

FLOODPLAIN MANAGEMENT 2016: LOCAL PROGRAMS

Association of State Floodplain Managers December 2016



Forward

The Association of State Floodplain Managers is pleased to present the Floodplain Management 2016: Local Programs Survey Report. This is the inaugural report on the state of local floodplain management programs throughout our nation. This report complements previously published reports issued in 1989, 1992, 1995, 2003 and 2010 that were primarily focused on floodplain management programs at the state level. We hope that the material contained in this report will be a useful reference for those in the floodplain management community interested in local programs throughout the United States.

The report is a summary or snapshot on what local programs are doing in the floodplain management arena. It attempts to provide insight on who the local floodplain managers are and highlights floodplain management programs' practices, capacity and challenges. It is our hope that by sharing this information, all can benefit and continue to build strong and sustainable floodplain management programs. Our many thanks to all those local jurisdictions who took the time to share their insights to make this document possible. Effective floodplain management demands local jurisdiction be creative in their approaches, efficient in their performance and comprehensive in their efforts. We hope that this public can help provide insight to achieve that goal.

ON THE COVER: Screenshots of ASFPM's video "Becoming a CFM."

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ASFPM is deeply grateful for the time and effort contributed by all the local jurisdiction personnel who provided responses to this survey. The report would not have been possible without the input by everyone involved with the local floodplain management programs.





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Introduction

The extent to which flood-prone areas are occupied by people and the infrastructure that supports our society is directly proportional to the amount of damage that can occur when flooding takes place. Flooding is a universal happening. Every state and territory in the United States has been impacted by this natural, reoccurring event. Consequently, federal, state and local governments have a long history of undertaking activities that are designed to reduce flood impacts.

That said, floodplain management is not just about reducing flood losses. It is also about the prudent management of floodplain resources that are interwoven to make it one of the Earth's most valuable ecosystems. Therefore, floodplain management is about reducing impacts due to floods as well as managing natural resources.

Natural floodplains, whether along the coasts or in riverine or lake areas, improve quality of life by virtue of their role in maintaining overall environmental health. These areas are complex ecosystems that are part of larger systems. They filter air and water; provide habitat for wildlife; store flood waters; recharge aquifers; and buffer noise, wind, waves and storms. Communities that preserve these functions are improving the quality their citizens' lives and natural resources. Consequently, floodplain management is about reducing losses due to flooding as well as preserving and restoring natural floodplain functions.

A Brief Overview of Floodplain Management

Floodplain management can be regarded as a continuous decision-making process that aims to achieve the wise use of the nation's floodplains. The process typically includes the issuance of permits for development as well as the use of more comprehensive tools, such as land use planning, conservation of natural floodplain functions, and traditional structural flood control works. It may also include providing flood risk identification and management, as well as providing technical or flood insurance assistance to citizens and businesses.

The National Flood Insurance Program regulations written in 1976 focused on defining floodplain management as:

"the operation of a community program of preventive and corrective measures to reduce the risk of current and future flooding, resulting in a more resilient community. These measures take a variety of forms, are carried out by multiple stakeholders with a vested interest in responsible floodplain management and generally include requirements for zoning, subdivision or building, building codes and special-purpose floodplain ordinances" (from www.fema.gov/floodplain-management accessed June 6, 2016).

Historically, the NFIP has focused on identification of flood hazard areas, implementation of regulations that recognize those flood hazards in the development process, and administration of flood insurance.

All levels of government and the public have a role in reducing flood risk. The community's role is to become a Participating Community. FEMA states that:

"joining the National Flood Insurance Program (NFIP) is an important step toward reducing a community's risk of flooding and making a speedier, more sustained recovery should flooding occur. It also allows property owners within a participating community to purchase NFIP flood insurance and receive disaster assistance for flood-related damage. Participation is voluntary and more than 22,000 communities have already agreed to adopt and enforce floodplain management ordinances that provide flood-loss reduction building standards for new and existing development" (from <u>https://www.fema.gov/floodplainmanagement-information-communities</u> accessed June 6, 2016).

FEMA has minimum floodplain management standards for communities participating in the NFIP. They encourage communities to adopt and enforce higher standards that will lead to safer, stronger, more resilient communities.

It has become clear over the years that there is no one "perfect" model for a local floodplain management program. Every local program has its own unique characteristics that shape its approach to managing flood risks and floodplain resources. The geologic and geographic variability of floodplains and their respective risks can vary significantly. In conjunction with these geographic and geologic differences, the constitutionally-established relationships between states and local jurisdictions also differ considerably from state to state. Furthermore, the political cultures of each state and its local governments often are such that program components that work well in one state, county or community may not be acceptable in another.

When a community becomes a Participating Community by joining the NFIP, the community takes its first step toward decreasing its flood risk and facilitating a more sustained recovery should flooding occur. It allows property owners within a Participating Community to purchase NFIP flood insurance and receive disaster assistance for flood-related damage. While participation is voluntary, more than 22,000 communities have joined, adopted and enforced floodplain management ordinances that provide flood-loss reduction building standards for new and existing development. The one consistent factor for all communities participating in the NFIP is the designation of a local floodplain manager. The flood mitigation. Responsibilities may include oversight of the community's floodplain maps, floodplain regulatory standards, participation in the Community Rating System, identification of mitigation opportunities, policy or planning, as well as other responsibilities that may or may not be related to floodplain management.

Purpose of this Report

This document is a summary of responses to the Local Programs Survey undertaken by the Association of State Floodplain Managers in the spring 2016. This survey details what communities are doing in the floodplain management arena nationally. The survey itself consisted of 47 questions, with a majority of the questions being multiple choice or "yes/no." Some open-ended questions where respondents could provide a specific response were also included. The full survey can be found in Appendix A of this report. This report summarizes participants' responses to the multiple choice and "yes/no" survey questions and gives generalized summaries to the open ended questions. Due to the number and variability of responses to the open-ended questions, it was impractical to fully describe them in this report. Appendix B contains the responses to the open-ended questions.

The data collected through this survey act as a baseline that can be used to evaluate the current state of local floodplain management programs and allows for comparison in the future. The survey was developed to obtain information from municipal or county floodplain managers to better understand the successes, needs and challenges associated with local-level programs. More specifically, the goal of this project was to collect data using a self-administered, web questionnaire from local floodplain managers that had been randomly selected from all 50 states.

Survey Methods and Results

This survey was developed in conjunction with and conducted by the University of Wisconsin– Madison Survey Center. The survey's target respondent was the floodplain manager or person in charge of floodplain management activities in NFIP communities. Communities were selected using a stratified random sample, with the strata being states. In order to ensure that these data were representative at the national and state level, states with 15 or fewer NFIP communities were over sampled to increase the likelihood that a sufficient sample size would be attained.

Sampled individuals were contact by postal mail and invited to take the web survey. Sampled individuals were then sent an e-mail inviting them to take the survey, which included a link to the survey itself. The survey was sent via e-mail to 3,005 communities in March 2016. Two subsequent reminder e-mails were sent to sampled individual to encourage them to partake in the survey.

Responses were received from 821 communities and counties with an approximate 27.3% response rate to this survey. However, not all respondents provided answers to every question. In order to provide consistency for data interpretation, responses to each question are presented in this document as percentages of the total number of responses to that particular question.

Acronyms

For reference, the following is a list of acronyms used throughout this document. Each acronym definition will be introduced the first time in the text of the document, with the acronym used thereafter.

ASFPM	Association of State Floodplain Managers
CAC	Community Assistance Contacts
САР	Community Assistance Program
CAP-SSSE	Community Assistance Program –State Support Services Element
CAV	Community Assistance Visits
CEC	Continuing Education Credit
CFM	Certified Floodplain Manager
СТР	Cooperating Technical Partners Program
DEM	Digital Elevation Model
DFIRM	Digital Flood Insurance Rate Map
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Maps
FMA	Flood Mitigation Assistance Program
FPM	Floodplain Management
FTE	Full Time Employee
GIS	Geographic Information System
H&H models	Hydrologic and Hydraulic Models
HAZUS-MH	Hazards U.S. Multi-Hazard
HMA	Hazard Mitigation Assistance Program
HMGP	Hazard Mitigation Grant Program
LOMA	Letter of Map Amendment
LOMC	Letter of Map Change
LOMR	Letter of Map Revision
MMMS	Map Modernization Maintenance Support
NAI	No Adverse Impact
NFIP	National Flood Insurance Program
PDM	Pre-Disaster Mitigation Program
RFC	Repetitive Flood Claims Program
SHMO	State Hazard Mitigation Officers

Who are the Nation's Floodplain Managers?

FEMA indicates that "the work of floodplain managers is fundamental to the effective management of floodplain resources and flood mitigation" (from https://www.fema.gov/floodplain-managers accessed June 6, 2016). While FEMA does not provide a definition for a floodplain manager or administrator, Chapter 7 of FEMA's "Managing Floodplain Development Through the National Flood Insurance Program" provides a good guide of the duties, qualifications, training and responsibilities of a floodplain manager.

In addition to this document, the ASFPM Certification Board of Regents created a "Model Job Description for a Community Floodplain Manager." It indicates the "floodplain manager is the principal community administrator in the daily implementation of (give community name) flood loss reduction activities including enforcing the community's flood damage prevention ordinance, updating flood maps, plans, and policies of the community, and any of the activities related to administration of the National Flood Insurance Program (NFIP)" (www.floods.org/ace-iles/documentlibrary/CFM/FPM Model Job Description 2010.pdf accessed June 7, 2016). Regular duties of the floodplain manager include managing floodplain development permitting, floodplain mapping updates or revisions and flood mitigation activities.

As part of the ASFPM Local Programs Survey, data regarding floodplain managers' responsibilities, experience, training, certifications and compensation was collected. The first question asked the designated floodplain manager if they had a different day-to-day job title? Of the survey respondents who answered this question, **96.3%** indicated their primary job title was not floodplain manager. Those respondents who indicated they had a different job title were given eight choices of a job title or asked to provide their job title if it was different from those on this list. Table 1 summarizes those results.

Title	Percent of	
The	Respondents	
Zoning or Building Code Administrator	26.8%	
Municipal Engineer	5.6%	
Public Works Director	5.3%	
Municipal Planner	4.8%	
Community Development Director	3.7%	
Emergency Manager	2.3%	
Mayor	1.6%	
Stormwater Manager	1.4%	
Other	48.5%	
Question Response Rate: 99.9%		

Table	1.	Job	Titles
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Upon investigation of the "other" job title descriptions, it appears the titles listed above were interpreted literally by respondents. For example, the title "municipal engineer" was identified by 5.6% of the respondents, yet upon review of the "other" category, several respondents

identified their titles as town engineer, county engineer, city engineer and other various titles that are synonymous with "municipal engineer." Similar results were observed with the "municipal planner" job title. Based upon the review of all responses, general job titles or disciplines were identified and consolidated into Table 2.

General Title/Discipline	Percent of	
	Respondents	
Zoning, Building, Code Official	33.2%	
Planner	11.6%	
Engineer	11.3%	
Clerk	8.2%	
Manager/Administrator	7.5%	
Public Works Director	5.6%	
Community Development	4.2%	
Emergency Services	3.7%	
Assessor/Recorder/GIS	2.5%	
Elected Official	2.3%	
Stormwater	1.8%	
Treasurer/Finance/Auditor	1.8%	
Environment	1.6%	
Other	4.8%	
Question Response Rate: 100%		

Table 2. General Job Disciplines

This resulted in a significant number of the "other" job titles being placed into one of these general discipline groupings. It should be noted that several respondents reported a title that could have been applied to multiple general discipline grouping. As an example, several respondents indicated their job title as "city clerk/treasurer." In those cases, the first identified job title that matched the grouping outline in Table 2 was chosen.

One third of respondents' job titles were associated with zoning, building or code positions. Planner and engineer titles were essentially equal with approximately 11% each. Combined, these titles accounted for more than 56% of the respondents. The remaining responses were distributed among many job titles. In total, just 4.8% of respondents had unique titles job that could not be correlated with the groupings of this Table 2. These responses indicate that quite a range of job titles and general disciplines are administrating local floodplain management programs. A full listing of the respondents' job titles can be found in Appendix B, Question 2, Job Title.

The survey inquired about the percentage of time respondents spent on floodplain management activities. Respondents were asked to choose from the following ranges 0-10%, 11-20%, 21-30%, 31-40%, 41-50% or greater than 50%. Table 3 summarizes the responses.

Percent of Time spent on Floodplain Management Activities	Percent of Respondents
0-10%	69.6%
11-20%	18.4%
21-30%	6.4%
31-40%	1.7%
41-50%	1.2%
More than 50%	2.7%
Question Response Rate: 99.4%	

Table 3. Percent of Time on Floodplain Management

Nearly 70% of the respondents spend 10% or less of their time on floodplain management issues and less than 3% spend more than half their time on these issues. Given the diversity in the job titles of the floodplain managers, the time spent working on floodplain management issues may not be surprising.

The survey asked respondents how many years they had been working as the floodplain manager and the total number of years spent working in the floodplain management field. There were responses in excess of 35 years of experience for both questions.

10010	
Years Working as Floodplain Manager	Percent of Respondents
0-5 years	45.2%
6-10 years	28.1%
11-15 years	12.5%
16-20 years	8.0%
21-25 years	3.5%
26-30 years	2.2%
>30 years	0.5%
Question Response Rate: 94.5%	

ei	er Experience			
/	Years Working as	Percent of		
	Floodplain Manager	Respondents		
	< 1 year	3.6%		
	1 year	11.7%		
	2 years	7.9%		
	3 years	9.3%		
١	4 years	5.3%		
	5 years	7.5%		

Responses to this question were evaluated for consistency. Respondents who indicated they had worked for more years as a floodplain manager than in the floodplain management field were removed from the data set. It's likely the respondents accidently reversed the numbers in the survey response. Based on the responses of primary job responsibility, there may be those respondents who serve as the floodplain manager only on "paper" and are not actually engaged in floodplain management activities. Due to this possibility, no inferences were made and these data were removed from this comparison. For those respondents who indicated a duration as

floodplain manager, but left the years of experience in floodplain management blank, it was assumed the years in floodplain management were the same.

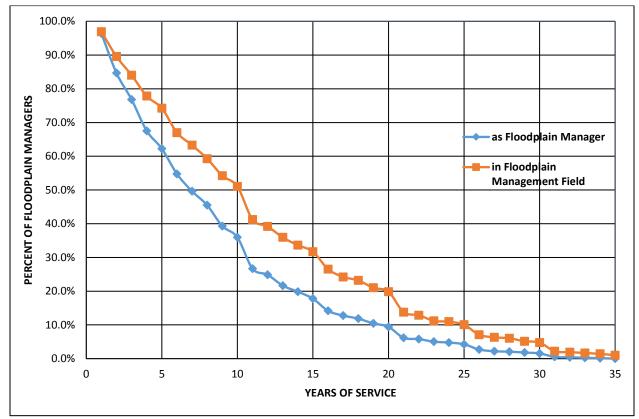


Figure 1. Floodplain Management Experience

The above graph indicates the median number of years respondents reported working as a floodplain manager is approximately seven years and the median number of years respondents reported working in floodplain management is approximately 10 years. Approximately 3.6% of the respondents indicated zero years of experience, indicating it was their first year working as the floodplain manager. For this survey sample, the annual turnover for this position is approximately 3.6%. Given there will be variance from year to year and no long-term data is currently available, no inference as to the annual turnover can be made.

Education

Survey participants were asked to describe their highest level of education. Approximately twothirds of the respondents indicated they had a technical/associate degree or higher. More than half of the respondents (55%) had a four year or bachelor's degree, with 19% of those respondents holding a Masters, Doctorate or Professional degree.

Highest year of school completed	Percent of Respondents
High school graduate or GED	13%
Some college but no degree	20%
Two year technical college or associate's degree	13%
Four year college or bachelor's degree	30%
Some graduate work but no graduate degree	5%
Master's degree	18%
Doctorate or professional degree such as JD or MD	1%
Question Response Rate: 99.8%	

Table 5. Floodplain Manager Education

The respondents holding a degree were asked to provide information on their degree. As with job titles/discipline question, the responses were quite varied. Many of the degrees generally align with the respondent's primary job titles. Nearly one-quarter of the respondents who have a degree held an engineering degree. While planners were similarly represented to engineers in job titles, they were somewhat lower in representative degrees. One possible explanation for this is that some sampled individuals earned degrees outside of the planning field, but work in planning capacities in local governments.

Degree	Percentage	
Engineering	24.1%	
Planning	7.7%	
Business	6.8%	
Geography	5.5%	
Business Administration	5.3%	
Public Administration	4.7%	
Political Science	4.3%	
Accounting	4.0%	
Architecture	2.8%	
Geology	2.4%	
Biology	2.3%	
Other	30.1%	
Question Response Rate: 98.0% of degreed respondents		

Table 6. Floodplain Manager Degrees

The most dominant response was "other." There were numerous degrees identified in the responses, but their cumulative numbers fell below 2%. As with many of the responses to the open-ended questions in the survey, it was impractical to provide a full listing of all identified degrees. In lieu of listing all degrees in the project report, Appendix B, Question 6, Degrees contains a full list of respondents' degrees.

Salary

The survey also inquired about respondents' salaries. Given the wide range of job titles, experiences and educational backgrounds, respondents' salaries were quite variable and were uniformly distributed over a wide range. The mean salary is nearly \$55,000 annually. While nearly one-quarter of the respondents indicated a salary in excess of \$75,000, this salary may reflect compensation for primary job duties beyond floodplain administrator.

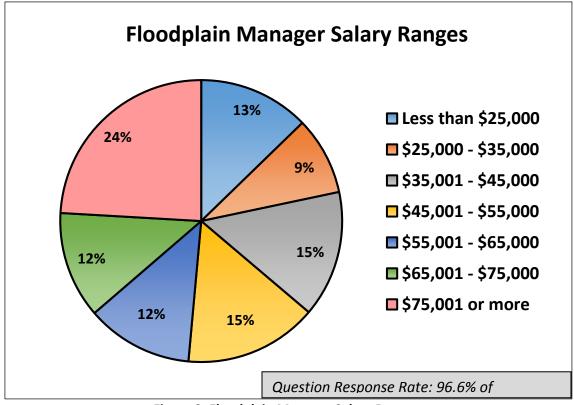


Figure 2. Floodplain Manager Salary Ranges

As was noted earlier, 2.7% of the respondents indicated they spend more than 50% of their time on floodplain management activities. While this is a small subset of the total number of respondents, the salary distribution and years of floodplain management experience for this subgroup alone was also reviewed. The survey responses indicated the median salary range was \$45,001-\$55,000, and the median years of floodplain management experience was nine years. These numbers are generally consistent with the overall group.

Certification

Many communities face increasing flood-related disaster losses, emphasize mitigation to alleviate the cycle of damage-rebuild-damage and recognize the need for professionals to adequately address these issues. ASFPM established a national certification, called the Certified

Floodplain Manager program for floodplain managers, which recognizes qualified professionals and promotes professional development. This results in enhanced knowledge and performance of floodplain management professionals.

Survey respondents were asked "Have you heard of the Certified Floodplain Manager (CFM) accreditation?" Of those participants responding to the question, 67.9% indicated they had heard of the CFM accreditation. Of the subset of survey respondents who had knowledge of or were familiar with the CFM certification, 33.7% indicated they were a CFM. When accounting for all survey participants responding to the initial CFM question, only 22.8% were CFMs. Nearly one-third of those floodplain managers responding to the CFM question were unfamiliar with the CFM accreditation program. Future evaluation of regional and community size trends may provide further insight on certification trends and possible outreach opportunities.

Floodplain Management Programs

Local floodplain management programs vary significantly in the level of services offered (responding to floodplain inquiries, permitting, enforcement, etc.), job functions, responsibilities based upon programmatic staffing, budgets and political support. That said, a common denominator across all programs is responding to flood events. While the response functions (damage assessments, debris pickup, permit assistance, etc.) vary, many communities have recent experience in dealing with flood impacts in their community. The survey asked respondents the last time their community experienced a flood event (regardless of whether or not it was associated with a federally-declared disaster).

Years since Community Last Impacted by a Flood.	Percentage of Respondents	
1-3 years	39.8%	
4-6 years	21.6%	
7-9 years	6.9%	
10 or more years 31.7%		
Question Response Rate: 98.7%		

 Table 7. Years since Last Flood

Respondents indicated that more than 60% of their communities experienced a flood in the past six years. More than two-thirds of respondents indicated their communities experienced flooding in the last 10 years. These responses indicate that surveyed communities have a high likelihood and frequency of flooding. Assuming the survey findings accurately represent the experiences of flood-prone communities across the nation, there is clearly a need for floodplain management programs to support and protect communities.

Responsibilities, Services and Functions

The survey asked a series of questions related to the staff capacity of communities' floodplain management programs. The guidance for the series of questions inquired about the amount of staff time spent working on floodplain management in the previous year. Specifically, the question requested, "What percentage of you and your local staff's time was spent doing each of the following floodplain management activities? Please enter a value between 0 and 100%."

