

Discovery Report

FEMA Region V

Licking Watershed, Ohio

HUC 05040006



FEMA



Prepared by

The Ohio Department of Natural Resources

Project Area Community List

Community Name	CID
Fairfield County	390158
Millersport	390689
Knox County	390306
Centerburg	390307
Martinsburg	390707
Licking County	390328
Alexandria	390329
Buckeye Lake	390882
Granville	390330
Hanover	390831
Hartford	390331
Heath	390332
Hebron	390333
Johnstown	390334
Kirkersville	390701
Newark	390335
Pataskala	390336
St. Louisville	390337
Utica	390338
Morrow County	390868
Muskingum County	390425
Dresden	390705
Zanesville	390427
Perry County	390778
Thornville	395419

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I. **Watershed Description**

The Licking Watershed is located in west central Ohio and has a drainage area of 780 square miles. North Fork Licking River begins near the Village of Centerburg and flows to the east and then south for a total of 43 miles before joining the South Fork Licking River. The South Fork Licking River begins near the City of Pataskala and flows east for 37 miles. The North and South Forks of the Licking River join in the City of Newark to become the Licking River. Downstream of the confluence, the Licking River flows for an additional 21 miles. Other major tributaries in the watershed are Raccoon Creek, Otter Fork Licking River, Rocky Fork and Lobdell Creek. The watershed drains a majority of Licking County and parts of Fairfield, Knox, Morrow, Muskingum and Perry Counties. The limits of the Discovery project area are presented in Figure 1. Table 1 includes the National Flood Insurance Program (NFIP) participation status of each community within the Licking River Watershed.

Discovery Map: Licking Watershed



MAP SYMBOLOGY

Flood Hazard Area
Zone A
Zone AE

CNMS Data
Validated
Requires Assessment
Not Valid

Dams
Class I Dam: greater than 50' or greater than 100 acre ft storage, or potential loss of life
Class II Dam: greater than 40' or greater than 100 acre ft storage, or 100 acre ft storage in north-south, east-west, or diagonal alignment
Class III Dam: greater than 30' or greater than 50 acre ft, or storage to be used for hydroelectricity, flood control, agriculture, recreation and livestock

WATERSHED LOCATOR

NATIONAL FLOOD INSURANCE PROGRAM

Discovery Map: Flood Risk

LICKING WATERSHED, OHIO

Drainage Area (sq. mi.)	780
Studied Streams (mi.)	490
Detailed Streams (mi.)	150
Approximate Streams (mi.)	340

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Figure 1. Project Area Map

Table 1. NFIP Participation Status

County	Community	Participating
Fairfield County	Fairfield County	Y
	Millersport	Y
Knox County	Centerburg	Y
	Knox County	Y
	Martinsburg	N
Licking County	Licking County	Y
	Alexandria	Y
	Buckeye Lake	Y
	Granville	Y
	Hanover	Y
	Hartford	Y
	Heath	Y
	Hebron	Y
	Johnstown	Y
	Kirkersville	Y
	Newark	Y
	Pataskala	Y
	St. Louisville	Y
Utica	Y	
Morrow County	Morrow County	Y
Muskingum County	Muskingum County	Y
	Dresden	Y
	Zanesville	Y
Perry County	Perry County	Y
	Thornville	N

II. Project Description and Methodology

Discovery is the process of data collection, including information exchange between all governmental levels of stakeholders, spatial data presentation, and cooperative discussion with stakeholders to better understand the area, decide whether a flood risk project is appropriate, and if so, to collaborate on the project planning in detail. At this time, Discovery processes and requirements are still being defined; however, draft guidance is available from the draft *Appendix I – Discovery (June 2011)*, the draft *Meetings Guidance for FEMA Personnel (June 2011)* and the *FY11 Discovery, Statement of Priorities (January 2011)*. In addition, there are several draft tools and templates at various stages of completion that were used to support the effort.

Region V initiated a Discovery project in July 2011 for the Licking River Watershed. The Discovery process involved coordination with watershed stakeholders, data collection and analysis, a meeting with stakeholders in the watershed, and development of recommendations for Risk MAP projects based on an analysis of data and information gathered throughout the process.

