



**URBAN DRAINAGE & FLOOD CONTROL DISTRICT**

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## **Local Evaluation of Requests for Letters of Map Change – Year Seven**



**Final Report  
FEMA Grant No. EMD-2007-GR-0795  
August, 2008**

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of Map Change – Year Seven**

**By  
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**August, 2008**

## **Introduction**

The Urban Drainage and Flood Control District (District) is a regional agency established by the Colorado General Assembly to assist local governments in the Denver Metropolitan Area with multi-jurisdictional drainage and flood control problems. The District includes 1608 square miles, and all or parts of 40 cities and counties.

In early 2001, the Federal Emergency Management Agency (FEMA) and the District entered into an agreement to conduct a pilot project under FEMA's Cooperating Technical Partners (CTP) Program. The agreement called for the District to review requests for Letters of Map Change (LOMC), specifically Conditional Letters of Map Revision (CLOMR) and Letters of Map Revision (LOMR) for the 33 communities within the District that are participating in the National Flood Insurance Program (NFIP). The project was funded by a \$100,000 grant administered through FEMA Region 8. A report on the results of the first year of the pilot project ("Final Report, FEMA Grant No. EMD-2001-GR-0181, Local Evaluation of Requests for Letters of Map Change") was provided to FEMA in February, 2003.

FEMA has subsequently funded six additional years of this pilot project at \$180,000 for each year. Final reports for years two through six have been provided to FEMA. Also completed in this time frame were two pilot projects on the topic of DFIRM maintenance. All of the reports are available at [www.udfcd.org](http://www.udfcd.org).

This report builds on the findings of the previous work, and presents additional findings. The reader is encouraged to read this report in conjunction with the previous reports to obtain a complete understanding of this effort.

## Overview of the Process

The District has a small staff, and relies heavily on the private sector to provide services as needed. For this project the District has retained ICON Engineering, Inc. (ICON) to provide technical review and drafting support for the CLOMR and LOMR requests. The District managed the contract with ICON, coordinated all aspects of the review process, and kept track of budget and time line issues.

In the first four years, LOMC's were tracked in FEMA's Management Information System (MIS). FEMA's National Service Provider (NSP), Michael Baker Jr., Inc., kept the MIS current. The NSP also prepared the final LOMR enclosures, completed all final mailings of letters and public notices, and otherwise provided support to FEMA staff.

On October 1, 2005 FEMA changed to the Mapping Information Platform (MIP) Workflow database. For the fifth year Baker populated the initial database upon receipt of a LOMC request, and the District and/or ICON was responsible for all subsequent entries. For the sixth year the District and/or ICON took responsibility for all MIP entries, from initiating a case through final uploads.

The submittal process for the first five years required each applicant to submit duplicate copies of the request to FEMA and the District, and to submit the appropriate fee to FEMA. When the District received a case it immediately notified the NSP and FEMA of the request by e-mail; including the name and address of the requestor, communities affected, FIRM panels affected, affected drainageway and identifying name. The NSP entered the information into the MIP (or MIS) and assigned a case number by return e-mail. In the sixth year the process was changed to have the applicant submit two copies of the request and the fee to the District. The District initiates the case on the MIP, transmits one copy of the request to ICON, usually by courier, and keeps the second copy until the case is resolved. The fee is FedExed to the Fee Charge System Administrator.

ICON completes an initial review of each request for adequacy, and prepares the appropriate response letter from form letters provided by FEMA. The letter, which either states that sufficient information was included to begin a detailed review, or that additional information (and possibly the fee) is required, is e-mailed to the District for review, signature and mailing to the requestor. When ICON determines that sufficient information has been submitted to support the request a detailed technical review is performed. At the conclusion of the review ICON prepares the appropriate documentation from templates on the MIP. If more information is required the letter requesting the information is e-mailed to the District for review, signature and mailing. The letterhead for the above letters was designed by FEMA, and includes the names and logos of both organizations and the address and phone numbers for the District.

