.

Please contact Chris Elder at extension 6225, if you have any questions or concerns regarding the terms of this agreement.

Encl.  
Interlocal Agreement