A majority of the responses totaled to 100%, but there were a significant number of responses that totaled to less than 100%. Given that previous survey responses indicated that a vast majority of the respondents had non-floodplain management responsibilities, it was assumed that the responses that totaled less than 100% excluded non-floodplain management responsibilities. Upon further inspection of the survey results, it appears there were three groups of respondents who provided viable data, even with differing assumptions on the percent of time spent on floodplain activities. The following summarizes the three groups:

- 1. Responded to the survey with the assumption that their floodplain management activities must total 100% regardless of their other non-floodplain responsibilities;
- 2. Utilized Question 10 to indicate non-floodplain responsibilities and the percent of time associated with those activities, totaling 100%; and
- 3. Provided the percent of time spent on floodplain management activities, but the percentage does not total to 100%. The respondent didn't provide information on their non-floodplain management activities.

The first group implies the percent of time spent on floodplain management activities only and ignores non-floodplain management functions, while the latter two groups imply the total percent of work time spent on floodplain management activities and non-floodplain management functions.

Table 8. Percent of Time on Floodplain Management Activities Only(No Non-Floodplain Management Time Consideration)

Percent of time spent	0%	1-10%	11-20%	21-30%	31-40%	41-50%	>50%
Providing general technical assistance such as map interpretation	4.3%	38.7%	24.6%	14.2%	4.6%	4.3%	9.4%
Developing flood maps or new flood map data	59.5%	32.2%	5.3%	2.3%	0.0%	0.0%	0.8%
Answering questions about flood insurance	20.5%	55.2%	15.4%	5.6%	1.3%	1.8%	0.3%
Promoting sale of flood insurance	69.9%	28.6%	0.8%	0.3%	0.3%	0.3%	0.0%
Protecting natural floodplain resources and functions	27.1%	50.9%	14.4%	6.1%	0.8%	0.3%	0.5%
Educating and training the public, consultants, developers and others	23.3%	53.4%	16.5%	5.1%	0.8%	1.0%	0.0%
Enforcing local regulations and standards	6.1%	26.6%	28.4%	20.8%	5.1%	8.4%	4.8%
Issuing permits and conducting follow-up inspections	16.5%	26.8%	24.1%	18.5%	4.1%	5.6%	4.6%
Participating in or overseeing flood hazard mitigation grant programs	61.5%	29.1%	5.1%	1.8%	0.5%	1.8%	0.8%
Question Response Rate: 48.1%							

Table 9. Percent of Time on Floodplain Management Activities	
(Including Time Spent on Non-Floodplain Functions)	

Percent of time spent	0%	1-10%	11-20%	21-30%	31-40%	41-50%	>50%
Providing general technical assistance such as map interpretation	20.2%	76.6%	2.0%	0.6%	0.3%	0.3%	0.0%
Developing flood maps or new flood map data	69.3%	30.1%	0.3%	0.3%	0.0%	0.0%	0.0%
Answering questions about flood insurance	31.3%	66.4%	2.3%	0.0%	0.0%	0.0%	0.0%
Promoting sale of flood insurance	83.6%	16.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Protecting natural floodplain resources and functions	44.2%	52.3%	2.0%	1.2%	0.0%	0.3%	0.0%
Educating and training the public, consultants, developers and others	42.1%	54.4%	2.6%	0.9%	0.0%	0.0%	0.0%
Enforcing local regulations and standards	21.9%	67.3%	7.9%	1.8%	0.6%	0.3%	0.3%
Issuing permits and conducting follow-up inspections	37.1%	55.3%	3.5%	2.0%	0.9%	0.6%	0.6%
Participating in or overseeing flood hazard mitigation grant programs	72.8%	24.6%	1.8%	0.9%	0.0%	0.0%	0.0%
Question Response Rate: 41.7%							

Tables 8 and 9 provide a summary of the first group (395 respondents) and a combination of the latter two groups of data (342 respondents). In comparing Tables 8 and 9, Table 8 shows a wider distribution of time spent on these activities as compared to those who included non-floodplain responsibilities. Considering that 69.6% of respondents indicated they spent 10% or less of their time and 88% spent less than 20% of their time on floodplain management activities; these distributions would be expected (Table 3).

While the distribution ranges are quite different, the trends in Tables 8 and 9 are generally similar with respect to the management activities performed by the respondents. The percentage of respondents who indicated they spend 0% time on various tasks was much higher when including

non-floodplain management activities. Since many respondents indicated they spent 10% or less of their time on floodplain management activities, several of these tasks may be minimally representative of their work, thus garnering less time acknowledgement in the overall scheme. If only considering time spent on floodplain management activities, a finer level of detail could reduce the implied no time aspect.

Based upon the trends from Tables 8 and 9, providing technical assistance and enforcing regulation/standards appear to be the areas with the greatest staff time allocation. Issuing permits and answering flood insurance questions follow closely behind. These activities are expected from a community participating in the NFIP, but the percentage of responses that indicated they were not spending any staff time on these activities is surprising and troubling. The tasks on which respondents reported spending the smallest percentage of their time were development of flood maps or map data, overseeing flood hazard mitigation grant programs and promoting flood insurance.

In many of the written responses to various survey questions, flood maps were identified as an issue, but were generally referred to as FEMA maps. While maps represent the flood risk for a community, there appears to be an opinion by many floodplain managers that the flood maps are FEMA's maps. If floodplain managers believe the maps are the responsibility of FEMA, then they may not be inclined to update flood maps.

The competitive nature of the mitigation grant process and limited grant funding may explain the low percentage of respondents who reported spending time on mitigation activities. Given the staffing described by many of the survey respondents, the application process for federal mitigation programs, competitive nature or requirement for a disaster declaration, financial commitment and reporting requirements may limit some communities' interest in these activities.

Promoting flood insurance was the activity respondents indicated spending the smallest percentage of time on. This implies many floodplain managers do not view promotion of flood insurance as a priority or responsibility in their community. This inaction by floodplain managers may contribute to flood losses in the future.

Staffing and Experience

Survey respondents were asked about their community's floodplain management program staffing and combined experience. Based upon their responses, approximately 93% of the floodplain management programs are staffed by three or fewer staff members and nearly two-thirds of the floodplain management programs across the nation are staffed by only one person. In reviewing combined staff experience, nearly one-quarter of the county's floodplain management programs have less than five years of combined staff experience in floodplain management.

Local Floodplain Management Staff	Percent of Respondents	
1	62.5%	
2-3	30.5%	
4-5	3.8%	
6-7	1.7%	
8-10	0.7%	
10+	0.7%	
Question Response Rate: 98.7%		

Table 10. Floodplain Management Staff

Table 11. Floodplain Management Staff Experience

Combined Years of	Percent of		
Staff Experience	Respondents		
Less than 5 years	23.8%		
5-15 years	38.7%		
16-25 years	19.1%		
25 or more years 18.4%			
Question Response Rate: 98.2%			

Funding

Respondents were asked to identify primary funding sources for their floodplain management office or program. Approximately 77.5% of the survey participants identified one or more of the following revenue sources as supporting their floodplain management program.

Table 12. Hoodplain Management Funding				
Revenue Source	Percent of Respondents			
General Appropriation	60.4%			
Permit Fees	37.9%			
State or Federal Grants	16.5%			
Stormwater Fees	12.2%			
Charitable Endowments	0.8%			
Question Response Rate: 97.7%				

Table 12. Floodplain Management Funding

Many respondents indicated they utilized more than one of these revenue sources: 27.5% indicated they utilized two of the listed sources, 7.7% indicated they used three of the revenue sources and 1.3% identified four of the revenue sources. These results indicate that more than one-third (36.5%) of the responding communities rely on a variety of funding sources to support their floodplain management programs.

Mitigation Assistance Programs

Some communities provide mitigation assistance to residential or commercial property owners for activities that reduce flood losses. Programs range from grants, low interest loans, tax credits or technical assistance programs. These mitigation programs are designed to incentivize property

owners to improve their properties. The community benefit is the hope that the investment will result in an increased property value and ultimately additional tax revenue. Survey respondents replied to the question, "Does your community have any of the following programs that are locally-funded and administered to support activities that reduce flood losses?"

Mitigation Assistance Program Options	Percent of Respondents
Technical assistance programs	8.0%
Grants	7.3%
Low interest loans	2.3%
Tax credit or deduction	2.1%
Question Response Rate: 97.4%	

Table 13. Local Mitigation Assistance Programs

Responses indicate very few communities provide funding/assistance to encourage property owners to voluntarily pursue actions to reduce flood losses. Of those respondents who indicated they offered these program options, 116 (14.1%) communities offered one or more of these options, 28 (3.4%) communities offered at least two of the program options, eight (1%) communities offered three of the program options and five (0.6%) communities offered all of the program options.

Obstacles

The survey respondents were asked which of the following were common obstacles faced in the day-to-day implementation of their local floodplain management program. Approximately 16% of those responding to this question indicated that they did not face any of the obstacles listed in Table 14. In general, respondents indicated they experience at least one of the following obstacles in managing their community's local floodplain management program.

Approximately 83.7% of respondents indicated they faced at least one obstacle. Of those indicating they faced multiple obstacles, 66.3% indicated they faced two or more of the listed obstacles, 48.4% in three or more areas, 32.8% in four or more areas, 19.4% in five or more areas, 9.1% in six or more areas, 3.8% in seven or more areas and 1% indicated they faced all of the listed obstacles.

Obstacles faced by Floodplain Manager	Percent Responding "Yes"
Lack of Funding	50.8%
Lack of Staff	48.4%
Lack of Better Outreach Resources	42.6%
Lack of Better Maps	41.5%
Lack of Political Support	28.4%
Lack of Legal Support for Enforcing Regulations	26.3%
Issuing Permits	19.6%
Other	15.3%
Question Response Rate: 98.7%	

Table 14. Floodplain Management Obstacles

As Table 14 indicates, the survey participants were afforded an opportunity to provide a written comment regarding other obstacles they faced. Survey respondents provided approximately 90 comments related to obstacles not addressed in the above list. Many of the obstacles were specific issues the respondent or their community faced and were similarly themed to the items in Table 14. All of the comments can be found in Appendix B, Question 15 Comments.

In a follow-up question regarding obstacles, survey participants were asked to identify areas of technical assistance that were needed to improve their local floodplain management program. As Table 15 implies, many respondents indicated they needed assistance with more than one technical area. Of those responding to this question, 83.1% indicated they need additional technical assistance in one or more of the areas identified in the survey. Of those indicating they faced multiple obstacles, 72.5% indicated they needed technical assistance in two or more of the listed areas, 61.1% needed assistance in three or more areas, 49.9% needed assistance in four or more areas, 36.4% in five or more areas, 25.7% in six or more areas, 18.3% in seven or more areas, 10.5% in 8 or more areas and 1.1% indicated they needed technical assistance. There does not appear to be a dominant type of technical assistance that is needed. Rather, this survey group indicates there is a need for comprehensive technical assistance.

Technical Assistance Needs	Percent Responding "YES"
Advice and best practices for code administration	57.4%
Flood insurance facts and policy interpretation	49.2%
Hazard mitigation	48.5%
Enforcement strategies	48.0%
Regulation interpretation	45.8%
Ideas for flood-proofing existing at-risk development	43.9%
Including floodplain management consideration into planning	43.0%
Ideas for higher standards	31.1%
Other	8.3%
Question Response Rate: 96.0%	

Table 15. Technical Assistance Needs

As Table 15 indicates, there was also an opportunity to identify other areas where assistance was needed and 55 of survey participants provided comments. While no comment dominated the responses, better maps and training resources were two of the most common responses. A complete listing of these comments can found in Appendix B, Question 16 Comments.

Community Rating System

The survey asked, "Does your community take part in the Community Rating System also called CRS?" Those respondents who indicated their community was participating in the CRS were compared to data from FEMA (2016 NFIP Flood Insurance Manual). Through this review, approximately 15% of survey respondents' communities were found to be participating in the CRS program. The class ratings for those communities are shown in Table 16.

	% Verified
CRS Class	Respondents
1-2	1.7%
3-4	0.8%
5-6	28.9%
7-8	54.5%
9	14.0%

Table 16. CRS Rating Distribution

Participants who responded that their community did not participate in the CRS program were asked to identify the main reason why their community does not participate in CRS. Table 17

highlights respondents' choices and common answers provided under the "other" response option, where they were asked to provide a reason.

Primary Reason for not Joining CRS	Percent of Respondents		
The benefits do not outweigh the costs of participation	33.4%		
Not aware of the CRS program	18.0%		
The community does not want to join the CRS	17.2%		
It is too time consuming	15.7%		
Working on or evaluating joining *	4.5%		
Need more information about CRS *	2.8%		
Staffing and funding limitations *	2.2%		
Compliance Issues *	1.3%		
Other reason	4.8%		
*Summarized from "Other" responses			
Response Rate: 94.7% of communities identifying they do not participate in CRS			

Table 17. Reasons for not Joining CRS

Floodplain Management Program Summary

The final question related to the community's floodplain management program asked survey participants, "What is the one tool that you need to improve your floodplain management efforts *locally?*" Participants provided more than 700 individual responses. As with other open-ended survey questions, the responses were quite varied. Generally, the identified tool reflected topics previously covered in the survey. Table 18 gives a general summary of the tools referenced or identified. The full list of specific responses are included in Appendix B, Question 20 Responses.

Tool Needed to Improve Floodplain Management	Percent of Respondents
Mapping Tools/Resources	16.1%
Training	13.8%
Staff/Time	11.7%
Nothing	9.8%
Funding	8.9%
Community/Management Support	6.0%
Outreach Materials	4.5%
Regulation/Enforcement Assistance	3.3%
Unsure	2.7%
Other / Unclassified	23.2%
Response Rate: 87.7%	•

The remainder of the survey dealt with specific aspects of the community's floodplain management programs. The areas of interest were floodplain mapping, development permit process, planning, policy and knowledge of the local community's state floodplain management program and ASFPM.

Floodplain Mapping

FEMA's flood hazard mapping program identifies flood hazards, assesses flood risks and partners with states and communities to provide flood hazard and risk data. Flood hazard mapping is an important part of the NFIP, as it is the basis of its regulations and flood insurance requirements. FEMA maintains and updates data through FIRMs and risk assessments.

While FEMA's intent is to have FIRMs that reflect the current flood risk, many communities have concerns about their accuracy. Survey participants were asked to provide feedback on a series of questions related to floodplain mapping.

Survey participant were asked, "Do your community flood maps accurately reflect the flood risk?" 67.5% of respondents indicated they believe their floodplain maps accurately reflect flood risk. This implies that one-third of respondents believe their maps do not accurately reflect flood risk. Reasons for a community's concern typically are related to the age of the study, inadequate study limits or knowledge of changing land use conditions that may have impacted flood risk. When asked, "Do you know about any areas in your community that have flooded in the past, but that have not been identified on the flood maps as a potential flooding hazard?" 23.5% of respondents indicated they are aware of unmapped flood risks. Similarly, when asked, "In developing areas within your community, are there potential flood risks that have not been mapped yet?" approximately 22.4% of respondents indicated there are unmapped flood hazards in developing

areas of their communities. As a final mapping question, respondents were asked, "Are engineering models behind your flood map data outdated?" more than one-third (37.2%) of respondents said the engineering models used to develop their community's floodplain maps were outdated. Of those respondents who indicated the models were outdated, 77.1% said this led to the floodplain maps being inaccurate.

Permitting

Communities participating in the NFIP agree to enforce minimum standards for development activities in the Special Flood Hazard Area. The survey asked respondents to answer questions about designated flood hazard areas shown on their community's adopted regulatory flood maps. The initial question sought to identify the types of permits granted in the designated flood hazard areas.

Permits granted in designated flood hazard areas: (In the previous year)	Percent of Respondents Answering Yes
Permits for building new structures	33.4%
Permits for substantial improvement to existing structures	21.7%
Permits for fill, grading or other non-structural activities	29.6%
Response Rate: 98.8%	

In analyzing the responses, approximately 47.3% of the respondents indicated they had granted at least one of the types of permits identified in Table 19. Approximately 27.2% identified they granted two or more of the permit types listed and 10.1% indicated they had granted all three types of permits in their community's hazard areas.

Respondents who answered the previous question were asked how many of the following kinds of permits were granted in designated flood hazard areas in the previous year?

Type of Permits granted in	Number of Permits Granted						
Flood Hazard Area	1-10	11-20	21-30	31-40	41-50	51-75	>75
New structure	80.2%	7.8%	4.1%	1.9%	0.7%	0.7%	4.5%
Substantial Improvement to existing structure	86.9%	7.4%	1.7%	0.0%	0.6%	0.0%	3.4%
Fill, grading or other non- structural activities	86.1%	4.6%	3.0%	1.7%	0.8%	0.8%	3.0%
Response Rate: 98.8%							

Table 20. Number of Floodplain Permits

With any permitting standard, there may be requests to grant relief from the terms of the community's floodplain management regulations through a variance request. Survey respondents were asked, "In the previous year, were any variances to floodplain management standards in designated flood hazard areas requested?" A vast majority of respondents indicated that no variances were requested. Only 6.8% (55 out of 810 respondents) indicated a variance was requested. Those who indicated a variance was requested were asked, "Approximately how many variances were requested?" Of those communities who indicated that they had a variance request, approximately 96.4% indicated they received 10 or fewer variance requests.

Out of all the communities responding to the initial variance question, only two indicated they had more than 10 requests in the past year. In comparison to the responses of other communities, this number appeared to be high. Upon further investigation, at the time of the survey's administration, both communities that had more than 10 variance requests were covered by a federally-declared, flood-related disaster. As a follow-up question, the survey inquired, *"Approximately how many of those requested variances were granted?"* The two communities that had more than 10 variance requests indicated they each granted more than 10 variances in the prior year. A total of 53 communities indicated they received 10 or fewer variance requests and 47 responded that they had granted variance requests.

Some of the NFIP responsibilities participating community commits to are issuing or denying floodplain development (or building permits), inspecting all floodplain development to assure compliance with the local ordinance, and maintaining records of floodplain development. These responsibilities may lead to the discovery of a violation in a designated flood hazard area. The survey asked, *"In the previous year, were any violations discovered in designated flood hazard areas?"* Nearly one in five(19.4%) respondents indicated they had discovered floodplain violations. Of those indicating they discovered violations, 92.3% indicated that the number of violations ranged from 1-10 and 6.4% indicated they discovered between 11 and 20 violations. Two respondents indicated they had discovered more than 20 violations in their jurisdiction in the prior year. In cross-referencing these two communities, they were among the most well-staffed programs responding to the survey.

Planning & Policy

The NFIP aims to reduce flood impacts on private and public structures. Policy and planning are key program components for achieving this goal. Survey participants were asked about various topics considered in their community's plans and codes.

Climate Adaptation Considerations

Survey participants were asked whether climate change was considered in their various plans. For the purposes of this question, examples of climate change included rising sea levels, more powerful storms and/or more intense precipitation.

Do you consider climate change as it relates to flood risk in your community's		No	Don't Know	
comprehensive plan?	23.9%	55.5%	20.6%	
hazard mitigation plan?	34.5%	41.9%	23.6%	
emergency plan?	35.3%	39.9%	24.8%	
zoning ordinances?	20.6%	63.8%	15.6%	
building codes?	23.5%	54.5%	21.9%	
subdivision regulations?	19.9%	63.1%	17.0%	
stormwater regulations?	27.9%	50.4%	21.7%	
Response Rate: 98.1%				

Table 21. Climate Change Consideration in Plans

Approximately 50% of survey participants indicated their community considered climate change as it relates to flood risk in one or more of their community's various plans or standards. This percentage is a conservative estimate and may be higher. For purposes of this estimation, those communities that responded "don't know" were counted as a "no." Of those communities that considered climate change in at least one of their plans or standards, many also considered climate change in multiple plans. The survey responses indicate that 41% of the respondents consider climate change in two or more community plans or standards, 31.5% consider it in three or more plans or standards, 24.1% consider it in four or more plans or standards, 16.2% consider it in five or more plans or standards, 11.4% consider it in six or more plans or standards and 7.7% consider climate change in all identified community plans or standards.

Future Conditions Considerations

Another survey question asked about consideration of future conditions in various plans. In that context, future conditions meant anticipated natural or man-made changes to the physical landscape such as increased urbanization or channel erosion.

Do you consider future conditions in your	Yes	No	Don't Know
comprehensive plan?	50.1%	31.8%	18.2%
hazard mitigation plan?	43.9%	30.9%	25.2%
emergency plan?	40.7%	31.8%	27.5%
zoning ordinances?	46.5%	38.0%	15.5%
building codes?	34.1%	41.2%	24.7%
subdivision regulations?	43.9%	38.7%	17.4%
stormwater regulations?	48.0%	32.0%	20.0%
Response Rate: 98.2%			

Table 22. Future Conditions Consideration in Plans

The responses to this future conditions question were distinctly higher than the question regarding climate change conditions. Approximately 68% of respondents indicated their community considered future conditions as it relates to flood risk in one or more of their community's various plans or standards. As was the case with the climate change question, this percentage is a conservative estimate and may be higher. For purposes of this estimation, those communities that responded "don't know" were counted as a "no." Of those communities that considered future conditions in at least one of their plans or standards, many considered future conditions in multiple plans or standards. The survey responses indicate 62.5% of the respondents consider future conditions in two or more community plans or standards, 54.7% consider it in three or more plans or standards, 44.6% consider it in four or more plans or standards, 33.0% consider it in five or more plans or standards, 22.8% consider it in six or more plans or standards.

