



US 34 Big Thompson Canyon

US 34 FLOOD RECOVERY PROJECT

Why is this project needed?

This project is all about increasing public safety. The emergency repair project completed Nov. 21, 2013, was only intended to restore safe travel on US 34 as quickly as possible and did not provide long-term engineering solutions to make the roadway safer and more resilient during high water events.

By strengthening the highway, this project will help ensure that after the next flood there will be enough roadway still in place for emergency crews to reach canyon residents via ground in a matter of minutes rather than by air hours or days later. While it is virtually impossible to completely flood-proof the entire canyon, this project and the improvements made to County Road 43 will go a long way toward fortifying the roads in the canyon so people will have a way to get in or out. In addition, the temporary concrete barrier will be replaced with standard guardrail, roadside drainage will be improved to reduce icing during winter months, passing lanes and safe pullouts will be reestablished, and shoulders will be widened where possible to improve sight distances and reduce vehicle collisions with rockfall and wildlife.

What is the overall scope of this project?

This flood recovery project entails the following aspects:

- Rock blasting near the Horseshoe curve (mile point 78) to realign the roadway - COMPLETED
- Building new bridges at the Horseshoe curve to move the highway onto bedrock away from the river - UNDER WAY
- Extensive soil-cement mixing operations in the Narrows to strengthen the road base
- Rebuilding/upsizing the Waltonia access bridge
- Coordinating with Larimer County to rebuild/improve six other county access bridges
- Repairing the landslide area near Waltonia
- Improving the river embankment slopes to offer more protection to the roadway
- Making river channel improvements to improve fish and other natural habitats
- Adding rockfall protection in critical areas
- Complete mill and asphalt overlay of entire corridor (mile points 65-88)

DEVASTATION OF 2013 FLOOD

Total damage from the storm: \$3.9 billion

Fatalities: 10

Evacuated: 18,000

People airlifted to safety: 1,700

Homes and structures destroyed: 1,882

Homes and structures damaged: 16,000

What work has been completed to date?

During the first closure, most of the work was focused on a 3 ½ mile section of US 34 between Drake and Cedar Cove where crews blasted and removed 387,000 cubic yards of rock (or more than 38,000 dump trucks full) to enable moving the roadway onto bedrock and make way for the new bridge in the Horseshoe curve. The substructure of this new bridge is also complete and girder placement began in early August.

Why does the road need to be closed while this work is done?

To make the road as resilient as possible, crews are doing various activities like soil-cement mixing (digging down to bedrock and mixing the native materials with cement to form a solid, erosion-resistant mass to build the new road on), rock blasting to realign the highway and cutting into the rock face walls where possible to shift the road onto bedrock. This work involves a great deal of heavy equipment on the roadway, making it unsafe for passenger vehicles to pass through. We will work with emergency services to get their vehicles through the canyon, so anyone who has an emergency should call 911 and we will coordinate with responding agencies.

Closing the road for the winter season will also enable a faster completion of the project. Closing US 34 to through traffic from October to next May will ensure all traffic impacts are done by the end of 2018. If the remaining work was done under the condition of single lane closures, traffic impacts would continue year-round through the summer of 2020.



The 2013 emergency repair project restored travel between Estes Park and Loveland as quickly as possible, but this project was not intended to provide long-term resiliency solutions for the Big Thompson Canyon.