

# Discovery Report

FEMA Region X

Upper Henrys Watershed, Idaho



# FEMA

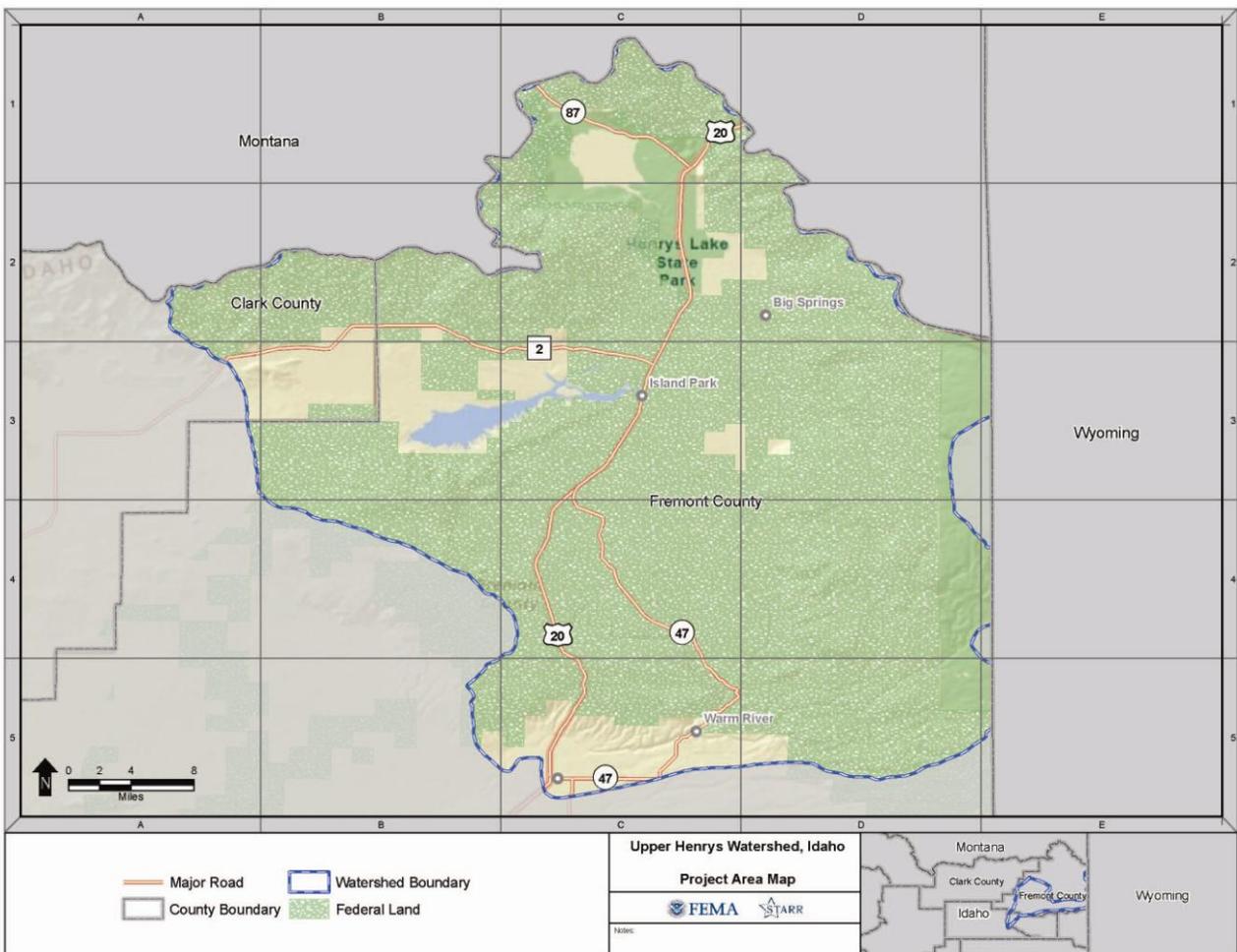
Prepared by



# I. Watershed Description

The Henrys River watershed is located in northeast Idaho, adjacent to the state borders of Wyoming and Montana. The US Geological Survey (USGS) divides the Henrys River into two hydrologic units: the Upper Henrys and the Lower Henrys. The Upper Henrys River is roughly 82 miles long with a watershed area of 1,094 square miles, beginning at the mouth of Henrys Lake located west of Targhee Pass, and draining the northeast corner of the Snake River Plain down to the city of Ashton. The majority of the watershed consists of federal lands managed by the U.S. Forest Service (USFS) and contains a mixture of pasture fields and forested mountains. Two reservoirs exist in the basin: Henry’s Lake and Island Park, which are used to irrigate pasture lands extending outside the watershed. National Flood Insurance Program (NFIP) participants in the Upper Henrys Watershed include Fremont and Clark Counties. There are no tribal areas within the watershed.