The initial phase in the Discovery process was establishing a Project Team made up of local, state, and federal agencies. The Project Team for the Licking River Watershed included representatives from:

- FEMA Region V, Risk Analysis Branch
- FEMA Region V, Floodplain Management and Insurance Branch
- FEMA Region V, Hazard Mitigation Assistance Branch
- Ohio Department of Natural Resources (ODNR)
- Ohio Emergency Management Agency (OEMA)

Project Team contact information and Project Team meeting minutes are provided in Appendix A. The Project Team worked together to compile the stakeholder list for the Licking River watershed. Discovery Meeting invitations are presented in Appendix B. A list of the contacts made during this effort, including phone logs, notes from interviews, invitation lists, etc. are included in Appendices B and C to this document.

ODNR coordinated with community officials and other watershed stakeholders through written invitations, phone calls and follow-up emails. The coordination included giving community officials information about the Discovery process. Communities were asked to identify “Areas of Concern” which could be addressed during the Discovery Meeting (mapping needs, desired mitigation projects, etc.) and added to the Discovery Geodatabase and Final Discovery Map.

The second phase of the Discovery Project was the collection of relevant tabular and spatial data for all the communities within the watershed. The data was collected through online resources, Federal and State sources, and interviews with cooperating communities. The collected data was used to evaluate both previous and current flooding concerns, while determining the vital areas requiring mapping needs. Section IV, Data Analysis, provides a more in-depth look at the collected data.

The third phase was to hold watershed-wide Discovery Meetings and facilitate discussion and data analysis of study needs, mitigation project needs, desired compliance support, and local flood risk awareness efforts. One (1) watershed-wide Discovery Meeting was held on July 14, 2011 in Newark, Ohio. The discussion was stimulated using the Discovery Geodatabase display of relevant data. Attendees, including all affected communities and selected other stakeholders, cooperatively identified possible solutions for the Areas of Concern shown on the Discovery Meeting Map. Solutions included recommendations of floodplain studies, mitigation projects, compliance issues, and ideas on how to improve the local flood risk communication programs.

Copies of the Discovery Meeting Presentations, sign in sheets, handouts, meeting notes and meeting feedback forms are presented in Appendices, C, D, E, and F, respectively.

The fourth phase of the Discovery effort involved an analysis of the data and information collected and discussed at the meeting, and recommendations as to the future relationship and activities between FEMA and the watershed communities. The Final Discovery Map, presented in Appendix G, indicates desired study areas and mitigation project locations, and the Discovery Report documents the results of data collection and conversation. If a Risk MAP project is to be initiated in this watershed, Discovery will be concluded with the finalization of a project scope and signed Project Charters, which indicate that all affected stakeholders agree to the terms of a funded project, including communication and data responsibilities.

III. Data Analysis

Discovery data collection entailed a massive collection of tabular and spatial data for all stakeholder communities from Federal, State and Local sources. A list of the data collected, the deliverable or product in which the data are included, and the source of the data is presented in Table 2. In addition, Data Analysis is divided between two sections: one section listing the data that can be used for Risk MAP products (regulatory and non-regulatory) and, one section listing the other data and information that helped the Project Team to form a more holistic understanding of this watershed.

