

## **APPENDIX 1**

## **List of Acronyms**

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AHPS	Advanced Hydrologic Prediction Service
AICP	American Institute of Certified Planners
CBBEL	Christopher B. Burke Engineering, LLC
CFM	Certified Floodplain Manager
COAD	Community Organizations Active in Disaster
CPRI	Calculated Priority Risk Index
CRS	Community Rating System
DFIRMs	Digital Flood Insurance Rate Maps
DHS	Department of Homeland Security (US)
DMA	Disaster Mitigation Act
EHS	Extremely Hazardous Substance
EMA	Emergency Management Agency
EPCRA	Emergency Planning and Community Right to Know Act
ERP	Emergency Response Plan
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FMA	Flood Mitigation Act
GIS	Geographic Information System
HAZUS-MH	Hazard US – Multi-Hazard
HMGP	Hazard Mitigation Grant Program
HMRT	Hazardous Materials Response Team
HUC	Hydrologic Unit Code
IDEM	Indiana Department of Environmental Management
IDHS	Indiana Department of Homeland Security
IDNR	Indiana Department of Natural Resources
IEAP	Incident and Emergency Action Plan
INAFSM	Indiana Association of Floodplain and Stormwater Managers

LEPC	Local Emergency Planning Commission
MHMP	Multi-Hazard Mitigation Plan
MPH	Miles Per Hour
MRCC	Midwestern Regional Climate Center
MSDS	Material Safety Data Sheet
NCDC	National Climatic Data Center
NFIP	National Flood Insurance Program
NOAA	National Oceanic Atmospheric Administration
NRCS	National Resource Conservation Service
NWS	National Weather Service
OSHA	Occupational Safety and Health Administration
PDM	Pre-Disaster Mitigation
RFC	Repetitive Flood Claims
SARA	Superfund Amendment Reauthorization Act
SFHA	Special Flood Hazard Area
SRL	Severe Repetitive Loss
USDA	United States Department of Agriculture
US DHS	United States Department of Homeland Security
USGS	United States Geological Service
WCT	Wind Chill Temperature

**APPENDIX 2      Committee      Meeting      Agendas      and  
Summaries**

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**Grant County Multi-Hazard Mitigation Plan Update**  
Project Team Morning Meeting

Grant County EMA/EOC  
401 South Adams Street  
Marion IN 46952

9:00 am  
Thursday October 6, 2016

**AGENDA**

1. Welcome and Introductions
2. Approach for the MHMP Update/Meeting Purpose
3. Hazard Risk Assessment:
  - a) Review Hazard Data
  - b) Discuss Vulnerability to Hazards
  - c) Determine Probability & Severity
4. Critical Infrastructure
5. Next Steps
6. Adjournment

**Grant County Multi-Hazard Mitigation Plan Update**  
Project Team Morning Meeting

Grant County EMA/EOC  
401 South Adams Street  
Marion IN 46952

9:00 am  
Thursday October 6, 2016

**SUMMARY**

**Project Team Members Present:**

Mike Burton, Grant County Commissioner  
Tom Culley, Grant County EMA  
Terry Dieckmann, Van Buren  
Richard Dollar, Fairmount  
Stephen Dorsey, Marion  
Steve Kelley, Sweetser  
Kirk McCollum, Gas City  
Scott Oliver, Gas City  
Joe Seward, Fowlerton  
Mark Siler, Swayzee  
Joel Thomas, Jonesboro  
Geoff Williams, Marion

**Others Present:**

Heather Buck, CBBEL

**1. Welcome and Introductions**

Heather and Tom thanked everyone for attending the meeting and asked those present to introduce themselves.

**2. Approach for the MHMP Update/Meeting Purpose**

Heather explained to the group that the MHMP Update is a requirement to be completed every 5 years. The overall approach, utilizing a larger Planning Committee similar to the previous approach was described. The meetings will follow steps to reach the end result of an updated MHMP for all NFIP Communities within Grant County.

**3. Hazard Risk Assessment:**

a) Review Hazard Data

The Committee reviewed the hazards to be studied as determined by Grant County EMA and agreed that these are the hazards which most affect the County. Heather shared data that CBBEL had gathered from the Nation Climatic Data Center (NCDC), local media outlets, and various agencies and offices since the 2009 MHMP was completed.

b) Discuss Vulnerability to Hazards



The Committee was engaged during the discussion regarding the hazards, specific events, and damages experienced. This information will be utilized to guide additional data collection for the MHMP Update, as well as enhance the discussion with the Planning Committee.

c) Determine Probability & Severity

The Committee, considering the data collected, their knowledge, and the prior discussions, determined the probability and severity of the hazards considered during this planning effort. This information will be utilized to determine the Calculated Priority Risk Index (CPRI) and will be reviewed by the Planning Committee.

**4. Critical Infrastructure**

Heather explained that the listing of Critical Infrastructure had been provided by the Grant County GIS Department, categorized into sectors, and was mapped and utilized to perform additional data analyses to prepare “what-if” scenarios.

**5. Next Steps**

The process was further explained to the Committee to include the next meeting, a Public Review, and submission of the draft report for all Committee members, the public, and FEMA’s review and comment. It was also explained that it will be very important that all Committee members provide their information in a timely manner so that the draft MHMP Update can be prepared.

**6. Adjournment**

The morning Committee meeting adjourned and will meet again following a brief lunch session. The afternoon Committee meeting will be utilized to review the listing of the potential mitigation measures and provide a ranking of High, Moderate, or Low.

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## **Grant County Multi-Hazard Mitigation Plan Update**

Project Team Afternoon Meeting

Grant County EMA/EOC  
401 South Adams Street  
Spencer IN 46952

### **AGENDA**

1. Welcome and Introductions
2. Review of the approach for the MHMP Update
3. Review the Hazard Risk Assessment/CPRI
4. Review and Prioritize Proposed Mitigation Measures
5. Next Steps
6. Adjournment

## Grant County Multi-Hazard Mitigation Plan Update

Project Team Afternoon Meeting

Grant County EMA/EOC  
401 South Adams Street  
Spencer IN 46952

### AGENDA

#### SUMMARY

##### **Project Team Members Present:**

Mike Burton, Grant County Commissioner  
Tom Culley, Grant County EMA  
Terry Dieckmann, Van Buren  
Richard Dollar, Fairmount  
Stephen Dorsey, Marion  
Steve Kelley, Sweetser  
Kirk McCollum, Gas City  
Scott Oliver, Gas City  
Joe Seward, Fowlerton  
Mark Siler, Swayzee  
Joel Thomas, Jonesboro  
Geoff Williams, Marion

##### **Others Present:**

Heather Buck, CBBEL

#### **1. Welcome and Introductions**

Heather and Tom thanked everyone for attending the meeting. Introductions were made by those not present during the morning meeting.

#### **2. Review of the Approach for the MHMP Update**

A brief review was provided for those committee members not present at the first meeting.

#### **3. Review the Hazard Risk Assessment/CPRI**

The results of the completed CPRI were reviewed with those present. Utilizing the discussion from the previous Committee meeting, the “draft” CPRI was presented. No adjustments were made.

#### **4. Review and Prioritize Proposed Mitigation Practices**

Utilizing the mitigation practices described in the 2009 MHMP and information gathered through the planning process, a list of proposed mitigation practices was presented to the Committee for review and comment. Several members provided insight and input to wording and options for each proposed mitigation measure

#### **5. Next Steps & Future Meetings**

It was explained that the next step in the process is to prepare the draft MHMP Update. Once this has been completed, a public review period will be set and the draft will be submitted to FEMA and IDHS for review and comment.

**6. Adjournment**

The Committee adjourned

## Heather Buck

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**From:** Tom Culley <tculley@grantcounty.net>  
**Sent:** Monday, March 06, 2017 3:20 PM  
**To:** David White  
**Cc:** Heather Buck  
**Subject:** Town of Matthews Briefing on MHMP

David,

This is just a follow-up to our in person conversation that took place on 6 March 2017 from 2:30-3:30pm.

When we met we discussed the following:

1. Grant County MHMP dated 2-20-17.
2. How each threat was identified and ranked based on FEMA's list of Natural, Man Made, and Technological hazards.
3. How the CPRI is determined based on:
  - a. Probability
  - b. Magnitude/Severity
  - c. Warning Time
  - d. Duration
4. We looked at and discussed how the planning committee came up with the CPRI for each of the MHMP incidents for the Town of Matthews. How they are similar in most instances for the other communities and for Grant County in general. We also noted the differences between CPRI for some of the threats.
5. We discussed the appendixes for the plan and how that data helped to tie in everything with the plan.

Thanks for taking the time to meet with me to discuss the plan and your role in helping develop this plan for the county to use for the next five years. Having this plan in place is a requirement for certain FEMA grants.

Thanks,  
Tom

Tom Culley  
Interim Director, Grant County EMA/DHS  
401 South Adams Street, Suite 601  
Marion, IN. 46953  
EOC: 765-651-2410  
EMA Office: 765-668-6525  
Cell: 765-506-2114  
E-mail: [tculley@grantcounty.net](mailto:tculley@grantcounty.net)  
Web: <http://ema.grantcounty27.us/>

For local alerts and weather warnings, follow us on:



***"Training to Serve...Serving to Protect"***

## Heather Buck

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**From:** Tom Culley <tculley@grantcounty.net>  
**Sent:** Tuesday, March 07, 2017 10:48 AM  
**To:** Steve Wolf (Upland PD)  
**Cc:** Heather Buck  
**Subject:** Town of Upland Briefing on MHMP

Steve,

This is just a follow-up to our in person conversation that took place on 7 March 2017 from 9:45-10:45am.

When we met we discussed the following:

1. Grant County MHMP dated 2-20-17.
2. How each threat was identified and ranked based on FEMA's list of Natural, Man Made, and Technological hazards.
3. How the CPRI is determined based on:
  - a. Probability
  - b. Magnitude/Severity
  - c. Warning Time
  - d. Duration
4. We looked at and discussed how the planning committee came up with the CPRI for each of the MHMP incidents for the Town of Upland. How they are similar in most instances for the other communities and for Grant County in general. We also noted the differences between CPRI for some of the threats.
5. We discussed the appendixes for the plan and how that data helped to tie in everything with the plan.

Thanks for taking the time to meet with me to discuss the plan and your role in helping develop this plan for the county to use for the next five years. Having this plan in place is a requirement for certain FEMA grants.