Floodplain Manager/Staff Involved in Planning

Finally, the survey asked if input from the floodplain management program staff was solicited or provided when developing or updating various code and planning documents. Approximately 82% indicated that floodplain management staff were involved in the development or update of one or more of their community's various plans or standards. As was the case with the climate change and future conditions questions, this percentage is a conservative estimate and may be higher. For purposes of this estimation, those communities that responded "don't know" were counted as a "no." Of those communities that involved floodplain management staff in the development or update of at least one of their plans or standards, many floodplain management staff indicated they were involved in the development or update of multiple plans or standards. Survey responses indicate that 62.5% of the respondents included floodplain management staff in the development/update of two or more community plan or standard, 54.7% involved floodplain staff in the development/update of four or more plans or standard, 33.0% involved staff in the development/update of four or more plans or standard, 22.8% involved staff in the

development/update of six or more plan or standard and 15.6% involved floodplain management staff in the development/update of all the identified community plans or standards.

Table 23. Floodplain Management Staff Involvement in Plans/Standards				
Did floodplain management program staff provide input when developing or updating your	Yes	No	Don't Know	
comprehensive plan?	65.5%	20.8%	13.7%	
hazard mitigation plan?	63.1%	21.6%	15.3%	
emergency plan?	59.5%	24.2%	16.3%	
zoning ordinances?	68.4%	21.6%	9.9%	
building codes?	47.6%	36.2%	16.2%	
subdivision regulations?	67.0%	21.8%	11.2%	
stormwater regulations?	60.1%	24.6%	15.3%	
Response Rate: 98.1%				

Codes/Regulatory Standards

Participating communities in the NFIP must adopt minimum floodplain standards, which regulate development activities in flood-prone areas. Communities must also enforce more restrictive state requirements. Communities may also exceed the minimum standards by adopting more comprehensive floodplain management regulations. Floodplain management regulations adopted by a state or community that are more restrictive than the criteria set forth in the NFIP are encouraged and recognized by FEMA as taking precedence. Survey participants were asked if their community had standards that are more stringent than the NFIP minimum.

Approximately 62.9% of the respondents indicated their community's regulatory standards (listed in the Table 24) were no more stringent than the minimum NFIP or other permit standards. Of those respondents (37.1%) who indicated their community had at least one standard that was stricter than the NFIP minimum, many communities (23.6%) indicated that their community had more stringent standards in two or more listed areas. Overall, 17.2% of the communities indicated that they had higher standards in three of the listed areas, 11.4% indicated that they had higher standards in four or more listed areas, 8.3% indicated they had higher standards in five or more areas, 4.9% in six or more areas, 2.9% in seven or more areas and 1.6% communities indicated they had more stringent regulatory standards in all eight of the identified areas.

Higher Regulatory Standard Related to:	Percent Indicating a Higher Standard
Freeboard	28.2%
Stormwater Management	18.2%
Subdivision Standards	13.9%
Setbacks	13.6%
Fill Standards	11.0%
Cumulative Substantial Damage or Improvement	9.7%
Critical Facilities Protection	8.3%
Floodway Rise	7.9%
Response Rate: 96.7%	

Table 24. Higher Regulatory Standards

Those who indicated they exceeded the minimum federal standards were asked to provide details on their higher standards. Table 25 provides the ranges of responses provided. Of the communities responding to the freeboard question, 224 indicated they had a higher standard. It should be noted that several states have freeboard requirements that exceed the minimum federal standard. These include but are not limited to a 2-foot standard in Indiana, Montana, New York and Wisconsin; a 1.5-foot standard in District of Columbia and Pennsylvania; and a 1-foot standard in Arizona, Colorado, Iowa, Kansas, Maryland, Maine, Michigan, Minnesota, North Dakota, Nebraska, New Jersey, Puerto Rico and Rhode Island. More than 80% of the responding communities from those states with higher freeboard standards indicated they did not exceed the federal minimum standard even though the minimum state standard does exceed it.

Communities that indicated they had a higher floodway standard were asked to describe the higher standard. There were 63 communities that indicated they had a higher standard. Table 26 summarizes their responses. Again, several states have higher floodway standards that were not reflected in the communities' responses.

BFE + Freeboard	Count		
0.5'-0.99'	2		
1.0'	94		
1.5'	6		
2.0'	82		
2.5'	3		
3.0'	20		
4.0'	2		
No Info*	15		
*Referenced a higher standard but			
provided no or inadequate detail.			
Response Rate: 26.9%			

Table 25. Freeboard Standards

Table 26. Floodway Standards

Rise	Count	
No Rise	30	
0.1	4	
0.5	4	
No Info*	25	
*Referenced a higher standard but provided no or inadequate detail.		
Response Rate: 7.7%		

A structure located in a SFHA that receives damage from any source to the degree that the cost to repair to bring it back to the pre-damaged condition exceeds 50% of the structure's value prior to damage, is considered to be substantially damaged. If repairs are made to a substantially damaged structure, it must be brought into compliance with the community's effective floodplain regulations. Similarly, if improvements are made to a structure located in a SFHA and the cost of improvement exceed 50% of the value of the structure prior to the improvement, it is considered a substantial improvement and the entire structure must be brought into compliance with the community's effective floodplain standards.

In many areas where flooding occurs, structures are unlikely to sustain the level of damage required to be classified as substantially damaged based on the NFIP minimum 50% trigger, yet sustain repetitive losses that may over a period of years, cumulatively exceed the 50% threshold. This standard also applies to structures where non-damage improvements are made to a structure with a known flood risk. Incremental improvements can be undertaken to circumvent the 50% threshold. Some communities have tried to reduce flood losses through adoption of standards that either lower the minimum damage threshold for a substantial damage (SD) or improvement (SI) determinations. Other communities have implemented a standard that requires all improvements and repairs to be tracked over a period of time and counted towards the SI/SD determination. Most of the communities that indicated they had a higher standard did not provide information or their information did not include enough detail in order to validate their claim. Of those communities providing information on higher SI/SD determination standards, only 38 communities provided specific information on their standards. Table 27 provides a description of the standards currently utilized by the responding communities.

Cumulative Substantial Damage or Improvement		
Substantial Damage/Improvement Standard	Count	
Cumulative over 3 years	3	
Cumulative over 5 years	11	
Cumulative over 10 years	11	
Cumulative of life structure	4	
40.0-49.9%	3	
30.0-39.9%	3	
<30.0%	3	
No or not enough info*	39	
*Referenced a higher standard but provided no or inadequate detail.		
Response Rate: 9.0%		

Table 27. Substantial Damage/Improvement Standards

Ninety-six respondents indicated their community had higher standards related to subdivision standards. The responses to this question were quite varied. While many of the responses were very general, some of them centered on the standard for buildable lots. Some standards included requiring 100% of all residential lots to be out of the floodplain or no residential lots may be located in the floodplain. Other standards included no fill in the floodplain, no development activities in the floodplain, requiring the consideration of future flooding based upon full development upstream and several stormwater related standards that impacted the floodplain. A full summary of the various higher standards for subdivision is listed in Appendix B, Question 37, Part D.

Critical facilities provide services and functions to a community that are essential during and after a disaster. Police stations, fire stations, hospitals, nursing homes, health care facilities, schools, day care centers, power plants, drinking water and wastewater treatment plants are examples of critical facilities and it is imperative that they remain operational. While these facilities locations may not be mandated to be outside a SFHA, many communities have adopted higher standards to minimize disruption of services. Table 28 identifies some standards currently employed in survey respondents' communities. There were 66 communities that indicated they had higher standards for protecting critical facilities and Table 28 summarizes their responses. Many utilize a moratorium for placement of critical facilities in a SFHA and some go even farther by extending the moratorium to the Shaded X zones (0.2% Chance or 500-year Event). Other communities utilize a freeboard standard for critical facilities. A full summary of the individual responses is found in Appendix B, Question 37, Part E.

Critical Facilities Protection	
Action	Count
No Critical Facilities in SFHA	15
No Critical Facilities in Shaded X	6
Freeboard 1-1.99'	2
Freeboard 2-2.99'	2
Freeboard 3' or Greater	5
Undefined Elevation	4
Other	30
Response Rate: 7.3%	

Table 28. Critical Facility Standards

Setbacks or buffers are a standard some communities use to reduce development's risk from flooding. Setback standards establish minimum distances structures must be positioned (or set back) from a feature such as a stream, river, floodplain or shoreline. Setbacks can be defined by vertical elevations or horizontal distances and are not included among the NFIP's minimum standards. More than 100 survey respondents indicated their community had a setback or buffer standard associated with a SFHA. The details regarding their respective setback or buffer elevations/distances were quite varied ranging from 0-150 feet. Many referenced multiple features, including but not limited to, floodplain limits, floodway limits, creek banks and the ordinary high water mark. A full summary of responses to this question can be found in Appendix B, Question 37, Part G.

FEMA has a provision in the NFIP minimum standards that allows for fill to sometimes be placed in a SFHA to reduce flood risk to the filled area. Fill placement is considered development and requires a permit under applicable federal, state and local laws, ordinances and regulations. FEMA prohibits fill in the floodway unless it can be demonstrated it will not result in any increase in flood levels. While fill is allowed, some communities have implemented higher standards to limit the use of fill in the floodplain. Approximately 10 percent of the communities responding to this survey indicated they have additional or higher standards for development activities involving fill in the floodplain. Those communities that indicated they had higher standards were asked to elaborate on their higher standard. The responses ranged from prohibitions on fill, replacement of filled floodplain storage, freeboard for the filled areas, technical documentation of no impact, and other standards. Table 29 summarizes the standards provided by communities. Their specific responses can be found in Appendix B, Question 37, Part F.

Fill standards					
Action	Count				
Fill Prohibition in SFHA	9				
Compensatory Storage	18				
No Info*	41				
Freeboard required for fill	5				
No Rise Certificate	10				
Other	4				
*Referenced a higher standard but provided no detail or					
response.					
Response Rate: 10.6%					

Table 29. Fill Standards

The final question regarding higher standards was associated with stormwater. Approximately 18% of survey respondents indicated they had a higher stormwater standard. 109 respondents who indicated they had a higher standard provided a short description of their community's standards. Similar to the questions related to subdivision and setback standards, respondents reported stormwater standards that varied considerably. Most referenced standards associated with their community's National Pollutant Discharge Elimination System Permit requirements, Low Impact Development standards or regional stormwater standards. A full summary of responses is found in Appendix B, Question 37, Part H.

Mitigation

Table 12 in the "Funding Section" indicated 16.5% of respondents' communities relied on state and/or federal grants to support their local floodplain management program. The survey included a question regarding federal programs that provide funding and other assistance for flood loss reduction. Respondents were asked to identify which federal assistance programs they were aware of from a list of commonly used programs. The response rate for this question was 97.6%. Of those responding, approximately 15.6% indicated that they had no familiarity with any of the listed federal grant programs.

Of those respondents who were aware of the listed federal grant programs, more than 50% were familiar with FEMA's Hazard Mitigation Grant Program and Flood Mitigation Assistance grants and Housing and Urban Development's Community Development Block Grants. While many grant programs have limited funding, floodplain manager's lack of familiarity with these programs may be an area of concern. These programs offer a potential funding mechanism to address flood risk and could help facilitate flood risk reduction projects.

Federal Grant Program	Percent of Respondents						
	Familiar with Program						
FEMA Hazard Mitigation Grant Program	71.8%						
US Department of Housing and Urban Development	56.4%						
Community Development Block Grants	50.4%						
FEMA Flood Mitigation Assistance Grant Program	53.9%						
FEMA Pre-Disaster Mitigation Grant Program	47.4%						
US Army Corps of Engineers Floodplain Management Services	41.6%						
US Small Business Administration Disaster Assistance Loan,	25.3%						
Mitigation Element	25.5%						
FEMA Public Assistance Program, 406 Mitigation Element	24.4%						
Natural Resource Conservation Service Conservation	23.6%						
Easements	23.0%						
NRCS Emergency Watershed Protection Program	21.7%						
Environmental Protection Agency Green Infrastructure Grants	21.5%						
NRCS Small Watersheds Program (PL – 566)	17.2%						
US Department of HUD Federal Housing Administration 203k	16.8%						
Rehabilitation Loan	10.0%						
US Army Corps of Engineers Silver Jackets	15.7%						
Response Rate: 97.9%							

Table 30. Federal Grant Programs

State Floodplain Management Program

Survey respondents were asked about their knowledge of and interaction with their state's floodplain management program. 82% indicated they were aware of the existence of their respective state's floodplain management program. Respondents were asked the number of times they or their staff were in contact with their state's program staff in the past year?

Number of	Percent of				
Contacts	Respondents				
0	27.1%				
1-5	47.2%				
6-10	14.0%				
11-15	4.5%				
16-20	3.5%				
21-25	1.2%				
>25	2.6%				
Response Rate: 81.0%					

Of those who indicated they had contact with their state's floodplain management program, respondents were asked to provide their overall impression of their state's floodplain management program.

Торіс	Very Poor	Poor	Fair	Good	Very Good	
Knowledge of the staff (such as their ability to answer your questions)	1.8%	1.1%	11.4%	36.3%	49.4%	
Tools provided by the staff to help you in your job as floodplain manager (such as model ordinances, handbooks)	2.4%	2.7%	16.6%	37.7%	40.6%	
Technical assistance provided by the staff		2.9%	15.5%	38.3%	41.2%	
Timeliness of service	2.7%	1.9%	17.1%	38.9%	39.3%	
Response Rate: 75.8%	•	•	•	•	•	

Table 32. Evaluation of State Program

Association of State Floodplain Managers, Inc.

Survey respondents were asked about their familiarity with ASFPM and the services they provide in support of local communities. Only 46.7% of survey respondents indicated that they were familiar with ASFPM. Respondents who indicated they were familiar with ASFPM were asked to identify the services they have used. Table 33 summarizes those responses.

ASFPM Services	Percent of Respondents Indicating Use of Service
Participated in ASFPM sponsored in-person training and workshops	58.9%
Certified as a floodplain manager	51.9%
Used an ASFPM publication, tool or research report	50.0%
Participated in ASFPM webinars	46.7%
Subscribed to ASFPM newsletters	45.4%
Read ASFPM national policy information such as summaries and briefings	44.9%
Attended an ASFPM or ASFPM chapter conference	37.0%
Used the ASFPM Training Calendar on the ASFPM website	31.9%
Participated in ASFPM social media such as twitter, Facebook and LinkedIn	9.6%
Response Rate: 46.0%	

Table 33. ASFPM Services Used

All respondents were asked which of the variety of services ASFPM offers they would be interested in learning more about.

Table 34. ASFPM Services Interest

ASFPM Services	Percent of respondents interested in this service
Webinars	60.8%
In-person trainings and workshops	56.9%
Library resources	53.1%
Certified Floodplain Manager accreditation	42.6%
National or state chapter conferences	37.0%
Response Rate: 97.4%	

Conclusions and Next Steps

The 2016 Floodplain Management – Local Programs survey was initiated to establish a baseline of local floodplain management programs. The survey provides background information on who the nation's floodplain managers are and the flood loss reduction activities responding jurisdictions are currently undertaking. These activities include enforcing the community's flood damage prevention ordinance, updating the community's flood maps, plans, and policies, and any of the activities related to administration of the NFIP. This is the first of what is expected to be a periodic survey. Future surveys will seek to update this study and afford the opportunity to analyze local floodplain management trends, needs and obstacles.

References

Floodplain Management 2010, State and Local Programs, Final Report. ASFPM, Madison, WI 2011.

NFIP Flood Insurance Manual, Section 20 CRS. FEMA, Washington, D.C. April 2016.

www.fema.gov/floodplain-management

http://www.fema.gov/floodplain-management-information-communities

http://www.fema.gov/floodplain-managers

http://www.floods.org/ace-files/documentlibrary/CFM/FPM Model Job Description 2010.pdf

2016 NFIP Flood Insurance Manual, Section 20 CRS, Table 3. Community Rating System Eligible Communities Effective May 1, 2016

Appendix A

Association of State Floodplain Managers Local Programs Survey

Association of State Floodplain Managers Local Programs Survey

Updated: 02/23/2016

Introduction:

The Association of State Floodplain Managers is a national nonprofit organization which seeks to promote education, policies and activities that mitigate current and future losses, costs and human suffering caused by flooding, and to protect the natural and beneficial functions of floodplains without causing adverse impacts. ASFPM is conducting a survey of community floodplain managers to better understand the successes, needs and challenges associated with local-level floodplain management programs, and to help ASFPM design resources for the benefit of local officials.

All data and products collected or created in response to this survey will be made available to the general public for free once ASFPM's initial analysis has been completed.

Your survey responses will be confidential. No personally identifying information will be published without explicit permission from the individual survey respondent. If at any time you do not feel comfortable answering a question, you may choose not to answer.

This survey will take approximately 25 minutes. If at any time you need to discontinue the survey, your responses will be saved, and you may continue at the next earliest convenience.

About the Respondent:

Thank you for taking the time to complete our survey. We would like to begin by asking a few questions about you.

1) The If not, please indicate.

- a) Yes (go to Q2)
- b) No (go to Q3)

2) What is your day-to-day job title?

- a) Mayor
- b) Stormwater Manager
- c) Municipal Engineer
- d) Municipal Planner
- e) Public Works Director
- f) Zoning or Building Code Administrator
- g) Emergency Manager
- h) Community Development Director
- i) Open ended:_____

3) For approximately how many years have been working as the floodplain administrator for this local jurisdiction?

a) Open ended: _____years

4) For approximately how many years have you been working in the field of floodplain management?

a) Open ended: _____years

5) What is the highest year of school that you have completed?

- a) High school graduate or GED (Go to 7)
- b) Some college but no degree (Go to 7)
- c) Two year technical college or associate's degree
- d) Four year college or bachelor's degree
- e) Some graduate work but no degree
- f) Master's degree
- g) Doctorate or professional degree such as JD or MD

6) What did you receive your degree(s) in?

a) Open ended:_____

7) In the previous year, what was your annual salary?

- a) Less than \$25000
- b) \$25,000 \$35,000
- c) \$35,001 \$45,000
- d) \$45,001 \$55,000
- e) \$55,000 \$65,000
- f) \$65,000 \$75,000
- g) \$75,000 or more

8) Have you heard of the Certified Floodplain Manager (CFM) accreditation?

- a) Yes
- b) No (Go to 10)

9) Are you a Certified Floodplain Manager?

- a) Yes
- b) No

10) What percentage of your time is spent on floodplain management activities?

- a) 0-10%
- b) 11-20%
- c) 21-30%
- d) 31-40%
- e) 41-50%
- f) 50% or more

11) When was the last time your community was impacted by a flood (regardless of whether or not it was associated with a federally declared disaster)?

- a) 1-3 years
- b) 4-6 years
- c) 7-9 years
- d) 10 or more years

The next series of questions are all related to the capacity of you and your staff, as well as the challenges your program faces:

12) First, we would like to know about the time that you and your staff spent working on floodplain management in the previous year.

In the previous year, what percentage of you and your local staff's time was spent doing each of the following floodplain management activities? Please enter a value between 0 and 100%.

- a) Providing general technical assistance such as map interpretation
- b) Developing flood maps or new flood map data
- c) Answering questions about flood insurance
- d) Promoting sale of flood insurance
- e) Protecting natural floodplain resources and functions
- f) Educating and training the public, consultants, developers and others
- g) Enforcing local regulations and standards
- h) Issuing permits and conducting follow-up inspections
- i) Participating in or overseeing flood hazard mitigation grant programs
- j) Anything else? Please tell us:

13) How many staff (including yourself) do you have in your local program doing floodplain management activities? Please include both fulltime and part-time employees.

- a) 1
- b) 2-3
- c) 4-5
- d) 6-7
- e) 8-10
- f) 10+

14) How many combined years of experience do you and/or your staff have in this role? (If you are counting staff experience, please include yours as well).

- a) less than 5 years
- b) 5 15 years
- c) 16-25 years
- d) 25 or more years

		Yes	No
a.	Lack of funding		
b.	Lack of staff		
C.	Lack of better outreach resources		
d.	Lack of better maps		
e.	Lack of political support		
f.	Lack of legal support for enforcing regulations		
g.	Issuing permits		
h.	Other? Please tell us:		•

15) What are some of the most common obstacles you face in the day-to-day implementation of your local floodplain management program?

16) What types of technical assistance does your community need to improve your local floodplain management program?

		Yes	No
a.	Regulation interpretation		
b.	Ideas for higher standards		
с.	Advice and best practices for code administration		
d.	Including floodplain management consideration into planning		
e.	Enforcement strategies		
f.	Hazard mitigation		
g.	Ideas for flood-proofing existing at-risk development		
h.	Flood insurance facts and policy interpretation		
i.	Other? Please tell us:		

17) The Community Rating System, also known as the CRS, is a voluntary incentive program that recognizes communities for implementing floodplain management practices that exceed the federal minimum requirements to provide flood protection.

Does your community take part in the Community Rating System also called CRS?

- a) Yes
- b) No (Go to 19)

18) What is your CRS class?

- a) 1-2
- b) 3-4
- c) 5-6
- d) 7-8
- e) 9

19) What is your community's main reason for not joining the CRS?

- a) It is too time consuming
- b) The benefits do not outweigh the costs of participation
- c) The community does not want to join the CRS
- d) Other? Please tell us:_____

20) What is the one tool that you need to improve your floodplain management efforts locally?

a) Open ended:_____

Our next set of questions relate to the current flood mapping practices in your community:

21) First, do your community flood maps accurately reflect the flood risk?

