

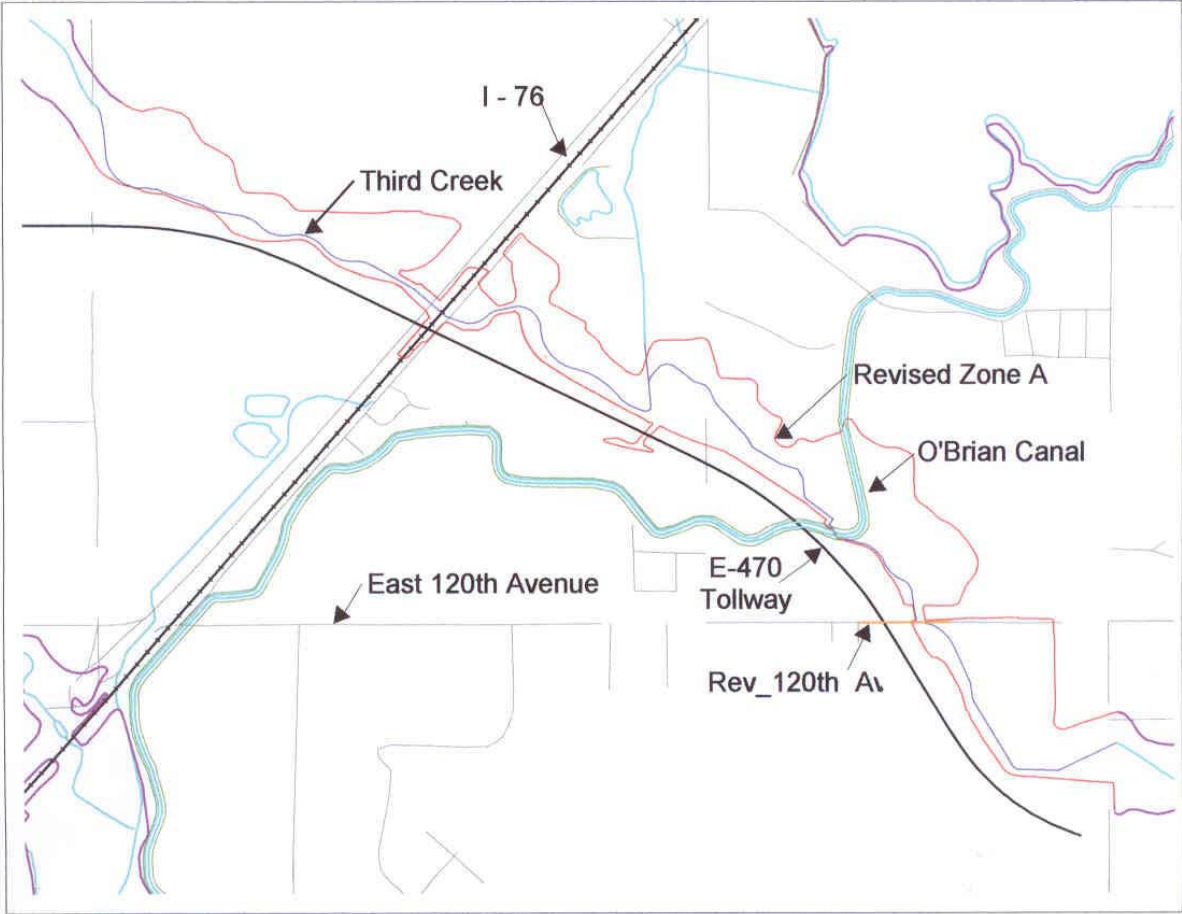


Federal Emergency Management Agency
Washington, DC 20472

Urban Drainage and Flood Control District
Denver, Colorado 80211



Local Evaluation of Requests for Letters of Map Change – Year Two



Final Report
FEMA Grant No. EMD-2002-GR-0277
December, 2003

Final Report

FEMA Grant No. EMD-2002-GR-0277

**Local Evaluation of Requests for Letters
of Map Change – Year Two**

**By
Bill DeGroot, PE,
Chief, Floodplain Management Program
Urban Drainage and Flood Control District**

December 31, 2003

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 39 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, specifically Conditional Letters of Map Revision (CLOMR) and Letters of Map Revision (LOMR) for the 32 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 a second and third year of this pilot project. The initial grant for the second year was for \$40,000. It was later increased to \$180,000. This report builds on the findings of the first year pilot project and details additional findings. The reader is encouraged to read this report in conjunction with the previous report to obtain a complete understanding of this effort. The report is available at www.udfcd.org.