If ICON concludes that the requested CLOMR or LOMR is justified, it prepares drafts of the CLOMR or LOMR documents, exhibits such as annotated FIRMs and revised profiles and Floodway Data Tables, and a monitoring checklist that summarizes the case, and e-mails them to the District, and sends the case file to the District by courier. The District reviews the draft documents and the case file, makes any adjustments to the documents that are deemed appropriate, and forwards the documents by e-mail to FEMA and the NSP, and the case file, along with the second copy of the request and any additional submittals, to the NSP. FEMA and

the NSP process the case from that point on until the final letters are signed and mailed. All CLOMRs and LOMRs are on FEMA letterhead and are signed by a FEMA representative.

FEMA Region 8 provided periodic partial advances over the course of the project. The amount and frequency of each advance was dictated by the number and complexity of requests received.

### **Judging Performance of the LOMC Pilot Project**

The District received 41 requests for LOMCs during the period of the grant and transferred three cases from the previous grant. Because of the finite time frame allowed by the grant, and the fact that performance is somewhat controlled by the applicants, due to the timeliness of their responses to requests for additional information, it has not been possible to complete reviews of all of the requests received within the grant period. At the end of this grant period two cases had been suspended and 10 were transferred to the year seven grant, leaving 32 cases completed under this grant.

Quantifiable items, specifically times of performance and expenditures, have been compiled and are compared to performance standards specified in the agreement. Summaries of the performance during the seventh year pilot are provided below.

### **Evaluation of Timeline Performance**

One of the goals in the agreement that can be measured is timelines. The two time requirements are a five-working day response from when either an initial request is received or additional data is received; and a 60-calendar day response from when all data has been received to providing a recommendation to FEMA. The District generally met the five-day response requirement. A few isolated instances continued to occur, generally as a result of staffing problems associated with vacations or three day weekends.

As noted above 32 cases were completed, and these were judged against the 60-day goal for making a final recommendation to FEMA after receipt of all data. In all but one case the goal was met. The shortest review periods from receipt of all data were 3, 12 and 20 days. The longest were 62 days and 57 days. The average time was 42 calendar days, which was the same as the sixth year performance

The NSP and FEMA took an average of 13 days 22, down from 36 days in year five and 22 days in year six, to complete their portion of the process and mail the final executed letter and any attachments. The NSP continued a reduced level of review of our work product. The accompanying, Timeline Performance, provides the times of performance for each case. The average time from receipt of all data to a signed LOMC was 53 days, below the year six average of 63, and well below the 90-day target.

