



What's Inside

- Message from the Chair - Page 1
- 2005 MnAFPM Spring Luncheon - Page 2
- 2005 Update to Minnesota Map Modernization Business Plan - Page 2
- Field Tour MnAFPM 2004 Conference - Page 4
- 2004 MnAFPM Conference - Page 5
- Institute for Business and Home Safety and ASCP Award for Scholarship in Planning and Natural Hazards - Page 6
- ASFPM 2005 Annual Conference - Page 6
- Becoming a Member - Page 7

3. Floodplain managers increased their understanding of the floodplain program and effective floodplain management.
4. Floodplain managers learned how other communities are managing their floodplains.
5. Emergency managers were able to get critical information on how to implement DMA 2000 in their communities.
6. Participants on the tour of the Winona flood control project saw an operating example of a large-scale mitigation project.

Although the budgets for cities and counties were limited again this year, we maintained about the same attendance as last year. Registration for the conference exceeded 100 people and sponsors offered financial assistance. In addition, 20 vendors demonstrated their expertise and discussed floodplain management issues.

We had another aggressive agenda with one full-day of workshops, training and field trips and an additional day-and-a-half of plenary and concurrent sessions. Sessions included presentations and panel discussions from consultants, federal and state agencies and elected officials.

The conference succeeded in implementing one of MnAFPM's core missions; *"to provide a forum where local, state, federal and private agencies can come together and discuss issues important to them on an equal level."*

We are planning to make some changes to the conference in 2005 to draw members from the western part of the state and perhaps from our neighbors in North and South Dakota. The 2nd Annual MnAFPM Conference will be held in Moorhead, MN in mid-September. The focus of the

MESSAGE FROM THE CHAIR

Nancy Johnson Dent; MnAFPM Chair 2005

2004 was another successful year for the Minnesota Association of Floodplain Managers. Attendees at the conference rated it very high. Comments indicated that networking with other floodplain professionals was the top reason for the high ratings. The conference was bustling with idea sharing, dialogue and networking through not only the conference program itself, but during the field trip, meals, and social mixers.

Other valuable items from the conference include:

1. Floodplain managers had open discussions with top brass from FEMA, US Army Corps of Engineers, and the Minnesota Department of Natural Resources.
2. FEMA representatives got a chance to hear how the Map Modernization dollars are being spent and the benefits to the communities.

conference will be on FEMA's Map Modernization efforts and current floodplain management issues. In addition we'll continue to offer field trips, the CFM exam, and social and networking opportunities.

A BIG thanks to all of our members for your support. Please spread the word about the benefits of our association.

If you are not yet part of our Association, please join us at one of our luncheons or conferences. I'm sure that you will find it to be a great asset as you seek to manage your community's floodplains.

It is my hope that the partnerships that MnAFPM promotes will make a positive change for our environment and the communities and constituents that we serve.

MnAFPM Spring Luncheon

Awada's on Plato in St. Paul, MN

May 17, 2005

Mark your calendars!! The Minnesota Association of Floodplain Managers announces its 2005 Spring Luncheon to be held on Tuesday, May 17, at Awada's on Plato in St. Paul. Steve Buan, Hydrologic Program Manager from the National Oceanic and Atmospheric Administration's National Weather Service (NWS), will present an overview of the NWS hydrologic services. Steve will discuss where to find water and weather information and how it can be used for planning from hours to months in advance.

Cost is \$10 for MnAFPM members and \$15 for non-members. A luncheon buffet will be served. Reservations are required. Please contact Pat Lynch at pat.lynch@dnr.state.mn.us or via phone at 651.772.7917.

Additional details regarding the luncheon will be forthcoming, so check the MnAFPM website at www.mnafpm.org often!

2005 Update of the Minnesota Map Modernization Business Plan

by Suzanne Jiwani, PE, CFM

Minnesota Department of Natural Resources

Executive Summary

The Minnesota Department of Natural Resources prepared the Minnesota Map Modernization Business Plan in January 2004. It described the State's strategy for cost effectively updating the Flood Insurance Rate Maps (FIRM) in Minnesota. The mission of Minnesota Map Modernization stated in the plan is as follows:

To produce (for every Minnesota county) accurate, digital countywide floodplain maps that are usable to local officials, lending institutions and insurance agents and to produce them using available information and new information, including high resolution digital elevation data, funded from FEMA's Map Modernization Program funds.