Overview of the Process

The District has a small staff, and relies heavily on the private sector to provide services as needed. In this case, the District 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.

FEMA's Map Coordination Contractor, (MCC), Michael Baker Jr., Inc., continued to keep the Management Information System (MIS) current, as it does for all other cases. The MCC prepared the final LOMR enclosures, completed all final mailings of letters and public notices, and otherwise provided support to FEMA staff.

The process requires 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 receives a case it immediately notifies the MCC 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 MCC enters the information into the MIS and assigns a case number by return e-mail. When the fee is received the MCC notifies the District and Icon, also by e-mail. The District transmits the request to Icon, usually by courier.

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 a letter from form letters provided by FEMA. 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 a draft CLOMR or LOMR letter and e-mails it to the District, and sends the case file to the District by courier. The District reviews the draft letter and the case file, makes any adjustments to the draft that are deemed appropriate, and forwards the letter by e-mail to FEMA and the MCC, and the case file to the MCC. FEMA and the MCC 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 two advances of \$20,000, four of \$25,000 and one of \$30,000 over the course of the project. The amount and frequency of each advance was dictated by the number and complexity of requests received. The remaining \$10,000 was held until a final accounting was completed.

Judging Performance of the Pilot Project

The District received 51 requests for LOMCs during the period of the 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, reviews of all of the requests were not completed within the grant period. Three cases assigned to Icon were transferred to the third year grant, one case was dropped, one case was transferred to the MCC, and one case is still pending FEMA's signature. Their timeline performance information has been removed from the analysis of this year's grant.

Quantifiable items, specifically times of performance and expenditures, have been compiled and are compared to performance standards specified in the agreement. During the first year pilot project eight non-quantifiable benefits of doing the case review locally were identified by the District. Summaries of the performance during the second 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

Forty-five cases were completed and judged against the 60-day goal for making a final recommendation to FEMA after receipt of all data. In 41 cases the goal was met. The other four took 62, 63 (twice) and 91 days. The 91 day case was a very complicated one, and we should have notified the applicant in a more timely manner that we needed more time to finish our review. The shortest review periods from receipt of all data were two days (twice) and three days (three times). The average time was 29 calendar days. This compares to an average of 22 calendar days in the first year. The MCC and FEMA took an average of 48 days to complete their portion of the process and mail the final executed letter and any attachments. The accompanying Table 1 - Timeline Performance, provides the times of performance for each case.

Evaluation of Financial Performance

The other quantifiable item is the financial performance. Table 2 - Financial Summary, presents an overview of the financial performance for this grant. Unlike the timeline performance evaluation, this financial evaluation includes all 51 cases started during the

grant period, because the money was committed and spent during the grant period. A final accounting of all costs for each case will not be possible until all three years of the pilot project can be combined in one analysis.

For the 51 cases FEMA received fees totaling \$188,300. One case was a Corps of Engineers' project which was fee exempt. The District completed the technical review for five cases (including the Corps project) at no cost to the project. Table 3 Financial Analysis presents a summary of each case.

Icon provided the technical review for 46 cases. For each of the cases, the District authorized an expenditure for Icon equal to the fee charged by FEMA for that type of request. In addition, Icon was authorized \$1000 to evaluate the preparation of LOMR maps by digital means rather than hard copy. Of the 46 cases, 14 cost more than the FEMA fee, totaling \$34,454.51; and 32 cost less than the FEMA fee, totaling \$38,291.47. For the 46 cases, Icon was paid \$171,673.04. These figures include the amounts authorized and expended during the grant period for the three cases which were transferred to the third year grant. The total cost to the grant was \$171,673.04.