**Map 1: Image of Upper Henrys Watershed Project Area Map (full size maps in appendix)**



## 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 At this time, Discovery processes and requirements are still being defined; however, draft guidance is available from the draft *Appendix I – Discovery (fall 2010)*, and the draft *Meetings Guidance for FEMA Personnel (October 2010)*. In addition, there are several draft tools and templates at various stages of completion that were used to support the effort.

Region X initiated an extensive Discovery project in October 2010, with the Discovery of 24 watersheds/project areas in Idaho, Oregon, Washington, and Alaska, involving almost 200 communities. Essentially a pilot project for the Discovery process itself, RX Discovery involved data collection, community interviews, a meeting with stakeholders in the watershed, and development of recommendations based on an analysis of data and information gathered throughout the process.

**Figure 1. Data Sources for Region X Discovery (project-specific data sources in Appendix)**

Alaska State Geospatial Data Clearinghouse	FEMA Regional Office	National Oceanic and Atmospheric Administration (NOAA)
Oregon Department of Transportation	FEMA Map Service Center	NOAA Fisheries Service
Idaho Department of Transportation	FEMA Publications	NOAA National Geophysical Data Center
Idaho State Geospatial Data Clearinghouse	FEMA Community Information System	U.S. Army Corps of Engineers National Levee Database
Washington State Department of Transportation	FEMA Coordinated Needs Management System (CNMS)	U.S. Census Bureau
Community data, where available	FEMA HAZUS	U. S. Census - TIGER
Local, Regional, State website search	FEMA RX Inventory	U.S. Department of Agriculture
Developed based on community interview/meeting	FEMA Legacy Data	U.S. Fish and Wildlife Service
STARR	Data.gov	U.S. Geologic Survey
ESRI	National Atlas of the United States	

The Region X Discovery data collection entailed a massive collection of tabular and spatial data for all communities from Federal and State sources, as well as information collected through interviews with each community. The tabular data file in the Appendix provides detailed information about the data and its use in Discovery for this specific watershed. Data was used primarily in two ways – tabular data was documented on a Community Fact Sheet,

and spatial data was included in the Discovery Geodatabase, and is displayed on the Discovery maps, where appropriate. Full-sized Discovery maps are included in the appendix.

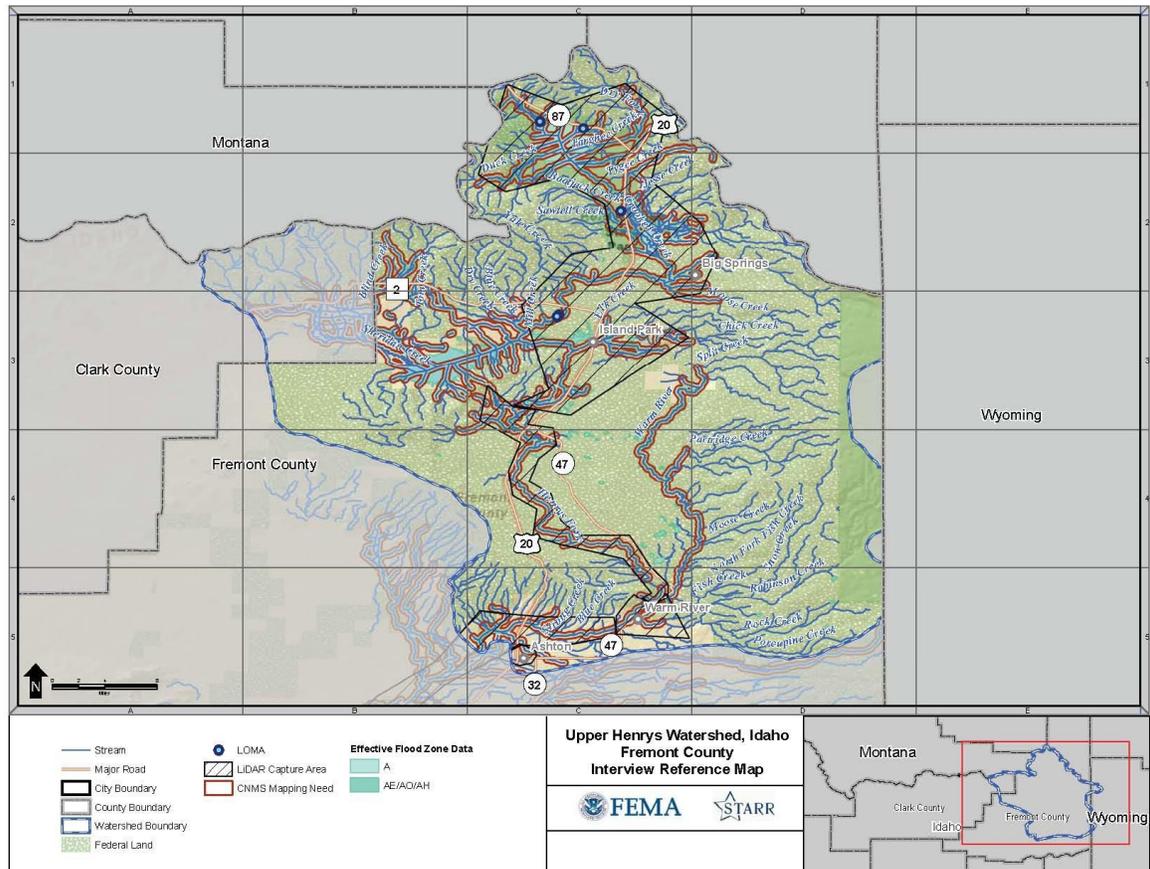
**Figure 2. Fact Sheet, page 1, for Fremont County, Upper Henrys Watershed (tabular data in appendix)**