- a) Yes
- b) No

22) Do you know about any areas in your community that have flooded in the past, but that have not been identified on the flood maps as a potential flooding hazard?

- a) Yes
- b) No

23) In developing areas within your community, are there potential flood risks that have not been mapped yet?

- a) Yes
- b) No

24) Are engineering models behind your flood map data outdated?

- a) Yes
- b) No (Go to 26)

25) In the previous question, you said that engineering models behind your flood map data were outdated. Do you think as a result of that your floodplain mapping is inaccurate?

- a) Yes
- b) No

The following questions relate to recent development in your community's floodplain:

26) First, we have some questions about designated flood hazard areas shown on your community's adopted regulatory flood maps.

In the previous year, were any of the following kinds of permits granted in designated flood hazard areas?

		Yes	No
a.	Permits for building new structures		
b.	Permits for substantial improvement to existing structures		
с.	Permits for fill, grading or other non-structural activities		

27) In the previous year, how many of the following kinds of permits were granted in designated flood hazard areas?

		1-10	11-20	21-30	31-40	41-50	51-75	76 or
								more
a.	Permits for building new structures							
b.	Permits for substantial improvement to existing structures							
C.	Permits for fill, grading or other non-structural activities							

28) In the previous year, were any variances to floodplain management standards in designated flood hazard areas requested?

- a) Yes
- b) No (Go to 31)

29) Approximately how many variances were requested?

- a) 1-10
- b) 11-20
- c) 21-30
- d) 31-40
- e) 41-50
- f) 51-75
- g) 76 or more

30) Approximately how many of those requested variances were granted?

- a) 1-10
- b) 11-20
- c) 21-30
- d) 31-40
- e) 41-50
- f) 51-75
- g) 76 or more

31) In the previous year, were any violations discovered in designated flood hazard areas?

- a) Yes
- b) No (Go to 33)

32) Approximately how many violations were discovered?

- a) 1-10
- b) 11-20
- c) 21-30
- d) 31-40
- e) 41-50
- f) 51-75
- g) 76 or more

The following questions are related to policy and planning:

33) We would like to know about the kind of things you consider in your local codes and plans.

In this next question when we say climate change we mean rising sea levels, more powerful storms, and more intense precipitation for example. Do you consider climate change as it relates to flood risk in your...

	Do you consider climate change as it relates to flood risk	Yes	No	l don't know
	in your			
a.	comprehensive plan?			
b.	hazard mitigation plan?			
с.	emergency plan?			
d.	zoning ordinances?			
e.	building codes?			
f.	subdivision regulations?			
g.	stormwater regulations?			

34) In this next question when we say future conditions we mean anticipated natural or man-made changes to the physical landscape such as increased urbanization or channel erosion.

Do you consider future conditions in your ...

	Do you consider future conditions in your	Yes	No	I don't know
a.	comprehensive plan?			
b.	hazard mitigation plan?			
с.	emergency plan?			
d.	zoning ordinances?			
e.	building codes?			
f.	subdivision regulations?			
g.	stormwater regulations?			

35) Finally, is input from you or your floodplain management program staff provided when developing or updating your...

	Did floodplain management program staff provide input when developing or updating your	Yes	No	I don't know
a.	comprehensive plan?			
b.	hazard mitigation plan?			
с.	emergency plan?			
d.	zoning ordinances?			
e.	building codes?			
f.	subdivision regulations?			
g.	stormwater regulations?			

36) The National Flood Insurance Program or NFIP has minimum regulatory standards for flood prone areas. Does your community have standards that are stricter than the NFIP minimum for any of the following?

		Yes	No
а.	Freeboard	0	0
b.	Floodway rise	0	0
C.	Cumulative substantial damage or improvement	0	0
d.	Subdivision standards	0	0
e.	Critical facilities protection	0	0
f.	Fill standards	0	0
g.	Setbacks	0	0
h.	Stormwater management	0	0

37) In the previous you question you mentioned that you have higher standards than the minimum NFIP for the following items. Please tell us more:

		Open Ended Response Space
a.	Freeboard	
b.	Floodway rise	
с.	Cumulative substantial damage or improvement	
d.	Subdivision standards	
e.	Critical facilities protection	
f.	Fill standards	
g.	Setbacks	
h.	Stormwater management	

The following questions are all related to funding and cost share programs:

38) Sometimes communities have locally funded programs for activities to reduce flood loss such as having a source of funding for citizens to conduct flood loss reduction activities on their properties.

Does your community have any of the following programs that are locally funded and administered to support activities that reduce flood losses?

		Yes	No
a.	Grants		
b.	Low interest loans		
с.	Tax credit or deduction		
d.	Technical assistance programs		

39) Please tell us which of the following are primary funding sources for your floodplain management office or program?

		Yes	No
a.	Stormwater fees		
b.	Permit fees		
с.	General appropriation		
d.	State or federal grants		
e.	Charitable endowments		

40) Next, we have a list of federal assistance programs that provide funding and other assistance for flood loss reduction. Which of the following federal assistance programs do you know about?

		Yes	No
a.	Federal Emergency Management Agency Hazard Mitigation Grant Program		
b.	Federal Emergency Management Agency Pre-Disaster Mitigation Grant Program		
с.	Federal Emergency Management Agency Flood Mitigation Assistance Grant		
	Program		
d.	Federal Emergency Management Agency Public Assistance Program, 406		
	Mitigation Element		
e.	US Department of Housing and Urban Development Community Development		
	Block Grants		
f.	US Department of Housing and Urban Development Federal Housing		
	Administration 203k Rehabilitation Loan		
g.	US Small Business Administration Disaster Assistance Loan, Mitigation Element		
h.	US Army Corps of Engineers Floodplain Management Services		
i.	US Army Corps of Engineers Silver Jackets		
j.	Natural Resource Conservation Service Small Watersheds Program (PL – 566)		
k.	Natural Resource Conservation Service Emergency Watershed Protection Program		
١.	Natural Resource Conservation Service Conservation Easements		
m.	Environmental Protection Agency Green Infrastructure Grants		

Finally, please tell us a little bit about what you know about the Association of State Floodplain Managers and your state's floodplain management program:

41) First, are you familiar with the Association of State Floodplain Managers (ASFPM) and the services it provides?

- a) Yes
- b) No (Go to 43)

42) What services have you used?

		Yes	No
a.	Certified as a floodplain manager		
b.	Participated in ASFPM webinars		
c.	Participated in ASFPM sponsored in-person training and workshops		
d.	Attended an ASFPM or ASFPM chapter conference		
e.	Used the ASFPM Training Calendar on the ASFPM website		
f.	Used an ASFPM publication, tool or research report		
g.	Read ASFPM national policy information such as summaries and briefings		
h.	Subscribed to ASFPM newsletters		
i.	Participated in ASFPM social media such as twitter, Facebook and LinkedIn		
j.	Something else:		

43) ASFPM is a national nonprofit organization. We offer a variety of services across the country. Which of the following services are you interested in learning more about?

		Yes	No
a.	Webinars		
b.	In-person trainings and workshops		
с.	National or state chapter conferences		
d.	Library resources		
e.	Certified Floodplain Manager accreditation		

44) Are you aware of the existence of your state's floodplain management program?

- a) Yes
- b) No (Go to end)

45) Approximately how many times have you and your staff been in contact with state program staff in the last year?

a) Open ended:_____

47) Please give your overall impression of the state floodplain management program based on your contacts over the past year:

		Very	Poor	Fair	Good	Very
		poor				good
a.	Knowledge of the staff (such as their ability to answer your questions)					
b.	Tools provided by the staff to help you in your job as floodplain manager (such as model ordinances, handbooks)					
С.	Technical assistance provided by the staff					
d.	Timeliness of service					

47) If you have any questions of comments please leave them below: Open ended:_____ Appendix B

Survey Respondent Comments

Question 2 – Other Job Title

- 911 coordinator
- 911 Director & Em. Manager
- Addressing Coordinator
- admin./planning assistant
- Administrative Assistant/Zoning Specialist
- Administrative Consultant
- administrator
- Administrator of Conservation, Sanitation and Zoning
- administrator, public works director and zoning administrator
- all the above
- assessor
- Assessor
- Assistant City Administrator
- assistant city engineer
- Assistant City Engineer
- Assistant City Engineer
- Assistant City Manager
- Assistant County Manager
- Assistant Planner
- Assistant Planner
- Assistant Town Engineer
- Assistant Twp Engineer
- Associate City Engineer
- Associate Engineer
- Asst City Administrator
- Asst. County Eng.
- Asst. Dir. of Community Development
- Asst. Dir/Enviro Progr Mgr for local RPC
- AUDITOR
- auditor
- Auditor
- Auditor
- Auditor
- billing clerk
- Building & Planning Supervisor
- Building Development Director
- building insp.
- Building Inspector
- Building Inspector
- Building Inspector and Code Enforcement
 Officer
- Building Inspector, Fire Marshal, Ordinance
 Official & CFM
- Building Inspector/Zoning Administrator
- Building Official

- building official
- building official
- Building Official
- building official
- Building, Codes, & Safety Director
- buildings and grounds supr
- Business Owner
- CE IV, Stormwater Section Lead
- Central Permitting Technician
- Chaves County Planning Director
- Chief Building Inspector
- Chief Building Inspector
- Chief Building Official
- Chief Building Official
- Chief Engineer and Building Official
- Chief Engineer and General Manager
- Chief Village Officer
- Child Protection, County
- City Administrator
- City Administrator/Clerk
- City Auditor
- City Auditor
- City Auditor
- City Clerk

- CITY CLERK
- City clerk
- City Clerk
- City Clerk
- City Clerk
- City Clerk
- City Clerk
- City Clerk
- city clerk
- city clerk
- City Clerk
- City Clerk
- City Clerk
- City Clerk
- City Clerk Treasurer
- City Clerk/d
- City Clerk/Finance Officer
- City Clerk/Treasurer
- city clerk/treasurer/water department manager
- City Clerk-Treasurer
- City Engineer
- City Engineer
- City Engineer (consultant)
- City Engineer/Capital Projects Manager
- City Operations Officer/Clerk
- City Planner
- City Planner
- City Recorder

- City Secretary
- City Secretary
- City Secretary
- City Superintendent
- City Superintendent which includes Zoning Administrator
- city surveyor
- Civil Engineer
- Civil Engineering Technician
- Civil plan reviewer
- clerk
- clerk
- Clerk
- Clerk
- Clerk
- Clerk Treasurer Zoning Administrator
- Clerk, Assessor, Zoning Admin.
- Clerk/Court Clerk/Bldg Code
- Clerk/treasurer
- Clerk-Treasurer
- Clerk-Treasurer
- Clerk-Treasurer
- code enforcement
- code enforcement
- Code Enforcement Officer
- code enforcement officer
- Code Enforcement Officer
- code enforcement officer
- Code Enforcement, Animal Control, Maintance
 Dept, Police Officer
- Code Enforcement/building/permits
- Community Development Assistant Director
- Community Development Coordinator
- Comprehensive Planner
- Construction Engineer
- Construction Official
- Construction Project Manager
- Consulting planner
- Council President
- County Administrator
- County Agent
- County Assessor

- County Auditor
- County Engineer
- County Environmental Officer
- County Judge
- county planner
- County Planner
- County Planner
- County Planner
- COUNTY PLANNING DIRECTOR
- County Supervisor of Assessments
- Deputy Building Commissioner
- Deputy Building Official
- Deputy Public Works Director
- Development Engineer
- Development Regulations Specialist
- Director Dept. of Planning & Development
- Director of Building & Planning
- Director of Permitting and OSSF Inspector
- Director of Planning
- Director, Planning and Zoning
- Director, Resource Management Department
- Drainage Engineer
- E-911 Director/GIS Manager
- Emergency Management, Zoning, Solid Waste, Parks
- Emergency Services Director
- Emergency Services Director
- Engineer I
- Engineering Development Manager
- engineering environmental manager
- Engineering Manager
- Engineering Specialist II
- Engineering Technician
- Engineering Technician
- env compliance mgr
- Environmental Health & Zoning Administrator
- Environmental Manager
- Environmental Nuisance
- Environmental Planner
- Environmental Planner
- Environmental Services Coordinator
- Environmental Services Manager
- Environmental Services Manager
- Environmental/GIS Coordinator
- Executive Assistant

- Executive Director
- Executive Director
- finance officer
- finance officer
- Finance Officer/Deputy Clerk
- Fiscal Officer
- Flood Control District Manager
- Floodplain Coordinator
- Floodplain Coordinator
- Floodplain Manager, CRS Coordinator, & ADA Coordinator
- GIS Analyst
- GIS Coordinator
- GIS Coordinator
- GIS Coordinator
- GIS Manager
- gis mapper
- hwy supt / fire chief
- I am also the Zoning Officer and Emergency Manager for the County
- IT/GIS Director
- County Planner
- Land & Water Resource Adm
- Land Surveyor
- Land Use / OEM Director
- Land Use Administrator
- County Planning Director
- Maintenance & Utilities Supt
- Manager
- Mapping and Addressing
- Municipal Planner & Zoning Admin.
- Natural Resources Coordinator
- NDS Manager
- Neighborhood & Development Services Director
- other duties as assign
- Council member Non city worker Mechanical designer.
- Permit Coordinator/Floodplain Manager/CRS
 Coordinator
- plan commission director
- Plan Review Engineer
- Planner
- Planner and Zoning Administrator
- Planner, zoning and bldg permit admin (not code), GIS coordinator
- Planning
- Planning & Economic Development Director
- Planning & Inspections Director
- Planning & Zoning Administrator

- Planning & Zoning Administrator
- Planning & Zoning Director
- Planning & Zoning Director
- Planning and Zoning Director/Building Official
- Planning and Zoning Manager
- Planning Commission
- Planning Commission
- Planning Commission
- Planning Director
- Planning Director for Regional Planning
 Commission
- Planning Manager
- Planning, Land Use, Emergency Manager
- Planning/Safety Director
- police chief
- Police Chief
- Police Chief
- Private Consultant
- Private Sector
- Project Coordinator
- Project Coordinator/Risk Manager
- Project Engineer
- property assessor
- Public Works ROW permit Engineer
- Public Works Secretary
- Regional Planning Commission Director & Economic Development Director
- Resource Planner
- River and Floodplain Section Manager
- Road Administrator
- Road Supervisor
- Rural County Zoning Admin.
- Safety Director
- Sec/Treasurer
- Secretary
- secretary/treasurer
- self employed
- Senior Bridge Engineer & Floodplain Manager
- Senior Civil Engineer
- Senior Civil Engineer
- Senior Engineering Technician-NPDES Coordinator
- Senior Planner

- Senior Planner
- Senior Planner
- Senior Planner Land Use
- Senior Planner/Building and Development
 Manager
- Senior Stormwater Engineer
- SESC CEA
- Solid Waste Coordinator
- Stormwater manager Permit and Zoning
 Director
- street superintendant
- Supervisor of assessments
- Supervisor
- Supervisor
- supervisor
- Teacher
- Town Administrator
- Town Clerk
- Town Clerk
- Town Clerk
- Town Clerk
- Town Council President
- Town Manager
- town planner
- Town Planner
- Town Planner
- Town Supervisor
- Town Supervisor
- Town Supervisor
- Town Trustee
- Township Administrator
- Township Clerk
- Township Manager
- Township Supervisor
- Treasurer / Clerk
- Utilities & Drainage Plan Reviewer
- utilities superintendent
- Utilities and capital project coordinator
- vice chairman supervisor
- Village Clerk/Treasurer
- Village Administrator
- Village Administrator
- Village Administrator
- Village Administrator/Building Inspector

- Village Board Member
- Village Clerk
- Village Clerk
- Village Clerk
- Village Clerk/Collector
- Village Engineer
- Village Engineer/Stormwater Administrator

- Zoning & Utility Inspector
- Zoning Admin, plus Dir of Econ Dev
- Zoning Administrator, Stormwater Manager, Planner
- Zoning and Hwy Superintendent
- Zoning Inspector
- Zoning Officer

Question 6 – Degree

- AAS
- AAS
- AAS / paramedicine
- Accounting
- Accounting & Business Management
- Accounting & Business Management
- Accounting and Business Administration
- Accounting and Finance
- Accounting Clerk Degree/Associates in Arts
 Degree
- administration
- Administration of Justice
- Administrative Support
- Ag Business and Marketing
- Ag Engineering
- Ag Journalism
- Agri Business
- Agricultural & Civil Engineering
- Agricultural Business
- Agricultural Economics
- Agriculture
- Agriculture
- Agriculture chemical tech.
- Agronomy
- American Literature
- animal science
- Apllied Organizational Management
- Applied Geography
- Applied geography
- Architectural and civil engineering
- Architectural Design
- architectural engineering
- Architectural Engineering Technology; Civil Engineering Technology
- ARCHITECTURAL TECHNOLOGY
- Architectural/Construction Engineering
- Architecture
- Architecture
- architecture
- Architecture
- Architecture
- Architecture (Professional Masters)
- Architecture, City Planning

- architecture, urban planning
- Arts/Science and Biology
- Associate in Applied Science
- associate in design technology
- Associate of Arts
- Associate of Arts Degree
- Associate of Science
- Associate of Science Drafting and Design Technology
- B.A.-History, M.S.-Historic Preservation
- B.S. Civil Engineering
- B.S. Civil Engr.; M.S. Envir Engr
- B.S. Construction
- B.S. Economics
- B.S. Environmental Studies, JD, Masters Env law and policy
- B.S. in Geology, M.S. in Geology specializing in Fluvial Geomorphology
- BA Biology and Master's in City Planning
- BA Cultural Anthropology and BA Spanish
- BA in History
- BA in Political Science; Master of Public
 Administration
- BA- Political Science and an MBA
- BA Political Science-MBA
- Bach of Science- Civil Engineering
- Bachelor in Business Administration with emphasis in Accounting and Economics
- Bachelor in engineering
- Bachelor of Administrative Science concentration in Justice and Policy Studies
- Bachelor of Arts and Masters of Community Regional Meeting
- Bachelor of Fine Arts
- Bachelor of Science
- Bachelor of Science Civil Engineering
- Bachelor of Science in Accounting
- Bachelor of Special Studies with emphasis in Economics
- Bachelors in Political Science/ Masters in Public Administration
- bachelors of science
- Bachelors of Science Construction Systems
 Management
- BBA Accounting
- BBA Economics, BS Civil Engineering
- Biology
- Biology
- Biology
- Biology, Environmental Science
- Biomedical Science

- BS History & Business; MS History
- BS & MS in Civil and Environmental Engineering
- BS and MA in Urban and Regional Studies
- BS Architecture; MA Urban and Env. Planning
- BS Business Administration
- BS Civil Engineering
- BS Civil Engineering
- BS Civil Engineering
- BS Civil Engineering
- BS Civil Engineering MS Public Administration
- BS Civil Engineering Technology
- BS- Civil Engineering; MBA
- BS Construction Engineering
- BS Criminal Justice, Master of Public Adminstration
- BS Fire Protection
- BS Forest Engineering; BA Mathematics
- BS Geography
- BS in Business
- BS in Geography; MS in Planning
- BS in Home Economics UC Davis
- BS in Industrial Occupations
- BS Mechanical Engineering & MBA
- BSE
- BSN Nursing
- Building Construction Tecnology
- Buisness Managment
- Busines Administration/Criminal Justice
- Business
- Business & Urban Planning
- Business Admin
- Business Admin
- business administration

- Business Administration
- Business Administration
- Business Administration
- Business Administration
- Business Administration
- Business Administration
- Business Data Processing
- Business Education
- Business Management
- business management, hr, and accounting
- Business Management/Accounting
- Business Management/Liberal Arts
- business mgmt
- Business/Marketing
- Business/Supervisory management
- Christian Education
- City and Regional Planning
- City and Regional Planning (Masters) and Natural Resources (Bachelors)
- Civil and Environmental Engineering
- Civil Engieering
- Civil Engineer
- Civil Engineering
- Civil Engineeringcivil engineering

Civil Engineering

Civil Engineering

Civil Engineering

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B - 7

- Civil Engineering
- Civil engineeringCivil Engineering
- Civil Engineering
 Civil Engineering
- Civil Engineering & Masters of Information Systems
- Civil Engineering (Structural/Geothechnical/Construction management)
- Civil Engineering and Construction Administration

- Civil Engineering and MBA
- Civil Engineering BS
- Civil Engineering Technology
- Civil Engineering Technology
- Civil Engineering with emphasis in Water Resources
- Civil Engineering, Business (Law Office)
 Management
- Civil Engineering/Geology
- Civil Engineering/Structural Technology
- Civil Engineering; MBA
- Civil Engineering-Surveying
- Civil Enginnering
- Civil Enigineering
- Civil/Structural Engineering
- Coastal and Ocean Policy
- Communications
- communications
- Communications
- Communications, Conputer Science, Biology
- Community & Regional Planning
- Community & Regional Planning
- Community and Regional Planning
- Community Development and Applied
 Economics
- Computer Engineering Technology
- Computer Information Systems
- computer maintenance
- computer office technology, specializing in medicine
- computer programming
- Construction Engineering Technology
- Construction Managament, M.S.; Civil Engineering, B.S
- construction management
- Construction Management
- Construction Management
- construction technology
- Construction Technology
- Construction technology
- Construction Technology
- Criminal Justice
- Criminal Justice, Psychology, Law JD
- Criminal Justice, Public Administration
- Drafting & Pre-Law
- economic geography
- economic geography
- Economics, MBA