Benefits of Local Reviews

In addition to the quantifiable measures discussed above, during the first year grant, District and Icon staff identified eight non-quantifiable benefits of doing the reviews locally. A listing of those benefits, with definitions, is repeated below.

First year results

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.”

Second year results

During the second year grant we identified two additional benefits of local reviews:

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 MCC.

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 MCC according to current practice.

Other Second Year Experiences

Toward the end of the first year grant we asked Icon to begin cross training one or two less senior engineers in order to reduce some of the technical review costs. Then, during this grant period the lead engineer at Icon resigned. Because of the cross training that had taken place, a new lead engineer was able to take over without any loss of quality. We very closely evaluated the first several cases completed by the new individual until we were comfortable with his capability and then returned to our previous level of oversight.

During the second year grant the MCC suggested that we provide LOMR map enclosures in digital format rather than the paper maps we had been providing. The MCC provides the digital base map and Icon provides the flood data. This process has worked well, and is now a common practice.

Also during the second year FEMA changed the MT-2 forms. One change that has caused many problems relates to the local government promise to maintain conveyance capacity of completed facilities. The old Form 1 included a statement regarding maintenance which was interpreted to mean that by signing the form the local government was agreeing to the maintenance of the facility. The new form leaves that statement out, which has resulted in the need for a separate statement from the local government. Many submittals do not contain the separate statement, thus necessitating a request by us for that additional information. That slows down the entire review process.

There were two other experiences that were new to us in the second year that will be discussed below. These are rare in relation to the total number of cases reviewed over the two years, but are instructive nevertheless.

In one case (Tigers Reservoir), at a meeting of all interested parties, including Dan Carlson from Region VIII, the applicant's engineer accused the District of finding fault with their submittal because the District did not like their project for other reasons. It was true that we were opposed to the project in question, but Icon was never instructed to do anything other than a "by the book" technical analysis of the project. Among the problems we had with the project, a water storage reservoir, was that even though the request was for a CLOMR, the project was already essentially constructed within the floodway of the South Platte River. The project was creating a rise in water surface profile which requires a CLOMR be issued before the start of construction. Additionally, the project had no floodplain development permit from either the county in which the project was located when construction began, or the city to which it had subsequently annexed.

Mr. Carlson recommended that we transfer the case to the MCC for final resolution, which was done. FEMA has since issued a CLOMR following significant revisions to the design and the hydraulic model. Additionally the State Engineer's Office admonished the design engineer, and stated that a repeat performance would be reported to the State Board of Registration for Professional Engineers and Professional Land Surveyors.

At the time Mr. Carlson recommended the transfer we did not object. In retrospect, however, it appears that the transfer to the MCC ultimately allowed the developer to get away with violating two provisions of the NFIP regulations: building in the floodway without a CLOMR and without a floodplain development permit from a local jurisdiction.

The other experience was significant cost over runs (\$5000+), in relation to the fees paid, for four requests. While we were able to make fees and expenditures balance by the end of the grant period, this occurrence pointed out the potential for a local funding problem if fees alone are used to fund a local LOMC review program and one or two bad requests overwhelm the total fees received from all other requests. It also reinforces the commonly acknowledged fact that good submittals by good engineers are subsidizing poor submittals by less competent engineers.

During the course of this grant Bill DeGroot made presentations regarding the project to the annual conference of the National Association of Flood and Stormwater Management Agencies, the FEMA Region VIII CAP conference, a FEMA Region VIII sponsored DFIRM workshop, the ASCE Colorado Section Water Resources Group, and the annual conference of the Colorado Association of Stormwater and Floodplain Managers. Bill co-authored and presented a paper with Kevin Long, FEMA Washington, on the project at the annual conference of the Association of State Floodplain Managers. Penn Gildersleeve and Craig Jacobson from Icon presented a paper on the subject at the annual conference of the Colorado Association of Stormwater and Floodplain Managers.

Observations and Recommendations

We have repeated below the recommendations and observations taken from the first year report, followed by additional observations and recommendations from the second year.

First Year

A number of factors were identified that should be considered by FEMA prior to any final decision. These are in addition to the timeline, budget and local review benefits discussed earlier. In no particular order they are presented below.