FEMA RX Discovery: Teton/Lower Henrys/Upper Henrys Watersheds Fact Sheet for Fremont County, Idaho		Page 1	
<b>FEMA Community Identification (CID) number:</b> 160061			
<b>Effective Flood Insurance Study (FIS) and/or Flood Insurance Rate Map (FIRM) (FEMA Map Service Center)</b>			
Effective Date:	FIS dated 3/18/91	Last Community Meeting:	4/23/1990
Level of Study:	Limited Detail and Approximate Riverine		
<b>Floodplain Management Program (FEMA Community Information System)</b>			
Last Community Assistance Visit/Contact:	04/14/2005	Variances:	0
<b>Community Rating System (CRS) Status (FEMA CRS Publication, October 2010):</b> Not Participating			
<b>Demographics (U.S. Census, Year 2000 Data Collection)</b>			
Population:	11,819	<b>Social Characteristics</b>	
Median Age:	32	Non-English Speakers:	11%
Elderly (65+):	12%	High School+ Education:	80%
Native:	1%	Bachelors+ Education:	12%
<b>Industrial (U.S. Census, Year 2000 Data Collection)</b>			
Population in labor force:	63%	Median income:	\$33,424
Top 5 Industries:	16%	Educational and health services	
	13%	Manufacturing	
	12%	Retail	
	11%	Agriculture, forestry, fishing and hunting, and mining	
	8%	Arts, entertainment, recreation, accommodation and food services	
<b>Presidentially Declared Disasters (FEMA Region X)</b>			
Flood-Related Countywide Total (Coastal/Severe Storms, Flooding, Land/Mudslides):	2		
Other Hazards:	None		
<b>Insurance (FEMA Community Information System)</b>			
Total Policies:	15	Total Premiums:	\$ 14,442
A Zone Policies:	8	Total Coverage:	\$ 3,868,200
V Zone Policies:	0		
<b>Mitigation Plans (FEMA Region X, January 2011)</b>			
Fremont County Hazard Mitigation Plan	Effective:	12/18/2008	
	Expires:	12/17/2013	
Idaho State Hazard Mitigation Plan	Effective:	11/02/10	
	Expires:	11/02/13	
<b>Mitigation Projects (FEMA, data.gov):</b> None Identified			
<b>Levees and Other Flood Control Structures (USACE Levee Databases, aerial photo review):</b> None Identified			
<b>Environmentally Sensitive Areas (FEMA RX, State and local data)</b>			
Endangered/Critical Species:	None Identified		
Wetlands/Shorelines:	None Identified		
CoBRAs and OPAs:	None Identified		
<b>Tribal Areas (Bureau of Land Management):</b> None Identified			

The second phase of the Region X Discovery effort involved a review of the collected data with community officials through a phone interview, and a request for additional information. Prior to the interview, community officials received information about the Discovery process, and a Fact Sheet and Interview Reference Map for their community. Communities were asked to identify “Areas and Points of Concern” based on their local knowledge and analysis of the data shown on the map. The Areas and Points of Concern