The Map Modernization Business Plan called for the annual updates to reflect the status of remapping of the counties and any modifications to the plan because of changed circumstances. This document is the 2005 Update of the Minnesota Map Modernization Business Plan.

The original plan outlined mission, objectives, priorities, organization of plan management, the state role, the estimated costs, the plan's adherence to FEMA's performance measures, and a table listing expected completion dates for the remapping effort in Minnesota's counties. The 2005 Update retains much of the original plan. Modifications have been made in reaction to FEMA's Multi-year Flood Hazard Identification Plan (MHIP) and the decisions of Counties to join or not to join FEMA's Cooperating Technical Partner (CTP) program.

Mission Statement

The mission statement has not changed.

Objectives

The objectives have not changed.

Priorities

There were four priorities in the 2004 Map Modernization Plan. FEMA's MHIP included available funding levels for each county in Minnesota. The available funding levels are not adequate to update the flood delineation for most counties in the state. All of the counties in Minnesota need updated flood delineation on the FIRMs; some of the counties also need digital delineation of the FIRMs. The additional priority is for the counties that need the digital delineation.

The five priorities are

First Priority – Completion of existing remapping projects

Second Priority – CTP counties

Third Priority – Digital delineation of counties with no Q3 data

Fourth Priority- Major watercourses and the counties along them

Fifth Priority- Remapping repetitive loss areas not in CTP program

Organization of Plan Management

The organization of management of the plan has not changed.

State Role

Minnesota has almost completed the process of becoming a CTP. The mapping support proposed by the DNR –Geographic Information System group has been funded and work is in progress. The State Role described in the 2004 plan has not changed.

Estimated Costs

Table A-1 shows the cost estimates and FEMA's suggested expenditures by county in Minnesota. The cost estimates are from the 2004 Minnesota Map Modernization Business Plan; FEMA's Appendix A and Appendix D costs are from the MHIP. Appendix A suggested FEMA expenditures and Appendix D are the costs when assigned by FEMA's flood risk factors.

Editors Note: Table A-1 is attached.

Adherence to FEMA's Performance Measures

The plan adheres to FEMA's performance measures by funding year. The plan assumes that funds allocated in FY05 will be distributed timely, so that there are 9-10 months to complete the work funded. The actual completion of maps and ordinance adoption has not met the plan's performance goals. This is both because of delays in completion of task orders for remapping projects and delay in funding allocation. Table 3 shows the details by county for the remapping schedule for map production, map completion, and map adoption. Table 4 shows the percentage of population mapped and population with adopted digital maps by year of plan implementation.

Editor's note: Drafts Tables 3 and 4 are attached.

Editor's note: The January 2004 Minnesota Map Modernization Business Plan can be found at www.dnr.state.mn.us/waters/watermgmt_section/floodplain/index.html then under Floodplain Management Information for "Minnesota Plan for FEMA Map Modernization." FEMA's Multi-year Flood Hazard Identification Plan (MHIP) can be found at www.fema.gov/fhm/mh_mhip.shtm

A doctor vacationing in the Caribbean met an old lawyer friend and asked him what he was doing there.

The lawyer replied, "Remember that lousy real estate I bought? Well it caught fire, so here I am with the fire insurance proceeds. What are you doing here?"

The doctor replied, "Remember that lousy real estate I had along the Mississippi. Well the River overflowed and I am here with the flood insurance proceeds."

The lawyer looked puzzled. "Gee", he asked, "how do you start a flood?"

2005 MNAFPM Conference

Will be held in Moorhead, MN at Courtyard by Marriott on September 14 – 15, 2005.



Check out our web site for more information

Field Tour 2004 MnAFPM Conference

Winona, MN

As part of the 2004 MnAFPM Conference, a field tour was offered. The participants boarded a bus to view flood control projects in Winona, Minnesota.



The Mayor for the City of Winona (Jerry Miller) kicked off the Field Tour of the Winona Flood Control Project by welcoming the group and providing an overview of the history of the City of Winona and its relation to the Mississippi River.



Mike Davis (MN DNR Mississippi River Geologist / Biologist) provided an overview of the geomorphologic history of the formation of the Mississippi River valley and bluffs from Garvin Heights City Park, which provided a vantage point to overlook the entire valley.