Table 2. Data Collection for Licking Watershed

Data Types	Deliverable/ Product	Source
Mitigation Plans Status	Table in Report	FEMA Regional Office, OEMA
Mitigation Projects	Table in Report	Data.gov: FEMA Hazard Mitigation Program Summary, OEMA
Repetitive Loss	Table in Report	Community Information System (CIS), OEMA
Declared Disasters	Discovery Maps	Data.gov: FEMA Disaster Declarations Summary
Past flood claims and repetitive loss properties	Table in Report	FEMA R5 and/or ODNR
HUC-8 Watershed	Discovery Map Geo-Database	USGS National Hydrography Dataset (NHD)
HUC-12 Watersheds	Discovery Map Geo-Database	National Resource Conservation Service (NRCS)
Jurisdictional Boundaries	Discovery Map Geo-Database	FEMA and ODNR
State lands	Discovery Map Geo-Database	Ohio Department of Natural Resources (ODNR)
Federal lands	Discovery Map Geo-Database	USGS National Atlas
Transportation Major and Minor	Discovery Map Geo-Database	FEMA
Stream lines	Discovery Map Geo-Database	National Hydrography Dataset (NHD) and FEMA
Study Needs	Discovery Map Geo-Database	Coordinated Needs Management System (CNMS)
Topographic data	Discovery Map Geo-Database	Ohio Statewide Imagery Program (OSIP)
HAZUS - Average Annualized Loss (AAL)	Discovery Map Geo-Database	STARR
Local mitigation plans	Discovery Map Geo-Database	OEMA
State mitigation plans	Discovery Map Geo-Database	ODPS - Ohio Emergency Management Agency (OEMA)
Regional flood control structures	Discovery Map Geo-Database	Ohio Department of Natural Resources (ODNR) and FEMA
Stream Gages	Discovery Map Geo-Database	U.S. Geological Survey (USGS)
Flooded Structures	Discovery Map Geo-Database	Ohio Department of Natural Resources (ODNR)
Effective study data	Discovery Map Geo-Database	FEMA's County DFIRM Data
Orthophotography	Discovery Map Geo-Database	Ohio Statewide Imagery Program (OSIP)
Contacts	Excel spreadsheet	Local websites, State/FEMA updates

i. Data that can be used for Flood Risk Products

Topographic and Imagery Data

As shown on the Final Discovery Map, LiDAR elevation data and digital orthophotography is available for the project area provided by the Ohio Geographically Referenced Information Program (OGRIP), as part of the Ohio Statewide Imagery Program (OSIP). The goal of OSIP I was to develop and maintain a seamless statewide base map. OSIP is an initiative partnered by several State Agencies (i.e. ODOT, ODNR) through OGRIP. Data from this project forms the foundation of the statewide base map, and was developed primarily to support multi-use applications, including homeland security, emergency management, economic development, and the business of government. The digital orthophotography consists of MrSID Images produced at 1-foot pixel resolution at a 30:1 compression ratio. The LiDAR elevation data consists of Digital Elevation Model (DEM) raster tiles acquired to meet +/- 1-foot vertical accuracy. This is suitable for rectification of digital orthophotography and for the creation of 2- and 5-foot contours (with the addition of 3D compiled breaklines). OSIP products within the Licking River Watershed were collected during leaf-off conditions between 2006 and 2008. In February 2011, Ohio initiated a continuation of the OSIP program. OSIP II imagery will be acquired beginning in spring 2011 and continuing through 2014. For OSIP II county specific acquisition information as of May 9, 2011, see Appendix H.

USGS Gages

ODNR has identified several USGS stream gages in the watershed. The locations of the gages are shown on the Discovery Map and a summary is presented in Table 3.

Table 3. USGS Gages

Gage Number	Station Name and Location	Years of Record (Peaks)
03144816	South Fork Licking River at Kirkersville OH	2
03147500	Licking River bl. Dillon Dam near Dillon Falls OH	69
03145000	South Fork Licking River near Hebron OH	51
03145173	South Fork Licking River at Heath OH	UA*
03145534	Raccoon Cr. bl. Wilson Street at Newark OH	UA*
3146405	North Fork Licking River at Ohio Street, Newark OH	2
3146500	Licking River near Newark OH	70
3146402	N. Fk. Licking River at E. Main St. at Newark OH	UA*
03145483	Raccoon Creek near Granville OH	2
3146277	North Fork Licking River at Newark OH	2
3146000	North Fork Licking River at Utica OH	24

**Peak gage data was unavailable online.*

Average Annualized Loss (AAL) Data

FEMA has conducted a Level 1 Hazus flood analysis to determine average annualized losses (AAL) for the project area. This analysis was based on USGS 30-meter DEM data and Hazus software default inventory data. The Hazus riverine hydrology analysis used default USGS regression equations to estimate the peak flows for selected return periods and the USGS topographic data to conduct normal depth calculations for flood depth grids. The loss estimation for the AAL data was then conducted to produce loss calculations at the U.S. census block level.