- education
- Education
- Education
- education
- Electrical Construction
- electrical engineer
- Electrical Engineering
- Electronic Technology- Technicans Diploma
- electronics
- Electronics/ Minor in Finance
- Elementar Education
- Emergency Management
- Emergency Medical Science
- Emergency Medicine
- Engineering
- Engineering
- engineering
- Engineering
- Engineering
- Engineering
- Engineering Project Management
- Engineering Science/Logistics Mgmt/ MicroComputer Electronics
- Engineering Technology/ Math / GIS
- Engineering, Public Administration
- English Communications minors-business & history
- English Education
- English Literature
- env sci natural ressource management
- Environmental Science
- Environmental Science and Policy
- Environmental Science, emphisis in Forestry
- Environmental Studies
- Environmental Studies
- Environmental Studies
- Environmental Water Technologies, Business
 Management
- envr engr
- Equine Science, Multimedia
- Fashion Merchandising/Business Administration
- Feed and Fertilizing Marketing
- Field Biology & Business Admin.
- Fire Protection Technology
- fire protection technology
- Fire Science
- Fire Technology
- General & Biological Science and Physical Education; MS in Safety
- general education
- General Studies
- General Studies/Political Science focus
- Geoenvironmental Science

- Geo-environmental Science
- Geographical Information Systems
- Geography
- Geography Planning
- Geography & Criminal Justice
- geography & land use
- Geography and Biology
- Geography and Public Administration
- Geography and Regional Planning
- Geography BA, MS classes in Environ. Science
- Geography/Environmental Planning
- Geography/Land Use Planning
- geography/urban and regional development
- Geography_ Land Use Planning & Policy
- Geological Engineering
- Geological Engineering and Public Admin
- Geology
- Geology
- geology
- Geology and Planetary Science
- Geology, Botany
- Geology, engineering, emergency management
- graphic design
- History
- History
- Human Development & Education
- Human Development and Family Studies
- human resources
- Individual Studies
- Industrial Aerospace & Management
- Industrial Management
- Industrial Technology
- Industrial Technology Drafting
- Labor Studies

law

B - 9

- Land Surveying & Mapping Science
- Land Use Planning
- Landscape Architecture
- Landscape Architecture
- landscape architecture
- Landscape Architecture
- Landscape Architecture & Natural Resources
 Planning
- Landscape Architecture, Urban Planning

- law
- Law
- Law
- Liberal Arts
- Management
- management
- Management
- Management/Business
- marketing
- Marketing and masters in Industrial Design
- marketing business administration
- Marketing/Advertising
- Mass Com and Public Leadership
- Master in City Planning
- Master of City and Regional Planning
- Master of City and Regional Planning
- Master of Public Administration
- Master of Urban & Regional Planning
- Master of Urban Planning in Urban Design
- Master's Community Planning, Master's Socioloy
- Masters in Urban and Regional Planning
- Masters of Urban & Regional Planning
- Mathematics
- Mathematics
- MBA
- MBA
- MBA
- mech drafting tech
- Mechanical drafting and design
- Mechanical Engineering
- Mechanical Engineering
- Mechanical Engineering, Civil Engineering, and Civil/Environmental Enginnering
- Mechanical Engineering; Public Health; Environmental Engineering
- Mechanized Agriculture Ag Engr
- Medical Assisting
- Medical Assisting
- Medical Laboratory Technology
- mental health, human services
- MPA Local Government
- MS in Resource Recreation
- MUP
- music education
- No
- none
- nursing
- organizational management
- P.E.
- PARAMEDIC
- Park Management/Recreational Planning
- Parks and Recreation MGMT
- Ph.D. Physical Geography, J.D.

- Photography
- physics & mathematics
- Planning
- Planning
- Planning
- Planning and Public Administration
- Planning/Geology & Military History
- Political Science
- Political Science & Economics
- Political Science & MPA
- Political Science (Bachelor of Arts), Public Administration (Masters)
- Political Science and African American Literature
- Political Science and Geography
- Political science, public administration and historic preservation
- Political science, public administration, folk studies/historic preservation
- Political science, public administration, folk studies/historic preservation
- Political Science/Public Administration
- Political Science; Public Administration
- Political Science; Reg. & City Planning
- Psychology
- psychology
- Public Admin
- Public Admin & City Planning
- Public Administration
- Public Administration and Business/Music
- Public administration with concentrations in finance and local goverment
- Public Administration/ planning
- Public Administration/BS in Legal Studies

- Public Affairs
- Public Affairs
- regional and community planning
- Regional Planning
- safety
- Science
- Secondary education
- Secretarial Science
- Secretarial Science
- social work
- Sociology/Biology
- Soil & Water Conservation
- soils and waste management
- Sul Ross State University
- surveying
- Surveying technology
- TEXAS A & M UNIVERSITY
- Two degrees. Accounting and Economics
- Urban and Regional Planning
- Urban and Regional Planning
- Urban and Regional Planning
- Urban and Regional Planning, Architecture
- Urban and Regional Studies

- Urban Forestry
- Urban Planning
- Urban Planning & Development
- Urban Planning and Regional Development
- Urban Planning Bachelor, Civil Engineering Associates
- Urban Studies
- Urban studies
- Urban Studies
- Urban Studies, Regional & City Planning
- UW Platteville
- Vocational Education
- Vocational Education, construction
- Water Resource Management
- Watershed Management, Soil Science
- wildlife and fisheries sciences
- Wildlife Biology
- Woodworking

Question 12 – Other

- Other non floodplain duties
- 911 addressing
- Administration of zoning and subdivision regulations
- Administrator of all other city projects day to day operations and budgeting
- Administrative other than flood
- All these issues are handled by County Officials
- amending the floodplain ordinance
- Annual Reports
- Assist Surveyors in Zone A BFE determinations
- Assisting with Levee certification LAMP project
- Assisting with LOMAs
- Attending Classes
- building and zoning code
- Building Inspections
- Building Inspections Code Enforcement
- Capital project design, permitting and construction
- Chair of State Association
- City management
- City Planning
- communication with elected officials
- compare new aerials to older aerials to determine unknown encroachments
- Completing a compliance report for SEMA.
- Construction code enforcement
- Construction Storm Sewer
- coordinating with other agencies
- CRS
- CRS Activities
- CRS Program Outreach
- CRS Program management
- discussing lack of flood issues
- Economic Development
- Education
- Education
- Engineering
- engineering work
- everything else NOT related to floodplain management; poorly worded question
- Everything else that has to do with city business
- FEMA issued new countywide maps, we had to amend our ordinance and adopt the map
- Filling out FEMA requirements
- Fiscal Responsibilities
- fixing dirt & gravel roads
- Flood Commission Chair
- flood warning / emergency response
- Floodplain Management is a part of Permit and Zoning which has 5 staff total

- Function as Building Code Official
- general planning and permitting activities
- Getting BOCC to approve new flood plain ordinance
- Handling complaints
- Hazard Mitigation Plan
- help writing town regulations
- Helping with LOMAs
- I am new to the position. As far as I can tell, we have not done much yet.
- I have done nothing in regards to floodplain management
- keeping floodway clear of debris
- Levee certification
- Local govt buildings
- Maintaining our CRS status
- Managing Projects
- meaningful work
- meetings
- Misc. Copies
- Miscellaneous Record keeping
- MS4 Compliance, Plan Review, Capital Improvements
- Municipal Flood Control Grant Program
- N/A
- N/A only one tiny piece of land in the x zone on flood map
- NFPI 5 yr. Rev. of Town Code
- No floodplain management was needed
- None
- non-flood activities
- Non-flood plain activities
- Non-Floodplain related
- Non-floodplain related duties
- non-FPM activities
- normal workload
- North Salem has items they have been working on but haven't contacted me to help
- not my duty
- other
- Other City Responsibilities
- Other development work
- other duties
- Other duties directly related to primary job such as Fire, EMS, Comms, EMA work
- Other duties than floodplain
- other duties, addressing, ROW management, ROW permits, ROW enforcement, etc.
- Other job duties not related to floodplain management.
- Other job duties unrelated to floodplain

- Other job functions not related. We send very less time on flood management.
- other land development review, unrelated capital projects
- Other regulatory. This question worded wrong. Staff + me can =>100%
- Other responsibilities within the Public Works Department
- is not in a flood plain
- permit reviews not related to floodplain and Public Works projects
- Plan Review and Fire Code Inspections
- Planning & Zoning
- Planning & Zoning for County with aid provided to
- Planning and Zoning
- planning and zoning duties
- Preparing for CRS visit
- Preparing to participate in the CRS
- Providing zoning and land use information
- Public Works/Engineering
- Regional coordination on floodplain issues
- Regular Planning Duties
- Regular Planning Office Duties
- Regulation Updates
- Review Levee CLOMR
- Reviewing regulatory documents such as Elevation Certificates
- Reviewing revised nfip floodplain maps

- revision of ordinances
- Stuff not related to Flood
- substantial damage assessments
- The maps are horrible, and we usually are sending people to accredited managers
- This job entails all duties of EM /Planning/Floodplain/Mapping
- this survey
- Township located on
- Training
- try to prove houses are out of the flood plain.
- Trying to get updated FEMA maps
- Updating Regulations
- very little time spent
- Violations, complaints, Fire Inspections, site plan reviews, office work, etc.
- We are a small town with no flooding and no full time employees
- We are fortunate to not have much floodplain located within our jurisdiction
- We are in a type X zone with no areas prone to flooding
- We are very minimally impacted by floods
- Work on capital projects
- working as CRS coordinator
- Write New Ord/Flood Plain Bldg Specs
- Zoning and Code Enforcement
- Zoning, Engineering, and special projects

Question 15. Comments

- 60-hour week job and trying to do flood plain
- A law that requires a letter in order to record land records.
- Awareness of local flood damage prevention law by residents and mostly contractor
- Community simply doesn't have a lot of issues with floodplain management
- Community is highest point of county if community gets flooding
- community comprehension
- Correcting old data with updated Elevation Certificates
- Dealing with unnumbered A Zones
- Departmental division of the program.
- developers support
- difficulty in assessing groundwater risks
- Don't feel we have obstacles
- Don't have notification process to get ahead of building in the flood zone.
- Easy contact with State
- educating elected officials
- ELEVATION CERTIFICATES AND COMPLETION OF FLOOD ASSESSMENT DOCUMENTATION
- elevation corrections
- Equal Enforcement in County
- FIRM mapping hasn't been done yet.
- FIRM maps do not seem accurate, as we have a Dam that controls water levels
- Flood plain only small portion of duties 1 man operation
- Flooding is rarely an issue in
- Grants/money
- I am one person with 8 hats so I address the floodplain issues as they come up o
- I wear too many hats and we are not in a flood plain
- Improving infrastructure due to lack of funding
- Insurance Adjusters cost estimates
- interfering with private property
- Interpreting complex regulations, where to go to find, etc.
- Lack of a firm understanding of the flood insurance implications
- Lack of available staff training
- lack of basic training on management
- Lack of cooperation from other city departments
- LACK OF FEMA SUPPORT
- LACK OF FLOOD ISSUES

- lack of flood issues
- Lack of information about flood-prone areas in the City's grown area
- Lack of Interest
- lack of need
- Lack of prior enforcement still seen as what should be standard.
- Lack of program visibility
- Lack of Public Understanding
- lack of studied maps need lidar
- lack of supervisors' support
- Lack of time
- Lack of Time
- lack of time and knowhow
- Lack of training
- Lack of understanding
- lack of understanding by public
- lacking common sense people in the business
- Limited Time
- Low priority for community
- Map Size and Handling
- Minimal Flooding Occurs Here
- N/A only one tiny piece of land in the x zone on flood map
- NA
- Need new maps ASAP
- No Flood Plain Area
- no obstacles
- None of the previous directors seem to have had focus on flood.
- non-prioritization of fpm
- not knowing construction has began
- Not much need
- Only staff person in office, lacking knowledge/time to properly learn and enforce
- Ordinance is Non-Compliant
- is not in a flood plain
- our maps are off
- politics don't understand time needed for this field
- proper codes
- Public Education
- public resistance to higher regulatory standards
- Public understanding of Arid Region Flood Issues
- Public's lack of understanding of the need for floodplain regulations
- Push back from affected citizens
- Small area in flood plain needs little management

- small town, not much to deal with
- Some of our mapping dates back to 1983. Many people are paying for unneeded FI
- The majority of the residents cannot afford to move out of or retrofit property
- The village doesn't sit in a flood plain area
- This is not the only duty of the position, and handling can be a fulltime job
- Time
- Time
- Too many undetermined A zones
- Very little development pressure in floodplain
- We are a very small city and has a very small section within the flood plain.
- we are NOT in a floodplain
- we have 1 part time secretary, the Mayor is the flood plain manager.

- we have a program for flood plain but have not had to do much with it
- we have almost 0 area of floodplain
- We have no flooding issues.
- we work in tandem with the surveyor
- working with insurance co during flood time
- You would have to talk to **talk**. i don't have anything to do with flood management

Question 16. Comments

- Access to digital map data
- backing from FEMA
- been waiting on DFIRM's since 2004
- Better mapping funding for surveying and engineering
- Better Mapping from FEMA
- Better maps
- better up to date maps
- Buyout without local financial participation
- CFM should have supervisory responsibilities
- changing our floodplain map
- city has flood plain ordinance but haven't needed to follow it due to no flooding
- clear handouts
- Community specific 3D visualization
- Cooperation from (state)
- Educating elected and managers about the importance of floodplain management.
- education
- Engineers
- evaluating groundwater risks
- FEMA training
- Funding for buy-outs
- Funding to build certified levees
- Grant writing
- Guidance regarding BFE calculations, FEMA certificates, and survey tools
- help CRS program
- I am becoming a CFM to help.
- Ideas for new uses and how to build new construction that is compliant.
- identification of flood-prone areas within City's growth area
- info for distribution
- Keeping up on the ever changing reforms relating to flood to best assist public.
- Lack of current comprehensive plan.
- Lack of funding for additional staff
- Law that allows counties the power for building code enforcement.
- Local training/webinar opportunities
- MAPS
- Maps to assist in understanding floodplain
- (state support)
- N/A only one tiny piece of land in the x zone on flood map
- New Maps
- No BFE data in Approx. A zones we lack affordable options for elevation certs
- no idea
- No issues
- none
- none needed everything in good shape
- Only would know the answer to this question.
- Outreach strategies
- photo proof of flooding not recognized by FEMA
- Public/Private partnerships
- regulation interpretation is most important
- studied data...lidar

- The village doesn't sit in a flood plain
- Training
- training videos
- Ways to creatively and legally address issues caused by an international border
- we have no flood plains
- Working on a new ordinance

Question 20. Comments

- \$ in budget
- A 3-D flood visualization of this specific community
- A better Federal Map system that identifies area of flooding or non-flooding in our case
- a better understanding of the basics of floodplain management
- A better understanding of the overall program by upper management to have the necessary support for best practices.
- a better understanding of what the 'developable area' is.
- A check list with some of the basic information; how to for small communities that have low risk
- a comprehensive drainage study of the City's growth area
- A computer program/online interface that would provide both training and technical assistance.
- a dedicated manager that has time to actually do the job
- A direct contact
- a floodplain map that does not include property that has never been flooded in 200 years
- A full featured and functional web based GIS Application centered on accurate Flood Insurance Rate Maps
- A GPS survey instrument to shoot elevation
- a hotline to ask questions
- a law that requires a approval letter before the County Clerk can record land records, and for small county to be able to enforce building codes in the county.
- A less restrictive CRS manual
- A live map feed for integration into ArcGIS with the current Flood Plain data.
- A more advanced version of ArcMap might be a start. Town authority never approved my request to purchase a more advanced version of ArcMap or other software as they do cost a lot. City funds to revise an Old Mitigation Plan. In my opinion, the 5-year update requirement for Approved Mitigation Plans by FEMA is unrealistic in terms of time and cost by small communities.
- A more robust enforcement ordinance which we anticipate will be enacted next month.
- a new map current maps are wrong
- A phone hotline to answer questions quickly.
- A really good online tutorial for flood management and what the bureau expects or needs from this municipality.

- a stormwater master plan
- A way to effectively reach and educate the population.
- access to good maps
- Accurate FIRM maps
- Accurate flood maps, our current maps are pitiful.
- Accurate flood plain maps.
- Accurate floodplain boundary locations and topos
- Accurate mapping
- Accurate maps
- Accurate, readable maps
- addition funds
- Additional benchmarks would be beneficial for our local surveyors and engineers to determine BFE.
- additional community outreach program
- additional enforcement of regulations
- Additional funding
- Additional funding
- additional funds to purchase properties in the flood plain
- Additional information regarding flood insurance impacts on properties or structures within floodplains.
- additional maintenance funds
- Additional Staff
- Additional staff and resources (GIS and survey/elevation data).
- Additional staff member or consultant familiar with floodplain regulations
- Additional Staff.
- Additional training
- additional training
- Adherence to the regulations by land owners
- Administration Support
- administrative support
- Advertising funds and time to construct a public awareness initiative.
- After better maps; public outreach and education
- All entities (EMA, Commissioners, Development, etc) working together.
- Applicable Information

- As stated there is just a small area in the floodplain map. Actually not in the city limits. therefore, no interest.
- Assistance in completing initial CRS application process and institute applicable flood management procedures
- Awareness by the general public
- Base flood elevations on maps
- be able to use photos, eye witness and historical data to set the FPL, not just a bunch of calculations created because of an incomplete study of the entire water shed area.
- Because we have so little floodplain, I do not work with it often enough to be real confident. I call a close community that works with it a lot when I have questions.
- Become a CFM
- becoming part of the CRS program . . . time to do that!
- Best practices in floodplain permits.
- Better access for taxpayers in looking up FEMA information
- Better access to flood insurance policy information
- better access to web based information
- Better accommodation by FEMA of small communities' staffing limitations.
- Better and easier access to mapping
- Better and more concise FEMA maps
- Better citizen awareness
- Better clarity of aerial view features on FIRMs. It's hard to get a fix on locations when the depicted physical features are fuzzy.
- Better community involvement
- Better Community Outreach
- Better community outreach tools
- Better computer equipment.
- better concentrated maps
- better coordination with FEMA and or
- Better coordination with the County who issues permits for the City
- better easy to read maps
- Better education and training
- better education of the residents
- Better evaluation of floodplain risk
- Better FIRMs
- better flood plain mapping the FEMA maps are inaccurate
- better flood plain maps
- better floodplain maps
- Better information

- Better information about the operations of upstream dams that provide riverine flood control function for the City.
- Better information for elected officials as to the benefits of sound floodplain management
- Better information on how to enforce and inspect floodplain regulations
- Better knowledge
- Better knowledge
- Better Map resources
- Better mapping
- Better Mapping
- better mapping
- better mapping and elevations
- Better Mapping and funding for Hazard Mitigation
- Better Mapping by FEMA. Much of FEMA floodplain around lakes is erroneous.
- Better Mapping of the Special Flood Hazard Areas
- better mapping, there was no consideration to the different elevations that surround some of the lakes and people are required to get elevation certificates that actually be shown as out.
- Better maps
- Better maps make them GIS compatible
- Better maps & on-line support
- Better maps and Base Flood Elevations
- better maps and better understanding about floodplain management
- Better maps from FEMA
- better maps!!!!