Training. The individual at Icon who was their lead engineer had previous experience working for the MCC, and was ready to hit the ground running on day one. That will probably not be the case very often, and FEMA will probably have to establish a training program for CTPs.

Some level of funding commitment. The District elected to not charge any District staff time or incidental expenses to the project, which turns out to be a significant financial contribution. It may be reasonable for FEMA to require a certain level of financial commitment (at least in-kind) in order to become a reviewer CTP.

Fee collection. At some point FEMA will have to either allow fee collection by the CTPs or get involved in a new area of funding disbursement (such as advances to, or monthly invoices from, CTPs). FEMA's grant process is tailored to a different type of project, and is not conducive to an on-going process like this one.

MCC costs. There will probably continue to be some costs incurred by the MCCs for administrative tasks. How those are funded will have to be addressed.

Staffing. Should CTPs be allowed to use their own staff, or should there still be a private sector component?

Software incompatibility. Icon identified software compatibility problems during this pilot, which will probably show up elsewhere as well. These will have to be resolved.

Second Year Observations and Comments

A conflict of interest resolution process. FEMA should have a conflict of interest procedure in place if the CTP review of LOMC requests is pursued.

Fee overrun protection. If CTPs are funding LOMC reviews based on fees alone there should be some protection from severe cost overruns resulting from either complex projects or poor quality technical work.

Time spent by the MCC. After a probation period wherein the CTP demonstrates the necessary competence, FEMA should move to a random audit process for determining continued competence.

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 encourage FEMA to make the decision 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.

Acknowledgements

The author would like to thank Kevin Long, FEMA Washington; and Kira Brooks, Michael Baker Jr., for keeping things running smoothly on the Washington end of this effort.

Thanks to Steve Olson, FEMA Region 8, for his support of the CTP program and this pilot project; and Dan Carlson, FEMA Region 8, who kept us straight with the region.

Thanks to Mike Vinson, Craig Jacobson and Penn Gildersleeve, Icon Engineering Inc., for a thoroughly professional job of reviewing these cases

Finally, thanks to Scott Tucker, District Executive Director, for his strong support of this effort; and to David Mallory, who completed the technical reviews for those cases that Icon was unable to perform.

