



DIRECTOR'S UPDATE: Post-Flooding Damage Assessment

Committee of the Whole, November 23, 2021

Last week's flooding was driven by excessive rainfall over the two-day period of November 14 and 15 which delivered 4.7" at Bellingham Airport, 11.4" at the Elbow Lake gauge above the S.Fork Nooksack (3,000' elev), and 8.4" at the MFk gauge above Glacier Creek (5,000' elev). For comparison, BHam's 2.8" on 11/14 shattered the previous daily rainfall record by three times. Instead of spreading over the full day, the 2.8" fell in just 6 hours on Sunday night. These torrential rains landed on already saturated soils, full landscape storage, and in the higher country about 6" of snow, causing enormous runoff to rapidly overwhelm creeks and the Nooksack River. The incredible rainfall intensity caused flooding that has not been witnessed for over 30 years. Floods like this always cause unbearable loss and heartache for those living in the flood plain. We do our best to make those impacts **predictable**. That said, no manner of flood control can protect us from this kind of intense precipitation over such a broad swath of our landscape. Mitigating large flood impacts is about flood plain management and early warning. Even then, no one really knows how intense the rain will be until it falls.

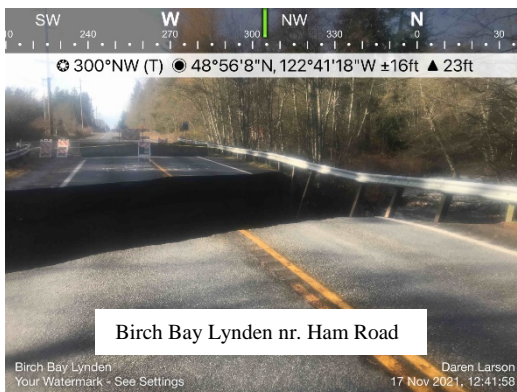
Preliminary damage assessments are complete for most of the County's critical Public Works infrastructure. A summary of the approximately 62 damage sites we are currently tracking follows:

Bridges. All 160 bridges assessed. No structural damage. Three emergency contracts let to clear Turkington Road Bridge, Hillside Road Bridge, and Porter Creek Bridge.

Roads. All arterials, 80% major and minor collectors and 50% of minor access roads inspected. Ten major repair projects on currently impassable roads including Birch Bay Lynden, Northwest, Drayton Harbor, Goshen, North Fork, Silver Lake, South Pass, Sunset, and Beach are being handled by our Engineering Division. A total of 15 roads remain completely closed.



Mosquito Lake Road at Porter Creek Bridge



Birch Bay Lynden nr. Ham Road

Birch Bay Lynden
Your Watermark - See Settings
Daren Larson
17 Nov 2021, 12:41:58



Goshen Road

Road failure
Your Watermark - See Settings
Goshen Road
16 Nov 2021, 16:18:41

**Public Works, Nov 2021
Flood Damage Assessment**



Nooksack River floodplain looking upstream of Guide-Meridian, Tuesday around noon.

Levees. All major levees inspected. Critical damage at Twin View (Lynden), Timon, and Rainbow Slough (Lummi Peninsula) undergoing emergency repair by US Corps of Engineers beginning today. Substantial damage to Lynden Levee, Polinder Levee, Marine Drive Levee, and Saar Creek Berm to be repaired in-house.



Stormwater Systems. All NPDES stormwater systems and selected public outfalls inspected. Repairs necessary at Coronado, Cottonwood Court.

Critical infrastructure **repairs are ranked** according to the following criteria, where 1 is highest priority and will be addressed first:

1. Damage impedes emergency service access to homes.
2. Damage is a hazard to the motoring public and could cause serious injury if not repaired, mitigated, or protection installed.
3. Damage disrupts a critical infrastructure facility (road, bridge or other) and causes a delay to emergency services and the motoring public.
4. Damage, if not addressed, could cause the site to move to a higher priority if another storm event occurs.

Damages falling outside of these definitions will be addressed after critical infrastructure is stabilized and repairs are scheduled. Non-critical work will be scheduled among other priorities as time allows. A preliminary estimate is in excess of two months before we get to non-critical work

Close call Tuesday morning at River Walk in Ferndale.



Andrew delivers sand to City of Ferndale.