

Mid-Rio Grande Levee Task Force

Sixth Report to the Water and Natural Resources Committee



December 3, 2014

This report was prepared by the Mid-Rio Grande Levee Task Force, under the direction of the Middle Rio Grande Conservancy District in cooperation with the Mid-Region Council of Governments of New Mexico and the Albuquerque District Office of the U.S. Army Corps of Engineers. This is the sixth report submitted in response to Senate Memorial 18, passed and signed at the 2009 Regular Session of the New Mexico Legislature.

SIXTH REPORT TO THE WATER AND NATURAL RESOURCES COMMITTEE
from the
MID-RIO GRANDE LEVEE TASK FORCE

This report provides information to update the members of the Water and Natural Resources Committee concerning the activities of the Mid-Rio Grande Levee Task Force and the status of levee projects. The last report was provided to committee members in 2013. This report also provides the members of the Committee with information regarding the costs and cost sharing requirements for the construction of the Rio Grande Floodway, San Acacia to Bosque del Apache Levee System, which is scheduled to begin construction in December 2014.

Background

In response to N.M. Senate Memorial 18, passed by a unanimous vote of the New Mexico State Senate on March 3rd during the 2009 Regular Session of the State Legislature, a Mid-Rio Grande Levee Task Force (LTF) was established with representation from all the governmental jurisdictions and agencies within the middle Rio Grande valley from Cochiti Dam to Bosque del Apache in Socorro County. The role of the LTF was to evaluate the current state of the Rio Grande levees and to determine significant issues of compliance under recently established levee regulations and to formulate recommendations for needed improvements or reconstruction of the Rio Grande levees. The LTF was also requested to look into the flood risks associated with the levees and the possible environmental and economic impacts of the overall levee system.

A Report to the Governor and Legislature of the State of New Mexico, dated December 2009, was presented by the LTF at the November 30, 2009 meeting of the Water and Natural Resources Committee. A second Report was presented by the LTF to the Water and Natural Resources Committee at their November 29, 2010 meeting. The LTF has met regularly since 2009. Annual reports were prepared by the LTF under the direction of the Middle Rio Grande Conservancy District (MRGCD) in cooperation with the Mid-Region Council of Governments (MRCOG) and the Albuquerque District of the U.S. Army Corps of Engineers (Corps). A map showing the Middle Rio Grande Levees from Bernalillo to Bosque del Apache and a current project summary sheet is included at the end of this report.

Status of Middle Rio Grande Levee Projects

Work is underway by the Corps on three levee projects: Rio Grande Floodway, San Acacia to Bosque del Apache, Middle Rio Grande Bernalillo to Belen, and Bernalillo.

Rio Grande Floodway, San Acacia to Bosque del Apache

The Rio Grande Floodway, San Acacia to Bosque del Apache project consists of the replacement of approximately 43 miles of existing spoil banks along the west bank of the Rio Grande extending from the San Acacia diversion dam, north of the City of Socorro, through the Bosque del Apache National Refuge to Tiffany Junction, ending at a point approximately three miles north of the railroad bridge at San Marcial. The levees will be constructed to contain a 100-year flow.

As noted in previous reports to the Committee, current law requires that the costs of Corps levee projects be shared with a local sponsor. The cost sharing local sponsors for the Rio Grande Floodway, San Acacia to Bosque del Apache project are the MRGCD and the New Mexico Interstate Stream Commission. The estimated total cost of this project is \$287 million. Based on the current cost-sharing analysis, which does not take into account the value of the lands under the levees, the total federal cost is \$244 million and the total non-federal cost is \$43 million. (As noted in the Second Report to the Committee, there continue to be issues regarding land ownership in the footprint of the existing spoil banks).

Phase 1 and 2 of the San Acacia levee project at the City of Socorro was awarded to Kirkland Construction on September 29, 2014. The project had a base (3.45 miles), option 1 (1.17 miles) and option 2 (1.15 miles). The base was awarded at \$13,845,475 and option 1 at \$3,588,860. Funds were not available at the time of bid opening for option 2 at \$3,552,542.50 and will be deferred until funds are available. Funding for the base and option 1 have been secured at both the federal and local level, on an 85/15 split. The reevaluation report and supplemental Environmental Impact Statement were approved by the Corps Director of Civil Works on May 20, 2014. The project partnership agreement between USACE and MRGCD/NMISC was signed on August 11, 2014. A second contract for phase 3 is currently scheduled for design in 2015 and award in 2016, pending availability of federal and local matching funds. The notice to proceed for the base and option 1 is December 1, 2014. Phase 1, 2 and 3 when completed will cover approximately 7.3 miles and provide protection for the City of Socorro, New Mexico.

