

Floodplain Management Program Notes

by

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FEMA map modernization

The most significant event in the field of floodplain management in 2003 was the \$200 million FEMA received to begin its proposed Map Modernization Program. This 5-year \$750 million program is intended to convert paper Flood Insurance Rate Maps to Digital Flood Insurance Rate Maps (DFIRM) with the ultimate goal to distribute the maps on the internet and get away from paper maps.

The funding came almost half way into the Federal fiscal year and led to a mad scramble to allocate funds and get projects underway before the end of the year. The District and the Colorado Water Conservation Board (CWCB) fared well under those circumstances.

I reported last year that we had reached agreement with the CWCB that if funding became available, the District would be given the responsibility for map modernization for the seven counties all or partially within the District. However, when the first grants were offered by FEMA, all of the suggested projects in Colorado involved those counties within the District. That was too much of a work load for us to handle so we reworked our understanding with the CWCB and were jointly able to take on every project offered by FEMA.

The first project funded was DFIRM conversion for the City and County of Denver. FEMA provided a \$150,000 grant, and the District and CWCB each contributed \$25,000. Denver contributed the GIS base mapping, contour mapping and orthophotos, as well as significant staff time. The District is managing the project which is being completed by Merrick and Company. This is an early implementation effort which has a completion date of January 30, 2004.

Another early implementation project is the DFIRM conversion of Douglas County, including four incorporated

areas. To make this one happen, we divided the project into the area located within the District and the part outside. The District is managing the project inside the District and the CWCB is managing the remainder. FEMA is contributing \$240,000 and the District and CWCB \$30,000 each for the District portion of the county, which includes Lone Tree and Parker. Each of the local governments is contributing their GIS base maps and staff time. Our contractor is Icon Engineering. The CWCB is managing the conversion of the rest of the county. FEMA is contributing \$260,000, the CWCB \$35,000 and Douglas County and Castle Rock a total of \$35,000 plus the GIS base maps and staff time. The contractor is URS Corporation.

The Boulder County DFIRM conversion will be managed by the CWCB. The contractor is PBS&J. FEMA is contributing \$200,000, CWCB and the District \$25,000 each and the county and incorporated areas will provide GIS base mapping and staff time. Completion is scheduled for June, 2005.

Finally, FEMA has provided funding for updating flood data for two drainageways. The District will manage a study of seven miles of Plum Creek and East Plum Creek in Douglas County and the CWCB will manage a study of South Boulder Creek in Boulder and Boulder County.

For Plum and East Plum Creeks FEMA will contribute \$75,000 and the District \$25,000. We are obtaining topographic mapping now and hope to complete the engineering in time to slip the data into the Douglas County DFIRM near the end of the appeal period.

The South Boulder Creek funding has not been settled but Boulder will contribute \$200,000 and the District \$25,000 toward a \$495,000 budget. Throughout this process the CWCB, FEMA Region 8 and Michael Baker Jr. have been easy to work with and

everyone has been concentrating on getting the job done without worrying about credit or blame.

Jefferson County DFIRM conversion

A Jefferson County DFIRM was published in mid-2003. The conversion was completed by Michael Baker Jr. It is not as complete a conversion as those we are doing as described above. It does have a GIS base map coordinated among the county and several of the incorporated areas, so it is a definite improvement over the previous version. Nevertheless it can still be improved and I hope that we will be able to do that soon, although the 2003 effective date means it won't be a priority for FEMA anytime soon.

Broomfield DFIRM conversion

The City and County of Broomfield is in the final stages of required appeals procedures before their DFIRM becomes official. This DFIRM conversion was a joint effort between the District and FEMA (Michael Baker Jr.), and will be the first true DFIRM in Colorado.

Adams and Arapahoe Counties

As this is written I'm optimistic that FEMA will fund DFIRM conversions for Adams and Arapahoe Counties, including Aurora, in FY 04. If that happens we can have the entire District converted to DFIRMs (with the Jefferson County caveat) in 2005.

LOMC pilot project

On July 1, 2001 we began a pilot project with FEMA to assume the responsibility to review requests for Letters of Map Change for the 32 communities within the District that are participating in the National Flood Insurance Program. We are now three months into the third year of the project. Our reports on the results of the first two years are available on our web site.