- better maps, current maps show areas in general, need scaled maps to best determine distances
- better maps, easy to use online web based maps
- Better Maps.
- Better maps. Maps on a computer that would over lay google maps
- Better maps and clearer flood limits that are up to date.
- Better maps/data and building code enforcement
- Better online mapping tools
- Better outreach information on flood insurance.
- better outreach materials
- Better outreach to those in the building community and property owners.
- better overall tool to manage CRS level improvement
- better person to person phone contact
- Better policing of the county. Eyes in the field.
- Better political support.
- Better review of insurance requirement by the outside rating/determination companies.
- Better technical assistance and response
- Better training for Flood Plain Manager
- better understanding of problem areas
- Better understanding of program requirements
- Better understanding of the entire system
- Better understanding of the overall process
- Better understanding of Zone A characteristics, BFE, FEMA certificates to educate landowners
- Better ways of catching floodplain development before it occurs.
- bfe
- brochures for distribution
- Building Permits
- Certified Floodplain Manager on staff
- Certified levees
- Change the attitude of people within our jurisdiction
- City council understanding and participation
- Classes offered that are nearby.
- clear mapping at a lower altitude
- clear procedures
- Clear, concise information and support from FEMA regarding floodplain management.
- clearer interpretation and maps
- clearer mapping
- clearer mapping for identification
- Community Buy-in
- Community cooperation

- community education
- community outreach
- Community Support
- complete detailed studies of all floodplain areas, too many undetermined A zones.
- Comprehensive GIS maps with the flood plains.
- contact information for residents
- contact person
- Continued Education
- continuing education
- Continuing education
- Continuing education opportunities
- convenient status tracking system by parcel
- Cooperation from DEC
- Cooperation with surrounding communities
- Coordination software between building department and floodplain manager office
- County Board of Supervisors support
- Current mapping
- Currently don't need anything but time
- Dedicated full-time position for floodplain management
- Dedicated Staff time
- dedicated staff. All current staff juggle too many roles to focus on effective floodplain management, including myself.
- Dedicated time
 - should not have flood insurance if floods wholes other cities will go first is highest point in point in
 - county

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- Delineation of Flood hazard zones
- Detailed Education
- Detailed elevation maps of structures in the floodplain
- Detailed GIS system
- Detailed maps with various flood elevations
- Determination of BFE's in areas of the county that are in Zone A.
- Determination of need.
- Development of a better local review process and more public education.
- Digital FIRMs
- Digital FIRMs
- Digital floodplain maps that are easily accessible
- digital maps
- digital maps
- digital, updated maps with parcel lines so you can actually ID where the parcels and buildings are

- Don't have an opinion due to extremely limited exposure to development in floodplain. Only one event in three years.
- don't have areas of flooding
- Don't know
- don't know. We use OEM and our little city does not participate in flood.
- Don't know: we have minimal exposure
- Drainage system for areas prone to floods.
- Easier access to State and Federal resources.
- easier fema floodplain mapping access
- Easier record keeping for the CRS program. Getting to the point where it may not be worth it.
- Easier regulations to interpret so we can administer it easier.
- Easier to enforce regulations
- Easy to access flood hazard area maps
- easy to implement and equitable regional stormwater management agency
- Educate the community to build awareness
- Educating the homeowners and businesses about the flood plain and insurance
- Education
- Education and citizen & banks understanding the FIRM
- Education and outreach
- Education and outreach which we are hoping that CRS will provide a greater incentive to initiate.
- Education and support of local leaders.
- Education and working with local municipalities
- Education for community
- Education from State and Federal governments for local elected officials

- Education of County Commissioners about floodplain efforts
- Education of county residents that don't see the need for floodplain management.
- education of the public about the floodplain and NFIP
- Educational courses
- Educational Resources
- electronic data showing floodplain and structures
- Employee
- Employee for floodplain management work
- Employees with experience
- Enforcement of Floodplain regulations
- Enough staff
- Estimating flood damages and estimating costs for work on structures in the floodplain.
- experience
- federal and state requirements
- FEMA Flood Plain Maps brought up to date in digital form online
- Finalized DFIRM's would be the most advantageous, working with 1980's paper maps takes a lot of time
- FINANCES
- Financial and staffing resources
- financial resources
- Financial resources financial resources
- financial resources to provide staff for training and enforcement
- financial support
- FIRM
- FIRM Mapping must be done first, before implementation of any ordinances can be initiated.
- Flood awareness
- flood maps and proper codes for enforcement
- Flooding concerns from canals in the area
- floodplain area is small and no improvement in management needed
- Floodplain maps
- Floodplain Regulations written into all building code books to coordinate the two together
- For all insurance companies to be on the same page
- funding
- funding
- Funding
- Funding
- Funding
- Funding

- Funding
- Funding
- funding
- funding
- funding
- Fundingfunding
- funding
 funding
- funding and resources for administration
- Funding for property acquisition
- Funding for training
- Funding source
- funding source
- Funding to buy-out homes in the Floodway
- Funding to remove structures from flood plain
- Funding, staffing
- funds
- get rid of it
- Getting people to realize they need to expend \$ for elevation certificates
- getting planning and the community on board
- Getting the community involved. The owners who do not have insurance do not want to make the effort to comply because they can walk away from what they have and not be out anything, they have no money in the property or connection to the property.
- Getting the local Creek Watershed Council educated about non-structural solutions to flood plain management.
- GIS
- GIS software
- Good understanding of mapped floodplain and which regulations and procedures to follow local, state, or federal in each stuation.
- grant writer
- Grant writing assistance
- grants
- GRANTS OR FUNDS
- Grants, Engineers

- Greater Accuracy in the floodplain maps
- guidance
- Having a clear way to understand who is in the flood plain, how to calculate how much property is in the floodplain when it is partially in and partially out.
- Hazard Mitigation
- Hazard Mitigation
- Hazard Mitigation Funding
- Hazard Mitigation Resources
- help
- Help on Implementing the CRS Program
- High resolution flood maps
- Higher quality digital maps
- Higher Standards
- hiring a contractor to submit crs application
- How to educate the political board that constantly changes of the importance of floodplain management
- I am new to this position and I am not aware of my role with this. I am responsible for sending information out, but I have no knowledge of the floodplain information.
- I believe when the proposed Flood Plain Maps go into effect in July will help improve flood plain management.
- I don't know
- I have all the tools needed to manage the job as required.
- I have no idea.
- I need help in determining the cost/benefit of CRS activities. I am unable to determine how many credits I will get for an activity as the credits given seem to be subject to the ISO's interpretation of the value of the activity.
- I think we are doing a fairly good job with our program at this time. All projects that come through our development process are checked for flood hazards as part of the review.
- I work a full time job, other than Clerk-Treasurer. When training is available, I cannot take off work to attend floodplain training. Need more flexible training.
- I WOULD LIKE TO KNOW MORE WHAT MY ROLE IS AS A FLOOD PLAIN MANAGER
- Ideas for addressing unnumbered A Zones and/or more detailed flood mapping for some areas of the County
- I'm not sure
- I'm not sure, our Village is located in a flat plain, no water around it.

- I'm think that this may be covered under our Emergency Management Program.
- improved maps
- Improved Maps and maps that accurately reflect conditions in the field
- Improved standards for developers, and enforcement of such
- improved training
- In general assistance in interpretation of the flood plain ordinance, not necessarily for the Town of
- Information
- information about whether we are in a flood plain or not
- information for residents
- information on floodplains
- Information packet for setting up a process would be extremely helpful
- information/support at little to no cost
- information
- insurance companies sharing information
- interpretation
- Interpretation of Rules & Regs and flood map interpretation
- It would be helpful to have a better understanding of the details of the CRS program.
- It's working ok at the moment.
- JOIN THE CRS
- Joining CRS
- Just a basic flyer about floodplain management and insurance may be helpful. I do not have the time and we actually do not have any special flood hazard areas, so this does not come up often.
- Just general knowledge to give to residents
- Just someone that has experience in floodplain management
- just started this year, so for me more training
- Knowledge
- Knowledge
- knowledge
- knowledge
- Knowledge of the program that I will obtain over time.
- knowledge of what is required
- Knowledge. We use county staff to assist in any flood mitigation issues.
- **Intersection** is less than square miles in area and only 35% is developed. In addition, the lakes are ancient sink hole lakes with steep slopes and almost no flood prone areas. Flood prone areas and largely restricted to agricultural and vacant

land. New FIRM maps are in the final stage of adoption for our area. I have been meeting with people with development proposals and educating them ion the maps of our flood plain management regulations. I think, for our small community, we are well informed and may revisit our regulations in the near future.

- learn more about this whole thing
- legal support
- Less FEMA paperwork
- lidar
- Local training opportunities & webinars on different subject matters.
- map
- mapping
- Mapping overlay on most current ortho imagery
- maps
- maps
- maps
- maps
- MAPS AND SITES
- Maps are the most used. We have good maps now that FEMA updated them in 2011.
- maps that are clear
- MAPS!!!!!
- Miscommunication between involved organizations
- Mitigation
- mitigation
- Mitigation financial assistance
- Monetary contribution from the State or Feds
- money
- money in the budget
- Money to improve the flood way.
- Money!
- MORE ACCESSIBLE, SOLID GUIDELINES FROM FEMA AS FAR AS CODES AND POLICIES TO IMPLEMENT
- More accurate FEMA maps. FEMA map updates have been very poor.
- More accurate FIRM maps
- more accurate map from FEMA
- more accurate maps
- More accurate risk data.

- More assistance from state and federal FEMA reps.
- More complete, accurate, maps
- More contact and information from Corps of Engineers
- more detail flood maps
- More Education
- More education to local heads of government, County Judge, Mayor, etc.
- More Funding
- more funding for mitigation of existing hazards
- More guidance
- More guidance materials on basic concepts for the public and our inspection team
- More help---More time
- More higher standards
- more information and materials explaining the problems and solutions
- More information.
- More knowledge in the recent changes to the CRS Manual
- More knowledge.
- more money
- More money allocated by the Federal government for FEMA to review our Physical Map Revisions.
- More money to address flood issues.
- More no-cost webinars and local training.
- More outreach
- more personnel
- more precise staff
- more resources
- More staff
- More staff and funding to participate and maintain programs like CRS, grants to elevate, etc...
- more staff or a full time floodplain manager
- More Staff Time
- more staff time to dedicate to this effort.
- More staff; better maps
- More support from the Selectmen
- more time
- more time
- MORE TIME & EXPERIENCED HELP
- More time and funding

- More time and funds to mitigate the structures in the floodplain and more ways to get this done.
- More time or staff
- More time or staff
- More time to spend on floodplain
- More time/staff to devote to floodplain management
- More trained staff to help enforce policies
- more training
- More training
- more training
- More training and support
- More training for staff
- more training on how to read floodplain maps
- more training opportunities for staff...especially local classes (not webinars) with CEU's for CFM maintenance.
- More Training was not properly trained
- More training, which I don't have time for.
- More training?
- move involvement by utility companies on hookup
- Much more definitive maps
- N/A only one tiny piece of land in the x zone on flood map
- Need easier to use and understand software.
- Need to update our ordinance because it is not in compliance and our flood plain maps are dated 1983
- Need updated floodplain study, with detailed floodway and flood elevations extending at least to the current city limits.
- New accurate floodplain maps
- New Commissioners
- new maps
- New Maps
- new maps and data
- New Maps!!
- New or updated FEMA Flood Maps
- New, updated maps
- No additional tools needed
- none contact with state is excellent
- None here. Dredging out the river and creek would assist in getting better flow.
- None we are a very low density county of farmers and ranchers
- None, we have very good regulations in place.
- None. We have very minimal if any flood impact.
- None. We are behind a levy
- not anything. we do not have much floodplain in my jurisdiction to be monitored.

- Not sure one tool would do the trick.
- Nothing we have no more than 3 or 4 floodplain inquiries per year
- occasional training to stay up to date on floodplain management
- has a creek. There is a flood zone. there has not been any flooding since I have been here so I have not had to deal with this other than ensuring permits are not in flood zones. our zone is very small.
- Officials and senior administration who understands take floodplain management seriously
- ok
- open for discussion
- Our efforts are good.
- Our FIRMs are grossly out of date (1995). New maps have been "in the works" since 2010.
- Our location is very unique because the land is rising faster than the ocean level. Our populations knows this and often questions the high coastal flood elevations. Because of this, the perception is that the maps are wrong. This creates a difficult discussion to have when discussing flood management if people don't believe in the science backing the flood maps.
- Our maps are good, but we still have problems determining interpreting flood boundaries.
- Outreach
- Outreach and enforcement
- Outreach to citizens
- outreach tools to distribute to community
- outside help
- part time staff and funding
- Participation in the CRS
- Permits
- Personnel
- political and legal support of enforcement
- political assistance
- Political backing to better enforce rules and regulations
- political involvement
- political involvement
- Political Support
- political support
- Political support and legislative action to fix CFR loopholes as mortgage companies currently drive the program more than the public officials.
- Political support for staff education
- possibly more detailed maps, has a small percentage of flood plain area

- property owner education
- public awareness
- Public education
- public education
- Public education regarding regulations and better education to the public on flood insurance.
 Flood insurance questions inundate our office when a bank requires flood insurance.
- Public outreach simulation models to help public understand development in floodplains.
- public participation/knowledge
- Public understanding of the Floodway / Floodplain
- publications
- reduce buildings already in floodplain
- refresher training
- Regular basic level training
- Regulations are making it difficult for construction in our entire community.
- Regulatory consistency across jurisdictions
- resources
- resources
- Rules that deal with our specific type of floodplain (large & shallow) which is very different from other types of floodplains that are deep and narrow
- Software
- Someone to step forward and take the \$200/yr. job.
- someone who knows what needs to be done
- Source of proper basic training in management of floodplains.
- staff
- staff and funding
- Staff dedicated to this job only
- Staff member dedicated to floodplain management
- Staff member dedicated to floodplain management
- Staff training
- Staff training
- Staff training and interpreting FEMA NFIP regulations.

- Staffing
- staffing
- Staffing
- Staffing, education, and time
- Stamped surveyor's survey
- Start with FEMA Mapping. If **EXAMPLE** had FEMA mapping I believe that leaders and residents would be more willing to participate.
- Stormwater system upgrade
- stronger support
- study to determine BFE elevations
- Support
- Support
- support
- support and information
- support by elected officials
- Support for Projects. This town has a lot of work to do. Sorry I am not much help here. I am wearing every hat and most of them, I do not want to wear. I am town manager, town clerk, finance, police chief, public works director, flood management, transportation, animal control, code enforcement, etc. It has been very difficult to adjust and we are currently trying to staff these positions.
- Support in interpretation of regulations
- Support of my Board of Trustees and Mayor
- support with a big picture approach
- support, community working together
- support, regulation and funding
- The City of has had a dike and levy system since 1980 when the dike was established. We have not had any type of flood or even close to flooding since this was established. FEMA thinks a split-flow located on the north of will flood the city. The is in the 500 yr. Flood Plain and has never had anything close to compromising the present dike system. This includes the flood and in our area that has been the in largest flood in years. We have proven photographs of the dike and how it wasn't close to being in any overflow. FEMA insists that it will and has put out the wrong amount of water coming down this area. The Corp of Engineers head was in in late 2015 and saw that this was a huge mistake on the amount of water in this flow. FEMA evidently estimated, and it was wrong, that 9000 Cu. Ft. per minute would come down that creek, said that the amount released on full which was a huge power in 2015 at

amount that had to be released to full capacity was 20,000 Cu. Ft. per minute and he stated there was no way that could be the correct amount in Split Flow. He is in the process of correcting this with FEMA.

- The **construction** is fortunate to have a number of County Regional facilities in our area that handle most of the runoff from high intensity storms.
- The digital flood plain maps could be more user friendly Very difficult to use.
- The maps are ridiculous. A person may have a house on a 20-acre plot and the house may be 100 feet up a hill and they figure the house is in a floodplain. Then they have to hire an accredited manager to resolve the issue and that brings about a \$2000 cost to the home owner.
- The unstudied areas should be studied
- There is a bit of a flaw in how this survey was structured. I am not actually the floodplain manager. Those duties have been delegated to the building authority, which I do not believe is fully trained to conduct the task. The challenges for our community is that most of the floodplain is within a Metropark. The rest of it is along damcontrolled lakes, which makes it difficult to impress the importance of floodplain standards.
- time
- TIME AND CONTINUING EDUCATION
- time and funds time and funds
- time and resources time and resources
- Time and Staff.
- Time from other job demands
- time to do it.
- to afford to dig out ditches and put in new culverts

- To avoid surveys.
- To have someone explain it better to me and City Officials
- Tools to help with community awareness
- training
- TRAINING!
- Training & Time
- training and grants
- Training and outreach
- training and resources
- training in our region not Indy
- training videos
- Training....
- understanding that outreach is needed
- Understanding the value
- Unsure the CRS program is administered in Surface Water Management.
- Unsure at this time.
- Up to date Electronic Flood Maps
- Up to date floodplain map and study through the entire city. We completed a study through the center of the City, but need additional study and mapping to the west/north and south.
- up to date mapping
- Updated accurate mapping
- Updated detailed hydraulic analysis of floodplains
- Updated FIRM Maps
- Updated flood studies and maps as well as electronic map overlays.
- updated floodplain maps
- Updated map
- UPDATED MAPS
- updated maps
- Updated maps
- Updated maps that reflect better details as to the structures that are indeed in the flood zone area. The current map reflect all waterfront properties are in Zone A. it's obvious that some houses/structures are not in a flood zone.

- Updated ordinates and policy regarding construction and permitting.
- Updated Paper Maps
- Updated Studied Areas and Digital Maps
- updated studies and maps
- Up-to-date mapping
- very little flood plain, with build able sites
- we are not in a flood plain we are a town of 500
 we adopted the maps beyond that it isn't important
- We are such a small community we only receive questions about removal from the flood plain or LOMR's so I am really just the floodplain management by default. I really don't qualify, I'm just the point of contact for this small village.
- We are updating our Stormwater Management Program and ordinances.
- We are very limited on the amount of floodplain inside the city limits.
- We currently work with our state government on floodplain management.
- We do not deal with a lot of flood plain issues
- We do not have a lot of development pressure in floodplain areas. Clearer floodplain designations in upland areas.
- We don't really deal with this
- We have map's and all the information no one has ever contacted us on any floodplain matters
- We have most of everything needed, but have no one wanting to invest in areas in the flood plain.
- We have no floodplain
- We have only a small area prone to flooding. No issues exist that need more management
- We have removed all but 7 properties from the flood plain and we don't get many request to build in the flood plain
- We need a solid floodplain management ordinance
- We need all the tools, we have really no understanding or tools
- We need new, updated, complete maps of the floodplain.
- We now have a county planner that has taken on most of the floodplain management for all county and municipalities.
- We will need new staff in the near future.
- we would like for someone at the state level to come down once a year and visit with us about what we might be doing wrong and answer questions and maybe look at sites.

- We're a very small city, with a very small flood zone, so we have few needs.
- Workable database

Question 37, Part A.

- We use 2' minimum above the 100 year floodplain elevation
- We try and stay at least 10" above NFIP freeboard.
- We require two feet of Free Board
- we require a 2 ft freeboard
- We require a 2' free board
- we require 2feet above lowest floor on new construction
- We require 2feet
- we require 2' freeboard above flood elevation
- We require 2' freeboard
- We require 2 foot
- We require 1' of freeboard above BFE
- We require 1' for structures and 2' for stormwater facilities
- we have a one foot freeboard
- We have a 2'
- we have a 1 ft allowance
- we have a 1 foot free board requirement
- We follow the LCSMC standards which are more strict
- we follow State of MI which stricter the FEMA
- We add one foot freeboard to BFE and depth.
- Up to 3 ft can be used
- Unified Development Ordinance
- Two feet of freeboard protection is required to the BFE
- Two feet above the base flood elevation
- two feet above BFE in Indiana
- two feet
- three foot
- The first floor is required to be 2' above freeboard
- The required 1' above the standard.
- Structures elevated 2 feet above BFE
- structure elevated at least 2' above BFE
- Structure are required to be 1 foot above 100 year floodplain
- State of Kansas requires 1' freeboard
- State building code requires freeboard in excess of NFIP.
- residential 3', commercial 1'
- required two foot above base flood elevation
- Require 1' of freeboard

- require 1 foot above BFE
- ref. City standards
- plus 1 foot
- plus 1 foot
- Our freeboard is one (1) foot above BFE
- One-Foot above BFE required
- one foot over bfe
- one foot above base flood elevation
- One foot above 0.2% flood hazard elevation
- one foot above
- One foot above
- one foot
- one foot
- One additional foot higher than the minimum
- One additional foot above the BFE.
- Occupied floor, 1 foot above freeboard in AE zones.
- NYS Building Code requires 2' freeboard
- NY state building code requires 2' of freeboard
- new york state requires 2 feet on residential structures
- NA
- must protect to one foot above base flood
- Minimum of 1 foot of freeboard required
- Minimum of 1 foot above BFE
- Minimum 3' of freeboard required on all new residential bldg
- minimum 2'
- Lowest floor 1' above BFE (lowest floor includes floor joist
- Low floor must be elevated at least one foot above BFE
- increased to 2 ft
- in accordance with ASCE/SEI 24-05
- free board is adjusted by prev. storms
- Follow NR 116 standards which exceed NFIP
- First floor minimum of one foot above BFE.
- Finish floor grade minimum 1 foot above freeboard
- elevate 4 feet above BFE
- requires 2' freeboard
- City follows freeboard requirements per ASCE24
- BFE+18"

- BFE plus one foot of freeboard
- BFE plus 1' to finished floor
- BFE plus 1'
- bfe +1, mobile homes bfe +1 or minimum 4ft above grade
- BFE +1 foot freeboard
- BFE +1'
- BFE +1'
- BFE + 1
- Based on Corps flood plain elevations rather than FEMA.
- at least 1' above BFE
- ASCE 24-14 requirements
- All AE zones must have a min ff of 12' NAVD
- Additional 1 and 1/2 feet
- 6 inches additional freeboard
- 4-feet
- 3-feet
- 30 inches
- 3.0 above BFE in SFHAs
- 3' to lowest floor
- 3 ft required by local ordinance
- 3 ft around lake/2 ft all other SFHA
- 3 ft above flood elevation
- 3 ft above 100 yr.
- 3' FPE
- 3 foot Freeboard
- 3 feet instead of 1 foot
- 3 feet in all SFHA
- 3 feet in AE zones, 4 feet in LIMWA
- 3 feet above the 100 year flood stage
- 3 feet above BFE
- 3 feet
- 3 feet
- 2ft freeboard
- 2ft above RFE for habitable structures
- 2ft above BFE
- 2ft
- 2-foot freeboard required
- 28" freeboard residential 12" commercial
- 24" inches
- 24" above BFE
- 24 inches above bfe
- 2'-0 is required
- 2.5'
- 2 ft. above BFE
- 2 ft in one basin, 1.5 ft in all other basins

- 2 ft above bfe
- 2 ft above BFE
- 2 ft
- 2' freeboard requirement
- 2' freeboard
- 2 foot, thinking about going to 3
- 2 foot freeboard
- 2 foot above BFE
- 2 feet per the MWRDGC WMO permit requirement
- 2 Feet of Freeboard pursuant to NY State Code Requirements
- 2 feet min
- 2 feet above the water surface profile elevation
- 2 feet above the established FBE
- 2 feet above bfe
- 2 feet above
- 2 feet
- 2' Above HWE, per NYSDEC
- 2' above BFE 3' above in certain Aprox A situations
- 2' above BFE
- 2' above bfe
- 2' above BFE
- 2'
- 2'

- 2'
- 2'
- 1ft. freeboard reqd. Ordinace worded so actually 2ft
- 1ft Higher than NFIP for building standards
- 1ft
- 1ft
- 1ft
- 1-foot above BFE
- 18"
- 18"
- 1'-0"
- 10 feet above freeboard
- 1.5 feet above Base Flood Elevation
- 1.5' ABOVE
- above BFE
- 1.0' above B.F.E.
- 1 ft in VE zone and 8 inches above crown of road in all zone
- 1 ft freeboard
- 1 ft above freeboard
- 1 ft
- 1' Free Board Requirment
- 1 foot of freeboard
- 1 foot higher than the BFE (this is a state requirement)
- 1 foot freeboard above base flood elevation required.
- 1 foot freeboard
- 1 foot above the 100 year bfe
- 1 foot above floodway water surface elevation (if one)

- 1 foot above FEMA minimum
- 1 foot above BFE can be 1 foot above 500 year in areas
- 1 foot above BFE
- 1 foot above base flood elevation
- 1 foot above base flood
- 1 foot above base flood
- 1 foot abobe BFE required for residential structures
- 1 foot
- 1' above NIFP
- 1' above BFE with lowest enclosed floor (A Zones)
- 1' above BFE
- 1' above BFE
- 1' above bfe
- 1' above 100 year is required by state
- 1'
- 1'

Question 37, Part B.