The AAL data is symbolized on the Discovery Map as varying levels of risk. During the Discovery meeting, the Level 1 analysis results will be validated by stakeholders to identify potential sites for Refined Analyses.

ii. Other Data and Information

Mitigation Plans/Status

Hazard Mitigation Plans (HMPs) are prepared to assist communities to reduce their risk to natural hazard events. The plans are used to develop strategies for risk reduction and to serve as a guide for all mitigation activities in the given county or community. The available HMPs obtained and reviewed for this Discovery Project are presented in Table 4.

Table 4. Hazard Mitigation Plan Status

County/Community	Hazus	Hazard Mitigation Plan	Issue Date	Expiration Date
Fairfield County	N	Y*	11/7/2006	11/7/2011
Knox County	N	Y*	12/22/2005	12/22/2010
Licking County	N	Y*	3/19/2004	3/19/2009
Morrow County	N	Y*	1/6/2006	1/6/2011
Muskingum County	N	Y*	2/22/2005	2/22/2010
Perry County	N	Y*	11/3/2005	11/3/2010

**Hazard Mitigation plan is expired.*

Critical facilities are the facilities that can impact the delivery of vital services, cause greater damages to other sectors of a community, or put special populations at risk. The assessment of the flood risk posed to critical facilities within the watershed is an important aspect of the HMPs. Critical facilities that are located within the 1-percent-annual-chance floodplain were quantified and identified as at-risk structures. The exact number of critical facilities that are considered at-risk is not quantifiable due to the limited detail presented in the HMPs. The number of critical facilities estimated to be within the 1-percent-annual-chance floodplain was determined by overlaying Hazard Maps included in the HMP's with the latest flood hazard data. However, the risk of flood damage is limited by the detail and accuracy of the most recent flood map.

A repetitive loss structure is a term associated with the National Flood Insurance Program (NFIP). For Flood Mitigation Assistance (FMA) program purposes, a repetitive loss structure is one that is covered by a flood insurance contract under the NFIP, that has suffered flood damage on two or more occasions over a 10-year period, ending on the date when a second claim is made, in which the cost to repair the flood damage, on average, equals or exceeds 25% of the market-value of the structure at the time of each flood loss event. In terms of the Community Rating System (CRS) of the NFIP, a repetitive loss property is any property, which the NFIP has paid two or more flood claims of \$1,000 or more, in any given 10-year period since 1978. A repetitive loss structure is important to the NFIP, since structures that flood frequently put a strain on the flood insurance fund. It should also be important to a community because of the disruption and threat to residents' lives by the continual flooding.

Specific details regarding repetitive loss structures within the floodplain were not made available in the available HMPs. The locations of repetitive loss structures presented on the Discovery Map were determined by rectifying the HMP's Hazard Maps to the Discovery Map's base map data. The exact locations and numbers of repetitive loss structures have been summarized with caution due to the lack of detail in the HMPs and Hazard Maps. Areas that have suffered multiple repetitive losses are some of the most important areas of mitigation interest.

Table 5: Number of Repetitive Loss Structures by community

Community	County	# Rep Loss Structures
Fairfield County	Fairfield County	11
Millersport	Fairfield County	0
Centerburg	Knox County	0
Knox County	Knox County	0
Martinsburg	Knox County	0
Licking County	Licking County	9
Alexandria	Licking County	2
Buckeye Lake	Licking County	0
Granville	Licking County	0
Hanover	Licking County	0
Hartford	Licking County	0
Heath	Licking County	5
Hebron	Licking County	15
Johnstown	Licking County	0
Kirkersville	Licking County	0
Newark	Licking County	2
Pataskala	Licking County	2
St. Louisville	Licking County	0
Utica	Licking County	0

Table 5(Continued): Number of Repetitive Loss Structures by community

Community	County	# Rep Loss Structures
Morrow County	Morrow County	0
Muskingum County	Muskingum County	41
Dresden	Muskingum County	0
Zanesville	Muskingum County	5
Perry County	Perry County	0
Thornville	Perry County	0

Numerous locations of roads overtopping during flood events were identified during the data collection and Discovery Meeting process.