Thanks,  
Tom

Tom Culley  
Interim Director, Grant County EMA/DHS  
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**APPENDIX 3      Public Participation and Involvement of  
Other Interested Parties**



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**APPENDIX 4      Critical Infrastructure by NFIP  
Community**

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Map ID	Airport	NFIP
1	Marion General Hospital Helipad	Marion
2	Marion Municipal Airport	Marion

Map ID	Assisted Living/Nursing Home	NFIP
3	Brookdale Marion	Marion
4	Colonial Oaks Health Care	Marion
5	Flinn Place	Marion
6	Marion Rehabilitation & Assisted Living	Marion
7	Miller's Merry Manor	Marion
8	Northwood Manor	Marion
9	ResCare Residential Services	Marion
10	Suite Living Assisted Senior Living	Grant County
11	Twin City Health Care	Gas City
12	University Nursing Center	Upland
13	Wesleyan Health Care	Marion
14	York House	Marion

Map ID	Communications	NFIP
15	WBAT/WCJC/WMRI/WXXC Radio Stations	Marion
16	WIWU Radio Station	Marion

Map ID	Dams	NFIP
17	Brookhaven Addition Lake Dam	Grant County
18	Glendale Lake Dam	Grant County
19	Lincoln Country Club Lake Dam	Grant County
20	Loew Lake Dam (South)	Grant County
21	Lowe Lake Dam (North)	Grant County
22	Moriarty Lake Dam	Grant County
23	Old Mill Dam	Marion
24	Sports Lake Dam	Grant County
25	Taylor Lake Dam	Grant County
26	Wagner Youth Camp Lake Dam	Grant County

Map ID	Daycare	NFIP
27	A&M Childcare Learning Center	Marion
28	Carey Services	Marion
29	Good Shepherd Daycare	Marion
30	Lakeview Christian School	Grant County
31	Marion Kids Early Learning Academy	Marion
32	Westminster Presbyterian School	Marion

Map ID	Emergency Management	NFIP
33	Grant County Emergency Management	Marion

Map ID	Emergency Medical Services	NFIP
34	Grant County EMA	Marion
35	Gas City Rescue Squad	Gas City
36	Grant County Emergency Medical Services	Gas City
37	Marion General Hospital Ambulance Services	Marion

Map ID	Fire Department	NFIP
38	Center Township Volunteer Fire Department	Grant County
39	Converse Fire Department	Converse
40	Fairmount Fire Department	Fairmount
41	Gas City Fire Dept. Station 1	Gas City
42	Gas City Fire Dept. Station 2	Gas City
43	Green Township Volunteer Fire Department	Grant County
44	Jonesboro Fire Department	Jonesboro
45	Marion Fire Dept.	Marion
46	Marion Fire Dept.	Marion
47	Marion Fire Dept.	Marion
48	Marion Fire Dept.	Marion
49	Marion Fire Dept.	Marion
50	Marion Fire Dept. (Inactive-Storage)	Marion
51	Matthews Volunteer Fire Department	Matthews
52	Mill Township Volunteer Fire Department	Grant County
53	Swayzee Volunteer Fire Department	Grant County
54	Sweetser Volunteer Fire Department	Sweetser
55	Upland Volunteer Fire Department	Upland
56	Van Buren Volunteer Fire Department	Van Buren
57	Washington Township Volunteer Fire Department	Grant County

Map ID	Government	NFIP
58	City Hall Gas City	Gas City
59	City Hall Jonesboro	Jonesboro
60	Grant County Courthouse	Marion
61	Grant County Government Complex	Marion
62	Grant County Jail	Marion
63	Grant County Juvenile Detention	Marion
64	Marion Municipal Building	Marion
65	Town Hall Converse	Converse
66	Town Hall Fairmount	Fairmount
67	Town Hall Fowlerton	Grant County
68	Town Hall Matthews	Matthews
69	Town Hall Swayzee	Grant County
70	Town Hall Upland	Upland
71	Town Hall Van Buren	Van Buren

Map ID	Hazardous Materials Handler	NFIP
72	Air Products Marion CO2 Facility	Marion
73	American Woodmark Corporation	Gas City
74	AT&T - AT&T - IND490	Grant County
75	AT&T - MARION COUNTY - N15180	Grant County
76	AT&T - MARION RSS- N15147	Marion
77	AT&T UPLAND CDO - N15152	Grant County
78	Atlas Foundry Company Incorporated	Marion
79	Bahr Brothers Manufacturing Incorporated	Marion
80	Brooks Construction Company Incorporated	Grant County
81	Chronicle Tribune	Marion
82	CIE	Marion

83	Co Alliance LLP Fairmount Agronomy	Grant County
84	Co Alliance LLP Grant County Energy	Grant County
85	Co Alliance LLP Herbst Agronomy	Grant County
86	Co Alliance LLP Point Isabel Agronomy	Grant County
87	Co Alliance LLP Van Buren Propane	Grant County
88	Crop Production Services Incorporated	Fairmount
89	Dawson Enterprises Inc.	Marion
90	E & B Paving Incorporated	Gas City
91	Empire Gas	Marion
92	Exeon Processors; LLC	Jonesboro
93	Ferrellgas DBA Thermogas	Marion
94	Franklin Electric Company Gas City	Gas City
95	Gas City Pool	Gas City
96	General Cable Industries Incorporated	Marion
97	GM Marion Metal Center	Marion
98	Grant County YMCA	Marion
99	Hartson Kennedy Cabinet Top Company Incorporated	Marion
100	Indiana Michigan Power Company (Marion)	Grant County
101	Indiana Wesleyan University	Marion
102	Indiana Wesleyan University	Grant County
103	INDOT Gas City Unit 4	Grant County
104	Irving Materials Incorporated Stone & Gravel	Gas City
105	Irving Materials, Inc.	Grant County
106	Lowe's	Marion
107	Marion 7628	Grant County
108	Marion Community School	Marion
109	Marion General Hospital	Marion
110	Marion Water Works Department	Marion
111	McClure Oil Corporation	Grant County
112	Meijer Store #153	Marion
113	OmniSource Marion	Grant County
114	Orica USA Incorporated	Grant County
115	Packaging Corporation of America	Gas City
116	Panhandle Eastern Pipe Line Fairmount	Grant County
117	Panhandle Eastern Pipeline Upland M&R	Upland
118	Point Isabel (Crop Production Services)	Grant County
119	Raymond H Strickland Waste Water Treatment Plant	Marion
120	Speedway 6050	Marion
121	Speedway 6051	Marion
122	Taylor University	Upland
123	Texas Eastern Transmission	Grant County
124	United Parcel Service Marion	Marion
125	Upland Water Plant	Upland
126	Veterans Affairs N Indiana Health Care System	Marion
127	Walmart Grocery DC 7055	Gas City
128	Wiley Metal Fabricating; Inc.	Marion
129	Xerox Call Center - Marion	Marion

Map ID	Hospital / Medical	NFIP
130	Cornerstone Behavioural Health	Marion
131	Indiana Wesleyan Health Care Center	Marion
132	Marion General Hospital	Marion
133	MedExpress Urgent Care Clinic	Marion
134	VA Hospital - Northern Indiana HealthCare System	Marion

Map ID	Military Installation	NFIP
135	US Army National Guard	Marion
136	US Army National Guard Armory	Marion

Map ID	Mobile Home Parks	NFIP
137	Cottonwood Trailer Ranch Mobile Home Park	Marion
138	County Line Mobile Home Park	Grant County
139	Deerwood Mobile Home Court	Grant County
140	Fair Oaks Estate Mobile Home Park	Grant County
141	Fairmount Mobile Home Park	Fairmount
142	Liberty Mobile Home Park	Grant County
143	Lightle Mobile Home Park	Upland
144	Lu Ida Trailer Park	Marion
145	Marion Village	Marion
146	Matthews Mobile Home Park	Matthews
147	Pierson Trailer Mobile Home Park	Jonesboro
148	Rose Valley Mobile Home Park	Marion
149	Shady Acre Mobile Home Park	Grant County
150	Shadybrook Mobile Home Park	Marion
151	Stonecrest Manor Mobile Home Park	Grant County
152	Summit Village Mobile Home Park	Marion
153	Swayzee Mobile Home Park	Grant County
154	Tamarack Mobile Home Park	Jonesboro
155	Turtle Dove Mobile Home Community	Van Buren
156	White Oaks Community Mobile Home Park	Grant County
157	Woodlands Mobile Home Park	Marion

Map ID	Police Department	NFIP
158	Fairmount Police Department	Fairmount
159	Gas City Police Department	Gas City
160	Grant County Sheriff Department	Marion
161	Jonesboro Police Department	Jonesboro
162	Marion Police Department	Marion
163	Swayzee Polie Department	Grant County
164	Sweetser Police Department	Sweetser
165	Upland Police Department	Upland
166	Van Buren Police Department	Van Buren

Map ID	Potable Water	NFIP
167	26th Street Tower - Marion	Marion
168	Butler Street Tower - Marion	Marion
169	Fairmount Water Works	Fairmount
170	Gas City Water Department West Plant (HM)	Gas City
171	Gas City Water East Plant (HM)	Grant County
172	Jonesboro Water	Jonesboro
173	Jonesboro Water Tower	Jonesboro
174	Lyon Street Tower - Swayzee	Grant County
175	Marion Water Works	Marion
176	Meridian Street Tower - Marion	Marion
177	Van Buren Water Utility	Van Buren

Map ID	Power/Electricity	NFIP
178	Gas City Electric	Gas City
179	Indiana Michigan Power	Grant County
180	Indiana Michigan Power (Substation)	Marion
181	Indiana Michigan Power (Substation)	Jonesboro
182	Substation	Grant County

Map ID	School	NFIP
183	Allen Elementary School	Marion
184	Children's House Montessori	Marion
185	Dr. Robert H. Faulkner Academy	Marion
186	Eastbrook High School	Grant County
186	Eastbrook South Elementary (RCS)	Upland
187	Eastbrook Junior High School	Grant County
188	Eastbrook North Elementary (RCS)	Van Buren
190	Frances Slocum Elementary School	Marion
191	Grant County Special Ed Coop	Gas City
192	Indiana Wesleyan University	Marion
194	Justice Thurgood Marshall Intermediate School	Marion
195	Kendall Elementary School	Marion
196	Lakeview Christian School	Grant County
196	Ivy Tech Community College	Marion
197	Madison Grant High School (RCS)	Grant County
198	Madison Grant Junior High School	Grant County
199	Marion High School	Marion
200	Marion Regional Career Center	Marion
201	McCulloch Junior High School	Marion
202	Mississenewa High School	Gas City
203	New Horizons Academy	Grant County
204	Northview Elementary School	Gas City
205	Oak Hill High School (RCS)	Grant County
206	Oak Hill Junior High School	Grant County
207	Paddock View Residential Center	Marion
208	Park Elementary School (RCS)	Fairmount
209	Riverview Elementary School	Marion
210	RJ Baskett Middle School	Gas City
211	Saint Paul Catholic School	Marion



Map ID	School	NFIP
212	Swayzee Elementary School (RCS)	Grant County
213	Sweetser Elementary School	Sweetser
214	Taylor University (RCS)	Upland
215	The King's Academy	Jonesboro
216	Westview Elementary School	Jonesboro

Map ID	Shelter	NFIP
217	Brookhaven Wesleyan Church	Grant County
218	College Wesleyan Church	Marion
219	Faith Baptist Church (fka Southeast Elementary)	Marion
220	Grant County Rescue Mission	Marion
221	Liberty Elementary School (Closed)	Grant County
222	Mount Olive United Methodist Church	Grant County
223	St. Paul Catholic Church	Marion
224	St. Paul Missionary Baptist Church	Marion
225	Sunnycrest Baptist Church	Marion
226	Swayzee Christian Church	Grant County
227	Swayzee Church of the Nazarene	Grant County
228	The Loft Inn Bed & Breakfast	Grant County
229	The United Methodist Church	Fairmount
230	Wandering Wheels	Upland
231	World Gospel Mission	Marion