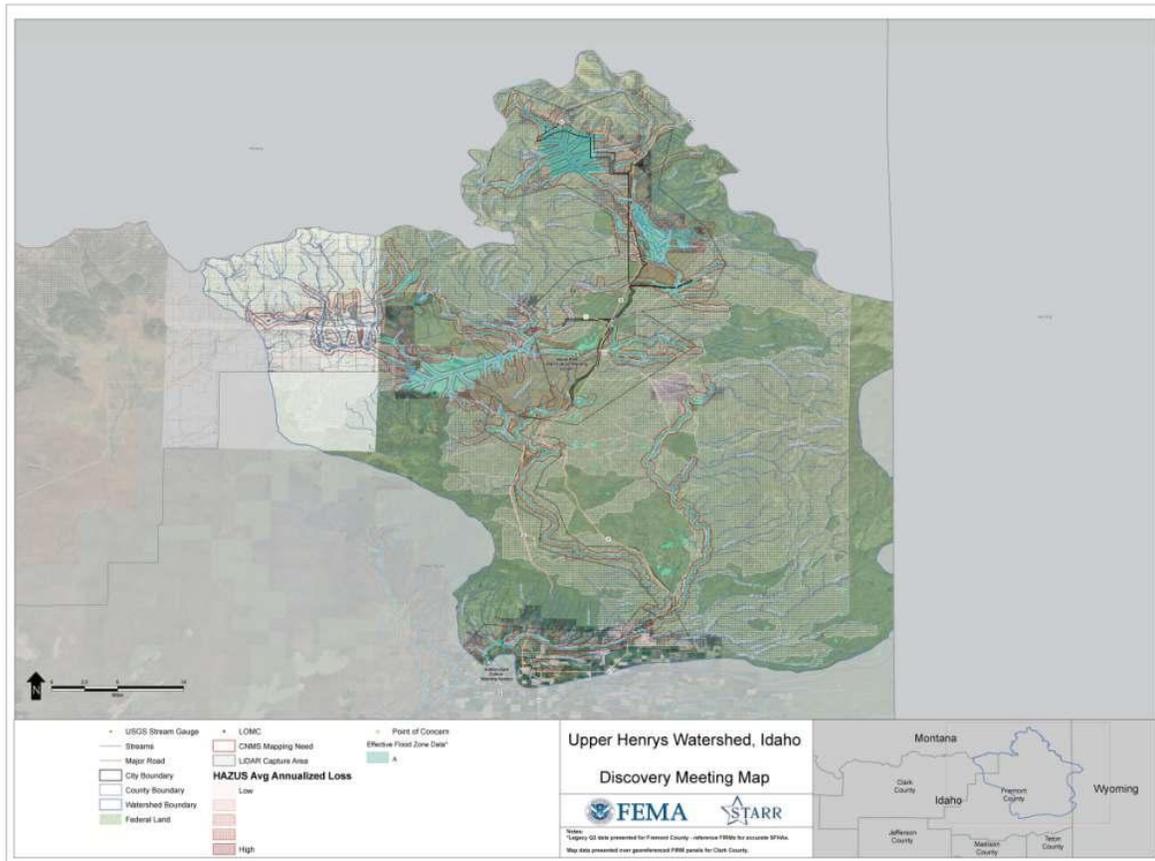
(mapping needs, desired mitigation projects, etc.) were documented in the Discovery Geodatabase and discussed during the Discovery Meeting.

