

Templeton Gap Levee Accreditation Colorado Springs, Colorado

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The ongoing Templeton Gap Levee (TGL) Accreditation efforts involve two separate projects: (a) **certification of the levee**; and (b) **mapping of the residual floodplain behind the levee**. The certification efforts were sponsored by the owner of the levee the City of Colorado Springs while the residual floodplain mapping efforts were sponsored by the State of Colorado, Colorado Water Conservation Board (CWCB).

The TGL is part of the Templeton Gap Flood Control Project (TGFCP) constructed by the U.S. Army Corps of Engineers (USACE) in 1950 to permanently divert water from the Templeton Gap Wash that historically flowed into the downtown area of the City of Colorado Springs. The TGFCP consists of approximately 2-miles of earthen on-gradient (canal like) channel followed by approximately 1/3-mile of concrete lined channel dropping 80 feet to its confluence with Monument Creek. The on-gradient channel's 120-foot bottom and right bank were cut into the hillside while the left bank consists of an 11- to 13-foot high fill embankment.

Anderson Consulting Engineers, Inc. (ACE) was responsible for the overall certification of the levee and in that roll led a **certification team** consisting of geotechnical, structural, wetlands, and surveying subconsultants. ACE provided coordination with numerous departments within the City of Colorado Springs, the CWCB, both the USACE wetlands permitting and levee inspection/review groups, and FEMA. The certification effort involves: (1) an initial investigation to determine if the levee was certifiable (completed); (2) analyses and design (including a **floodwall**) supporting rehabilitation of the levee (ongoing); (3) construction of the rehabilitation plan (pending); and (4) submittal of all documentation supporting accreditation (pending).

The Templeton Gap Levee's residual floodplain mapping is being conducted under the Cooperating Technical Partners (CTP) agreement between the CWCB and the Federal Emergency Management Agency (FEMA) as part of the nationwide Map Modernization program. The purpose of the Map Modernization program is to convert the effective Flood Insurance Rate Maps (FIRMs) for El Paso County, and several incorporated communities, including the City of Colorado Springs, to a digital format. As part of ACE's overall El Paso County mapping effort the residual floodplain for the TGL was determined by completing the following tasks:

- (a) preparing a FEMA standard digital base map based primarily on existing Geographic Information System data provided by El Paso County and Colorado Springs;
- (b) developing and obtaining approval for unique methodologies and procedures for evaluating the residual (without levee) floodplain emanating from an on-gradient levee where the flows will not return to the levee system;
- (c) performing 2-dimensional flow modeling of the residual floodplains using the FLO-2D software package;
- (d) delineating the residual floodplain through a nearly 9 square-miles high density urban area containing approximately 3000 structures; and
- (e) documenting the analyses and results in a technical report.



Templeton Gap Flood Control Channel & Levee
Colorado Springs, Colorado

All work completed for this project is being conducted in accordance with the requirements identified in the **Map Modernization Guidelines and Specifications for Flood Hazard Mapping Partners** [FEMA, April 2004] and levee certification requirements contained in the **NFIP regulations 44 CFR Section 65.10**.