Table 1 - Timeline Performance

Case No.	Identifier	All Data Received (Date)	Draft 102 or 104 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)
02-08-307R	Big Dry Cr. @ 136th	8/19/2002	9/23/2002	35	10/1/2002	8	43
02-08-186P	Parker-2	11/20/2002	1/3/2003	44	4/11/2003	98	142
02-08-332R	Vance Street Center	5/20/2002	6/28/2002	39	8/5/2002	38	77
02-08-330P	Arap Rd Indus Center	6/28/2002	7/11/2002	13	8/12/2002	32	45
02-08-340P	Bear Canyon Creek	6/19/2002	8/19/2002	60	10/29/2002	71	131
02-08-368P	Weaver Creek at Simms	6/12/2002	7/25/2002	43	8/28/2002	34	77
02-08-424P	Belle Creek #1	7/15/2002	9/5/2002	52	10/24/2002	49	107
02-08-425P	LAGO	8/13/2002	9/17/2002	35	10/1/2002	14	49
02-08-438R	Sand Creek	4/8/2003	4/11/2003	3	5/23/2003	42	45
02-08-500R	Tiger's Reservoir	Transferred to MCC at Dan Carlson's request					
02-08-447P	Kohl's City Park Channel	Transferred to third year grant					
02-08-469R	Eastlake Reservoir No. 2	10/1/2002	10/23/2002	22	10/31/2002	8	30
02-08-476R	Washington Ave. Bridge	8/13/2002	9/17/2002	35	10/22/2002	35	71
02-08-491P	Canterberry Crossing	10/10/2002	12/9/2002	60	2/25/2003	78	138
02-08-494R	Truth Christian Academy	Dropped					
02-08-507P	E-470 at Second Creek	9/16/2002	9/30/2002	14	10/29/2002	29	44
02-08-508R	Green Valley Ranch	9/25/2002	9/27/2002	2	10/22/2002	25	27
02-08-513R	Highlands Ranch	2/11/2003	2/27/2003	16	9/15/2003	200	216
02-08-514R	Pine Drive Bridge	1/13/2003	1/17/2003	4	3/12/2003	54	58
03-08-0018R	Conoco	10/21/2002	12/12/2002	52	1/24/2003	43	95
03-08-0022P	Tom Frost Reservoir	Transferred to third year grant					
03-08-0023P	Sheridan Crossing	9/16/2003	10/2/2003	16	12/18/2003	76	92
03-08-0030P	Slaughterhouse Gulch	2/21/2003	4/2/2003	40	5/5/2003	33	73
03-08-0032R	E-470 Big Dry Tribs	12/12/2002	1/21/2003	40	3/7/2003	45	85
03-08-0044P	Shaw Heights Trib.	11/12/2002	11/14/2002	2	12/20/2002	36	38
01-08-358P	Compark	Transferred from first year grant. Stats not included here.					
02-08-250P	Little Dry Creek	Transferred from first year grant. Stats not included here.					
03-08-0048R	Westerly Creek	11/7/2002	12/18/2002	41	1/14/2003	33	74
03-08-0061P	Aspen Creek	3/5/2003	3/11/2003	6	5/21/2003	71	77
03-08-0082R	North Creek Farms	2/11/2003	2/25/2003	14	3/19/2003	22	36
03-08-0083R	Belle Creek #4	3/12/2003	3/20/2003	8	5/12/2003	53	61
03-08-0090P	White Fence Farm	11/25/2002	1/8/2003	44	2/11/2003	34	78
03-08-0096P	Jordan Road Bridge	1/28/2003	2/11/2003	14	4/11/2003	59	73
03-08-0099P	Enclave at Normandy	12/11/2002	1/7/2003	27	2/25/2003	49	76
03-08-0104P	64th and Pecos	12/9/2002	2/10/2003	63	4/23/2003	72	135
03-08-0145P	North City Park Creek	2/17/2003	2/20/2003	3	3/12/2003	20	23
03-08-0167P	Preserve at Weaver Creek	2/20/2003	3/12/2003	20	5/30/2003	79	99
03-08-0210P	Westerly Creek	3/28/2003	4/2/2003	5	4/24/2003	22	27
03-08-0249P	104th Ave. Trib.	4/1/2003	4/10/2003	9	6/2/2003	53	62
03-08-0270P	Red Leaf	4/24/2003	5/9/2003	15	6/27/2003	48	63
03-08-0286R	120th Ave. @ SPR	3/13/2003	4/10/2003	28	6/6/2003	57	85
03-08-0304R	Courseside	6/9/2003	6/12/2003	3	8/11/2003	60	63
03-08-0305P	Safeway Store #344	Transferred to third year grant					
03-08-0311R	Van Bibber Creek	4/17/2003	7/17/2003	91	8/11/2003	25	116
03-08-0336R	Reata North Filing No. 1	8/5/2003	9/18/2003	44	11/5/2003	48	92
03-08-0358R	ProLogis	4/10/2003	4/17/2003	7	6/16/2003	60	67
03-08-0362P	Cherry Creek Drops	4/17/2003	6/18/2003	62	7/24/2003	36	98
03-08-0374P	E-470 @Wadley North Cr.	5/1/2003	6/12/2003	42	7/29/2003	47	89
03-08-0410P	Williams Village	9/24/2003	9/29/2003	5	11/28/2003	60	65
03-08-0433P	Eastlake Reservoir No. 2	6/6/2003	6/12/2003	6	7/29/2003	47	53
03-08-0454R	Piney Creek	7/18/2003	9/19/2003	63	10/8/2003	19	82
03-08-0520P	Airport Creek	11/11/2003	11/11/2003				
03-08-0521P	Stroh Ranch No. 9	8/22/2003	9/29/2003	38	11/6/2003	38	76
TOTALS				1285		2160	
				28.6		48.0	76.6

Table 2 – Financial Summary

Grant:	Total Grant	\$180,000.00		
	Total Received	171,673.04		
	Remainder	8,326.96		
			Case Specific	Non-specific
Encumbrances:	Total Available	\$180,000.00		\$180,000.00
	Total Encumbered	174,200.00	\$1,000.00	175,200.00
	Overs	34,764.51		34,764.51
	Unders	38,291.47		38,291.47
	Revised Encumbered	171,673.04		171,673.04
	Remaining	8,326.96		8,326.96

Notes:

1. The \$1000 in non-specific costs was for a test case for preparation of digital map enclosures.
2. These figures are for all cases started during the grant period. They will differ from figures which account for only cases started and finished within the grant period.