Map ID	Transportation	NFIP
232	Marion City Bus Transportation	Marion
233	Goodman Yard	Grant County

Map ID	User-Defined	NFIP
234	Dollar General Distribution Center	Marion
235	Dunham's Distribution Center	Marion
236	General Motors Metal Stamping Plant	Marion
237	Walmart Distribution Center	Gas City

Map ID	Wastewater Treatment	NFIP
238	Fairmount Wastewater Treatment Facility	Fairmount
239	Gas City Wastewater Treatment Facility	Gas City
240	Marion Wastewater Treatment Plant	Marion
241	Matthews Wastewater Treatment	Grant County
242	Upland Wastewater Treatment Facility (HM)	Upland
243	Van Buren Wastewater Treatment Facility	Van Buren
238	Fairmount Wastewater Treatment Facility	Fairmount

**APPENDIX 5      USGS Stream Gage Locations and Major  
Waterways**

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Active Stream Gage Location	
Site Number	Site Name
03326500	Mississinewa River at Marion, IN

Major Waterways		
Back Creek	Hummel Creek	Potter Ditch
Baker Ditch	Hutcherson Ditch	Prairie Run
Ball Run	Hyer Ditch	Pulley Ditch
Barren Creek	Janney Run	Regular Run
Bean Run	Jefferson Ditch	Rich Ditch
Bell Creek	Jocinah Creek	Roberts Ditch
Big Lick Creek	Johnson Ditch	Rock Run
Black Creek	Jones Clark Ditch	Roods Run
Boots Creek	Keaton Ditch	Round Run
Branch Creek	Lake Branch	Shell Run
Brown Ditch	Leisure Ditch	Sims-Franklin Ditch
Brushy Run	Little Black Creek	Smith Ditch
Buck Run Ditch	Little Crane Pond Ditch	Sports Run
Cane Run	Little Creek	Steelman Ditch
Cart Creek	Little Deer Creek	Stoney Creek
City Run	Little Newby Ditch	Stuckey Ditch
Club Run	Little Pipe Creek	Sweetser Ditch
Coahran Ditch	Little Walnut Creek	Sweetser Improvement Ditch
Crawford Creek	Lloyd Ditch	Tappin Ditch
David Drain	Lomax Ditch	Taylor Creek
Deer Creek	Long Branch	Tenmile Creek
Doyle Ditch	Ludlum Ditch	Thompson Ditch
Enoch Lee Ditch	Lugar Creek	Tinkle Ditch
Ethel Run	Maddox Ditch	Tippey Ditch
Farley Ditch	Lake Marion	Townsand Lucas Ditch
Ferguson Ditch	Massey Creek	Unthank Ditch
Fowler Ditch	Mat Run	Upland Drain
Fowlerton Drain	Mathews Ditch	Van Run
Galatia Ditch	Metocinah Creek	Walnut Creek
Gillespie Ditch	Mississinewa River	Waters Ditch
Goff Ditch	Monroe Ditch	Weasel Creek
Grant Howard Ditch	Monroe Prairie Creek	Wildcat Creek
Grassy Fork	Moriarity Ditch	Wimmer Ditch
Hailies Prairie Ditch	Necessity Ditch	Winslow Ditch
Haines Ditch	New Prairie Creek	Woods Ditch
Hodson Ditch	Octain Creek	Zirkle Ditch
Hollis Ditch	Pattison Ditch	Dry Fork Ditch
Hopcus Run	Pipe Creek	
Hoppas Ditch	Poley Walk	

## APPENDIX 6 NCDC Hazard Data

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The following data tables indicate those events that have impacted Grant County and the communities within. Please note that these tables only provide the information for those incidents where deaths, injuries, or property and/or crop damages were reported through the NCDC. For complete tables listing all incidents impacting Grant County, please visit:

<http://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=18%2CINDIANA>

<u>Location</u>	<u>County/Zone</u>	<u>Date</u>	<u>Type</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
<b>Totals:</b>				<b>1</b>	<b>0</b>	<b>1.00M</b>	<b>0</b>
<a href="#">STONECREST</a>	GRANT CO.	03/01/2011	Flood	0	0	1.00M	0
<a href="#">FOWLERTON</a>	GRANT CO.	01/13/2013	Flood	1	0	0	0
<b>Totals:</b>				<b>1</b>	<b>0</b>	<b>1.00M</b>	<b>0</b>

<u>Location</u>	<u>County/Zone</u>	<u>Date</u>	<u>Type</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
<b>Totals:</b>				<b>0</b>	<b>0</b>	<b>100.50K</b>	<b>0.00K</b>
<a href="#">SHADY HILLS</a>	GRANT CO.	6/1/2009	Thunderstorm Wind	0	0	100.00K	0.00K
<a href="#">GRANT (ZONE)</a>	GRANT CO.	12/20/2012	Strong Wind	0	0	0.50K	0.00K
<b>Totals:</b>				<b>0</b>	<b>0</b>	<b>100.50K</b>	<b>0.00K</b>

<u>Location</u>	<u>County/Zone</u>	<u>Date</u>	<u>Type</u>	<u>Mag</u>	<u>Dth</u>	<u>Inj</u>	<u>PrD</u>	<u>CrD</u>
<b>Totals:</b>					<b>0</b>	<b>0</b>	<b>100.00K</b>	<b>0.00K</b>
<a href="#">HACKLEMAN</a>	GRANT CO.	4/19/2011	Tornado	EF1	0	0	100.00K	0.00K
<b>Totals:</b>					<b>0</b>	<b>0</b>	<b>100.00K</b>	<b>0.00K</b>

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## APPENDIX 7

## IMPLEMENTATION CHECKLIST

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MITIGATION PRACTICE	HAZARD ADDRESSED	PRIORITY	UPDATE STATUS	2021 STATUS
<p><b>Management of High Hazard Dams</b></p> <ol style="list-style-type: none"> <li>1. Review regular inspection reports and maintenance records of high hazard dams</li> <li>2. Encourage Wagner Lake Dam owners to develop an IEAP.</li> </ol>	<input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Hail/Thunder/Wind <input checked="" type="checkbox"/> Landslide/Subsidence <input type="checkbox"/> Tornado <input type="checkbox"/> Wildfire <input type="checkbox"/> Winter Storm/Ice <input checked="" type="checkbox"/> Dam Failure <input type="checkbox"/> HazMat Incident	High	<p><b>Ongoing –</b></p> <ol style="list-style-type: none"> <li>1. IDNR receives inspection reports</li> </ol> <p><b>Proposed Enhancements –</b></p> <ol style="list-style-type: none"> <li>1. Ensure inspections are reported and required improvements and repairs are completed in a timely manner</li> <li>2. Encourage and assist Wagner Lake Dam owners in completing an IEAP</li> </ol>	
<p><b>Public Education &amp; Outreach</b></p> <ol style="list-style-type: none"> <li>1. Encourage additional participation in Severe Weather Awareness Week</li> <li>2. Develop an education and outreach campaign encouraging residents to keep in contact with their neighbors during hazard events</li> <li>3. Post information/warning signs in local parks and other public gathering places explaining what to do in case of a hazard event.</li> <li>4. Provide multi-lingual hazard preparedness literature (warning sirens, radio stations, go-kits, insurance protection, lightning rods, etc.) during Severe Weather Awareness Week, at public facilities and events and to populations within known hazard areas such as floodplains, downstream of a dam, near hazmat facilities, etc. (2009 Measure)</li> </ol>	<input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Extreme Temperature <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Hail/Thunder/Wind <input checked="" type="checkbox"/> Landslide/Subsidence <input checked="" type="checkbox"/> Tornado <input checked="" type="checkbox"/> Wildfire <input checked="" type="checkbox"/> Winter Storm/Ice <input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> HazMat Incident	High	<p><b>Ongoing –</b></p> <ol style="list-style-type: none"> <li>1. Some agencies and schools participate in Severe Weather Awareness Week</li> <li>4. Literature is provided at several public facilities and office locations as well as large public events throughout the County. Populations within the special flood hazard areas are educated through required flood insurance purchases and various website and literature pieces.</li> </ol> <p><b>Proposed Enhancement –</b></p> <ol style="list-style-type: none"> <li>1. Increase advertisement of Severe Weather Awareness Week</li> <li>2. Develop a campaign for neighbor check-ins</li> <li>3. Post information in parks and other gathering places</li> <li>4. Encourage the enhancement of the messages provided to various cultural groups and neighborhoods; Educate landowners within the dam inundation areas of the potential dangers and what to do in an emergency situation. Such as encourage voluntary purchase of federally-subsidized flood insurance; formalize a neighborhood or local campaign where community representatives familiar with the culture and language provide residents with emergency information and protocols.</li> </ol>	
<p><b>Hazardous Materials Response Team</b></p> <ol style="list-style-type: none"> <li>1. Continue LEPC reporting and training efforts as required through SARA Title III and ensure current facility maps and response plans are on file for Tier II facilities.</li> <li>2. Increase number of certified emergency response personnel available for responding to Haz Mat Incidents</li> </ol>	<input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Hail/Thunder/Wind <input checked="" type="checkbox"/> Landslide/Subsidence <input checked="" type="checkbox"/> Tornado <input checked="" type="checkbox"/> Wildfire <input checked="" type="checkbox"/> Winter Storm/Ice <input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> HazMat Incident	High	<p><b>Ongoing –</b></p> <ol style="list-style-type: none"> <li>1. Records are maintained for Tier II facilities</li> <li>2. Gas City Fire Department trains to Operations Level; Marion Fire Department has Technician Levels and HazMat Team</li> </ol> <p><b>Proposed Enhancement –</b></p> <ol style="list-style-type: none"> <li>1. Efforts should be strengthened to ensure requirements are met and trainings span several communities and potential hazards</li> <li>2. Increase all Responders to Operations Level and determine need for increased number of Technician Level throughout the county</li> </ol>	