My vision for the future of DFIRMs

I think that it is entirely possible that
(Continued on page 20)

Floodplain (continued from page 5)

within a couple of years we could be in the position of maintaining all aspects of the DFIRMs for the District's seven counties, including base map revisions, Letters of Map Revision and new floodplain delineations. We will be exploring that possibility with FEMA over the next year.

Other program activities

The other major activities within the program are flood warning, maintenance eligibility, flood hazard area delineation and master plan implementation by others. Kevin Stewart continues to assure that we have the best possible flood detection and warning system, and he continues to be in demand as an expert in this field. See Kevin's column elsewhere in this issue. Our maintenance eligibility program continues to flourish under David Mallory's direction. See David's column elsewhere in this issue.

Floodplain delineation

We completed two flood hazard area delineation (FHAD) studies this year, for Cherry Creek from Cherry Creek Reservoir to Scott Road and for Little Dry Creek and Tributaries in Arapahoe County. Both were completed as part of outfall systems planning efforts for the two watersheds.

We have FHADs underway for Ralston and Leyden Creeks in Arvada; Kinney Creek and Fonder Draw in Douglas County, as part of an outfall systems planning study; and a re-study of the South Platte River through Adams County. We will begin FHADs for Clear Creek through Adams County, and Massey Draw and SJCD (South) in Jefferson County in 2004.

All of these studies are prepared in digital form compatible with FEMA's Digital Flood Insurance Rate Map (DFIRM) specifications. In fact, the Cherry Creek, Kinney Creek and Fonder Draw results will be incorporated into the Douglas County DFIRM.

Implementation efforts

Implementation of portions of our master plans, particularly regional detention facilities, is always a challenge. Involving other entities in these efforts, including private sector parties, is important to our successes in this area. One of the best examples of this is the 12-year collaboration between the District, the E-470 Public Highway Authority and others which is the subject of our cover story.

Last year we completed an Environmental Assessment (EA) of alternatives for the Irondale Gulch

watershed within the Rocky Mountain Arsenal (RMA). This year we received a FONSI (Finding of No Significant Impact). The FONSI has allowed us to move forward with negotiations for intergovernmental agreements between the District, Denver and RMA; and between the District, Commerce City, Adams County and RMA for the construction, operation and maintenance of these facilities on the RMA.

On our web site

We have added a photo album of good projects to our web site, and are updating it as we obtain additional photos of what we consider to be good examples for others to emulate. The photo album has chapters on drop structures, pedestrian/bicycle bridges, low flow channels, formal channels, stormwater detention facilities, integrating the floodplain into a development, and multiple use facilities.

We have also added an Activity Summary map that identifies all District studies completed or in progress. We are trying to update the status of all our studies quarterly. It would be a good idea for anyone working on a drainage study in the District to check this map for existing or on-going studies that might affect their work.

Stormwater Permit Activities

by

John T. Doerfer, Project Hydrologist, Master Planning Program

A major deadline occurred on March 10, 2003 when all "Phase II" municipalities in Colorado needed to submit their initial stormwater permit applications to the state Water Quality Control Division (WQCD). In addition, the larger "Phase I" cities of Denver, Aurora, and Lakewood were reissued permits for a second 5-year permit term in March. The District assisted its member governments in 2003 with these efforts, and will continue to do so in 2004.

Phase II Municipalities

"Phase II" municipalities are defined in Environmental Protection Agency (EPA) regulations as cities, towns, districts, and unincorporated parts of counties within "Urbanized Areas" of

the 2000 census. Most of the cities and counties in the District qualify as Phase II entities, with the exception of the Phase I cities noted above and towns with less than 1000 population that were granted waivers (Bow Mar, Lakeside, Morrison, and Mountain View). Other publicly-owned municipal separate storm sewer systems (MS4s), such as school districts and special districts, also had to obtain permits. The District did not need a permit because it does not own a MS4—Board policy has been that local governments retain ownership of stormwater facilities.

The District hosted a series of monthly meetings of the Municipal Workgroup of the Colorado Stormwater Task Force to discuss permit application

requirements. These meetings covered the six management programs that a Phase II MS4 will develop, implement, and enforce. These are: (1) Public education and outreach; (2) Public involvement and participation; (3) Illicit discharge detection and elimination; (4) Construction site runoff control; (5) Post-construction runoff management in new development and redevelopment; and, (6) Pollution prevention and good housekeeping for municipal operations. "Measurable Goals" required to judge permit compliance were also included.

Of the 53 Phase II municipalities in Colorado, all submitted their applications on time. Congratulations!