The Director of Public Works for the City of Winona (Keith Nelson) and Melissa Gulan (USACE) led the group through a tour of the various flood control features protecting the City from Mississippi River floodwaters. Pictured above: Keith Nelson describes the operation and maintenance of the Lake Winona outlet and pumping station.

One night, a torrential rain soaked the Ottertail River basin; the next morning the resulting floodwaters came up about 6 feet into most of the homes along the river.

Lena was sitting on her roof with her neighbor, Mrs. Sorenson, waiting for help to come.

Mrs. Sorenson noticed a lone baseball cap floating near the house. Then she saw it float far out into the front yard, then float all the way back to the house; it kept floating away from the house, then back in.

Her curiosity got the best of her, so she asked, "Do you see that baseball cap floating away from the house, then back again?"

Lena, "Oh ya, that's just Ole; I told him he was going to cut the grass today come Hell or high water!"

2004 MnAFPM Conference

Rochester, MN

The 2004 MnAFPM Conference was held in Rochester, MN last November. This conference was an opportunity to meet national and state officials, network with others involved in Floodplain Management, participate in training and have a little fun.



Attendees discuss floodplain issues with vendors and network with other floodplain managers



Al Bataglia, Director HSEM, describes the process for a Presidential Disaster Declaration

Ed Buikema Director FEMA Region V, describes FEMA's role during the Disaster Relief process



Relaxing after the day's events



Chad Berginnis, ASFPM, describes the No Adverse Impact initiative and its benefits for floodplain management

Our animated chairman mans the registration booth



Comedian Scott Novotny gets enthusiastic during his show

Institute for Business & Home Safety and ASCP Award for Scholarship in Planning and Natural Hazards

The Institute for Business & Home Safety (IBHS), together with the Association of Collegiate Schools of Planning (ACSP), will grant one award recognizing scholarship in the general area of planning and natural hazards in 2005. Eligible papers must be accepted for presentation and given at the ACSP conference in Charleston, South Carolina, to be held October 27-30, 2005. The winner will agree to first publication rights by IBHS in its quarterly publication *Disaster Safety Review*.

Papers should address land use or other types of planning that incorporate natural hazards, including, but not limited to: flooding, coastal erosion, land subsidence, earthquakes, or other geologic or meteorological hazard impacts that can be minimized through community, regional, or state planning. The awardee will receive a prize of \$500, which will be presented at the ACSP 2005 conference. Undergraduate, graduate, and joint faculty/student papers are eligible. For joint faculty/student papers, the student must be the first author and designated presenter of the paper.

Abstracts may be submitted directly to the ACSP conference organizers between January 17 and February 28, 2005. Abstract submission procedures can be found at www.acsp.org.

Note: Be sure to put "IBHS Award Submission" in one of the Key Word boxes of the submission form found on the website.

At the same time, copies of the abstracts should be sent by e-mail to the ACSP-IBHS committee chair, Ann-Margaret Esnard, ame7@cornell.edu, with a cover memo indicating intent to submit a paper for the ACSP-IBHS award.

Only papers accepted for presentation at the ACSP Conference are eligible for the award. Authors whose abstracts are accepted for presentation at the conference should submit their final papers electronically to the ACSP-IBHS committee chair by May 25, 2005 with full student author information,

including name, institutional affiliation, name of faculty advisor or co-author (indicate clearly if faculty member is co-author), degree program (undergraduate, masters, Ph.D.), degree status (in progress or awarded), mailing address, phone, facsimile and e-mail. Papers are not to exceed 20 pages.

Authors' papers will be reviewed during the summer of 2005 with notification in September 2005.

Send submissions by e-mail to Ann-Margaret Esnard, review committee chair:

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Editors Note: Printed at the request of the Association of State of Floodplain Managers, 2809 Fish Hatchery Road, Madison Wisconsin.

ASFPM 2005 Annual Conference **June 12 - 17, 2005** **Madison, Wisconsin**

The 2005 national Association of State Floodplain Managers conference will be held in Madison, Wisconsin this June. Planners, engineers, consultants, watershed managers, educators and others will gather with government officials for the largest and most comprehensive floodplain management conference in the world. Throughout the week, over 150 of the industry's experts will conduct plenary and concurrent sessions, sharing state-of-the-art in techniques, programs, resources, materials, equipment, accessories and services to accomplish flood mitigation, watershed management and other community goals.