Table 3 - Financial Analysis

Case No.	Descriptor	Fee		ICON	ICON Invoice:	Overs	Unders
		FEMA Fee	Received	Authorized	Total		
	Non-specific Costs			\$ 1,000.00	\$ 1,000.00		
02-08-307R	Big Dry Cr. @ 136th	\$ 3,100.00	\$ 3,100.00	\$ 3,100.00	\$ 2,774.50		\$ 325.50
02-08-186P	Parker-2	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 9,548.50	\$ (5,548.50)	
02-08-332R	Vance Street Center	\$ 3,100.00	\$ 3,100.00	\$ 3,100.00	\$ 2,731.53		\$ 368.47
02-08-330P	Arap Rd Indus Center	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 2,774.50		\$ 1,225.50
02-08-340P	Bear Canyon Creek	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 10,199.45	\$ (6,199.45)	
02-08-368P	Weaver Creek at Simms	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 2,958.50		\$ 1,041.50
02-08-424P	Belle Creek #1	\$ 3,400.00	\$ 3,400.00	\$ -	\$ -		
02-08-425P	LAGO	\$ 3,400.00	\$ 3,400.00	\$ 3,400.00	\$ 1,905.00		\$ 1,495.00
02-08-438R	Sand Creek	\$ 3,100.00	\$ 3,100.00	\$ 3,100.00	\$ 3,172.75	\$ (72.75)	
02-08-500R	Tiger's Reservoir	\$ 3,100.00	\$ 3,100.00	\$ 3,100.00	\$ 8,398.81	\$ (5,298.81)	
02-08-447P	Kohl's City Park Channel	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 2,049.00		
02-08-469R	Eastlake Reservoir No. 2	\$ 3,100.00	\$ 3,100.00	\$ 3,100.00	\$ 2,912.50		\$ 187.50
02-08-476R	Washington Ave. Bridge	\$ 3,100.00	\$ 3,100.00	\$ 3,100.00	\$ 1,872.50		\$ 1,227.50
02-08-491P	Canterberry Crossing	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 6,625.00	\$ (2,625.00)	
02-08-494R	Truth Christian Academy	\$ 3,100.00	\$ 3,100.00	\$ 3,100.00	\$ 452.50		\$ 2,647.50
02-08-507P	E-470 at Second Creek	\$ 3,400.00	\$ 3,400.00	\$ 3,400.00	\$ 757.00		\$ 2,643.00
02-08-508R	Green Valley Ranch	\$ 3,100.00	\$ 3,100.00	\$ 3,100.00	\$ 1,516.50		\$ 1,583.50
02-08-513R	Highlands Ranch	\$ 3,100.00	\$ 3,100.00	\$ 3,100.00	\$ 3,920.00	\$ (820.00)	
02-08-514R	Pine Drive Bridge	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 5,622.75	\$ (1,622.75)	
03-08-0018R	Conoco	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 5,541.00	\$ (1,541.00)	
03-08-0022P	Tom Frost Reservoir	\$ 4,200.00	\$ 3,400.00	\$ 4,200.00	\$ 2,527.50		\$ 1,672.50
03-08-0023P	Sheridan Crossing	\$ 3,800.00	\$ 3,800.00	\$ 3,800.00	\$ 6,307.50	\$ (2,507.50)	
03-08-0030P	Slaughterhouse Gulch	\$ 4,200.00	\$ 4,200.00	\$ 4,200.00	\$ 3,992.50		\$ 207.50
03-08-0032R	E-470 Big Dry Tribs	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 5,124.00	\$ (1,124.00)	
03-08-0044P	Shaw Heights Trib.	\$ 4,200.00	\$ 4,200.00	\$ 4,200.00	\$ 1,607.50		\$ 2,592.50