MITIGATION PRACTICE	HAZARD ADDRESSED	PRIORITY	UPDATE STATUS	2021 STATUS
<p><b>Stormwater Management</b></p> <ol style="list-style-type: none"> <li>1. Minimize impacts of flooding by diverting or retaining stormwater onsite using green infrastructure practices</li> <li>2. Maintain channels and regulated drains to prevent localized flooding</li> <li>3. Encourage watershed based solutions such as regional detention to resolve flooding problems in more than one jurisdiction</li> </ol>	<input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Hail/Thunder/Wind <input type="checkbox"/> Landslide/Subsidence <input type="checkbox"/> Tornado <input type="checkbox"/> Wildfire <input type="checkbox"/> Winter Storm/Ice <input type="checkbox"/> Dam Failure <input type="checkbox"/> HazMat Incident	High	<p><b>Ongoing –</b></p> <ol style="list-style-type: none"> <li>1. Channels and regulated drains are maintained as funding and staffing allow</li> </ol> <p><b>Proposed Enhancement –</b></p> <ol style="list-style-type: none"> <li>1. Increase use of green infrastructure as feasible</li> <li>2. Continue to maintain channels and drains</li> <li>3. Complete watershed studies to develop recommendations for regional solutions</li> </ol>	
<p><b>Transportation</b></p> <ol style="list-style-type: none"> <li>1. Encourage warning (flashing lights, crossing arms, rumble strips, signage) at each intersection between rail and road to reduce the potential for train/vehicular crashes (2009)</li> </ol>	<input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature <input type="checkbox"/> Flood <input type="checkbox"/> Hail/Thunder/Wind <input type="checkbox"/> Landslide/Subsidence <input type="checkbox"/> Tornado <input type="checkbox"/> Wildfire <input type="checkbox"/> Winter Storm/Ice <input type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> HazMat Incident	High	<p><b>Ongoing –</b></p> <ol style="list-style-type: none"> <li>1. Warnings are present at many crossings</li> </ol> <p><b>Proposed Enhancement –</b></p> <ol style="list-style-type: none"> <li>1. Inventory rail crossings and prioritize for local enhancements outside of the Rail ROW</li> </ol>	
<p><b>Tree Maintenance</b></p> <ol style="list-style-type: none"> <li>1. Maintain trees on public property and right-of-ways and encourage maintenance on private property to reduce the risk of downed utility lines and falling limbs</li> </ol>	<input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature <input type="checkbox"/> Flood <input checked="" type="checkbox"/> Hail/Thunder/Wind <input checked="" type="checkbox"/> Landslide/Subsidence <input checked="" type="checkbox"/> Tornado <input type="checkbox"/> Wildfire <input checked="" type="checkbox"/> Winter Storm/Ice <input type="checkbox"/> Dam Failure <input type="checkbox"/> HazMat Incident	High	<p><b>Ongoing –</b></p> <ol style="list-style-type: none"> <li>1. Utility providers perform routine maintenance along ROW</li> </ol> <p><b>Proposed Enhancement –</b></p> <ol style="list-style-type: none"> <li>1. Encourage private landowners to perform maintenance or avoid planting improper trees and shrubs</li> </ol>	

MITIGATION PRACTICE	HAZARD ADDRESSED	PRIORITY	UPDATE STATUS	2021 STATUS
<p><b>Emergency Preparedness &amp; Warning</b></p> <ol style="list-style-type: none"> <li>1. Coordinate with private business owners utilizing large dynamic message boards for business to provide messages during hazardous events and recovery efforts.</li> <li>2. Encourage weather radios in all critical infrastructure and encourage use by residents and businesses.</li> <li>3. Improve disaster preparedness and emergency response at the local level through the COAD and/or CERT program</li> <li>4. Increase awareness and participation in the NIXEL notification system and various social media outlets</li> <li>5. Improve planning and coordination among event coordinators, facility owners, and emergency response teams</li> <li>6. Evaluate and utilize flood forecasting capabilities including stream gages, flood forecast maps, and flood alerts</li> <li>7. Convey flood height warnings from the USGS river gages in terms the general public can understand</li> <li>8. Evaluate outdoor warning siren coverage to determine if adequate to alert population of severe weather conditions (2009)</li> <li>9. Maintain a centralized system for testing, maintenance, and operation of outdoor warning sirens</li> <li>10. Purchase additional mobile electronic messaging boards and develop protocol for local interactions to provide current hazard information.</li> <li>11. Propose an ordinance to require developers to install additional outdoor warning sirens for new developments or pay into a siren fund as part of new development</li> </ol>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Drought</li> <li><input checked="" type="checkbox"/> Earthquake</li> <li><input checked="" type="checkbox"/> Extreme Temperature</li> <li><input checked="" type="checkbox"/> Flood</li> <li><input checked="" type="checkbox"/> Hail/Thunder/Wind</li> <li><input checked="" type="checkbox"/> Landslide/Subsidence</li> <li><input checked="" type="checkbox"/> Tornado</li> <li><input checked="" type="checkbox"/> Wildfire</li> <li><input checked="" type="checkbox"/> Winter Storm/Ice</li> <li><input checked="" type="checkbox"/> Dam Failure</li> <li><input checked="" type="checkbox"/> HazMat Incident</li> </ul>	<p>High <i>(private message boards, weather radios, COAD, NIXEL, planning, flood forecasting, flood warnings, additional sirens, siren maintenance)</i></p> <p>Moderate <i>(CERT)</i></p> <p>Low <i>(mobile message boards, siren ordinance)</i></p>	<p><b>Ongoing –</b></p> <ol style="list-style-type: none"> <li>2. Radios are encouraged</li> <li>3. COAD serves a role within the County</li> <li>4. NIXEL and social media is utilized by several County and municipal offices</li> <li>5. Planning efforts are beginning with various large events</li> <li>6. The County has xxx USGS gages</li> <li>8. The County has xxx outdoor warning sirens</li> <li>9. The County dispatch tests outdoor warning sirens; Gas City maintains and tests their individual systems</li> </ol> <p><b>Proposed Enhancements –</b></p> <ol style="list-style-type: none"> <li>1. Develop a list of partnering private businesses willing to display hazard related messages</li> <li>2. Continue to provide and encourage the use of weather radios</li> <li>3. Continue to support the COAD program and evaluate the CERT program to determine feasibility and potential enhancements</li> <li>4. Increase number of subscribers and followers for warnings and social media outlets</li> <li>5. Develop and distribute templates for event coordinators’ use to strengthen planning and response efforts for large events</li> <li>6. Evaluate flood forecasting abilities; determine needs for additional gages or capabilities</li> <li>7. Develop information for providing flood height warnings from the USGS to the general public</li> <li>8. Purchase and install additional outdoor warning sirens as feasible</li> <li>9. Determine if current testing system is adequate or if Gas City should be included in county system</li> <li>10. Purchase additional message boards and develop protocol</li> <li>11. Propose an ordinance establishing outdoor siren fund</li> </ol>	

MITIGATION PRACTICE	HAZARD ADDRESSED	PRIORITY	UPDATE STATUS	2021 STATUS
<p><b>Building Protection</b></p> <ol style="list-style-type: none"> <li>1. Verify practices to ensure mobile homes meet manufacturer’s minimum installation standards (2009)</li> <li>2. Protect existing critical facilities in floodplains</li> <li>3. Develop reciprocal agreements for structural inspections following hazardous events</li> <li>4. Elevate Stone Road at Stone Crest Trailer Park (2009)</li> <li>5. Review ordinances to ensure that hazard protection, especially of critical facilities, are incorporated into local requirements (shutters, bollards, etc.)</li> <li>6. Harden critical facilities, especially fire stations and schools (2009)</li> </ol> <p>(Will assist with NFIP compliance)</p>	<input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Hail/Thunder/Wind <input checked="" type="checkbox"/> Landslide/Subsidence <input checked="" type="checkbox"/> Tornado <input checked="" type="checkbox"/> Wildfire <input checked="" type="checkbox"/> Winter Storm/Ice <input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> HazMat Incident	<p>High (mobile home installation, protect existing critical facilities)</p> <p>Moderate (reciprocal agreements, elevate Stone Road)</p> <p>Low (review ordinances)</p>	<p><b>Ongoing –</b></p> <ol style="list-style-type: none"> <li>1. The County and municipalities follow the Indiana State Building Code</li> <li>2. Ordinances prohibit construction of certain facilities within the flood hazard area.</li> </ol> <p><b>Proposed Enhancements –</b></p> <ol style="list-style-type: none"> <li>1. Verify inspections are occurring with each installation</li> <li>2. Protect the facilities identified as within the SFHA</li> <li>3. Develop agreements between municipalities for post-hazard event building inspections</li> <li>4. Develop plans and elevate Stone Road to ensure ingress and egress to residents</li> <li>5. Review ordinances incorporate hazard information and requirements for protection</li> <li>6. Inventory and harden critical facilities as needed and as feasible</li> </ol>	
<p><b>Floodplain Management</b></p> <ol style="list-style-type: none"> <li>1. Encourage one or more staff for each NFIP community to become a Certified Floodplain Manager (CFM)</li> <li>2. Conduct detailed hydraulic analyses of areas with repetitive flooding problems and unnumbered Zone A streams to determine floodplain boundaries.</li> <li>3. Support FEMA approved flood depth mapping (RiskMAP) to better show the flood risk potential</li> <li>4. Update Floodplain Ordinance to include “No Adverse Impact” and/or compensatory storage language for future development in the floodplain</li> <li>5. Complete fluvial erosion hazard mapping to identify and protect critical infrastructure that may be impacted by natural stream movement</li> </ol> <p>(Will assist with NFIP compliance)</p>	<input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Hail/Thunder/Wind <input type="checkbox"/> Landslide/Subsidence <input type="checkbox"/> Tornado <input type="checkbox"/> Wildfire <input type="checkbox"/> Winter Storm/Ice <input type="checkbox"/> Dam Failure <input type="checkbox"/> HazMat Incident	<p>High (CFM)</p> <p>Moderate (detailed analyses, CFM)</p> <p>Low (RiskMAP, floodplain ordinance, fluvial erosion mapping)</p>	<p><b>Ongoing –</b></p> <ol style="list-style-type: none"> <li>1. One member at the County level is in the process of obtaining a CFM</li> </ol> <p><b>Proposed Enhancements –</b></p> <ol style="list-style-type: none"> <li>1. Encourage other NFIP staff to obtain CFM certifications</li> <li>2. Complete analyses as appropriate to determine floodplain boundaries and flood depth grid mapping to include all flood prone areas within the County.</li> <li>3. Support flood depth mapping for prioritized areas</li> <li>4. Include NAI or compensatory storage in the updated Floodplain Ordinance</li> <li>5. Complete fluvial erosion hazard mapping in prioritized areas</li> </ol>	

MITIGATION PRACTICE	HAZARD ADDRESSED	PRIORITY	UPDATE STATUS	2021 STATUS
<p><b>Safer Rooms and Community Shelters</b></p> <ol style="list-style-type: none"> <li>1. Establish safer rooms and/or community shelters in vulnerable locations (mobile home parks, critical facilities, developments without basements)</li> <li>2. Develop temporary and/or long-term shelter agreements within the County. Potential for tiered levels of shelters, domestic animal shelters, etc. especially in small communities (2009)</li> <li>3. Clearly advertise location of safe rooms and community shelters for large gatherings of people (live, work, shop, recreate, etc.)</li> <li>4. Investigate possible incentives for (private) buildings with approved safe rooms</li> </ol>	<input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature <input type="checkbox"/> Flood <input checked="" type="checkbox"/> Hail/Thunder/Wind <input type="checkbox"/> Landslide/Subsidence <input checked="" type="checkbox"/> Tornado <input type="checkbox"/> Wildfire <input type="checkbox"/> Winter Storm/Ice <input type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> HazMat Incident	<p>High <i>(vulnerable locations)</i></p> <p>Moderate <i>(shelter agreements, advertise)</i></p> <p>Low <i>(safe rooms)</i></p>	<p><b>Ongoing –</b></p> <ol style="list-style-type: none"> <li>1. Many critical facilities may have plans on where to go in the event of a hazard</li> <li>2. Shelters locations are spaced throughout the county as available and as needed</li> </ol> <p><b>Proposed Enhancement –</b></p> <ol style="list-style-type: none"> <li>1. Inventory municipal/public buildings, large employers, and vulnerable areas to determine if safest places are being utilized</li> <li>2. Continue to determine if additional shelter locations are needed</li> <li>3. Development education materials for large gatherings</li> <li>4. Investigate and consider possible incentives</li> </ol>	