The 16 page conference brochure has just been posted to the ASFPM website at www.floods.org. Download it and see what a fantastic training opportunity we have right next door this year!

Becoming a Member of MnAFPM

Becoming a Member of MnAFPM is easy. There is an application form on our website at www.mnafpm.org/member.htm. Simply fill it out and mail it with your dues.

Annual dues are only \$30 for a full membership. A student membership is only \$10. Additional options are listed on the application form.

Minnesota Association of Floodplain Managers
Board of Directors and Committee Chairs

President: Nancy Johnson Dent - Barr Engineering Company
Vice President: Tom Berry - Dakota County
Secretary: Ceil Strauss - Minnesota Department of Natural Resources
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Minnesota Association of Floodplain Managers
www.mnafpm.org

Total Cost Table A1: Remapping Costs

Counties listed by Priority within Year																	
FY04	Costs in thousands of \$																
	Topographic Mapping			Outreach	Hydrology and		ITS	Map Production			Total County Costs			FEMA funding		MHIP funding	
	Funding Source				Funding Source			Number	Funding Source		CTP	FEMA	Total	FY04	FY05	App A	App D
County	CTP	FEMA	CTP	CTP	FEMA	CTP	of Panels	CTP	FEMA								
Redwood		10			100	14	80		272	14	382	396	60	200	260	133	
Nicollet		10			30	10	54		184	10	224	233	33	125	158	157	
Chippewa		30			230	11	61		207	11	467	478	200	160	360	203	
Hennepin						36	198		297	36	297	333	419	82	501	1427	
Dakota			40		220	11	59	201		251	220	471	125	125	225	721	
Scott	250		35		300	10	56	190		485	490	976	340	100	440	277	
Goodhue	600		40		450	14	79		269	654	719	1372.82	280	200	480	206	
Brown													239	60	299	135	
Total Cost												4261					
CTP Total	850		115	0		106		391		1462							
FEMA Total Cost		50			1330				1229		2609				2723	3259	

Counties listed by Priority within Year																	
FY05	Costs in thousands of \$																
	Topographic Mapping			Outreach	Hydrology and		ITS	Map Production			Total County Costs			FEMA funding		MHIP funding	
	Funding Source				Funding Source			Number	Funding Source		CTP	FEMA	Total	FY05		App A	App D
County	CTP	FEMA	CTP	CTP	FEMA	CTP	of Panels	CTP	FEMA								
Renville		10			20	17	95		323	17	353	370	219		219	133	
Sherburne	300		35		200	8	43		146	343	346	688.94	243		243	227	
Meeker		35			50	150	10	58		197	60	382	442.64	200		200	125
Olmsted		100			25	125	11	63		214	36	439	475.54	209		209	329
Ramsey	200		35		50	50	9	49		167	294	217	510.42	300		300	628
Clay													230			230	421
Lincoln				20	10	8	42		143	28	153	180.36	101		101	107	
Todd		40		25	100	14	80		272	39	412	451.4	220		220	133	
Kandiyohi		10		50	50	13	72		245	63	305	367.76	219		219	168	
Upper Mississippi River	450				1500	0				0	1950	1950	0		0	0	
Total Cost												5067.06					
CTP Total	500		70	220		73				863							
FEMA Total Cost		635			2185				1383.8		4203.8				1941	2271	