Numerous dams exist within the watershed, but are not mentioned in the HMPs as flood control structures. According to the ODNR database, two (2) Class I dams are located within the watershed and owned/operated by state or federal agencies.

The overall goals of the reviewed HMP’s were found to be consistent; however, specific methods for implementation of these goals and locations of specific projects were not readily available. These goals include:

- Educate the citizens of each county to increase awareness of flooding and where to seek safety during flood events
- Provide adequate shelters where citizens can seek safety from severe weather and flooding
- Improve the warning systems and radio communications throughout the county
- Expedite the clean up process through coordination and equipment acquisition
- Update countywide NFIP maps
- Purchase or flood proof repetitive loss structures
- Develop map of infrastructure concerns

Some of the county’s/community’s HMPs included the locations and number of repetitive loss structures while other plans left this information out. This inconsistency in information holds true with the location and number of critical facilities found within the 1-percent-annual-chance floodplain.

Successful Mitigation Projects

Existing mitigation projects identified by the communities are presented on the Discovery Map. Since 2003, City of Pataskala was assisted by the Licking County Planning Department with a buyout of a repetitive loss structure. These types of projects are continuously being reviewed for implementation in Licking County regardless of jurisdiction.

The South Licking Watershed Conservancy District has a proposed Flood Mitigation Project to mitigate flooding event effects on interstate commerce highway traffic as well as travelers and commuters. The proposed project would intercept flood flows up to the 1% annual chance (or 100- year) flood event in the South Fork Licking River in the Buckeye Lake region, and would contain flood flows in a dry dam reservoir north of Interstate 70, south of US 40, and west of State Route 37. The flood flows would be metered into a bypass channel north of I-70 at an established rate so as not to overtop the levees downstream in Newark. The bypass channel would continue to the east along the north side of I-70, converge with the ODNR Sellers Point channel project, and continue on to US Route 40, east of State Route 79.

Coordinated Needs Management Strategy (CNMS) and NFIP Mapping Study Needs

Analysis of the CNMS data for the Licking River Watershed is nearly complete. Remaining counties will be completed in 2012. Analyzed studies have been identified as “VALID” or “UNVERIFIED”. The current CNMS geospatial data is presented on the Final Discovery Map.

Community Rating System (CRS)

The Licking County (Unincorporated) is the only community in the Licking River Watershed that participates in the CRS program.

Levees

No levees have been identified within the Licking River Watershed within FEMA's Mid-Term Levee Inventory database

Floodplain Management/Community Assistance Visits

FEMA uses a number of key tools to determine a community's compliance with the minimum regulations of the National Flood Insurance Program. Among them are Community Assistance Visits (CAVs), the Letter of Map Change (LOMC) process, and Submit-for-Rates. These tools help assess a community's implementation of their Flood Damage Reduction Regulations and identify any floodplain management deficiencies and violations. The CAV is a visit to a community by a FEMA staff member or staff of a state agency on behalf of FEMA that serves the dual purpose of providing technical assistance to the community and assuring that the community is adequately enforcing its floodplain management regulations. Potential violations may be identified during the CAV visit as a result of touring the floodplain, inspecting community permit files, and meeting with local appointed and elected officials. For most recent CAV information, see Table 6.

Active CAV's are the communities that are currently going through the CAV process. Communities that have gone through a CAV and have provided all the necessary information to show they are in compliance are listed as Closed. FEMA CAV's can be indicative of unresolved issues and has been turned over to FEMA for follow up and possible enforcement action against the community if the outstanding issues are not resolved. Communities with FEMA referred CAV's include the Villages of Millersport, Alexandria and Muskingum County.