MITIGATION PRACTICE	HAZARD ADDRESSED	PRIORITY	UPDATE STATUS	2021 STATUS
<p><b>Emergency Response &amp; Recovery</b></p> <ol style="list-style-type: none"> <li>1. Develop and implement a voluntary immunization program for all emergency responders, inspection staff, and families</li> <li>2. Increase supply reserves for basic personal protective equipment to be utilized following a hazard event or resulting mass casualty</li> <li>3. Construct an alternate EOC along with Central E911 (2009)</li> <li>4. Maintain the Marion dive team</li> <li>5. Review and update procedures to alert and evacuate populations (especially special needs populations) in known hazard areas (Stonecrest mobile home park, dam failure areas, Tier II areas) (2009)</li> <li>6. Utilize realistic training and exercises that stimulate response conditions and scenarios for emergency responders, decision-makers, and general public</li> <li>7. Coordinate communications, documentation, and record keeping between NFIP communities and agencies including a database of accurate and community specific information following each hazard events</li> <li>8. Maintain mobile EOC capabilities</li> <li>9. Maintain snow routes with no street parking to allow for snow removal activities</li> <li>10. Maintain District/State of Indiana tiered level snow emergencies</li> <li>11. Inventory needs for mobile data terminals in response vehicles and purchase and install as feasible</li> </ol>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Drought</li> <li><input checked="" type="checkbox"/> Earthquake</li> <li><input checked="" type="checkbox"/> Extreme Temperature</li> <li><input checked="" type="checkbox"/> Flood</li> <li><input checked="" type="checkbox"/> Hail/Thunder/Wind</li> <li><input checked="" type="checkbox"/> Landslide/Subsidence</li> <li><input checked="" type="checkbox"/> Tornado</li> <li><input checked="" type="checkbox"/> Wildfire</li> <li><input checked="" type="checkbox"/> Winter Storm/Ice</li> <li><input checked="" type="checkbox"/> Dam Failure</li> <li><input checked="" type="checkbox"/> HazMat Incident</li> </ul>	<p>High</p> <p>Low (data terminals)</p>	<p><b>Ongoing –</b></p> <ol style="list-style-type: none"> <li>1. Immunizations are provided to employees</li> <li>4. Water rescue team has been established</li> <li>6. Exercises are planned and held annually</li> <li>7. Some coordination occurs</li> <li>8. A mobile EOC has been established</li> <li>9. Snow routes exist in some municipalities</li> <li>10. State levels of snow emergencies have been adopted</li> <li>11. Some vehicles have mobile data terminals</li> </ol> <p><b>Proposed Enhancement –</b></p> <ol style="list-style-type: none"> <li>1. Provide immunizations to all County and municipal staff and extend to families</li> <li>2. Purchase additional personal protective equipment</li> <li>3. Construct and equip the new EOC</li> <li>4. Maintain water rescue team</li> <li>5. Review procedures, update as necessary, provide information to all response agencies</li> <li>6. Write exercises to include other hazard possibilities</li> <li>7. Utilize WebEOC to fully coordinate communications, documentation, and recordkeeping</li> <li>8. Maintain mobile EOC and enhance as necessary</li> <li>9. Install signage to advertise snow routes and potential for enforcement</li> <li>10. Maintain tiered snow levels, provide information to residents</li> <li>11. Purchase and install additional terminals</li> </ol>	



MITIGATION PRACTICE	HAZARD ADDRESSED	PRIORITY	UPDATE STATUS	2021 STATUS
<p><b>Geographic Information Systems</b></p> <ol style="list-style-type: none"> <li>1. Update and coordinate GIS layers with location and attributes of critical infrastructure</li> <li>2. Train GIS staff in HAZUS-MH to quantitatively estimate losses in “what if scenarios” and continue to use the most recent GIS data in land use planning efforts.</li> <li>3. Update HAZUS-MH Earthquake model with local soil data for more accurate damage estimates</li> </ol>	<input checked="" type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Extreme Temperature <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Hail/Thunder/Wind <input checked="" type="checkbox"/> Landslide/Subsidence <input checked="" type="checkbox"/> Tornado <input checked="" type="checkbox"/> Wildfire <input checked="" type="checkbox"/> Winter Storm/Ice <input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> HazMat Incident	<p>High <i>(Update attributes)</i></p> <p>Low <i>(Update HAZUS, train HAZUS)</i></p>	<p><b>Ongoing –</b></p> <ol style="list-style-type: none"> <li>1. GIS is used by several communities</li> </ol> <p><b>Proposed Enhancement –</b></p> <ol style="list-style-type: none"> <li>1. Coordinate consistent layers county-wide</li> <li>2. Additional training for GIS staff</li> <li>3. Update with local information</li> </ol>	
<p><b>Water Conservation</b></p> <ol style="list-style-type: none"> <li>1. Propose and adopt a water conservation ordinance to implement during water shortages</li> </ol>	<input checked="" type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature <input type="checkbox"/> Flood <input type="checkbox"/> Hail/Thunder/Wind <input type="checkbox"/> Landslide/Subsidence <input type="checkbox"/> Tornado <input type="checkbox"/> Wildfire <input type="checkbox"/> Winter Storm/Ice <input type="checkbox"/> Dam Failure <input type="checkbox"/> HazMat Incident	<p>Moderate</p>	<p><b>Ongoing –</b></p> <p><b>Proposed Enhancement –</b></p> <ol style="list-style-type: none"> <li>1. Adopt a County-wide Ordinance</li> </ol>	
<p><b>Land Use Planning &amp; Zoning</b></p> <ol style="list-style-type: none"> <li>1. Incorporate hazard information, risk assessment, and hazard mitigation practices into the Comprehensive Land Use Plan and Development Review to better guide future growth and development</li> <li>2. Establish overlay zones in the Zoning Ordinance to discourage development, especially critical facilities in known hazard areas or require setbacks of noncritical facilities <i>(2010)</i></li> <li>3. Encourage the use of innovative planning tools such as open space planning, cluster development, low impact development, greenways development, and conservation easements to limit development in known hazard areas.</li> <li>4. Conduct a Safe Growth Audit of development plans and codes</li> </ol>	<input checked="" type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature <input checked="" type="checkbox"/> Flood <input type="checkbox"/> Hail/Thunder/Wind <input checked="" type="checkbox"/> Landslide/Subsidence <input type="checkbox"/> Tornado <input type="checkbox"/> Wildfire <input type="checkbox"/> Winter Storm/Ice <input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> HazMat Incident	<p>Moderate <i>(incorporate information, hazard overlay, innovative planning tools)</i></p> <p>Low <i>(audit)</i></p>	<p><b>Ongoing –</b></p> <ol style="list-style-type: none"> <li>1. Hazard information has been incorporated into some areas of the Comprehensive Land Use Plan</li> </ol> <p><b>Proposed Enhancement –</b></p> <ol style="list-style-type: none"> <li>1. Increase the number of hazards considered, more definitively outline higher risk areas and those that should be avoided for future development</li> <li>2. Establish overlay zones to restrict development</li> <li>3. Encourage innovative planning tools for new developments</li> <li>4. Conduct an Audit of growth practices and plans</li> </ol>	

MITIGATION PRACTICE	HAZARD ADDRESSED	PRIORITY	UPDATE STATUS	2021 STATUS
<p><b>Power Back-Up Generators</b></p> <ol style="list-style-type: none"> <li>Inventory critical infrastructure for presence of generator and develop a prioritization of needs</li> <li>Inventory, prioritize, and retrofit public facilities and/or critical facilities with appropriate wiring and electrical capabilities for utilizing a large generator for power back up (2009)</li> <li>Secure a fuel reserve for critical infrastructure may run on power back-up for extended periods of time</li> <li>Encourage developers to bury power lines for new and retrofitted development or require designed-failure mode to allow lines to fall or fail in small sections only</li> <li>Obtain additional mobile generators for use throughout the county</li> </ol>	<input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature <input checked="" type="checkbox"/> Flood <input checked="" type="checkbox"/> Hail/Thunder/Wind <input checked="" type="checkbox"/> Landslide/Subsidence <input checked="" type="checkbox"/> Tornado <input checked="" type="checkbox"/> Wildfire <input checked="" type="checkbox"/> Winter Storm/Ice <input checked="" type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> HazMat Incident	<p>Moderate <i>(inventory presence, inventory wiring)</i></p> <p>Low <i>(fuel reserve, bury power lines, additional generators)</i></p>	<p><b>Ongoing –</b></p> <ol style="list-style-type: none"> <li>Many critical facilities have generators and fuel reserve</li> </ol> <p><b>Proposed Enhancements –</b></p> <ol style="list-style-type: none"> <li>Conduct inventory of generator and fuel capacity to determine needs for future purchases</li> <li>Inventory and prioritize critical facilities for retrofitting wiring and capabilities</li> <li>Secure a fuel reserve via contract service agreement</li> <li>Encourage developers to bury utility lines</li> <li>Obtain additional mobile generators</li> </ol>	
<p><b>Community Rating System</b></p> <ol style="list-style-type: none"> <li>Reduce flood insurance premiums through increased participation or advancement in the NFIP's CRS Program.</li> </ol> <p><i>(Will assist with NFIP compliance)</i></p>	<input type="checkbox"/> Drought <input checked="" type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature <input type="checkbox"/> Flood <input checked="" type="checkbox"/> Hail/Thunder/Wind <input type="checkbox"/> Landslide/Subsidence <input checked="" type="checkbox"/> Tornado <input type="checkbox"/> Wildfire <input type="checkbox"/> Winter Storm/Ice <input type="checkbox"/> Dam Failure <input checked="" type="checkbox"/> HazMat Incident	<p>Low</p>	<p><b>Ongoing –</b></p> <p><b>Proposed Enhancement –</b></p> <ol style="list-style-type: none"> <li>Participation from Grant County, Marion and/or Gas City</li> </ol>	

## **APPENDIX 8**

## **POTENTIAL FUNDING SOURCES**

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### **AmeriCorps**

The AmeriCorps\*State works with Governor-appointed State Service Commissions to provide grants to non-government and government entities that sponsor service programs. These organizations use their grants to engage AmeriCorps members in service to help meet critical community needs in education, public safety, health, and the environment.

**Previous Activities Funded:** Assisting disaster victims, building homes, restoring parks and other community facilities while mobilizing community volunteers.

Ms. Paula Parker-Sawyers, Exec. Director  
Office of Faith-Based & Community Initiative  
302 W Washington St. Room E220  
Indianapolis IN 46204-4701  
317.233.4273 ~ Phone  
317.233.5660 ~ Fax  
[www.state.in.us/iccsv](http://www.state.in.us/iccsv)

### **Assistance to Firefighters Grant**

The Assistance to Firefighters Grant (AFG) is a competitive grant opportunity for local fire departments and Emergency Medical Service (EMS) organizations that are not affiliated with a hospital.

**Previous Activities Funded:** The AFG funds activities such as purchasing firefighting equipment, personal protection equipment, training, firefighting vehicles, and firefighter/first responder safety projects.