01-08-358P	Compark				\$ -		
02-08-250P	Little Dry Creek				\$ -		
03-08-0048R	Westerly Creek	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 3,377.50		\$ 622.50
03-08-0061P	Aspen Creek	\$ 4,200.00	\$ 4,200.00	\$ 4,200.00	\$ 2,961.25		\$ 1,238.75
03-08-0082R	North Creek Farms	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 2,502.75		\$ 1,497.25
03-08-0083R	Belle Creek #4	\$ 4,000.00	\$ 4,000.00	\$ -	\$ -		
03-08-0090P	White Fence Farm	\$ 3,800.00	\$ 3,800.00	\$ 3,800.00	\$ 3,049.25		\$ 750.75
03-08-0096P	Jordan Road Bridge	\$ 3,800.00	\$ 3,800.00	\$ 3,800.00	\$ 9,123.75	\$ (5,323.75)	
03-08-0099P	Enclave at Normandy	\$ 3,800.00	\$ 3,800.00	\$ 3,800.00	\$ 2,322.50		\$ 1,477.50
03-08-0104P	64th and Pecos	\$ 3,800.00	\$ 3,800.00	\$ 3,800.00	\$ 5,571.00	\$ (1,771.00)	
03-08-0145P	North City Park Creek	\$ 3,800.00	\$ 3,800.00	\$ 3,800.00	\$ 2,640.50		\$ 1,159.50
03-08-0167P	Preserve at Weaver Creek	\$ 3,800.00	\$ 3,800.00	\$ 3,800.00	\$ 3,757.00		\$ 43.00
03-08-0210P	Westerly Creek	\$ 3,800.00	\$ 3,800.00	\$ 3,800.00	\$ 3,790.00		\$ 10.00
03-08-0249P	104th Ave. Trib.	\$ 4,200.00	\$ 4,200.00	\$ 4,200.00	\$ 2,255.00		\$ 1,945.00
03-08-0270P	Red Leaf	\$ 3,800.00	\$ 3,800.00	\$ 3,800.00	\$ 2,415.75		\$ 1,384.25
03-08-0286R	120th Ave. @ SPR	\$ 4,000.00	\$ 4,000.00	\$ 4,300.00	\$ 2,060.00		\$ 2,240.00
03-08-0304R	Courseside	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 3,278.75		\$ 721.25
03-08-0305P	Safeway Store #344	\$ 4,200.00	\$ 4,200.00	\$ 4,200.00	\$ 4,510.00	\$ (310.00)	
03-08-0311R	Van Bibber Creek	\$ -	\$ -	\$ -	\$ -		
03-08-0336R	Reata North Filing No. 1	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 3,674.50		\$ 325.50
03-08-0358R	ProLogis	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 1,518.75		\$ 2,481.25
03-08-0362P	Cherry Creek Drops	\$ 3,800.00	\$ 3,800.00	\$ -	\$ -		
03-08-0374P	E-470 @Wadley North Cr.	\$ 4,200.00	\$ 4,200.00	\$ 4,200.00	\$ 3,890.00		\$ 310.00
03-08-0410P	Williams Village	\$ 3,800.00	\$ 3,800.00	\$ 3,800.00	\$ 3,176.25		\$ 623.75
03-08-0433P	Eastlake Reservoir No. 2	\$ 3,800.00	\$ 3,800.00	\$ 3,800.00	\$ 1,793.75		\$ 2,006.25
03-08-0454R	Piney Creek	\$ 4,000.00	\$ 4,000.00	\$ -	\$ -		
03-08-0520P	Airport Creek	\$ 4,200.00	\$ 4,200.00	\$ 4,200.00	\$ 4,177.00		\$ 23.00
03-08-0521P	Stroh Ranch No. 9	\$ 3,800.00	\$ 3,800.00	\$ 3,800.00	\$ 3,536.50		\$ 263.50
					\$ -		
TOTALS		\$ 189,100.00	\$ 188,300.00	\$ 175,200.00	\$ 171,673.04	\$ (34,764.51)	\$ 36,340.47