

# Lake Whatcom Monitoring & Modeling Update

Whatcom County Public Works  
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# Background

- Lake Whatcom Water Quality Monitoring
  - 2009 to present: Tributary Monitoring Program to fill in data gaps in loading model for phosphorus characterization.
    - Joint effort between Whatcom County, City of Bellingham, and Lake Whatcom Water & Sewer District.
    - Brown & Caldwell has been the ongoing consultant for the project.
  - Institute for Watershed Studies
    - Contracted with City of Bellingham for storm event and lake monitoring.



# Lake Whatcom Tributary Monitoring

- Current contract ends spring 2021.
- Whatcom County and City of Bellingham will coordinate on next round of monitoring efforts for the 2021-2024 water years.
- Results of the Lake Response Model Update may inform future monitoring plans.

# Lake Models

- Lake Loading Model (HFAM)
  - Updated model from original model used for the Lake Whatcom TMDL, utilized for phosphorus loading characterization.
  - Managed by the City of Bellingham.
  - Incorporated data from Tributary Monitoring Program as well as lake monitoring data from Institute for Watershed Studies.
  - Accepted by Department of Ecology; third-party reviewed.

# Lake Models, cont.

- Lake Response Model (CE-QUAL W<sub>2</sub>)
  - Requirement of the LW TMDL is to update the model by March 31, 2024.
    - Results determine modeled water quality in the lake, informing the phosphorus reduction goals. (i.e. potentially new total pounds of phosphorus to mitigate for over the 50-year timeframe.)
  - Whatcom County lead for update.
  - Initiated contract with Brown & Caldwell for Phase 1 of the update in February 2020.
  - Phase 2 contract is scheduled to go for Council approval February 9<sup>th</sup>.

# Lake Models, cont.

- Contract expected to finish in October 2022.
- Results will determine if the TMDL targets will be formally adjusted for Whatcom County and City of Bellingham.
  - Any steps or determinations regarding TMDL targets will be a coordinated and collaborative effort with the City of Bellingham and Department of Ecology prior to the March 2024 deadline.
- Brown & Caldwell contract includes budget to address various levels of public outreach necessary as update to the model is completed.

# Questions?

