

Technical Report Summary: Climate Change

This summarizes the key findings of the *Draft Environmental Impact Statement* detailed in the *EQRB Climate Change Technical Report*.

Affected Environment

At the local level, the Willamette River is considered the study area for future effects to the Project related to potential climate-related changes in floodplain levels. The study area for project greenhouse gas (GHG) emissions is defined by the project footprint including construction staging and detour routes. This accounts for the construction materials used for project construction and their origins. Laws, programs, and policies at the federal, state, and local levels that guide or inform the assessment of climate change impacts were consulted.

Mitigation

Mitigation measures for minimizing the effects of construction-related traffic congestion (and thus emissions) are described in the EQRB Transportation Technical Report. Additional mitigation measures for reducing emissions from construction equipment and activities would be achieved by following the Multnomah County Clean Air Construction guidance. Mitigation measures for minimizing changes in base flood elevations are described in more detail in the EQRB Hydraulic Impacts Technical Report.

Construction materials and methods and the duration of construction can affect GHG emissions including emissions embedded in the development and manufacturing of materials, emissions from construction equipment, and emissions from traffic affected by temporary road or lane closures and detours. The Project initiated a Greenroads Rating System assessment that evaluates the sustainability of construction-related choices and activities with the intent of identifying feasible ways to reduce GHG emissions. This would be implemented during final design and construction.

More information on this topic is available in the *Draft Environmental Impact Statement* and in the *EQRB Climate Change Technical Report*.

More information

Help shape the future of the Burnside Bridge and visit BurnsideBridge.org for more information.

For more information, contact:

Mike Pullen, Multnomah County Communications Office,
mike.j.pullen@multco.us, (503) 209-4111

For information about this project in other languages, please call 503-209-4111 or email burnsidebridge@multco.us.

Para obtener información sobre este proyecto en español, ruso u otros idiomas, llame al 503-209-4111 o envíe un correo electrónico a burnsidebridge@multco.us

Для получения информации об этом проекте на испанском, русском или других языках, свяжитесь с нами по телефону 503-209-4111 или по электронной почте: burnsidebridge@multco.us.

Impacts from the Bridge Alternatives



No-Build Alternative

The total 2045 GHG traffic emissions are projected to be approximately 41 percent lower than the existing (2019) annual emissions total due to expected advancements in vehicle technologies and more stringent fuel economy standards. No bridge construction emissions would be expected. However, emissions from bridge maintenance activities would be higher, and, given the bridge's age, there would be a high probability of the need to replace the bridge in less than 50 years. After a major earthquake, the lack of a viable river crossing could result in much longer trips and thus higher GHG emissions.



Impacts Common to all Build Alternatives

Daily GHG emissions in 2045 are projected to be the same as for the No-Build Alternative. However, having a viable river crossing after a major earthquake would result in less out-of-direction travel and thus lower GHG emissions. The build alternatives are anticipated to be less severely affected by climate change, including increased base flood elevations, than the No-Build Alternative.



Enhanced Seismic Retrofit Alternative

Would require more maintenance, improvements, and repairs than the replacement alternatives over its lifetime. However, the Retrofit Alternative would have reduced construction time leading to the lowest total emissions of the build alternatives.



Replacement Alternative with Short-Span Approach

Would have the highest total emissions of the replacement alternatives due to increased construction materials, along with the Couch Extension Alternative.



Replacement Alternative with Long-Span Approach

Would use substantially less material (namely concrete) than the other replacement alternatives. This means that total emissions for the Long-span Alternative are the second lowest of the build alternatives.



Replacement Alternative with Couch Extension

Would have the highest total emissions of the replacement alternatives due to increased construction materials, along with the Short-span Alternative.

Impacts from Construction Traffic Management



Without a Temporary Bridge

No additional impacts beyond those described above are anticipated.



With a Temporary Bridge

GHG emission impacts associated with construction of the replacement alternatives would be higher than without a temporary bridge.