Middle Rio Grande, Bernalillo to Belen

The Middle Rio Grande, Bernalillo to Belen project consists of construction of approximately 55 miles of levees along the Rio Grande in Bernalillo and Valencia Counties. Construction of the first phase of the project, the Corrales Unit, on the west bank of the Rio Grande from the Corrales Siphon near Arroyo de la Baranca to the La Orilla outfall, was completed in 1997. Phase 2 of the project starts at the South Diversion Channel in Albuquerque and extends downstream on both sides of the river to the Town of Belen. The second phase of the project will provide protection to the communities of Los Lentos, Los Lunas, Los Chavez, Belen, Bacaville, Jarales, Pueblitos, Mountain View, Bosque Farms, Peralta, Valencia, Tome, Adelino, La Constancia, and Madrone. A reevaluation report to reaffirm the design features, costs and economic justification for this project is underway is scheduled for completion in 2016, pending availability of funds. Construction for this project is scheduled to begin in 2017, pending availability of both federal and matching funds. The cost sharing local sponsor for this project is the MRGCD. Cost sharing to complete the reevaluation report is 50% Federal, 50% non-Federal, which has been secured; 75% Federal, 25% non-Federal construction cost will have to be secured prior to construction.

Bernalillo Levees

The 1979 Chief of Engineers' Report for the Middle Rio Grande, Bernalillo to Belen project did not find an economically justified levee project along the Rio Grande in the vicinity of the Town of Bernalillo; consequently levee construction for this reach was not included in the 1986 Construction Authorization for the project. In 2008, the Town requested a reevaluation of flood risk management needs under Section 205 of the Flood Control Act of 1948, as amended, based on increased development in the town since the 1970s. In 2012, funding was provided to initiate the feasibility study for the project.

The cost sharing sponsor for the feasibility study is the MRGCD and the Eastern Sandoval County Arroyo Flood Control Authority. MRGCD has been asked to take over this study by ESCAFCA and the Town of Bernalillo. The MRGCD has committed to take over the sponsorship of the feasibility study. The study is cost shared at 50% Federal, 50% non-Federal. The feasibility study, which will establish federal interest, is scheduled for completion in 2016. The sources for the funding of construction have yet to be identified.

In addition, in 2012, a geotechnical investigation was initiated for the existing spoil banks along the Rio Grande at the Town of Bernalillo. The result of this investigation, which was completed in 2013, determined that the existing spoil bank did not meet the criteria required for certification for the Flood Insurance Program. The geotechnical data from this analysis is being used as part of the Bernalillo Levee study. This study, cost-shared at 50% Federal, 50% nonfederal cost with ESCAFCA, was performed under the Corps' Planning Assistance to the States Program.

Albuquerque Levees

The Albuquerque Levees were constructed by the Corps in the 1950s. The levees on the east side of the river are located from the Sandia Pueblo to the South Diversion Channel and on the west bank from the Arenal Canal heading, approximately 3300 feet upstream of Central Avenue, to approximately 6,400 feet downstream of the South Diversion Channel. No levees were constructed in the vicinity of the Montano Bridge crossing on the west bank of the river. This area, consisting of residential and commercial development and the Bosque School campus in the area approximately 1 mile upstream and 1 mile downstream of the bridge, is currently unprotected.

In 2010, the Corps completed a study of the condition of the existing levees, Rio Grande Floodway, Albuquerque Unit Evaluation Report, Albuquerque, NM, which determined that the levees do not meet current levee design and construction criteria, cannot be rehabilitated to meet these criteria, and will require reconstruction. No funding has been provided to date to initiate a feasibility study to evaluate options or alternatives for this project.

Montano Levee

A levee project in the vicinity of the Montano Bridge area is being initiated in 2014. The local sponsor for the Montano Levee feasibility study is the City of Albuquerque. A feasibility cost share agreement was executed on September 3, 2014. Separate geotechnical investigation and survey contract were awarded in September 2014, to begin initial feasibility assessments.

FEMA

In 2007, based on preliminary findings from this study, the MRGCD and FEMA were notified by the Corps that the condition of the Albuquerque Levee project was considered "unacceptable" and were no longer eligible for emergency repair funding under Public Law 84-99. In 2010, the Corps notified the MRGCD and FEMA that the Flood Insurance Study certification for the levees that had previously been provided by the Corps will expire on August 31, 2013.

It is noted that once FEMA receives a levee certification package from a levee owner, FEMA performs a "completeness" review of the submittal. FEMA does not certify levees. FEMA accredits levees based on the owner's certification documentation. FEMA reviews this documentation against requirements in 44 CFR 65.10. FEMA's accreditation is not a health and safety standard. Accreditation is for insurance purposes only and dissemination of potential flood risk is the goal.

