

Algiers Canal Risk Reduction Features

Updated August 2012

U.S. ARMY CORPS OF ENGINEERS

Public safety is the Corps of Engineers' top priority. Congress has fully authorized and funded the Hurricane and Storm Damage Risk Reduction System (HSDRRS) for southeast Louisiana. The HSDRRS includes five parishes and consists of 350 miles of levees and floodwalls; 73 non-Federal pumping stations; 3 canal closure structures with pumps; and 4 canal gated outlets.

Project Summary

The Algiers Canal project area, located on the west bank of the Mississippi River in the vicinity of Jefferson, Orleans and Plaquemines parishes, is designed to serve as a detention basin for the enhanced West Bank and Vicinity Project. The Algiers Canal project was originally designed to serve as the first line of defense against storm surge, but once the Gulf Intracoastal Waterway-West Closure Complex (WCC) had features in place to defend against a 100-year storm, the canal would serve as a detention basin. The Algiers Canal receives rainwater pumped into the canal from the area pump stations. When the WCC is operational and gates are closed, during a tropical storm event, the WCC will pump rainwater from the detention basin.



The Algiers Canal Risk Reduction Features being built by the Corps will reduce the risk associated with a storm surge that has a one percent chance of occurring in any given year, or a 100-year storm surge, for residential and commercial developments in Algiers, English Turn, Harvey, the Belle Chasse sub-basin, and other areas of Jefferson, Orleans and Plaquemines parishes. The total construction value of all projects along the Algiers Canal is an estimated \$210 million (This amount excludes the WCC).

Project Features

The Algiers Canal Risk Reduction Features project consists of several improvements in line with its function as a detention basin for impounded water. Earthen levees will be improved to reflect post-Hurricane Katrina design guidelines and include stability improvements and levee lifts. Floodgates are being installed in areas that require access and floodwall tie-ins will link project features and provide fronting protection at pump stations.



All four levee lift and stability contracts are complete. Levees elevation is 8.2 ft.



A total of six, 4.5 ft high steel swing or roller gates have been installed. These gates are required due to limited flood-side real estate.



Two overhead roller gates are contained within the approach walls just before the tunnel entrance and exit, plus three roadway swing gates and two railroad swing gates.

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Levees along the Industrial Reach of the Algiers Canal are built to the final design elevation of +8.2 ft and include the addition of a stability berm on the protected side in specific locations along the canal; these features are now complete. At six locations along the Industrial Reach, floodgates have been constructed to allow access to the waterway by offshore/industrial businesses in the area.

The Algiers Canal Risk Reduction Features will also improve the structural integrity of six pump stations along the length of the Algiers Canal. The Corps will construct fronting protection or concrete T-wall structures in front of five pump stations to prevent the station from being inundated, stop seepage under the pump stations and prevent backflow through the pump discharge tubes by installing valves or gates. The remaining pump station was designed with fronting protection and back flow protection, but is undergoing improvements to the floodwalls which tie the pump station into the levee system.

The Corps is also installing overhead roller gates at the entrance and exit of the Belle Chasse Tunnel, railroad swing gates on each side of the canal, and a ramp and three additional swing gates across access roads to tie the area into the existing levee system. Floodwalls will link the gates to the existing earthen levee along the Algiers Canal. The system of gates, floodwalls and earthen levees will form the risk reduction system around the Belle Chasse Tunnel and will tie-in to the Algiers Canal risk reduction measures.

Project Status

The Algiers Canal risk reduction work on the stability berms for the levees is complete. Work will continue on the fronting protection and gate projects along the Algiers Canal into early 2013. When the GIWW-West Closure Complex (WCC) is closed, the Algiers Canal will experience a water level change associated with the rainwater runoff pumped into the canal. At this time, canal water levels will be managed by pumps at the WCC. This translates into a significant improvement to the reliability of the Algiers Canal Risk Reduction Features because when closed, the WCC will block surge from reaching the Algiers Canal.



Typical pump station.



Pump station with Fronting Protection in place.

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