**Map 2. Image of Interview Reference Map for Fremont County, Upper Henrys Watershed**



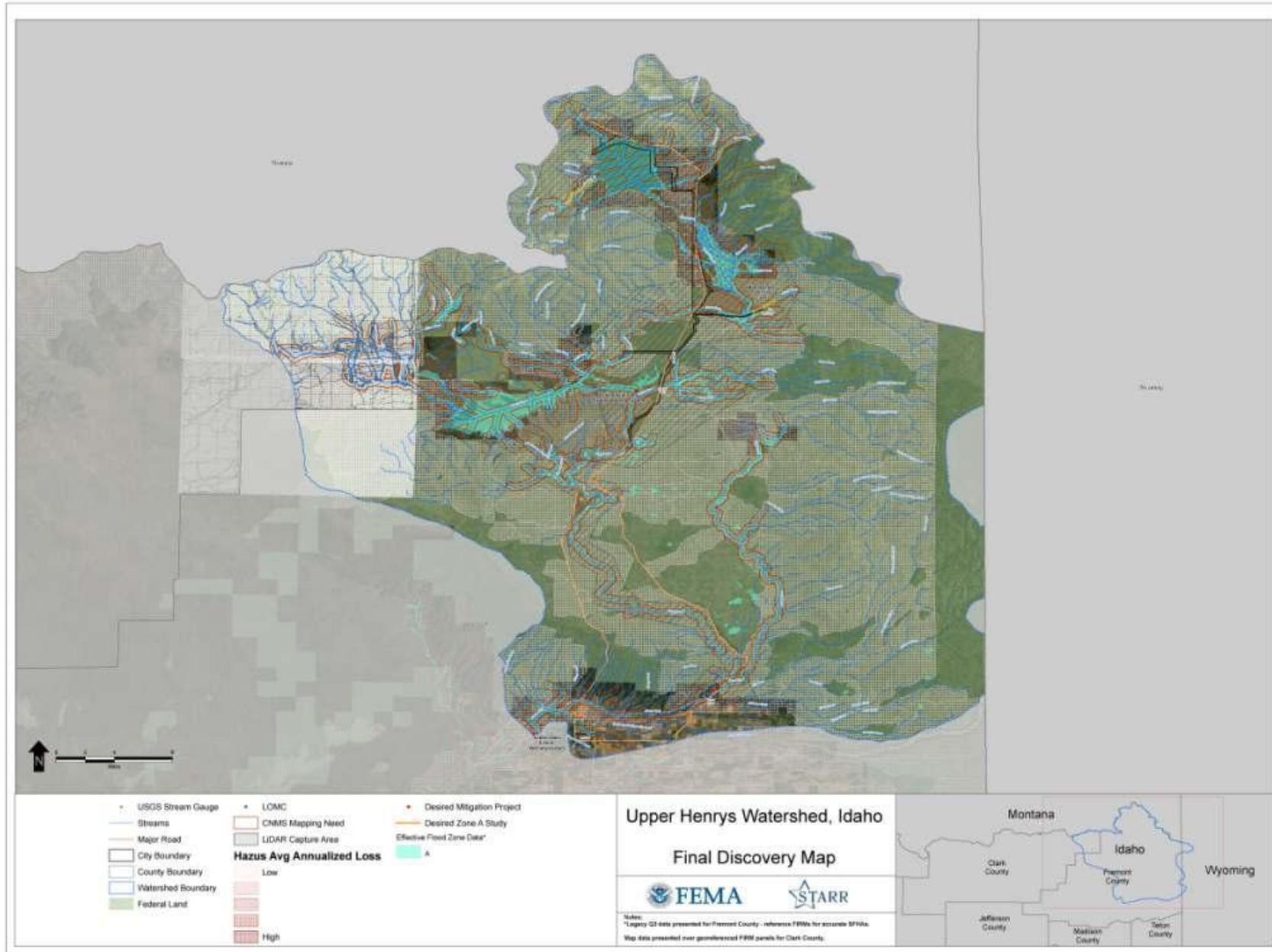
The third step was to hold a watershed-wide Discovery Meeting and facilitate discussion and data analysis of study needs, mitigation project needs, desired compliance support, and local flood risk awareness efforts. The discussion was stimulated using the Discovery Geodatabase display of relevant data. Attendees, including all affected communities and selected other stakeholders, cooperatively identified possible solutions for the Areas and Points 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.

**Map 3. Image of the Upper Henrys Watershed Discovery Meeting Map**



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 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.

Map 4. Image of Upper Henrys Watershed Final Discovery Map



### III. Risk MAP Needs

The results of the data collection and interviews were thoroughly discussed at the Discovery Meeting. The following sections include issues and situations that exist in the Upper Henrys 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 appendix.

#### i. Floodplain Studies

Fremont County’s Flood Insurance Study (FIS) and Flood Insurance Rate Map (FIRM) were last updated in 1991 and include limited detailed and approximate analyses. A FIS has not been prepared for Clark County, as it includes only approximate analyses. Clark County’s last FIRM panel was updated in 1984. The last community meeting in the watershed was a Final Meeting held in April 1990 in Fremont County.

The Final Discovery Map should be referenced to view spatial data that may be indicative of study needs. The CNMS data suggested that a number of flooding sources in the watershed should be updated, particularly the Henrys Fork and its main tributaries, and the Warm River. No claims have been made in the B, C, or X zones in the Upper Henrys Watershed during the communities’ participation in the NFIP. In addition, no repetitive losses were identified in the watershed. There have been only a few scattered LOMAs issued across the watershed, none of which are clustered or indicating a significant new study need.