FY05 Update Table A1: Remapping Costs

Counties listed by Priority within Year																		
FY06	Costs in thousands of \$																	
County	Topographic Mapping			Outreach		Hydrology and		ITS	Map Production			Total County Costs			FEMA funding		MHIP funding	
	Funding Source			Funding Source					Number of Panels	Funding Source		CTP	FEMA	Total	FY06		App A	App D
	CTP	FEMA	CTP	CTP	FEMA	CTP			CTP	FEMA								
Chisago	30	60	35	30	220	8		47		160	103	440	543			174	174	
McLeod		70		20	150	8		44		150	28	370	398			175	156	
Crow Wing*				100	10	19		104		354	119	364	482			270	192	
Rice		80		50	250	9		52		177	59	507	566			128	158	
Nobles				25	25	11		60		204	36	229	265			146	143	
Roseau	180			150	50	23		129		439	353	489	842			164	247	
Mahnomen				25	75	9		48		163	34	238	272			80	171	
Norman		60		40	100	11		59		201	51	361	411			100	252	
Steele					75	8		42		143	8	218	225			157	129	
Douglas				20	100	11		63		214	31	314	346			126	150	
Waseca					50	8		42		143	8	193	200			91	118	
Clearwater				25	50	6		36		122	31	172	204			112	146	
Isanti			30	20	20	9		50			59	20	79			0	150	
Freeborn					75	14		78		265	14	340	354			147	155	
Pine		160		25	300	21		116		394	46	854	900			170	149	
Carver		40	40	10	120	8		46		156	58	316	375			180	231	
Fillmore					75	12		64		218	12	293	304			116	116	
Benton*		60		25	200	7		40		136	32	396	428			138	180	
Pipestone					100	7		37		126	7	226	232			95	102	
MilleLacs				25	150	10		54		184	35	334	368			114	125	
Blue Earth		60		75	225	13		70		238	88	523	611			160	171	
Total Cost													5187.32					
CTP Total	210		105	665		231					1,211							
FEMA Total Cost		590			2420					4185.4		7195.4				2843	3415	

FY05 Update Table A1: Remapping Costs

Counties listed by Priority within Year																
FY07	Costs in thousands of \$															
County	Topographic Mapping		Outreach	Hydrology and		ITS	Map Production			Total County Costs			FEMA funding		MHIP funding	
	Funding Source			Funding Source			Number	Funding Source		CTP	FEMA	Total			App	App
	CTP	FEMA	CTP	CTP	FEMA	CTP	of Panels	CTP	FEMA				FY07		A	D
Jackson					200	12	66		224	12	424	436			135	121
LeSueur				30	200	9	48		163	39	363	402			170	147
Hubbard		20			100	15	81		275	15	395	410			144	137
Dodge					100	10	54		184	10	284	293			88	131
Ottertail				100	200	35	196		666	135	866	1002			251	219
Kanabec					100	9	49		167	9	267	275			93	113
Carlton					75	14	80		272	14	347	361			159	117
Martin					75	11	63		214	11	289	301			120	113
Faribault					75	11	60		204	11	279	290			116	147
Cottonwood					75	11	62		211	11	286	297			94	114
Watonwan					50	7	40		136	7	186	193			81	103
Rock				25	50	8	42		143	33	193	225			94	111
Itasca*				75	100	28	156		530	103	630	733			135	174
Beltrami*				50	50	41	226		768	91	818	909			250	218
Cass*				50	70	32	178		605	82	675	757			213	155
Becker				50	50	22	121		411	72	461	533			163	204
Koochiching				50	150	24	133		452	74	602	676			200	132
Winona					50	11	59		201	11	251	261			226	191
Marshall		60		75	75	27	148		503	102	638	739.84			212	515
Polk		60			150	31	170		578	31	788	818.6			268	406
Wabasha					100	9	51		173	9	273	283			104	165
Houston					75	5	30		102	5	177	182			104	161
Total Cost												7418.76				
CTP Total	0		0	505		380				885						
FEMA Total Cost		140			2170				7184.2		9494.2				3420	3894

* cost assumes that Upper Mississippi River study completed

FY05 Update Table A1: Remapping Costs

Counties listed by Priority within Year															
FY08	Costs in thousands of \$														
	Topographic Mapping	Outreach	Hydrology and		ITS	Map Production			Total County Costs			FEMA funding		MHIP funding	
	Funding Source		Funding Source			Number	Funding Source		CTP	FEMA	Total			App	App
County	CTP	FEMA	CTP	FEMA	CTP	of Panels	CTP	FEMA				FY08		A	D
Cook				50	18	100		340	68	340	408			198	88
Lake				50	22	124		422	72	422	493.92			200	108
Murray				30	50	11	60	204	41	254	294.8			80	126
Lake of the Woods				50	50	16	89	303	66	353	418.62			100	163
Red Lake				25	25	9	48	163	34	188	221.84			80	158
Stevens				75	9	48		163	9	238	246.84			99	110
Grant				75	9	48		163	9	238	246.84			80	123
Pennington				25	11	60		204	11	229	239.8			94	161
Pope			20	100	11	60		204	31	304	334.8			127	128
Sibley*					10	54		184	10	184	193.32			130	124
Traverse				15	50	13	72	245	28	295	322.76			94	159
Kittson		60		150	19	105		357	19	567	585.9			100	240
Anoka*		120		150	700	14	80	272	164	1092	1256.4			350	527
Mower				150	11	62		211	11	361	371.96			189	373
Wadena				25	50	9	49	167	34	217	250.42			110	121
Wilkin					100	12	68	231	12	331	343.44			80	218
Stearns*		70	40	30	250	21	119	405	91	725	816.02			429	278
Aitkin*					100	23	126	428	23	528	551.08			225	193
Morrison*		80			200	20	112	381	20	661	680.96			153	145
Wright*		70		75	325	12	69	235	87	630	717.02			272	302
St. Louis		200	40	70	600	90	500	1700	200	2500	2700			300	334
Total Cost											11694.74				
CTP Total	0		80	590		370			1040						
FEMA Total Cost		600		3075				6980.2		10655.2				3490	4179