Table 1 – Timeline Performance

Status	Case No.	Identifier	All Data Received (Date)	Draft Letter to FEMA (Date)	Elapsed time from receipt of all data (Days)	Letter signed by FEMA (Date)	Elapsed time from receipt of draft letter to signed letter (Days)	Elapsed time from receipt of all data to signed letter (Days)
X	07-08-0544R	Kentucky Ave. Bridge	4/30/2007	5/29/2007	29	6/6/2007	8	37
X	07-08-0545R	Easterlima	7/31/2007	9/4/2007	35	9/12/2007	8	43
X	07-08-0573R	Kelly lake	5/9/2007	5/29/2007	20	6/7/2007	9	29
X	07-08-0609R	Thornton Rec Center	10/16/2007	11/19/2007	34	11/30/2007	11	45
X	07-08-0612R	Verona Estates	5/29/2007	7/13/2007	45	7/25/2007	12	57
X	07-08-0620R	Nursery Acres	6/25/2007	8/6/2007	42	8/14/2007	8	50
X	07-08-0630R	Howe Reservoir B	8/15/2007	9/4/2007	20	9/14/2007	10	30
X	07-08-0663R	Signature Park	6/14/2007	8/6/2007	53	8/17/2007	11	64
X	07-08-0666P	Dakota Ave. Tributary	8/31/2007	10/16/2007	46	10/31/2007	15	61
X	07-08-0676R	Newlin Gulch	7/16/2007	8/10/2007	25	10/4/2007	55	80
S	07-08-0777P	Horizon Meadows						
X T	07-08-0401R	Wild Grass	8/16/2007	9/12/2007	27	9/27/2007	15	42
X T	07-08-0455R	Waterstone	10/17/2007	12/10/2007	54	12/13/2007	3	57
X T	07-08-0474R	Isabelle Estates	8/23/2007	9/4/2007	12	9/12/2007	8	20
S	07-08-0492P	Kentfield						
X	07-08-0862P	Cherry Creek Diversion	11/20/2007	1/14/2008	55	1/30/2008	16	71
X	07-08-0928R	Indian Peaks #17	12/17/2007	2/4/2008	49	2/8/2008	4	53
X	07-08-0940P	Van Bibber Creek	9/18/2007	11/14/2007	57	11/30/2007	16	73
X	07-08-0954R	Hess Road Bridge	11/22/2007	1/14/2008	53	1/24/2008	10	63
X	07-08-0968R	Ped Bridges @ SPR	10/8/2007	11/26/2007	49	12/13/2007	17	66
X	08-08-0019P	Pomona Drive Culvert	10/31/2007	12/5/2007	35	12/12/2007	7	42
X	08-08-0047P	Massey Draw FHAD	11/8/2007	12/27/2007	49	1/17/2008	21	70
X	08-08-0051R	Takoda Village	11/29/2007	1/22/2008	54	1/30/2008	8	62
X	08-08-0056P	Villages North Filing 5	1/14/2008	1/28/2008	14	2/13/08	16	30
X	08-08-0133R	128th Ave. Roadway	1/7/2008	3/3/2008	56	3/11/2008	8	64
X	08-08-0194R	Rueter-Hess Dam	3/27/2008	5/28/2008	62	6/2/2008	5	67
X	08-08-0207P	Boyd Ponds	12/26/2007	1/29/2008	34	2/8/2008	10	44
X	08-08-0234P	McIntyre Gulch	1/23/2008	3/3/2008	40	3/11/2008	8	48
T	08-08-0251P	Little Creek Flood Control						
T	08-08-0265R	Morrison	4/29/2008					
X	08-08-0270R	Flatiron Meadows	4/28/2008	5/1/2008	3	5/19/2008	18	21
X	08-08-0328P	Lambertson Filing No. 1	2/14/2008	3/17/2008	32	3/26/2008	9	41
T	08-08-0334P	West Parker Road						
X	08-08-0341P	Wild Grass	3/11/2008	4/23/2008	43	4/30/2008	7	50
X	08-08-0373R	Westerly Creek	3/24/2008	5/14/2008	51	5/30/2008	16	67
X	08-08-0377P	Horizon Meadows	3/3/2008	4/23/2008	51	5/23/2008	30	81
T	08-08-0414P	5 Ransom Road	4/10/2008	6/10/2008	61	6/30/2008	20	81
T	08-08-0415R	Wadley South Creek						
X	08-08-0444R	Big Dry Cr. Trib. C	4/22/2008	6/11/2008	50	6/23/2008	12	62
T	08-08-0450R	Big Dry Cr. at Wadsworth						
T	08-08-0451R	Walgreens						
T	08-08-0472R	West Corridor						
T	08-08-0535P	Tallyn's Reach	5/6/2008					
T	08-08-0536P	Cornerstar						
Average elapsed times for 33 cases					40.6		13.1	53.7
X = completed case								
S = suspended case								
T = Case transferred in from previous grant								
Case transferred to next grant								

## Evaluation of Financial Performance

The other item we have tried to quantify over the years is financial performance. This is more difficult to track because of the transfer of cases into and out of the finite grant period. Also, MIP uploads of the final documentation can occur after the grant is closed. For this grant period there were three cases transferred in that were completed, 29 cases started and completed, two cases started and suspended and 10 started and transferred out to the next grant.

ICON provided the technical review for all of the cases. For the 31 cases started in the grant period, FEMA received fees totaling \$170,800. The entire grant amount of \$180,000 was expended on some portion, or all, of the 44 cases handled under this grant. Of the 31 cases started and completed during the grant period 19 cases cost more to complete than the FEMA fee, totaling \$31,045; and 12 cost less than the FEMA fee, totaling \$7690. These figures do not include the amounts authorized and expended during the grant period for the cases which were transferred to this grant and from this grant. In addition, ICON was paid \$5980 for non-case specific projects; primarily MIP uploads which occur after the case file is closed out.

## Benefits of Local Reviews

In addition to the quantifiable measures discussed above, over the first four years District and ICON staff identified 12 non-quantifiable benefits of doing the reviews locally. A listing of those benefits, with definitions, is repeated below.

**Meeting(s) with applicant before request submitted.** Meet with the applicant and the local jurisdiction to resolve questions prior to submittal of the request.