Violations can also be discovered when LOMR-F applications depict a non-compliant structure based on elevation data; or can be found through Submit-for-Rate requests, which occur when a structure applies for flood insurance but has been identified as being two or more feet below Base Flood Elevation (BFE). Elevation comparisons identified through LOMR-F applications and Submit-for-Rates imply structures were not built compliantly.

Communities with Submit-for-Rate issues include Fairfield, Knox, Licking and Muskingum Counties and cities of Newark and Pataskala and the Village of Buckeye Lake.¹ If administrative problems or potential violations are identified, the community will be notified and given the opportunity to correct those administrative procedures and remedy the violations to the maximum extent possible within established deadlines. FEMA or the state will work with the community to help them bring their program into compliance with NFIP requirements. In extreme cases where the community does not take action to bring itself into compliance, FEMA may initiate an enforcement action against the community. No RiskMAP needs regarding compliance were identified.

Table 6: Community Assistance Visit status by community

County	Community	CID	Recent CAV date	CAV STATUS*
Fairfield County	Fairfield County	390158	2/11/1997	C
	Millersport	390689	-	F
Knox County	Centerburg	390306	12/15/1995	-
	Knox County	390307	3/13/2001	C
	Martinsburg	390707	NP	NP
Licking County	Licking County	390328	3/29/2005	C
	Alexandria	390329	11/22/1993	F
	Buckeye Lake	390882	5/31/2001	C
	Granville	390330	1/25/1995	-
	Hanover	390831	-	-
	Hartford	390331	5/16/2002	C
	Heath	390332	1/22/1998	C
	Hebron	390333	3/28/1994	-
	Johnstown	390334	9/22/2009	C
	Kirkersville	390701	12/23/1994	-
	Newark	390335	7/15/2011	C
	Pataskala	390336	6/19/2003	A
	St. Louisville	390337	-	-
Utica	390338	12/1/1998	-	

*A= Active, C= Closed, F= Referred to FEMA, NP = Non Participating

¹ This list may not encompass all communities within the watershed with violations. Similarly, communities may have additional violations not addressed above

Table 6 (Continued): Community Assistance Visit status by community

County	Community	CID	Recent CAV date	CAV STATUS*
Morrow County	Morrow County	390868	6/26/2001	C
Muskingum County	Muskingum County	390425	5/17/2005	F
	Dresden	390705	-	-
	Zanesville	390427	5/3/1996	C
Perry County	Perry County	390778	5/15/1995	-
	Thornville	395419	-	-

*A= Active, C= Closed, F= Referred to FEMA, NP = Non Participating

Regulatory Mapping

Licking River Watershed communities have all had recent countywide map updates as part of FEMA’s Map Modernization Program. The effective dates of the most recent countywide projects are presented on the Discovery Map and below in Table 7. The effective data is a combination of both detailed and approximate analysis with varying vintage dates.

Table 7. Map Modernization Activity

County	Status	Effective Date
Fairfield County	Preliminary	1/6/2012
Knox County	Effective	7/7/2009
Licking County	Effective	5/2/2007
Morrow County	Effective	6/2/2009
Muskingum County	Effective	7/6/2010
Perry County	Effective	4/18/2011

IV. Risk MAP Needs

The results of the data collection and analysis were thoroughly discussed at the Discovery Meeting. The following sections include issues and situations that exist in the Licking River Watershed communities that can be considered Risk MAP Needs, to be addressed with Risk MAP projects. Details and background on all issues can be found in the interview notes, meeting notes, and other files included in the appendices.

i. Floodplain Studies

All of the counties located in the Licking River Watershed have undergone recent countywide DFIRM projects; however, not all of these projects included new Zone A studies and some approximate flood hazards were digitally converted.

As shown on the Final Discovery Map, recent LiDAR and imagery data meeting FEMA’s Guidelines and Specifications have been developed for the entire Discovery Project Area.

As shown on the Final Discovery Map, numerous study reaches have been classified as “UNVERIFIED” during the CNMS process

At the Discovery Meeting, several areas were identified by community officials as needing an updated detailed or approximate study.

