

Left Hand Creek Project Shrinks Flood Plain

LONGMONT, CO - During September 2013, the state of Colorado was hit hard by catastrophic flooding that impacted many cities. Lives were lost, property was damaged, and many structures were completely destroyed. Longmont, located less than 40 miles from metropolitan Denver, was one of the hardest hit cities.

Luckily, only months before, the city had completed a mitigation project known as the Left Hand Creek Flood Control Project. This mitigation effort helped reduce the amount of damage to property and protected the majority of area residents from danger.

Left Hand Creek meanders through Longmont and has a history of flooding in the city's Southmoor Park neighborhood whenever rainfall exceeded levels of only a 20-year storm. The creek channel was not large enough to carry additional water and bridges were subject to being washed out. Stormwater would overflow the channel and flood approximately 200 neighborhood homes. This repetitive result created a need for upgrading the channel and bridges so they would stand up to water flows from 100-year storms.

The goal of the Left Hand Creek Project was to reduce the mapped floodplain so most of the homes in Southmoor Park would not be affected. Upgrading bridges and channel capacity would keep storm water in the channel and away from the homes in the neighborhood.

The project was multi-faceted. The South Pratt Parkway Bridge was replaced, bridge structures were added at Main Street, the Left Hand Creek channel was enlarged between Main Street and South Pratt Parkway, the channel on the north side of Pike Avenue was improved, and the bike path to cross under South Pratt Parkway was reconstructed.

Additional project components included re-grading the channel area downstream to Pike Road.

The new grading provided additional area needed to ease the passing of stormwater. However, this additional area came at the price of removing existing trees and planting new trees outside of the main channel flow area. As a result of these improvements, 169 homes were taken out of the floodplain.

Total cost of the project was \$5,689,013. Federal Emergency Management Agency (FEMA) grants funded \$3 million and the state matched this with \$2,689,013. The project took nearly two years to complete.

"During the rains in September, we got seven and a half inches of water in Longmont," said Steve Ransweiler, engineering services project manager for Longmont Public Works.

"It's simply amazing that the project did just what it was designed to do," said Ransweiler. "Rarely do we get to do a project like this and then have it get tested so quickly."

The September flooding left the South Pratt Parkway Bridge intact when water topped the bridge. Another project success was the sparing of a small pedestrian bridge spanning Left Hand Creek.

As expected, fast water flow and debris deposits took place between the Hartley pedestrian bridge



and Main Street Bridge. The floodwaters overtopped the Main Street Bridge, but did not cause damage to the bridge itself.

The big mitigation success is that water did not enter any of the 169 homes in the Southmoor Park subdivision that had been removed from the floodplain. "Homes would have likely received eight to ten feet of water if it had not been for the flood control project," said Ransweiler.

It took between two to four days and four crews to clean up the muddy streets, but residents who evacuated the neighborhood found their homes dry and intact when they were allowed to return.

During project construction, the city received complaints about trees being removed, noise generated by heavy equipment, and dust that seemed to be all over the place. However, since the Southmoor Park residents' homes were spared from the floodwaters, the homeowners are expressing their appreciation of the Left Hand Creek project.

For additional information, contact: <http://ci.longmont.co.us/lefthandcreek/>