<http://www.firegrantsupport.com/>

### **Challenge 21, Floodplain**

Challenge 21, the Army Corps' flood hazard mitigation and riverine ecosystem restoration initiative, will focus on more sustainable approaches. Through its focus on non-structural alternatives to flood protection, it will, where appropriate, move families and businesses out of harm's way and strive to return the floodplains of rivers and creeks to a condition where they can naturally moderate floods as well as provide other benefits to communities and the environment. Watershed by watershed, Challenge 21 builds on existing programs and initiates and expands partnerships with other Federal agencies and non-Federal national and local entities. Key Federal partners include the FEMA, the Department of Agriculture, the Department of Interior and the EPA.

**Previous Activities Funded:** A project might include the relocation of threatened homes or businesses, conservation or restoration of wetlands and natural floodwater storage areas and planning for responses and solutions to potential future floods

[http://www.americanrivers.org/site/PageServer?pagename=AMR\\_content\\_d156](http://www.americanrivers.org/site/PageServer?pagename=AMR_content_d156)

### **CHIEF Grants Service**

CHIEF Grants is a free service from CHIEF supply company. Dedicated to helping public safety professionals meet today's funding challenges, CHIEF Grants is a one-stop shop for open grants, grant writing tips, seminars, and grant news.

**Previous Activities Funded:** Various types of grants are highlighted with numerous activities funded. This a grant service, not an individual grant opportunity.

<http://www.chiefsupply.com/grants/>

### **Clean Water State Revolving Loan Fund**

Clean Water State Revolving Loan Fund (CWSRLF) programs operate much like environmental infrastructure banks that are capitalized with federal and state contributions. CWSRLF monies are loaned to communities and loan repayments are recycled back into the program to fund additional water quality protection projects. The revolving nature of these programs provides for an ongoing funding source that will last far into the future.

**Previous Activities Funded:** The CWSRF funds a broad range of projects—from wastewater systems and nonpoint source pollution control to estuary management and a range of projects focusing on water quality. Funding is typically directed to state-identified high priority projects based on several factors, including: public health protection; condition of impacted waters; and communities' regulatory compliance status.

<http://epa.gov/OW-OWM.html/cwfinance/cwsrf/basics.htm>

### **Community Development Block Grants**

Communities receiving Community Development Block Grants (CDBG) funds from the State may use the funds for many kinds of community development activities including, but not limited to property acquisition, public services, planning activities, and community development activities.

**Previous Activities Funded:** Funds have been used in Indiana for purposes such as Public facility improvements, flood and drainage facilities, Fire stations and equipment, and various community related activities and facilities.

<http://www.in.gov/ihfa/comdev/comp/manuals/im/im.htm>

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State of Indiana  
Department of Commerce/Community Development  
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Indianapolis, IN 46204-2027  
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Fax: 317-233-3597

### **Community Facilities Grants and Loans**

The Rural Housing Service (RHS) of the Department of Agriculture offers loans and grants to construct, enlarge, extend, or otherwise improve community facilities providing essential services to rural residents.

**Previous Activities Funded:** Priority for funding will be given to those projects that will enhance public safety such as fire, police, rescue, and ambulance services, and projects for health care facilities. The fire service can use the funding for fire stations, fire trucks and rescue vehicles.

[www.rurdev.usda.gov/rhs/ProgramBriefs/brief\\_cp\\_grant.htm](http://www.rurdev.usda.gov/rhs/ProgramBriefs/brief_cp_grant.htm)

### **Community Rating System**

The National Flood Insurance Program's (NFIP) Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS: (1) reduce flood losses; (2) facilitate accurate insurance rating; and (3) promote the awareness of flood insurance.

**Previous Activities Funded:** While the CRS does not provide direct funding, reductions in insurance premiums can be significant for participants.

<http://www.fema.gov/nfip/crs.shtm>

### **Conservation Reserve Program**

The Conservation Reserve Program (CRP) is a voluntary program for agricultural landowners. Through CRP, landowners can receive annual rental payments and cost-share assistance to establish long-term, resource conserving covers on eligible farmland to reduce soil erosion, and potential flood loss and damage.

**Previous Activities Funded:** Filter Strip Establishment, Wetland Restoration, Riparian Buffer Establishment

<http://www.fsa.usda.gov/dafp/cepd/crp.htm>

### **The Cora Brown Fund**

To provide for disaster-related needs that have not been, or will not be met by government agencies or any other organizations which have programs to address such needs; however, the fund is not intended to replace or supersede these programs. The fund may not be used in a way that is inconsistent with other federally mandated disaster assistance or insurance programs. Money from the fund will not duplicate assistance for which a person is eligible from other sources.

**Previous Activities Funded:** Disaster related home repair and rebuilding, services which alleviate human suffering due to disasters and disaster related unmet needs.

[http://www.federalgrantswire.com/cora\\_brown\\_fund.html](http://www.federalgrantswire.com/cora_brown_fund.html)

### **Department of Interior Rural Fire Assistance Program**

The Department of Interior (DOI) Rural Fire Assistance Program is aimed at enhancing the fire protection capabilities of rural fire districts in the wildland urban interface. The rural fire department must serve a community with a population of 10,000 or less and must have a statewide agreement with the state forester who maintains cooperative agreements with the rural fire departments or volunteer fire departments or a cooperative fire agreement with an agency in the DOI.

**Previous Activities Funded:** The program assists with training, equipment purchase, and prevention activities, on a 90/10 cost-share basis.

<http://www.nifc.gov/rfa/steps.html>

### **Direct Housing: Natural Disaster**

Funds are only available to the extent that funds are not provided by the Federal Emergency Management Agency (FEMA). For the purpose of administering these funds, natural disaster will only include those areas identified by a Presidential declaration.

**Previous Activities Funded:** To assist qualified lower income rural families to meet emergency assistance needs resulting from natural disaster to buy, build, rehabilitate, or improve dwellings in rural areas.

[http://www.federalgrantswire.com/direct\\_housingnatural\\_disaster.html](http://www.federalgrantswire.com/direct_housingnatural_disaster.html)

### **Disaster Reserve Assistance**

To provide emergency assistance to eligible livestock owners, in a State, county, or area approved by the Secretary or designee, where because of disease, insect infestation, flood, drought, fire, hurricane, earthquake, hail storm, hot weather, cold weather, freeze, snow, ice, and winterkill, or other natural disaster, a livestock emergency has been determined to exist.

**Previous Activities Funded:** This assistance is in the form of a direct payment to affected eligible landowners and is administered through the Farm Service Agency.

[http://www.federalgrantswire.com/disaster\\_reserve\\_assistance.html](http://www.federalgrantswire.com/disaster_reserve_assistance.html)

### **Disposal of Federal Surplus Real Property for Parks, Recreation, and Historic Monuments**

Surplus real property may be conveyed for public park and recreation use at discounts up to 100 percent of fair market value and for historic purposes without monetary consideration. Property conveyed for park and recreation use or historic purposes must be used for these purposes in perpetuity or be reverted to Federal ownership.

**Previous Activities Funded:** Property, either real or land, varies with time with items available for public sale, lease or extended use in perpetuity.

[http://www.federalgrantswire.com/disposal\\_of\\_federal\\_surplus\\_real\\_property\\_for\\_parks\\_recreation\\_and\\_historic\\_monuments.html](http://www.federalgrantswire.com/disposal_of_federal_surplus_real_property_for_parks_recreation_and_historic_monuments.html)

### **Emergency Conservation Program**

The United States Department of Agriculture (USDA) Farm Service Agency's (FSA) Emergency Conservation Program (ECP) provides emergency funding and technical assistance for farmers and ranchers to rehabilitate farmland damaged by natural disasters and for carrying out emergency water conservation measures in periods of severe drought.

**Previous Activities Funded:** This assistance is in the form of a direct payment to affected eligible landowners and is administered through the Farm Service Agency.

<http://disaster.fsa.usda.gov/ecp.htm>

### **Environmental Quality Incentive Program**

The Environmental Quality Incentive Program (EQIP) offers contracts with a minimum term that ends one year after the implementation of the last scheduled practices and a maximum term of ten years. These contracts provide incentive payments and cost-shares to implement conservation practices. Persons who are engaged in livestock or agricultural production on eligible land may participate in the EQIP program. EQIP activities are carried out according to an environmental quality incentives program plan of operations developed in conjunction with the producer that identifies the appropriate conservation practice or practices to address the resource concerns. The practices are subject to Natural Resources Conservation Service (NRCS) technical standards adapted for local conditions. The local conservation district approves the plan.

**Previous Activities Funded:** Cost sharing may pay up to 75 percent of the costs of certain conservation practices, such as grassed waterways, filter strips, manure management facilities, capping abandoned wells, and other practices important to improving and maintaining the health of natural resources in the area.

<http://www.nrcs.usda.gov/programs/eqip/>

### **Emergency Rehabilitation of Flood Control Works**

Assistance does not extend to major improvements of flood control or federally authorized coastal protection structures, nor to reimbursement of individuals or communities for funds expended in repair or rehabilitation efforts.

**Previous Activities Funded:** Authorized assistance includes emergency repair or rehabilitation of flood control works damaged by flood, and restoration of federally authorized coastal protection structures damaged by extraordinary wind, wave, or water action.

[http://www.federalgrantswire.com/emergency\\_rehabilitation\\_of\\_flood\\_control\\_works\\_or\\_federally\\_authorized\\_coastal\\_protection\\_works.html](http://www.federalgrantswire.com/emergency_rehabilitation_of_flood_control_works_or_federally_authorized_coastal_protection_works.html)



### **Emergency Watershed Protection Program**

The Emergency Watershed Protection Program (EWPP) work is not limited to any one set of prescribed measures. A case by case investigation of the needed work is made by NRCS.

**Previous Activities Funded:** EWPP work can include: removing debris from stream channels, road culverts, and bridges; reshaping and protecting eroded banks; correcting damaged drainage facilities; repairing levees and structures; reseeding damaged areas; and purchasing floodplain easements.

<http://www.nrcs.usda.gov/programs/ewp/questions.html>

### **Farmland Protection Program**

The Farmland Protection Program provides funds to help purchase development rights to keep productive farmland in agricultural uses. To qualify, farmland must: be part of a pending offer from a State, tribe, or local farmland protection program; be privately owned; have a conservation plan; be large enough to sustain agricultural production; be accessible to markets for what the land produces; have adequate infrastructure and agricultural support services; and have surrounding parcels of land that can support long-term agricultural production. Depending on funding availability, proposals must be submitted by the government entities to the appropriate NRCS State Office during the application window.

**Previous Activities Funded:** Working through existing programs, USDA joins with State, tribal, or local governments to acquire conservation easements or other interests from landowners. USDA provides up to 50 percent of the fair market easement value.

<http://www.info.usda.gov/nrcs/fpcp/fpp.htm>

### **Fire Prevention & Safety Grant**

The purpose of these grants is to enhance the safety of the public and firefighters with respect to fire and fire-related hazards. The primary goal of the Assistance to Firefighters Grant (AFG) Program's Fire Prevention and Safety Grant (FP&S) is to reach high-risk target groups in order to mitigate the high incidences of death and injuries. Additionally for Fiscal Year (FY) 2005 Congress amended the authorization to include funding for Firefighter Safety Research and Development. This guidance provides details for applying for either of these financial assistance instruments. There is no cost share requirement for the FY 2005 Fire Prevention and Safety grants.