Light Detection and Ranging (LiDAR) data has been collected along the entire reach of the Upper Henrys Fork and many of its upper tributaries in the northern half of the basin. The existing data, along with additional planned LiDAR capture areas, will be available for new studies through the Idaho Department of Water Resources. FEMA and the state of Idaho have prioritized the area between the Snake River and the state of Montana for LiDAR collection.

Local floodplain administrator interviews, the U.S. Army Corps of Engineers (USACE) National Levee Database, FEMA’s Regional Flood Hazard Layers, and Mid-Term Levee Inventory were reviewed in order to determine if levees were present in the watershed. No levees were identified in the watershed.

No representatives from Clark County attended the Discovery Meeting. Only two areas were identified by Fremont County officials as needing an approximate riverine study. The desired study areas are shown on the Final Discovery Map and are listed below.

**Table 1: Upper Henrys Watershed Mapping Needs**

STUDY AREA	STUDY LENGTH (miles)	LOCATION DESCRIPTION	STUDY TYPE	PRIORITY
Duck Creek	2.5	From 0.5 miles west of Henrys Lake, extending 2.5 miles upstream	Zone A	Low
Big Springs – Thirsty Creek	1.5	From Henrys Fork confluence to Thirsty Creek	Zone A	Low

## ii. Mitigation Projects

Fremont and Clark Counties have each prepared *Hazard Mitigation Plans*, which have been adopted by their respective incorporated communities. Both plans became effective on 12/18/2008 and will expire on 12/17/2013.

Two high priority mitigation projects were identified by the Upper Henrys communities:

- Island Park Dam failure warning system for areas downstream of dam in Fremont County
- Ashton Dam failure warning system for areas downstream of the dam in Fremont County

## iii. Compliance

Data collected from CIS indicated that none of the communities in the Upper Henrys Watershed had any variances to their floodplain management ordinances, so it may be assumed that the communities are regulating to at least the minimum criteria required by FEMA. The most recent FEMA Community Assistance Contact/Visit was in August 2008 with Clark County, prior to that was an April 2005 visit with Fremont County. No trainings or other compliance support were requested.

## iv. Communications

In interviews, all communities indicated that they were interested in learning more about Risk MAP's communications support, and were open to a future meeting with FEMA to learn about how they can improve their flood risk communication program. Currently, none of the communities in the watershed participate in the Community Rating System program.

According to the 2010 census, Fremont County has a population of 13,242 people and Clark County has a population of 982 people. The median age of residents within the watershed is 31 years with approximately 11% of the population being over 65 years. About 24% do not speak English, and less than 1% are Native American. Local floodplain administrators indicated that the non-English speaking populations are predominantly Hispanic. Approximately 72% of the population holds a high school diploma and around 12% have a college bachelor's degree. Roughly 65% of residents over age 16 that desired employment were working, with a median annual income of approximately \$32,500 (2000 census data). Residents across the watershed work primarily in educational, health, and social services, as well as agriculture, forestry, fishing, hunting, and mining. The demographic data indicates a potential need to establish special outreach strategies tailored toward Hispanic populations.

## IV. Close

Local officials in the communities were interested in the Discovery process and Risk MAP and open to learning more about 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. It is recommended that the guidance document outlining the types of Mitigation Planning Technical Support that can be included in Risk MAP projects be evaluated with communities, once finalized. The local officials in the Upper Henrys Watershed would benefit from the implementation of Risk MAP projects.

## V. Appendix – Discovery Files

### Communications

- Contacts
  - Stakeholders
  - Notification Dates
- Notifications/Invitations
  - A National Notification
  - B Regional Notification
  - C State Legislator Notification
  - C Congressional Notification
  - D Community Notification
  - E Floodplain Administrator Interview Request
  - Meeting Notes Distribution
  - Meeting Reminder

### Community Interviews

- Fact Sheet
- ***Interview Reference Maps***
- Interview Notes
- Locally-Provided Documents

### Discovery Meeting

- Agenda
- Presentation
- Sign-In Sheet
- ***Discovery Meeting Map***
- Meeting Notes
- **Sample** Project Charter

### Report

- Report
- ***Project Area Map***
- ***Final Discovery Map***
- Tabular Data, including Data Sources and Mapping Needs
- Geodatabase
- Database Updates