**Meeting(s) with applicant during review of request.** Meet with the applicant and the local jurisdiction to resolve issues identified during the review of a request.

**Local knowledge.** Includes reviews of the project during the local approval process, such as zoning and platting; knowledge of adjoining properties and their potential effect on the request; and District capital or maintenance projects.

**District studies.** Includes completed or in-progress master plans (MP) and flood hazard area delineation studies (FHAD). In several cases the FIRMs have Zone A areas, which have been taken from FHADs based on future hydrology. We are able to provide the hydraulic models and the hydrology to assist the applicant in preparing an application.

**District Maintenance Eligibility Program (MEP).** Participation in the District's maintenance eligibility program means the District has approved the construction drawings for conformance to our criteria, and assures the local jurisdiction that the finished facilities can receive District maintenance assistance. The District visits every site to confirm construction. The District has an informal network of local government inspectors as well.

**Time extensions.** Warnings given to applicants when their time to respond to requests for additional data is near expiration.

**Site visits.** Visit the site as necessary to evaluate special situations, or to confirm construction conformance to approved plans.

**Local exchange of data.** On occasion a request will be lacking an item, such as a disc with hydraulic models or a signed Form 1. A phone call can elicit an immediate response and the review can continue uninterrupted. This often avoids an official letter, and occurs without stopping the “review clock.”

**LOMRs based on CLOMRs.** One additional benefit that became increasingly valuable during the second year was that of reviewing requests for LOMRs that were based on CLOMRs we had prepared. The advantages were that we had the institutional knowledge and continuity between the CLOMR and the LOMR requests; and we had the entire case file on site, which facilitated a quicker start on the review than when we had to request the file from the NSP.

**Effective models.** A related development has been a number of requests received from potential LOMC applicants for effective hydraulic models from LOMRs completed by us. After consultation with Kevin Long, FEMA Washington, we agreed that the District could provide the models and charge a reasonable cost for them; and, alternatively, the model(s) could be requested from the NSP according to current practice.

**Coordination between active LOMCs and communities.** During the third year we had three active LOMRs adjacent to each other on City Park Channel in Westminster and Broomfield. Each request was a stand alone submittal. We were able to coordinate the three developers and two local governments so that the three LOMRs fit together.

**DFIRM maintenance.** There are cost and time savings to be had in doing LOMR reviews and DFIRM maintenance at the same time. The DFIRM files are completed and ready for the next update, and the LOMR annotated map comes from the DFIRM.

### **Seventh Year Observations**

Our seventh year experience has generally validated the above benefits of local reviews to varying degrees. Last year we had a particularly difficult and contentious case, a request for a CLOMR, known as Cornerstar, which included a significant incursion into the floodway of Cherry Creek. The project was constructed and the LOMR request was submitted. As a result of the previous work with the CLOMR the LOMR review was fairly smooth, although much more expensive than the fee received.

LOMC's were coordinated with on-going DFIRM conversion projects for Arapahoe County, Boulder County and Jefferson County. We had to make sure that the LOMRs would fit into the effective FIRM information, but will also easily transfer to the DFIRMs when they become effective. That meant that we had to prepare every exhibit in both NGVD 29 and NAVD 88 datum's, and the flood outlines had to match both effective and DFIRM outlines. Once all conversions are complete this work load will go down.



## **Conclusions**

The District would certainly like to continue to review requests for LOMCs following the conclusion of the pilot project. We also hope that FEMA will be convinced by the experience of this pilot project to offer the same opportunity to other qualified local and state CTPs. We know that two additional CTP's were added in 2006. We encourage FEMA to allow other CTPs to review requests for LOMCs within their jurisdictions, and to begin the process of amending existing regulations to allow that to happen.

Our experience in working with DFIRM data bases further confirms to us the value of doing LOMC review and DFIRM maintenance under one roof because it streamlines the process and enhances the quality of both. For the DFIRMs we have we are able to modify the DFIRM flood data first and then create the LOMR attachments from the modified DFIRM. The District would like very much to pursue that opportunity.

Finally, several of the cases, notably the Cornerstar CLOMR and LOMR, reinforced the benefits we see in completing the LOMC reviews locally.

## **Acknowledgements**

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