**Previous Activities Funded:** Grants have been awarded to assist with the costs associated with training, equipment, vehicles for fire departments and firefighter safety research.

[http://www.firegrantsupport.com/fp\\_about.aspx](http://www.firegrantsupport.com/fp_about.aspx)

### **Flood Mitigation Assistance Program**

The Flood Mitigation Assistance (FMA) program provides funding to assist States and communities in implementing measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the National Flood Insurance Program (NFIP). There are three types of grants available under FMA: Planning, Project, and Technical Assistance Grants. FMA Planning Grants are available to States and communities to prepare Flood Mitigation Plans. NFIP-participating communities with approved Flood Mitigation Plans can apply for FMA Project Grants. FMA Project Grants are available to States and NFIP participating communities to implement measures to reduce flood losses.

**Previous Activities Funded:** A few examples of eligible FMA projects include: the elevation, acquisition, and relocation of NFIP-insured structures.

<http://www.fema.gov/fima/mitgrant.shtm>

### **Hazards Mitigation Grant Program**

Authorized under Section 404 of the Stafford Act, the Hazard Mitigation Grant Program (HMGP) provides grants to States and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the program is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster declaration. The purpose of the program is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster.

**Previous Activities Funded:** Acquisition of hazard-prone property; stormwater management, elevation of flood-prone structures, and infrastructure protection measures are all considered eligible projects and have been funded in the past.

<http://www.fema.gov/fima/mitgrant.shtm>

### **Hazardous Materials Emergency Preparedness Grant**

The Hazardous Materials Emergency Preparedness (HMEP) grant program is intended to provide financial and technical assistance as well as national direction and guidance to enhance State, Territorial, Tribal, and local hazardous materials emergency planning and training. The HMEP Grant Program distributes fees collected from shippers and carriers of hazardous materials to emergency responders for hazmat training and to Local Emergency Planning Committees (LEPCs) for hazmat planning.

**Previous Activities Funded:** These grants have been used for developing, improving, and implementing emergency plans, and training public sector employees to respond safely and efficiently to accidents and incidents involving the transportation of hazardous materials.

<http://hazmat.dot.gov/training/state/hmep/hmep.htm>

### **Indiana Family and Social Services Administration**

The Family and Social Services Administration provides services to help keep children healthy and safe and help families to self-sufficient.

**Previous Activities Funded:** The agency may provide programs related to heating/cooling of residential buildings, temporary housing, and other important contacts in the event of an emergency or disaster.

<http://www.in.gov/fssa/families/>

### **Indiana Resource Conservation & Development Districts**

The purpose of the Resource Conservation and Development (RC&D) program is to accelerate the conservation, development and utilization of natural resources, improve the general level of economic activity, and to enhance the environment and standard of living in designated RC&D areas. It improves the capability of State, tribal and local units of government and local nonprofit organizations in rural areas to plan, develop and carry out programs for resource conservation and development. The program also establishes or improves coordination systems in rural areas.

**Previous Activities Funded:** Forestry projects, wetland development, Community training projects, and other projects related to community and natural resource enhancement and protection.

<http://www.in.nrcs.usda.gov/programs/RC&D/RC&Dhomepage.html>

### **Indiana Rural Development Council**

The Indiana Rural Development Council (IRDC) is a partnership of local, state, federal, profit and not-for-profit stakeholders that serve Indiana communities. The IRDC's purpose is to coordinate efforts of citizens and governments to meet the economic and social needs of rural Indiana.

**Previous Activities Funded:** These funds will be utilized to address a variety of rural issues in the areas of economic/community development, planning, leadership, infrastructure, health, telecommunication/education, workforce development, agriculture, and rural regional development initiatives.

<http://www.in.gov/irdc/index.html>

### **Indiana State Revolving Loan Fund**

The Indiana State Revolving Fund (SRF) Loan Program provides low-interest loans to Indiana communities for projects that improve wastewater and drinking water infrastructure. The Indiana Department of Environmental Management (IDEM) and the Indiana State Budget Agency work together to administer this program and to protect public health and the environment. Recently, SRF has implemented a program to fund nonpoint source projects, as well.

**Previous Activities Funded:** Activities include Treatment plant improvements and upgrades, Riparian Buffers and Conservation Easements, and Wetland protection and restoration measures.

<http://www.in.gov/idem/srf/factsht0704.doc>

### **Indiana Transportation Enhancements Program**

Transportation enhancements (TE) are transportation-related activities that are designed to strengthen the cultural, aesthetic, and environmental aspects of the Nation's inter-modal transportation system.

**Previous Activities Funded:** The transportation enhancements program provides for the implementation of a variety of non-traditional projects, with examples ranging from Acquisition of scenic easements, landscaping and scenic beautification, and to the mitigation of water pollution from highway runoff all of which could be utilized as measures to control or mitigate flood damage.

[http://www.enhancements.org/statecontacts\\_TE.asp](http://www.enhancements.org/statecontacts_TE.asp)

### **Land and Water Conservation Fund**

The Land and Water Conservation Fund (LWCF) program provides matching grants to States and local governments for the acquisition and development of public outdoor recreation areas and facilities. The program is intended to create and maintain a nationwide legacy of high quality recreation areas and facilities and to stimulate non-federal investments in the protection and maintenance of recreation resources across the United States.

**Previous Activities Funded:** Funds have been widely utilized for land acquisition, open space/greenspace development, which can include wetland development, critical seeding areas and other projects that can reduce the impacts of flooding.

<http://www.nps.gov/lwcf/>

### **Low Interest Loan Incentives**

Loan amounts up to \$700,000 with interest rates of 2.5 percent to 3.0 percent are available to cities, towns and counties. The loan pays for the cost of remediation and/or demolition at identified brownfield sites.

**Previous Activities Funded:** Eligible activities include: soil and groundwater cleanup, demolition activities, asbestos/lead paint abatement, and additional investigations.

<http://www.idfabrownfields.com/assistance.aspx#LILI>

### **National Flood Insurance Program**

The National Flood Insurance Program (NFIP) is a Federal program enabling property owners in participating communities to purchase insurance protection against losses from flooding. This insurance is designed to provide an insurance alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their contents caused by floods. Participation in the NFIP is based on an agreement between local communities and the Federal Government that states if a community will adopt and enforce a floodplain management ordinance to reduce future flood risks to new construction in Special Flood Hazard Areas, the Federal Government will make flood insurance available within the community as a financial protection against flood losses.

**Previous Activities Funded:** Flood insurance is made available within the community as a financial protection against flood losses.

<http://www.fema.gov/nfip/intnfip.shtm>

### **Office for Domestic Preparedness Terrorism Formula Grants**

The Office for Domestic Preparedness (ODP) provides funding through the states awards to enhance the capacity of emergency responders to prevent, deter, or respond to terrorist incidents involving weapons of mass destruction. The funding is awarded to a point of contact in each state and then distributed within the state.

**Previous Activities Funded:** Activities have included training, technical assistance, equipment, planning and exercises related to domestic terrorism events.

<http://www.ojp.gov/state.htm>

### **Petroleum Remediation Grant Incentive**

Grant amounts up to \$250,000 per applicant and per funding round are available to cities, towns and counties. The grant pays for the cost of petroleum remediation at identified brownfield sites.

**Previous Activities Funded:** Eligible activities include: underground storage tank removal, Corrective Action Plan preparation, IDEM approved remediation and monitoring.

<http://www.idfabrownfields.com/assistance.aspx#PRGI>

### **Pre-Disaster Mitigation Program**

The Pre-Disaster Mitigation (PDM) program provides technical and financial assistance to States and local governments for cost-effective pre-disaster hazard mitigation activities that complement a comprehensive mitigation program, and reduce injuries, loss of life, and damage and destruction of property. FEMA provides grants to States and Federally recognized Indian tribal governments that, in turn, provide sub-grants to local governments (to include Indian Tribal governments) for mitigation activities such as planning and the implementation of projects identified through the evaluation of natural hazards.

**Previous Activities Funded:** Acquisition and/or relocation of flood-prone properties, Drainage/stormwater management projects, and hazard mitigation planning activities.

<http://www.fema.gov/fima/mitgrant.shtm>

### **Public Assistance Grant Program**

FEMA's Public Assistance (PA) Grant Program allows State and Local governments and Non-Profit Organizations to respond to disasters, to recover from their impact and to mitigate impact from future disasters. The PA Program provides the basis for consistent training and credentialing of staff who administer the program; more accessible and understandable guidance and policy for participating in the grant program; improved customer service through a more efficient grant delivery process, applicant-centered management, and better information exchange; and continuing performance evaluations and program improvements.

**Previous Activities Funded:** Debris removal from public roads and rights-of-way, Emergency protective measures including search and rescue, warning of hazards, and demolition of unsafe structures, Utility Distribution Systems, such as water treatment and delivery systems; and sewage collection and treatment facilities and public parks.

<http://www.fema.gov/rrr/pa/>

### **Purdue Cooperative Extension Service**

Purdue Cooperative Extension Service provides valuable educational materials and training programs to assist in the event of a disaster or emergency

#### **Steve Cain**

Disaster Communication Specialist

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**Previous Activities Funded:** Activities are educational in nature and not generally monetary offerings.

<http://www.ces.purdue.edu/eden/index.html>

### **Severe Repetitive Loss**

This purpose of this FEMA program is to reduce or eliminate claims under the NFIP. This program applies to residential properties covered under an NFIP flood insurance policy and has at least 4 NFIP claim payments over \$5,000 each and a cumulative amount exceeds \$20,000 OR for which 2 separate claims payments have been made with the cumulative amount of the building portion exceeding the market value of the building.

**Previous Activities Funded:** Acquisition and demolition or relocation of at risk structures and conversion of the land to open space; elevation of existing structures to at least the Base Flood Elevation (BFE); minor physical localized flood reduction projects; and dry floodproofing for historic properties only.

<http://www.fema.gov/government/grant/srl/index.shtm>

### **Staffing for Adequate Fire and Emergency Response Grants**

The purpose of the Staffing for Adequate Fire and Emergency Response (SAFER) grants is to award grants directly to volunteer, combination, and career fire departments to help the departments increase their cadre of firefighters. Ultimately, the goal is for SAFER grantees to enhance their ability to attain 24-hour staffing and thus assuring their communities have adequate protection from fire and fire-related hazards.

**Previous Activities Funded:** The SAFER grants have two activities that will help grantees attain this goal: 1) hiring of firefighters and 2) recruitment and retention of volunteer firefighters.

<http://www.firegrantsupport.com/safer/>

### **Volunteer Fire Assistance Program**

The purpose of the Volunteer Fire Assistance (VFA) Program, formerly known as the Rural Community Fire Protection (RCFP) Program, is to provide Federal financial, technical, and other assistance to State foresters to train, and equip fire departments in rural areas and rural communities to prevent and suppress fires. A rural community is defined as having 10,000 or less population. This 10,000-population limit for participation in the VFA Program facilitates distribution of available VFA funding to the most needy fire departments. The funding must be matched on a 50-50% basis by non-federal dollars or in-kind.