Vegetation Standards for Levees

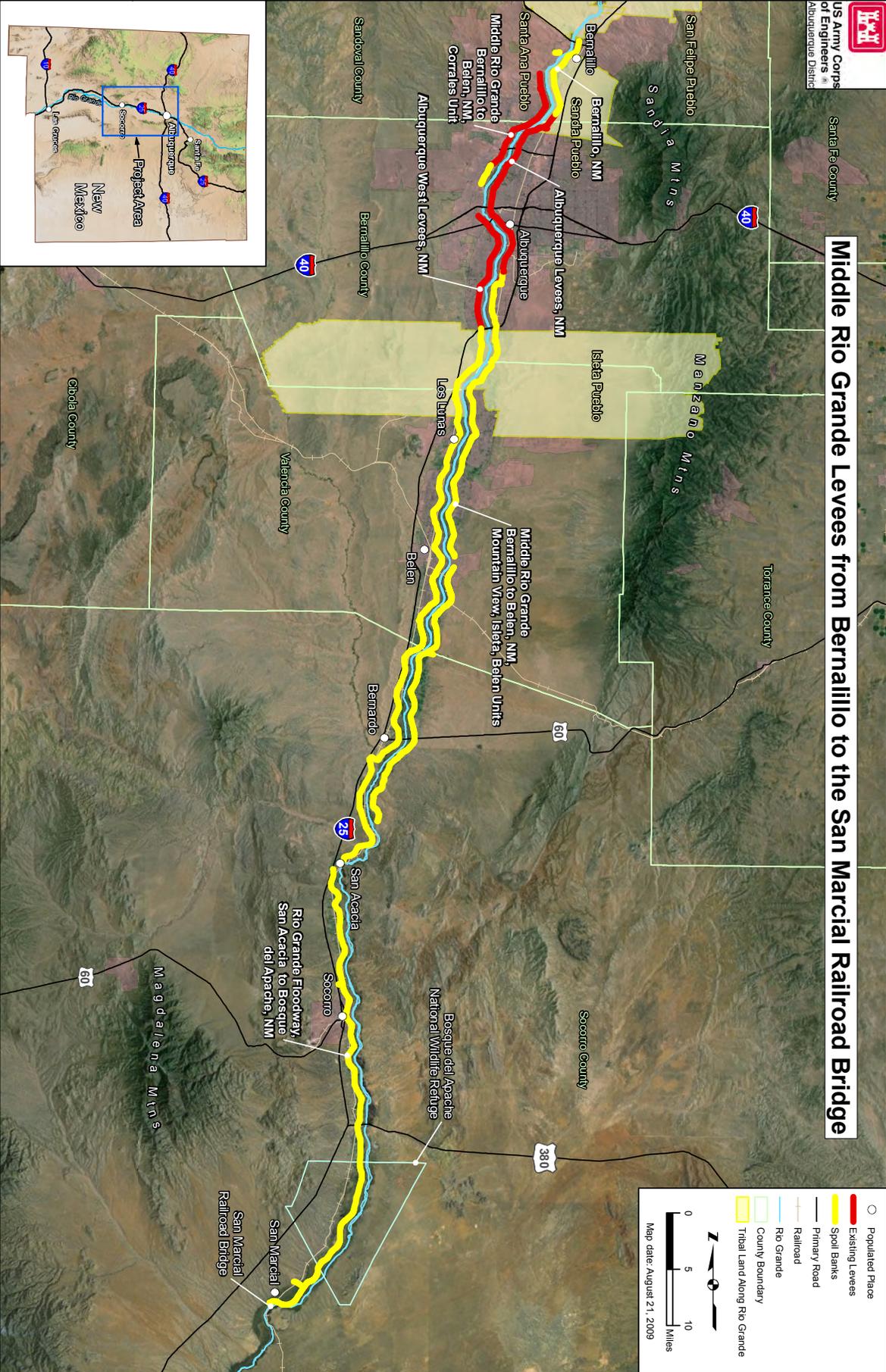
As noted in the Second Report to the Committee, in 2009, the Corps issued guidelines for landscape planting and vegetation management on levees that require a vegetation-free zone on both sides of the levee, and that no vegetation be allowed on the slope or the crest of the levee. The purpose of this vegetation-free zone is to provide access along the levee for surveillance, inspection, maintenance, monitoring and flood-fighting.

A national study on levee vegetation was conducted by the Corps' Engineer Research and Development Center (ERDC) in 2009-2010 to evaluate the effects of vegetation on levees. Field investigations for this study included several sites along the Albuquerque Levees. The completed study was released in September 2012. The results of this study will be used by the Corps in its decision making process for vegetation on levees.



US Army Corps of Engineers
Albuquerque District

Middle Rio Grande Levees from Bernalillo to the San Marcial Railroad Bridge



○ Populated Place
 — Existing Levees
 — Spoil Banks
 — Primary Road
 — Railroad
 — Rio Grande
 — County Boundary
 — Tribal Land Along Rio Grande

0 5 10
 Miles

Map date: August 21, 2009



CURRENT PROJECT SUMMARY TABLE				
Project	Congressional Authorization	Estimated Cost	Construction Local Cost Requirement (%)*	Status
Bernalillo (Town)	Yes	\$11,106,000	35%	Feasibility phase,scheduled for completion in FY15
Middle Rio Grande, Mountain View, Isleta, Belen	Yes	\$209,000,000	35%	Reevaluation report scheduled for completion in 2015; update cost estimate underway
Albuquerque Levees	Study Only	\$140,000,00	35%	No funding yet available
San Acacia to Bosque del Apache	Yes	\$287,000,000	15%	Reevaluation report for completion in 2014
Montano Levee, Albuquerque	Yes	\$6,000,000	35%	Feasibility phase initiated in 2014
Total \$653,106,000				
*Cost sharing requirement includes a minimum cash requirement of 5% of total project cost; remaining cost share may be cash or credit for value of real estate and utility relocations.				



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