- Zero rise floodway AND floodplain
- zero rise
- Zero rise
- zero impact
- We require zero rise in the Floodway.
- We require 3' above adjacent grade if no number given in "A"
- We have a 0 rise in our regulations
- Unified Development Ordinance
- Subdivision ord. regulating runoff
- six inches
- set backs
- See above
- Same as above
- Require no rise certificate for floodway development
- ref. City standards
- one foot
- not allowed
- NO-RISE CERTIFICATION REQUIRED
- none
- no structures
- no rise at all
- No Rise allowed
- No rise
- No more than a six inch rise is permitted
- no floodway rise

- no expansion or enlargement of existing structure
- No development in the floodway is permitted.
- No development in Floodway withought hydrost
- no adverse impact (zero rise)
- NA
- N/A
- Must have no rise engineered study
- •
- Follow State
- Follow State
- Certification required
- Base flood = 0.01 ft, floodway encroachment prohibited
- anything built in floodway has to have permit from state
- 2 ft SFHA
- 1/10th inch
- ABOVE BFE, Additional structural requirements
- 0.99 ft
- 0.5 ft
- foot
- foot
- 0"
- 0 tollarance
- 0'
- .5 foot of floodway rise
- .1 foot rise
- .01 feet
- 0
- 0.00
- 0

Question 37, Part C.

- YES
- within ten years 25% calculation used.
- we track it
- we track all cumulative improvements and damage
- We require 1' higher than the base flood elevation
- we regulate to the 50% level
- We count all projects over the last three years.
- We calculate the damage over the life of the building
- we allow 50% for life of structure
- Unified Development Ordinance
- Track for 5 years
- This is monitored
- stream development and bank rehab
- SHALL COMPLY WITH DEVELOPMENT IN THE SFHA IF 50% OR MORE
- Same as #1
- rpts are filled out when there is any flood damage
- ref. City standards
- records kept for any damage to determine 50%
- proof must be provided
- Previous 10 years of permits for a structure.
- Over a 10 year period for flood related damages
- ours is 40%
- NFIP requirement is 50% ours is 30%
- NA
- Must meet FEMA and DEC standards as well as current codes.
- Municipal Ordinance
- mitigation program
- minor improvements cumulative over 10 years
- lifetime 30%
- Increase of 25% over original floor area
- Included in our floodplain management
 ordinance
- Improvement cannot exceed 50% of assessed value
- •
- have to comply with the freeboard requirement
- Follow State
- Follow State
- flood file

- damage 50% improvement 30%
- cumulative standards
- Cumulative over ligfe of structure in one basin
- cumulative improvements over a five year period
- cumulative improvement over 5 years
- Cumulative 10 years
- Combined total of all improvements equals or exceeds 50%
- City has 5 yr cost of improvements for cumulative SISD
- Assessed value based (as opposed to replacement value)
- annual pamphlets & mapped
- 50% Substantial damage or improvement has to meet current
- 50% rule
- 50% per ordinance.
- 50% over 3 years
- 50% or more of cost to repair or improve triggers mitigation
- 50% or greater in 5 year
- 50% of depreciated value of house
- 50% max over 10 year period without bringing bldg up to code
- 50 percent in a ten year period
- 50 % with in 5 years
- 5 YEARS CUMULATIVE SUBSTANTIAL DAMAGE
- 5 years
- 5 year/50%
- 5 year cumulative tracking period
- 5 year
- 30% threshold for substantial damage & cap on improvement
- 3 year cumulative period
- 10 year rolling cumulative total for substantial improvement
- 10 year period
- 10 year cumulative look back
- 10 year cumulative
- 10 year
- 50%
- 50%
- 44%
- 40%
- 25%

Question 37, Part D.

- we would be above the standard and not less than.
- We require stormwater modeling for new subdivisions
- We require 100% of all residential lots to be out of the f.p
- we have subdivision codes
- we follow State of MI which stricter the FEMA
- we do not consider wetlands or flood zones as developable land
- Unified Land Use Regulations
- Unified Development Ordinance
- too many to number
- SUBDIVISIONS SHALL COMPLY WITH
 DEVELOPMENT IN THE SFHA
- Subdivisions required to have pads above BFE
- Subdivision Rules & Regulations for Single Family Residences
- Stricter Code Enforcement
- stricter and more allowing for inspector to inspect
- Stormwater volumes and velocities are limited
- Stormwater protection, erosion control
- Stormwater detention ponds required.
- Some subdivisions required to submit a flood study
- setbacks and no building permits
- Same as #1
- road & lot elevations.
- revision of ordinance on going
- Review by Twp, County Bdlg Inspec, Soil Erosion Dept, MI DEQ
- restricted development within flood zones
- require to be outside of SFHA
- Require stormwater study
- Require on-site stormwater detention for all development
- ref. City standards
- rates of rise and detention ponds
- permitted uses to a single family home 700 sq. foot
- please see above
- Our subdivision standards are stricter than NFIP
- Our ordinances for flood regulations is very strict
- notes or identification of hazards i.e. wetlands, flood plain
- No subdividing land that has FEMA Flood Hazard designation

- No residential lots may be located in the floodplain.
- No new lots created in the regulatory floodplain
- No fill
- No additional drainage can leave the site.
- no activities in SFHA
- new UDO
- new permitting requirements
- Natural Sensitive Easement
- natural drainage courses must be maintained
- nai, no rise at all
- NA
- N/A
- Must have upland area out of FP for new SFD
- Must consider future flooding upon full development upstream
- Municipal Ordinance
- Minimum lot size is 20,000 sq. ft.
- min. lot size does not include flood hazard area
- major subdivision/floodplain must be dedicated as open space
- lots must have sufficient buildable land out of floodplain
- Lots must be able to be built outside flood plain
- Limits on percent of lot within a floodplain per discretion
- Limited development regulations found in Zoning Ordinance
- Larger lot sizes
- larger floor area ratios
- •
- Have to design for four different storm intervals
- Have subdivision ord for all prop. major=5 lots or more
- has to meet flood prevention ordinance
- Follow State
- Flood hazard area includes 0.2% SFHA
- FHA must be preserved as open space
- FF 2-ft above BFE; no development in floodway
- Elevation of home and infrastructure
- elevation certification
- drainage easements and local flood hazard areas
- documentation, certified by a registered prof. engineer
- Discourage/ prohibit subdivision development in flood plains
- disclosure of floodplain info on plats

-

- Detention Requirements
- designate no-build lots, BFE based on hydraulic analysis
- Density Floodway Standards Apply
- deemed non-developable for acreage calculations
- consideration of erosion and scour, extra approvals
- consider storm water surge in elevations
- can't subdivide in the floodplain except open space
- can't fill lots to create buildable area to create new lots
- building envelopes designated on plat, located outside SFHA
- BFE & Benchmarks
- as per ordinances
- areas not elevated may not be used for developable lots
- ALL SUBDIVISIONS MUST BE PLATTED
- All plats encumbered with flood zones must have the zone del
- all new construction must meet the regulations
- All access/roads at BFE or higher
- Adopted subdivision regulations
- Actually not sure, but hard to imagine we're not stricter.
- 50 lots/ 5 acres require BFE if not established
- 300' minimum lot width
- 3' FPE, Localized Poor Drainage areas treated as flood plain
- 100 YR STORM EVENT CALCS
- 100 year urbanized flow conveyance, detention, many more
- 1/4-acre area 3/4 acre feet volume
- 1 foot above top of curb everywhere
- "Mixed-Use" development specifically defined by ordinance.

Question 37, Part E.

- water and waste water
- venting and floodproofing is required for substantial improv
- Unified Development Ordinance
- Total of three feet freeboard not just one foot.
- this is included in codes
- STRUCTURAL DESIGN BACK UP GENERATORS
- same as above
- Same as #1
- Require 3' of freeboard
- regulated to 0.25 annual chance flood
- ref. City standards
- public utilities out of flood prong areas
- protection to the 0.5 flood event
- PROTECTION PROVIDED
- prohibited in frequently flooded areas
- Prohibited in flood hazard areas
- prohibited in 100- and 500-year floodplain
- prohibited
- outside of the 0.2% annual chance floodplain
- our new ordinance does not allow critical facilities to be b
- Not in SFHA or 3' freeboard or protect to 500-yr flood elev
- not in SFHA
- not in 100 year or 500 year
- not allowed in SFHA
- not allowed in floodway at all
- None allowed in SFHA
- no specific language in the ordinance
- no facilities in SHFA
- NO CRITICAL FACILITIES BUILT IN A SPECIAL FLOOD ZONE AREA
- No critical facilities are constructed near a floodway

- no building in flood zone areas
- must meet standards in both 1% and .2% SFHA
- Must be outside the 500 year flood or elevated above the 500
- Municipal Ordinance
- may not be built in SFHA
- lowest floor 1 ft above the elevat. of the 0.2% annual chanc
- larger setbacks
- Keep all our facilities out of food prone areas
- has to meet flood prevention ordinance
- Follow State
- Follow State
- FF 2-ft above BFE
- emergency preparations established to protect
- emergency generator, impact glass, shutters
- Designed to minimize flood infiltration. Prohibted in areas
- design standards in code
- Critical Facilities are prohibited in SFHA.
- Critical facilities allowed only in Zone X (unshaded)
- build higher
- BFE plus 3' to finished floor
- avoid when possible
- as per the floodplain ordinances
- are not permitted in SFHA
- all prohibited in both floodway and flood fringe
- All access/roads at FPE
- Additional freeboard required
- 3' FPE
- 3 feet
- 2 feet above bfe
- 100' from SFHA or 1' above 500 yr FP
- 1.5' ABOVE

Question 37, Part F.

- Zoning Ordinance & Building Codes
- Zoning Bylaw prohibits fill in flood zones.
- we would be above the standard and not less
- we follow State of MI which stricter the FEMA
- valley storage required
- Unified Development Ordinance
- Soil test for hazardous and other waste.
- Soil Erosion, MI DEQ
- Same as #1
- Same
- review by county conservation district
- Restrictions on fill based on zoning ordinances.
- requires Special Land Use from our Planning Commission
- Requires no impact certification
- Require Stream Construction Permits to fill
- require a no net rise certification
- ref. City standards
- prohibited
- Per guidance we only allow up to 2 ft fill in coastal A zone
- one to one
- One foot or more above BFE, 15 feet beyond structure
- fill, what comes in must be taken out
- not allowed in floodway, 1 1/2 to 1 in floodplain
- not allowed in AE zones
- non-riverine 1:1 and riverine 1.2:1
- no rise certificate required
- No rise analysis required
- no rise
- no more than 50% of the 100-year floodplain
- no import to area around lake
- no impact from fill
- No fill without engineering
- no fill in SFHA
- NO FILL IN FLOODWAY, LAND DEV PLAN FOR FILL
- No fill in floodway
- No fill in floodplain, floodway, or wetlands.
- No fill in flood plain area's
- No fill can be brought in to igher the set landscape
- No fill
- no fill
- No change: zero rise
- NA
- must meet floodplain ordinance standards

- Municipal Ordinance
- Mitigation of floodway fill
- max 50 cubic yards if necessary
- have permit for fill and clear
- Follow Wisconsin DNR model ordinance.
- Follow State
- Follow State
- Follow NR 116 standards which exceed NFIP
- Floodplain Permits required
- Filling of property is prohibited within the flood area
- FILL STANDARDS ARE IN PLACE
- Fill must come from floodplain in city of pacific limits
- Established a no fill zone for small community in flood zone
- Density Floodway Standards Apply
- Conditional Use, compensatory storage
- compensetory storage required
- Compensatory Storage required at 1.5:1
- Compensatory Storage in the stormwater ordinance
- Compensatory storage in storage areas
- compensatory ponding or hydraulic analysis
- compensatory floodplain storage requirement
- compensatory cut
- Compensatory at 1 to 1
- Compaction testing required
- compacted clay overspread with black dirt.
- CLOMR fill areas must meet freeboard and no critical facilit
- below BFE must be raised one foot above current BFE
- as per the floodplain ordinances
- all construction standards require testing for compaction
- 2 feet above the BFE
- 15 feet around structures
- 1.5 to 1 minimum for compensatory storage
- 1.5 to 1 compensatory storage
- to 1 volume
- for 1 replacement for compensatory storgage compaction req
- 0" in floodway, hydrology req. in floodplain
- 0 Change with activity

Question 37, Part G.

- Zoning setbacks, stream buffer ordinance
- Zoning Ordinance Setbacks for Structures may exceed FHD
- zoning ord.
- Zoning & Subdivision Regulations Restrict
- Zoning set backs are a higher standard
- Wetlands bylaw and zoning bylaw have increased setbacks.
- wetland and watercourse protection law
- We try and stay at least 5' more than NFIP on setbacks.
- We have front, rear and side setback requirements
- varies
- Unified Development Ordinance
- To high mean water mark, Lake
- The Floodplain is generally the Riparian buffer for new dev.
- Structure setbacks from property lines
- stream setbacks
- Stream protection corridors required when subdividing
- stream impervious setbacks 150' perennial, 75' non perennial
- Stream buffers wider than flood plain
- Stream Buffer Setback 50 feet from bank
- Storm basins have to be on lots on their own, not on private
- Soil Erosion, MI DEQ, Township Zoning
- Shoreline protection zones with 50 foot setbacks
- shoreline and critical area regulations apply
- shore land protection standards
- shore land and wetland setbacks
- SETBACKS ARE REQUIRED FROM THE FRINGE
- Setbacks are increased to floodplains
- set backs are required for all buildings
- Same
- Riparian Habitat Zone per FEMA region X model ordinance
- required in codes
- ref. City standards
- RBA standards increase the setbacks
- Proposed increasing setbacks from highly eroding bluffs
- p & z setbacks are greater than NFIP
- Our setback standards are stricter than NFIP
- our development setbacks are larger than min
- Optional portion of model ordinance

- NOT SURE
- No-build buffers adjacent to floodways (15' 50' buffer)
- no floodway building,
- no construction in floodway
- no build, no cut zone greater than FHA
- New UDO
- New Jersey Riparian Buffer requirements
- New development must be 15 feet from Floodway
- Natural Sensitive Easement
- nai
- Municipal Ordinance
- More restrictive river set back zones.
- minimum 50' and lined with other properties.
- Longer setbacks on new homes
- larger setbacks
- Increased setbacks.
- increased for better protection
- If county regulated drain, bigger setbacks regardless
- Higher standard in Zoning Ordinance
- has to meet flood prevention ordinance
- From property lines and waterways
- erosion hazard setback required
- erosion buffers
- enforce setbacks according to our zoning
- Each zoning district has varying setback standards
- Development setbacks from bodies of water
- determined
- Density Floodway Standards Apply
- communities have adopted riparian setbacks
- Preservation Resource Protection Area Buffers
- can be affected in building within floodplain fringe areas
- Buffers for wetlands. etc.
- Buffer for non-wetland waters 15' to floodplain width
- based on peak discharge
- as per ordinances
- Adopted zoning regulations
- 50-foot no-development setback along all rivers and creeks
- 50-foot stream buffer requirements
- 50-foot riparian buffer from stream bank
- 50 feet from streambanks
- 50 feet from creek banks

- 50 feet
- 50' buffer from drainageways and regulatory floodplains
- 40' setback on all open drainage easements
- 30 feet from OHWM
- 25ft front 7½ feet on side and F.E.M A compliance
- 25' riparian setback from mean high water mark
- 25' from street right-of-way and 10' from property lines
- 25 feet
- 150' from riparian areas; 15' from acequias

- 100' stream buffers on major streams
- 100 ft. buffer from wetlands
- 100' floodplain buffer, requires elevation cert or LOMA/LOMR
- 10 foot from floodway
- 10' additional setback from flood plain or 2' elevation above
- 100
- 0

Question 37, Part H.

- we require storm water management for over 7500 square feet
- We require preservation of wetland areas
- We require a higher design storm
- we recognize problems from storm waters
- We have stormwater plans and are expanding them
- We have design standards and a stormwater utility.
- We have a zero increase in runoff criteria for development
- We have a strict St Wa ordinance for Industrial and comm pro
- We have a stream buffer ordinance to protect natural growth
- We have a stormwater ordinance that exceeds NFIP
- We have a drainage ordinance that has higher standards
- we have a dedicated ordinance. unaware of FEMA standards
- we do not allow rebuilding substantial damaged in floodway
- we defer to the County Drain Commission
- We are doing a project at the sewer plant to help with water
- We are a MS4 community in the State of Virginia
- Virginia stormwater requirements
- Various
- Use the County Stormwater Ordinance.
- unknown
- Unified Development Ordinance
- Town stormwater management bylaw exceeds NFIP requirements.
- Threshold less than 1 acre
- The City requires a stormwater control plan for all new dev.
- Sump pumps discharge to MS4, 0 Impact to neighboring property
- Subdivision Standards
- stream buffers, MS 4 permit requirements
- Stormwater mapping ID's "flood prone" areas not in SFHA
- stormwater detention
- stormwater basins must be incorporated into drainage plans
- Storm Water Mgt. Plan
- state of Illinois model ord.
- Site plan development requirements

- Separate stormwater ordinance and regulations
- Same as #1
- Same
- Runoff Volume Reduction (RVR) standards
- review by county conservation district and administrator
- Residential Site Improvement Standards- NJ RSIS Regulations
- Require detention for 2 cfs or great differential runoff.
- Require Best Management Practices for local conditions
- regulations
- regulate whole town as ms4
- ref. City standards
- Rainfall data; detention requirements; etc.
- Pumping stations being installed to assist in stormwater mgmt.
- public works
- Pre/ Post calculations, Compensation, and attenuation is req
- Post pollution prevention requirements
- Peak flow attenuation requirements apply to new development.
- PCBMPs required at 700sf new impervious
- Pavers, crushed stone, etc. are treated as impervious.
- Our stormwater management standards are stricter than NFIP
- Our state requires that MS4 communities adopt policies
- On site control with limited/controlled runoff
- NYS DEC based which is a higher standard
- No-build buffers adjacent to wetlands and floodways
- no increase over pre-development conditions
- no increase in discharge post-development
- no excess runoff allowed
- no development allowed in natural drainage area
- No built upon area within 1% flood (statutory exceptions)
- NFIP does not have stormwater management standards.
- does not give credit for existing impervious area
- new subdivision are required to manage.
- New regulations adopted.