**Previous Activities Funded:** Purchase of Self Contained Breathing Apparatus, Protective clothing, installation of dry hydrants, and training for volunteer fire fighters.

[www.fs.fed.us/fire/planning/vfa](http://www.fs.fed.us/fire/planning/vfa)

### **Weatherization Assistance Program**

Indiana's Weatherization Assistance Program provides residential energy conservation services to the low income citizens of Indiana. Funding comes from federal sources and is allocated to Community Action Agencies (CAA) to provide services in each of Indiana's 92 counties. The CAAs use their own crews or private contractors to provide comprehensive energy conservation services.

**Previous Activities Funded:** A thorough evaluation of the structures, including the safe and efficient operation of the furnace and water heater, is included in the treatment of each home.

<http://www.in.gov/fssa/families/housing/wap.html>

### **Wetland Reserve Program**

The Wetlands Reserve Program (WRP) is a voluntary program offering landowners the opportunity to protect, restore, and enhance wetlands on their property. The NRCS goal is to achieve the greatest wetland functions and values, along with optimum wildlife habitat, on every acre enrolled in the program. This program offers landowners an opportunity to establish long-term conservation and wildlife practices and protection.

**Previous Activities Funded:** The USDA Natural Resources Conservation Service (NRCS) provides technical and financial support to help landowners with their wetland restoration efforts.

<http://www.nrcs.usda.gov/programs/wrp/>

### **Wildlife Habitat Incentive Program**

The Wildlife Habitat Incentives Program (WHIP) is a voluntary program for people who want to develop and improve wildlife habitat primarily on private land. Through WHIP USDA's Natural Resources Conservation Service provides both technical assistance and up to 75 percent cost-share assistance to establish and improve fish and wildlife habitat. WHIP agreements between NRCS and the participant generally last from 5 to 10 years from the date the agreement is signed.

**Previous Activities Funded:** Development of areas primarily targeted for wildlife habitat also serve as beneficial areas for flood mitigation activities such as wetland construction/restoration, native grass plantings, and filter area establishment.

<http://www.nrcs.usda.gov/programs/whip/>

## APPENDIX 9

## CRS CHECKLIST

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510 FLOODPLAIN MANAGEMENT PLANNING  
 CRS Checklist - from Activity Worksheet 510-1 and CRS Coordinator's Manual

CRS 10-Step Planning Process	Max. Points	Est. Points	Comments
<b>1. Organize and Prepare the Plan</b>	<b>10</b>	<b>8</b>	
<i>Supervision or direction of a professional planner</i>	2	2	<i>Sheila McKinley, CBBEL Project Manager AICP #017260</i>
<i>Planning committee of department staff</i>	6	6	<i>Table 1-1 lists Planning Committee name, title, and department/ agency represented</i>
<i>Process formally created by the community's governing board</i>	2	0	
<b>2. Involve the Public</b>	<b>85</b>	<b>55</b>	
<i>Planning process conducted through a planning committee</i>	40	40	<i>Appendix 2 contains Planning Committee meeting agendas and summaries; Planning Committee reviewed draft MHMP, attended public meeting, and assisted with local adoption</i>
<i>Public meetings held at the beginning of the planning process</i>	15	0	
<i>Public meeting held on the draft plan</i>	15	15	<i>Full draft presented to the public; draft plan made available for public review on webpage, EMA office, Planning Office</i>
<i>Questionnaires asks the public for information</i>	5	0	
<i>Recommendations are solicited from advisory groups, etc.</i>	5	0	
<i>Other public information activities to encourage input</i>	5	0	
<b>3. Coordinate with Other Agencies</b>	<b>25</b>	<b>21</b>	
<i>Review of existing studies and plans (required)</i>	3	3	<i>Conducted a Community Capability Assessment to better understand existing mitigation programs, policies, and projects</i>
<i>Invited neighboring communities and other agencies (required)</i>	1	1	<i>Appendix 3 includes the invitation sent to the surrounding County EMA Directors; IDNR and IDHS involved in planning process</i>
<i>Contacted communities and NFIP and EM agencies</i>	4	4	<i>NFIP Floodplain Administrators participated as Planning Committee members</i>
<i>NWS, ARC and others are asked how they can help community</i>	4	0	
<i>Meetings are held with agencies on mitigation strategies</i>	10	10	<i>IDHS Mitigation Officer participated in the Planning Committee meeting where Mitigation Practices were identified and implementation steps discussed</i>
<i>Draft action plan sent to agencies for comments</i>	3	3	<i>Draft MHMP made available for IDNR and IDHS to review and comment</i>
<b>4. Assess the Hazard</b>	<b>20</b>	<b>20</b>	
<i>Map of known flood hazards</i>	5	5	<i>Exhibit illustrates FIRM floodplains as well as the location of critical facilities.</i>
<i>Description of known flood hazards</i>	5	5	<i>Section 3 discusses areas with a known localized flooding issue as well as floodplains; Table shows potential losses of structures located within floodplains</i>
<i>Discussion of past floods</i>	5	5	<i>Section provides an overview of the most recent floods of note as identified by the Planning Committee, local media sources, and NCDC data; Table shows Repetitive Loss numbers; Table shows flood insurance claims</i>
<i>Describes other natural hazards (required DMA)</i>	5	5	<i>Section includes information related to Drought, Earthquake; Extreme Temperature; Flood; Hailstorm, Thunderstorm, and Windstorm; Landslide; Tornado; Winter Storm and Ice; Wildfire; Dam Failure; Hazardous Materials</i>
<b>5. Assess the Problem</b>	<b>35</b>	<b>30</b>	
<i>Summary of hazard and impact on community (required)</i>	2	2	<i>Section 3.0 includes Historic Data and Vulnerability Assessment for each hazard (Drought, Earthquake; Extreme Temperature; Flood; Hailstorm, Thunderstorm, and Windstorm; Landslide; Tornado; Winter Storm and Ice; Wildfire; Dam Failure; Hazardous Materials)</i>
<i>Procedures for warning and evacuation</i>	5	5	<i>Section 4 "Emergency Services", "Public Information", and Table 4-1 "Emergency Warning Systems" and "Emergency Response &amp; Recovery" identifies existing and proposed systems for early warning and detection</i>
<i>Impact on critical facilities and infrastructure</i>	5	5	<i>Section 3.0 includes a Vulnerability Assessment for each hazard (Drought, Earthquake; Extreme Temperature; Flood; Hailstorm, Thunderstorm, and Winter Storm and Ice; Wildfire; Dam Failure; Hazardous Materials) that specifies (where possible) the number of critical facilities that would be impacted</i>

510 FLOODPLAIN MANAGEMENT PLANNING  
 CRS Checklist - from Activity Worksheet 510-1 and CRS Coordinator's Manual

CRS 10-Step Planning Process	Max. Points	Est. Points	Comments
<i>Impact on community's economy and tax base</i>	5	0	
<i>Number and types of buildings subject to the hazards</i>	5	5	<i>Section 3.0 includes a Vulnerability Assessment for each hazard (Drought, Earthquake; Extreme Temperature; Flood; Hailstorm, Thunderstorm, and Windstorm; Landslide; Tornado; Winter Storm and Ice; Wildfire; Dam Failure; Hazardous Materials) that specifies (where possible) the number of critical facilities that would be impacted</i>
<i>Review of all flood insurance claims</i>	4	4	<i>Table list flood insurance claims</i>
<i>Natural and beneficial function of natural areas</i>	4	4	<i>Section 3 discusses the natural and beneficial function of floodplains for flood storage</i>
<i>Development, redevelopment, and population trends</i>	5	5	<i>Section 2 discusses population and demographics</i>
<b>6. Set Goals</b>	<b>2</b>	<b>2</b>	<i>Section 4.1 list goal for MHMP - to reduce social, physical, and economic losses from hazards</i>
<b>7. Review Possible Activities</b>	<b>30</b>	<b>30</b>	
<i>Preventive activities</i>	5	5	<i>Section 4.2.1 discusses existing Mitigation Practices; Table 4-1 lists proposed Mitigation Practices for Preventive</i>
<i>Property protection activities</i>	5	5	<i>Section 4.2.1 discusses existing Mitigation Practices; Table 4-1 lists proposed Mitigation Practices for Property Protection</i>
<i>Natural resource protection activities</i>	5	5	<i>Section 4.2.1 discusses existing Mitigation Practices; Table 4-1 lists proposed Mitigation Practices for Natural Resource Protection</i>
<i>Emergency services activities</i>	5	5	<i>Section 4.2.1 discusses existing Mitigation Practices; Table 4-1 lists proposed Mitigation Practices for Emergency Services</i>
<i>Structural projects</i>	5	5	<i>Section 4.2.1 discusses existing Mitigation Practices; Table 4-1 lists proposed Mitigation Practices for Structural Projects</i>
<i>Public information activities</i>	5	5	<i>Section 4.2.1 discusses existing Mitigation Practices; Table 4-1 lists proposed Mitigation Practices for Public Information</i>
<b>8. Draft Action Plan</b>	<b>70</b>	<b>60</b>	
<i>Recommendations for activities 2 of 6 categories from #7 (prioritized)</i>	10	0	
<i>Recommendations for activities 3 of 6 categories from #7 (prioritized)</i>	20	0	
<i>Recommendations for activities 4 of 6 categories from #7 (prioritized)</i>	30	0	
<i>Recommendations for activities 5 of 6 categories from #7s (prioritized)</i>	45	45	<i>Table 4-1 lists and prioritizes proposed Mitigation Practices for all 6 possible activities (Prevention, Property Protection, Natural Resource Protection, Emergency Services, Structural Projects, and Public Information); Section 5.0 includes an Implementation Plan for High Priority Mitigation Practices</i>
<i>Post-disaster mitigation policies and procedures</i>	10	10	<i>Section 6.1 recommends the DHS Director reassemble the Planning Committee following a significant hazard incident to review the effectiveness of existing Mitigation Practices and make recommendations for improvement</i>
<i>Recommendations from Habitat Conservation Plan</i>	10	0	
<i>Action items for mitigation other hazards</i>	5	5	<i>Table 4-1 includes Mitigation Practices for Earthquake; Flood; Hailstorm, Thunderstorm, and Windstorm; Tornado; Snow Storm and Ice; Dam &amp; Levee Failure; Hazardous Materials; Section 5.0 includes an Implementation Plan for High Priority Mitigation Practices</i>
<b>9. Adopt the Plan</b>	<b>2</b>	<b>0</b>	
<b>10. Implement, Evaluate and Revise</b>	<b>15</b>	<b>15</b>	
<i>Procedures to monitor and recommend revisions (required)</i>	5	5	<i>Section 6.1 includes a process to monitor, evaluate, and update the MHMP; effort to be led by EMA Director</i>
<i>Plan evaluated by same (or equally qualified) planning committee</i>	10	10	<i>Section 6.1 acknowledges that the successful implementation of the Mitigation Practices identified in this MHMP will require cooperation and participation of entire Planning Committee.</i>
<b>FLOODPLAIN MANAGEMENT PLAN</b>	<b>294</b>	<b>241</b>	
REPETITIVE LOSS AREA ANALYSIS	50	0	
HABITAT CONSERVATION PLAN	15	0	
<b>TOTAL</b>	<b>359</b>	<b>241</b>	