Based on the results of the Stakeholder Coordination, Data Analysis and Discovery Meeting, proposed Study Areas in the Licking River Watershed have been identified in Table 8. The specific locations of these Study Areas are presented on the Final Discovery Map. A complete list of mapping needs is located in Appendix G.

Table 8. Mapping Needs

FLOODING SOURCE	STUDY LENGTH (miles)	STUDY TYPE	PRIORITY
South Fork Licking River	36.42	Redelineated	Very High
Timber Run	5.92	Updated Approximate	High
Licking River	6.14	Redelineated	Medium
North Fork Licking River	6.25	Redelineated	Medium
Licking River	4.00	Redelineated	Medium
Log Pond Run Diversion Channel	1.77	Redelineated	Medium
Ramp Creek	2.02	Redelineated	Medium
Raccoon Creek	27.85	Redelineated	Medium
North Fork Licking River	12.93	Redelineated	Medium
Log Pond Run	2.60	Redelineated	Medium
Clear Fork Licking River	7.64	Redelineated	Medium
Log Pond Run	2.43	Redelineated	Medium
Sharon Valley Run	1.93	Updated Detailed	Medium
North Fork Licking River	1.65	Redelineated	Medium
Bartlett Run	4.81	Updated Approximate	Medium

ii. Mitigation Projects

Four potential mitigation projects were identified by the communities, including:

- Repetitive flooding on Bartlett Run (Licking County)
- Culvert failure on Barkers Run Bridge over Bartlett Run (Licking County)
- Culvert failure on Whites Rd. Bridge over Timber Run (Licking County)
- Newark officials were worried about levee de-accreditation.

Other areas of potential mitigation interest were also obtained from the local officials and those are in Table 9.

Table 9: Areas of Mitigation Interest (AOMI)

Community	County	Location	Flooding Source	Comments
Licking County	Licking County	Limit of Study on Bartlett Run	Bartlett Run	Repetitively Flooded
Licking County	Licking County	Barkers Run Bridge	Bartlett Run	Culvert Failure
Licking County	Licking County	Whites Road Bridge	Timber Run	Culvert Failure
Newark	Licking County		Licking River	Levee De-Accreditation

iii. Compliance

While communities have referred CAV’s no Risk MAP needs regarding compliance issues were identified.

iv. Communications

Invitations to the Discovery meeting were sent on June 14, 2011 to the identified stakeholders within Licking River watershed. The stakeholders were all interested in learning more about how to provide flood risk information to residents. Community representatives indicated the need to be informed of the results of the Discovery process and opportunities for public input during the process. The compilation of all the information and data gathered during the Discovery process was provided to the Licking River watershed stakeholders on December 1, 2011.

v. Close

Community Stakeholders were interested in learning about the Discovery process and Risk MAP and how they can begin to develop resiliency to flood events. They identified several areas for map updates and areas in which they could use additional FEMA support. The information gathered in the Discovery process provided invaluable data for analysis and identifying the most flood-prone and at-risk areas. Local officials will now be more aware of risks in their area; therefore, state and federal agencies will be able to focus their resources on the most feasible projects. The local officials in the Licking River Watershed would benefit from the implementation of Risk MAP projects.

vi. Appendix - Discovery Files

The Discovery Report appendices are stored digitally under their respective folders on the FEMA Mapping Information Platform (MIP).

The Discovery Report appendices the Discovery GIS Geodatabase are also available for download from the following FTP site:

ftp://ftp.dnr.state.oh.us/Water/Public/Risk_MAP/Discovery/LickingWS/

Appendix A - Project Team Contact Information & Meeting Minutes

Appendix B - Stakeholder Contact Information & Meeting Invitations

Appendix C - Discovery Meeting Presentations

Appendix D - Discovery Meeting Sign-In Sheets & Handouts

Appendix E - Discovery Meeting Notes & Comments

Appendix F - Discovery Meeting Participant Feedback

Appendix G - Discovery Maps & Mapping Needs

Appendix H - OSIP II Update