* cost assumes that Upper Mississippi River study completed

**2005 Updated Table 3 - Detail by County of Yearly
Map Production, Completion and Adoption**

Map Production		Map Completion		Map Adoption	
County	2000 Pop	County	2000 Pop	County	2000 Pop
2003		2003		2003	
Big Stone	5820	Isanti	31287		
Brown	26911				
Clay	51229				
Dakota	355904				
Isanti	31287				
Lac qui Parle	8067				
Lyon	25425				
Swift	11956				
Washington	201130				
Yellow Medicine	11080				
2004		2004		2004	
Chippewa	13088	Lac qui Parle	8067	Isanti	31287
Goodhue	44127	Swift	11956		
Hennepin	1116200	Yellow Medicine	11080		
Nicollet	29771				
Renville	17154				
Redwood	16815				
Scott	89498				
Pop with data	2055462	Pop with map done	62390	Pop map adopted	31287
%pop with data	0.417821	% pop with map done	0.012682	%pop map adopted	0.00636
2005		2005		2005	
Kandiyohi	41203	Big Stone	5820	Big Stone	5820
Lincoln	6429	Brown	26911	Lac qui Parle	8067
Meeker	22644	Clay	51229	Swift	11956
Olmsted	124277	Dakota	355904	Yellow Medicine	11080
Ramsey	511035	Hennepin	1116200		
Sherburne	64417	Kandiyohi	41203		
Todd	24426	Lyon	25425		
		Nicollet	29771		
		Ramsey	511035		
		Renville	17154		
		Redwood	16815		
		Washington	201130		
Pop with data	2849893	Pop with map done	2460987	Pop map adopted	68210
%pop with data	0.579308	% pop with map done	0.500254	%pop map adopted	0.013865

2005 Updated Table 3 (cont)

2006		2006		2006	
Benton	34226	Chippewa	13088	Brown	26911
Blue Earth	55941	Chisago	41101	Dakota	355904
Carver	70205	Clearwater	8423	Hennepin	1116200
Chisago	41101	Crow Wing	55099	Lyon	25425
Clearwater	8423	Douglas	32821	Nicollet	29771
Crow Wing	55099	Freeborn	32584	Renville	17154
Douglas	32821	Goodhue	44127	Redwood	16815
Fillmore	21122	Lincoln	6429	Washington	201130
Freeborn	32584	Mahnomen	5190		
Mahnomen	5190	McLeod	34898		
Martin	21802	Meeker	22644		
McLeod	34898	Nobles	20832		
Millelacs	22330	Norman	7442		
Nobles	20832	Olmsted	124277		
Norman	7442	Rice	56665		
Pine	26530	Roseau	16338		
Pipestone	9895	Scott	89498		
Rice	56665	Sherburne	64417		
Roseau	16338	Steele	33680		
Steele	33680	Todd	24426		
Waseca	19526	Waseca	19526		
Pop with data	3476543	Pop with data	3214492	Pop with data	1857520
%pop with data	0.706689	%pop with data	0.653421	%pop with data	0.377585
2007		2007		2007	
Becker	30000	Becker	30000	Ramsey	511035
Beltrami	39650	Benton	34226	Clay	51229
Carlton	31671	Blue Earth	55941	Kandiyohi	41203
Cass	27150	Carlton	31671		
Cottonwood	12167	Carver	70205		
Dodge	17731	Cottonwood	12167		
Faribault	16181	Dodge	17731		
Houston	19718	Faribault	16181		
Hubbard	18376	Fillmore	21122		
Itasca	43992	Hubbard	18376		
Jackson	11268	Jackson	11268		
Kanabec	14996	Kanabec	14996		
Koochiching	14355	LeSueur	25426		
LeSueur	25426	Martin	21802		
Marshall	10155	Millelacs	22330		
Ottertail	57159	Ottertail	57159		
Polk	31369	Pipestone	9895		
Rock	9721	Rock	9721		
Wabasha	21610	Watonwan	11876		
Watonwan	11876				
Winona	49985				
Pop with data	3991099	Pop with data	3706585	Pop with data	2460987
%pop with data	0.811285	%pop with data	0.753451	%pop with data	0.500254

2005 Updated Table 3 (cont)

2008		2008		2008	
Aitkin	15301	Aitkin	15301	Benton	34226
Anoka	298084	Anoka	298084	Blue Earth	55941
Cook	5168	Houston	19718	Carver	70205
Grant	6289	Itasca	43992	Chippewa	13088
Kittson	5285	Kittson	5285	Chisago	41101
Lake	11058	Marshall	10155	Clearwater	8423
Lake of the Woods	4522	Morrison	31712	Cottonwood	12167
Morrison	31712	Mower	38603	Crow Wing	55099
Mower	38603	Murray	9165	Dodge	17731
Murray	9165	Pine	26530	Douglas	32821
Pennington	13584	Sibley	15356	Freeborn	32584
Pope	11236	Stearns	133166	Goodhue	44127
Red Lake	4299	Wabasha	21610	Jackson	11268
Saint Louis	200528	Wadena	13713	Lincoln	6429
Sibley	15356	Winona	49985	Mahnomen	5190
Stearns	133166	Wright	89986	Martin	21802
Stevens	10053			McLeod	34898
Traverse	4134			Meeker	22644
Wadena	13713			Nobles	20832
Wilkin	7138			Norman	7442
Wright	89986			Olmsted	124277
				Rice	56665
				Roseau	16338
				Scott	89498
				Sherburne	64417
				Steele	33680
				Todd	24426
				Waseca	19526
				Watonwan	11876
Pop with data	4919479	Pop with data	4528946	Pop with data	3449708
%pop with data	1	%pop with data	0.920615	%pop with data	0.701234

2005 Updated Table 3 (cont)

2009		2009		2009	
		Beltrami	39650	Aitkin	15301
		Cass	27150	Anoka	298084
		Cook	5168	Becker	30000
		Grant	6289	Carlton	31671
		Koochiching	14355	Faribault	16181
		Lake	11058	Fillmore	21122
		Lake of the Woods	4522	Houston	19718
		Pennington	13584	Hubbard	18376
		Polk	31369	Kanabec	14996
		Pope	11236	LeSueur	25426
		Red Lake	4299	Millelacs	22330
		Saint Louis	200528	Morrison	31712
		Stevens	10053	Mower	38603
		Traverse	4134	Murray	9165
		Wilkin	7138	Ottertail	57159
				Pipestone	9895
				Rock	9721
				Sibley	15356
				Stearns	133166
				Wabasha	21610
				Wadena	13713
				Winona	49985
				Wright	89986
Pop with data	4919479	Pop with data	4919479	Pop with data	4442984
%pop with data	1	%pop with data	1	%pop with data	0.903141
2010		2010		2010	
				Beltrami	39650
				Cass	27150
				Cook	5168
				Grant	6289
				Itasca	43992
				Kittson	5285
				Koochiching	14355
				Lake	11058
				Lake of the Woods	4522
				Marshall	10155
				Pennington	13584
				Pine	26530
				Polk	31369
				Pope	11236
				Red Lake	4299
				Saint Louis	200528
				Stevens	10053
				Traverse	4134
				Wilkin	7138
Pop with data	4919479	Pop with data	4919479	Pop with data	4919479
%pop with data	1	%pop with data	1	%pop with data	1

2005 Updated Table 4
Yearly Summary of Percentage of Minnesota Population
with GIS Flood Hazard Maps Prepared and Adopted

% of Population Mapped			% of Pop with Maps Adopted	
Year	FEMA Targets	Minnesota Plan	FEMA Targets	Minnesota Plan
2004	20	1	10	1
2005	50	50	20	1
2006	65	65	35	38
2007	75	75	50	50
2008	85	92	70	70
2009	100	100	90	90