- new development must contain water within the parcel
- nai
- NA
- N/A
- must design for the 1-100 year events
- Municipal Ordinance
- MS4 standards
- MS4 guidelines. Retention and drainage swells.
- MS4
- Low impact development C.3 NPDES guidelines
- LID standards through
- LID required in floodplain
- It's complicated
- INSTALLATION OF DRY WELLS OR CULTEC
 CHAMBERS FOR NEW CONSTRU
- identification of areas needing management
- Higher standards for terrain management review
- Have to design for four different storm intervals to control
- HANDLED BY OR WATER AND SEWER DIVISION
- Georgia Stormwater Management Manual
- floodplain is considered buffer
- exceeds DEP requirements
- erosion control
- Enhanced detention requirements.
- Drainage analysis required for all development
- Do our own planning
- Develop and maintain drainage ditches
- detention, water quality, LID
- Detention ponds for new commercial/industrial development.
- design standards based on "Atlas" for rainfall data.
- design for 100-year storm
- Design for 100-year event
- Density Floodway Standards Apply
- County stormwater regulations
- county-wide minimum standards
- County has stormwater regulations for development
- County Engineer
- contain run off in french drain minimum 100' from waters edge
- Comprehensive CIP to protect properties, Maintenance Program
- Compensatory Storage
- Compensatory Storage
- comp storage requirements for SW facilities within floodplain

- City adopted County Ordinance is stricter
- certified stormwater manager
- California NPDES Permit Post-Construction Requirements
- CA NPDES permit very stringent
- BMP's
- BMP, silt fences and straw bales required
- all stormwater components must be designed for 100 yr. event
- all projects require accumulative and rate of rise to be at
- All facilities must factor flooding upon full upstream develop
- all development must protect to the 1% annual chance flood.
- all commercial/industrial, subdivisions 3rac or denser
- Adopted specific stormwater management regulations
- adopted chapter to local code
- additional water quality and channel protection measures
- Account for 115% of the required storage volume
- 6 CFMS all trained in Unified Hazard Mitigation and more
- 44CFR doesn't really speak to stormwater. We have extensive
- 2' minimum above the 100-year floodplain elevation
- 1-yr; 10-yr; 100-yr detention requirements
- 100-year, 24-hour return frequency storm
- 100-year 2-hour retention
- 100-year storm 0.1cfs per acre release rate

Question 47 – Comments:

- County is in dire need of floodplain assistance. I am new to the position and have discovered that we have apparently neglected management activities in the past which has caused us to now experience certain amounts of flooding with every rain, regardless of how light. I am taking the CFM course/test this coming week and intend to implement what I learn upon my return. My county and the municipality we serve as the Area Plan Commission, have each recently done a new study. We have a long way to go and so much to do to correct our flood issues. Any and all assistance is appreciated. Addressing our floodplain is vital to our future growth and as an impoverished community, we don't have a lot of funding to work with. We will certainly be in touch!
- NONE
- You may not want to consider our survey as most of these questions do not apply to our village. There is only one very small piece of land that line in the floodplain (zone x). It is located the rear corner municipal owned property where our Village Hall is located.
- County does not have large floodplain areas and typically the areas that are mapped floodplain are undevelopable due to other ordinance requirements. We have several areas that we would like to make modifications to the floodplain maps using 2' LIDAR Contour data if the county was allowed to so greater accuracy could be achieved. Allowing local municipalities to improve the mapping within their jurisdiction would reduce the number of complaints and LOMA's that are done within the county.
- Thank You
- We do not have flood issues here.
- We are such a small community we usually just get asked about how to be removed from the flood plain or how to process LOMRs. I am not qualified to be a floodplain manager; I really am just the point of contact for the residents of our village. We are not active with any flood management issues except for the regulation of our dam so this survey is not very applicable.
- County has a very limited flood plain area and little or no development in the flood plain area we only have 8 flood insurance policies issued in the county and only 4 in the SFHA. We have had only 1 permit for a residence in the flood plain area in the last 11 years. which we required to have a flood elevation certificate with 2' free board above BFE
- Existing floodplain maps need to be reevaluated to more accurately reflect flood potential.
- none
- You sent me \$2 for taking this survey. I am sending the \$2 back. Please do not send me gifts again. We are not allowed to receive them.
- we do not have a great deal of floodplain issues, but probably will have in the future. our town is growing.
- None
- it takes to long for a lomar application to be processed.
- Our city has very little flooding or flood plain area to worry about. We do not need to be contacted and I would recommend the responses to this survey from be deleted from the research effort.
- We are a Township within County, North Dakota. The state Water Commission is the State level administrator. During flood events or anticipation thereof, there is no direct assistance provided to township from the state. In 2009, 2011 events County handled township preparations as they were able; providing sand bags filled and placed by volunteers. No diking or any permanent mitigation to protect existing properties is available or known about! Most N. Dakotan's take care of themselves as best they can! Townships do not have access to ND Emergency Services or equipment. Limited USACOE support MAY be available during events.
- The Village of does not have any floodplain in the Village.
- <u>I am aware of only the basic issues regarding flood plain management as it pertains to NYS code enforcement.</u>
- County has an intergovernmental agreement to manage the floodplain activities for the Town of and many of the other municipalities. As such the town has to adopt our ordinance. We are currently trying to join the CRS program but have just submitted the documentation.

- It is very hard for a small town with council members to enforce such regulations on their citizens. only has land use permits and a wastewater system. Two staff that try their best but learning the floodplain regs is difficult.
- None.
- I believe work we do is very important and a priority. I miss serving Coastal Maine, but is awesome, not as many SFHA challenges though!
- They are the best!!
- The Indiana DNR floodplain managers do an excellent job providing educational seminars around the state.
- I have support from the **Planning Commission**. The Chairman is very much into assisting with new and revision of existing ordinances.
- In very small communities, the position of floodplain enforcement was mandated in a floodplain ordinance, in conjunction with participation in the NFP. Many of the persons put into this position feel under qualified, and will not be dealing with this issue enough to be up to date on the subject. Resources from the county level have been requested to assist, as staying current, or even getting up to speed on regulations is very difficult for small, understaffed communities.
- It's hard to run a program when the quality of data is poor. Only 17% of our county is available for development. A great swath of the 17% is tied up in managed forest law. I have floodplains in places that have no water or can't have water. My favorite is the drawing of floodplain around each seepage lake. The lakes have retreated so far, as they are glacial pothole lakes, that a 1000-year flood wouldn't fill them up. Only half the wetlands are mapped so how could they be included in any studies? We need LIDAR mapping. It is available to us but we can't afford the product.
- Just started working with Floodplain Management, first year. I cannot answer many of these questions, because I don't know much about Floodplain in my area. I am taking classes this year to learn more about Floodplain and my area.
- This was not a 25-minute survey.
- I am very impressed with the level of knowledge and assistance received from the State NFIP employees.
- our town has a current flood plain management program that was just completed a couple of years ago. there has not been a flood in years but there is a creek in town that poses a possible flood area. the flood risk area is outlined by map.
- Many of the questions don't apply to our community. Our town is dying, we have only county zoning, no one is building new structures, and any budget we have is allocated mainly to keeping our water system viable.
- We have very strong negative feelings about flood plain issues in our village. We have had to and will again spend big dollars to "remap" our community's flood plain. We have homeowners paying big dollar amounts for flood insurance for a creek you can step across. Seems so unrealistic and unfair
- none
- I am very concerned with the impact of climate change. We have had several areas in the county that have never flooded and are in Zone "x" no flood plain and within the last 4 four years flooding has occurred. Also updating FEMA maps.
- The Town of has very minimum designated flood plain. Very little growth and development taking place.
- one of the questions concerned variances. I answered 1-10 were requested. I couldn't answer how many were grated because "0" was not an option.
- Indiana department of natural resources is a great help to us thru continuing education. we also work hand and hand with the surveyor's office continuously with as built surveys
- According to State Department of Natural Resources Engineers we had a 100-year rain event, a year ago. The flood profile that actually occurred did not accurately match the delineated 100-year flood plain designated on the official FEMA map. Substantially different!
- Though not asked about, **and the set of th**

Thanks,

, CFM

Environmental Services Manager/Floodplain Administrator

- Page 9 % of floodplain management activities This only reflects the floodplain management activities, construction and maintenance was not included as a floodplain management activity although is a major portion of our business. Page 11 â€"Common obstacles The District uses much of the FEMA brochures for outreach resources, unfortunately they do not include much information specific to arid region flooding. Page 15/16 â€"flood map data outdated Many of the floodplain delineations were conducted over 20 years ago using outdated modeling techniques and different rainfall data. It is difficult to say whether the floodplain mapping is inaccurate without running a new model for comparison. In most cases the older delineations are more conservative including some homes that may not necessarily be at a higher risk of flooding. Page 27 â€" Primary funding source The District is funded through a specialty property tax which does not fall into any of the listed categories.
- None at this time.
- I am the Zoning Inspector for a mature village and flood plan duties were assigned to me. The village is located at about 1200 feet above sea level and mainly consists of high ground. We do have one stream that floods if we have a (10-year flood). The area that floods for the most part is the land owned by the Norfolk & Southern Railroad and affects only 4-6 private building. It is zoned RC, residential conservative, prohibits new building.
- A clear concise document for the lay person of the pros and cons of a community's involvement or noninvolvement in the NFIP would be welcome.
- County's resident CFM in the permitting division left in February after ten years as the Floodplain Administrator. There are now two people taking over her duties so answers in the survey reflect a lack of knowledge and the learning curve that the new administrators have. As new administrators we are learning how to coordinate with other divisions for floodplain management and regulation as well as available resources all while trying to maintain our day to day work duties because there is not a designated position with the county as the floodplain planner.
- Flooding is not an issue in the area.
- I chair the Committee for the Association for Floodplain & Stormwater
 Management
- Great technical assistance with local Water Regulations and Zoning Engineer. Very helpful during Map
- Modernization process and adoption.
- Our State Flood Plain Mgmt. Coordinator is EXCELLENT. Program probably could use more resources and support for our State Manager
- I am the floodplain manager for **Co.** The town of **falls under the county.** I don't remember a time in the last year that I have answered any floodplain questions about **Co.**.
- The survey assumes that all respondents are full time floodplain managers. As the Building Official, a majority of my time is spent reviewing construction projects, administering zoning standards, addressing facility management needs and serving as the staff to our zoning board and construction/housing board of appeals. While each project that I am involved in is verified that it will not impact the flood hazard zones based on our FIRM, the ratio of this work is much higher than my duties as the floodplain manager. The City recently updated our Floodplain ordinance to align with the change made by FEMA and was fortunate enough to be able to work with our State DEQ staff who assisted us in the process to ensure that property owners would still be eligible to purchase flood insurance through the program.
- Are you aware of the existence of your state's floodplain management program? I am aware of the program, but when I answered yes and then answered 0 to the times contacted question... the survey forced me to answer good fair... etc, on questions when I had no actual contact. (Rather than a N/A choice). So I went back and said I was unaware of the SFMP. Pleasant day...
- n/a
- Map over lays would be most important improvement.
- I just retired after 14 years of working as flood plain manager it has been challenging being only a one man staff handling flood plain, all public right of way, all addressing for the City as well as many other duties. City of is probably one of the only municipalities that does not have the Planning and Zoning and/or Building Inspections Department as part of the flood plain management team. Hopefully that will change in the future.

- I'm not sure if I answered the questions appropriately for **exercise**. They are not in contact with me if they are doing town projects for floodplain purposes, even though we have jurisdiction over them for floodplain management.
- Please call me in the near future. Thank you
- Regarding the question about out of date computer models that affect the mapping, I only think 1 of the 2 main watersheds in town have a problem.
- A couple questions were a little unclear. I answered the one about percent of staff time dedicated to floodplain management based on total staff time, not percentage of the time that is dedicated to floodplain management. I interpreted the last question about the state's floodplain management program as meaning IAFSM, as opposed to the State of Illinois.
- We are a very small community, with a very small flood zone, with only a few structures in that area, so it seems that many of these questions were not really applicable to us.
- Would have liked to see more "I don't know" choices in the answer fields.
- We need ability to obtain low cost training and brochures/maps.
- SEMA has been very helpful in verifying accuracy of interpretation of FEMA Floodplain Model Ordinance. I contact them 3-4 times a year.
- Jurisdictions of our size do not have the funds to have anybody work as a floodplain person on a fulltime basis. The continuing education requirements are difficult to achieve because of the multiple job assignments that have to be covered and each of those jobs have continuing education requirements.
- I work for a small, poor county. The **Exercise** River runs in the middle of the county. We have no zoning, no building codes people. We have properties worth \$5 million and down. We have a Lake and the rest is river with creeks coming into the river with housing everywhere. Minimum FEMA requirements. I do the best I can on a \$5,000/yr. budget.
- Please update your contact information: Floodplain Administrator is
 Ph # -
- None
- Without accurate maps and BFE info, administration is very difficult.
- I tried to answer these questions based on "floodplain" and not "stormwater management", which our Village does even more work in. I took "flooding' to mean traditional, over stream-top flooding and not "urban flooding".
- Why is FEMA allowed to dictate to us about a split-flow needed done that was incorporated and ok'd by the Corp of Army Engineers when the dike was built in 1980?? We are not currently in a flood plain for insurance purposes by FEMA wants to put us in a Flood Plain so they can charge flood insurance to homeowners with mortgages? Money-maker for FEMA only!!!!!! If we were told this past year we weren't in a Flood Plain---how do FEMA decide we must be???????? Also, we received a HUD grant last year for a Storm Shelter/Bathroom building for our City Park. This was OK'd and The City of had to put up 10% and open an account for this money. Engineers had designed the building per the plan, we awaited the final money to proceed putting the building in place as we don't have a storm shelter of any kind in and it has been requested of us by the County Emergency Management. Gov. had sent congratulations and then we get a call that they decide we couldn't have the money because we were in a 500 yr. Flood Plain! We never flood. HUD had changed the requirements in the middle of 2015 when we had applied for the grant from 100 yr. Flood Plain to 500 yr. Flood Plain couldn't have the grant-----they just noticed it??? Reason by HUD and FEMA---the people (this building would hold 134 persons) if there was a tornado would drown maybe if it decided to rain and flood. We have a dike and have had rain storms etc. with the dike protecting and the flood drainage ditches sending the water on through and holding the water 100% and not even close to any of this. Enough said about the HUD & FEMA!!
- Township has never had training available to it to know what is required of us. Over the years flood plain concern has not been high on our agenda because it has never been an issue for us to worry about. We were never made aware of our duties or requirements involving flood plain activities.
- I work under the handicap of being the City Manager of a community of approximately 2,500 people with only myself and a City Treasurer (both part-time positions) and being responsible for all aspects of City

management and compliance with all Federal, State and County laws, rules, ordinances, and mandates. Lack of time is the most critical problem I face.

- We are one of the worst Cities in our County that floods, any help we could get would be great! Also, our maps are 34 years old, and our ordinance is almost as old!
- **We would** is a small town of 3,000 people we would appreciate any help available. I have been employed with the town one month but the survey does not enable me to provide that information.
- As for the for the Floodplain Managers Association, I believe ASFPM and the State Floodplain Management Office to be valuable allies and resources for the local FPM and CFM.
- The City of **Constant and Constant and Constant and Constant and Section 2** are currently partnering on a Flood Resiliency Project to identify flood solutions and build certified levees to eliminate the need for flood insurance for many of our residents. We will be seeking all state and federal funding available.
- The City of **Constant** does not have a flood plain map and information about flood plain issues is very limited. We don't have flooding issues now or in the past. We don't anticipate any major issues, even with climate change. We would like to know if there is a source for State and Federal Flood plain maps and designations. We are limited in exposure at this point to inquiries by lending institution trying to insure that a loan for a property is not jeopardized by flooding issues. I was in a city that had extensive flooding issues and am highly aware of all of those items you mentioned in the survey. We just don't deal with them here.
- n/a
- This is a very small town with unpaid city council and a part time city secretary. We do not have the staff or funds to implement any flood plan on our local level.
- Township is a highly agricultural community. Limited flood plain tributaries exist, until the River is reached. Here water is raised to minimal flood plain status annually. In 2013 a flood in excess of the 100-year flood plain occurred. Much of your survey does not fit well with how we handle floodplain issues. It would probably be nice to have a high level1/2-day seminar on floodplain management just to learn about what we don't know.
- None
- Though I am a CFM, I am not in a management position and am therefore not officially consulted on many flood plain management issues affecting the City. Sound floodplain management practices are not always incorporated into City policy. I do my best to know what's going on and register my professional opinions and floodplain management knowledge with management. I am consulted on an informal basis by others when their supervisors are out of earshot.
- none
- Township was granted accreditation by FEMA this year (2015) along with our County Administration Offices and District Soil Erosion Dept. We were given approval to continue with our Flood Plain Management duties. Please note the Michigan Department of Environmental Quality has primary review along the Lake Michigan shoreline that makes up the western boarder of Township, T
- The small area in the flood plain is and remains undeveloped and will stay that way.
- Need an option for 0 variances granted. My answer of 70 is not correct.
- Residents of this city, **Sector**, have a hard time comprehending that they can experience a flood event. The reason for the lack of understanding is primarily due to the existence of the **Sector** River gorge immediately after the waterfall. They believe that the entire gorge would have to fill up in order for there to be a flood (the flooding that the City experienced in 2013 was shallow, short-term, micro-burst/drainage caused). This is where a true 3-D visualization of the potential water rise would be extremely helpful.
- In the previous question, I rated the timeliness of the state program response as poor but I want it noted that that is almost assuredly due to the lack of staffing they have to cover the entire state.
- I am the Code Enforcement Officer/ Zoning Officer, not a flood plain manager. This is a rural small town with no history of flooding, maybe an occasional rare nuisance heavy rain type of flooding FIRM Maps for county are antiquated, hard to read, show no structures, are not to scale. FEMA should be more involved on the local level with offices and qualified staff to answer questions. I am very doubtful my employer would send me to school or training to be a flood plain manager, they have a full time job meeting the budget, keeping the roads plowed and in repair. No money in budget for any kind of "flood plain manager or office staff" Answered questions as best I could

- We are a fully developed City of 13,000. I am the entire engineering department and we have a public works staff of 12. Our storm water infrastructure is in place, with many ponds behind homes without formal public easements or right of way. We struggle to keep up with reporting requirements for our MS4 permit. Storm water maintenance is nearly 100% driven by calls from residents or property owners.
- My biggest challenge is that the number insurance policies that I have active in my community was around 30 the last time I checked. Those who do not have insurance do not feel they need to comply because they are not getting anything in return. Most of the area I have the most trouble with are existing trailer parks, they will hook up to a truck and pull it to dry ground.
- nope
- We have a resolution that identifies the County Building Department as our floodplain manager.
- The Village Administrator is listed as the Floodplain Administrator for the Village of Local Code Chapter 109 Flood Damage Prevention, it is the Code Enforcement Officer who is to be the Floodplain Administrator. Local contacts for assistance in Enforcement issues would be very helpful as we are very limited on staff.
- Please send me information on accreditation as a floodplain manager.
- Our States NFIP and floodplain management personnel are exceptional. However, I have been waiting a very long time (nearly 1 year) to get the results from our Community Assistance Visit in order for me to pursue the next step in our CRS application process. That is way to long to have to wait.
- New mapping for all of County. Thanks!
- Morning, I took over as the new DPW for the village, so some of my answers were very short because i was not here last year.
- Floodplain work is only part of my job as city engineer
- I am looking forward to become a Certified Floodplain Manager.
- This is a very small community and the area within the floodplain is small and continues to shrink. Building permits are discouraged in the FP. There are no flood-ways in the area only flood back water in the FP. We only have 13 residences left in the FP so it doesn't take much time to manage it. Originally the town was totally located in the FP but was moved up hill over 100 years ago. All new structures must comply with the FP ordinance for elevation or wet proofing. State has been very helpful when needed but that has been rare, and it's not like we don't know all of them.
- About the only thing we do in relation to Flood is enforce the two (2) foot freeboard and the Flood Vents. We do get involved when back filling in the flood zone, this is when we have had contact with the flood officers with the state.
- I am just the City Clerk. I really do not understand why this survey was sent to me. Our Floodplain Manager is . I myself do not have anything to do with this. I am sorry, but my answers may be incorrect. Thank you for your understanding.
- The town of gets mailings from/about floodplains. We have not had a flood since 1927. We are a small Incorporated town of 180 citizens.
- None at this time
- Thank you for providing information and raising awareness about this important subject.
- No Comments.
- Difficult to answer some of these as they don't pertain to us. is not considered to be in a flood plain.
- Due to our unique location, we have very little threat or fear of flooding in the **second second** city limits. The only place is a levee holding back water in a reservoir. A breach would send water into a large park area. However, the amount of water can be somewhat controlled due to irrigation release controls. No one in this area sells flood insurance. To my knowledge we have no floodplain maps established. I have answered the survey to the best of my ability. The \$2.00 is most appreciated. You may wish to remove our name from future surveys.
- The Town of has two lakes and seasonal gullies as flood hazard areas.
- I have tried to get help to update the FEMA Flood Maps. No luck from the many sources I have tried.
- County does not have FEMA mapping. We have a Flood Hazard Boundary Map that we use as reference material with landowners. We have worked with the Colorado Water Conservation Board in getting information on FEMA Mapping. The CWC is very helpful but have shared that County will have to help

pay for mapping. We are a limited resource County being 2/3 public lands. Our limited resources are applied to our everyday costs of doing business. Flood regulations are no high on the priority list. CWC has been helpful and County will be addressing flood regulations within the next two years. I have confidence that County will eventually develop a flood management program.

- no
- I as most Floodplain administrators in these rural counties work one or two days per week as planning and zoning and floodplain administrator.
- No one has ever contacted us about our maps information at any time
- I do not feel that I was qualified to answer these questions. We do not have flood plain management for our Village. Most of the questions that I answered "no" to were really "I don't know." Thank you for your time.
- We have flood maps but that are very old. Not sure why they haven't been updated.
- Relatively speaking, the City of sits on a hill, so flooding is generally not a huge issue.
- Thank you for the opportunity to provide input. Much appreciated!
- our county is a very rural thinking county. Commission used to take care of floodplain management and one day they decided to give it to the road and bridge supervisor. Not enough time in the week to do a good job of enforcing or checking in on new construction.
- The Town of **Sector** is very small. Under the County EMA of which I am also the Coordinator, we are working with FEMA Region VIII and the **Sector** Silver Jackets (USACE) for Risk Maps. We have had 2 Kickoff meetings. We now also have a County Planner that has taken on all of the county to include the municipalities in any Flood Mitigation, planning, NFIP etc. We are looking closely at the large watershed that is within the county. More background and Discovery meeting will be scheduled as this is a slow process.
- The reason it took so long to complete this survey is because I have the title of flood plain management but know nothing about it.
- We are a small City with only 5 employees. We lack the sophistication to be able to address every aspect of community planning without significant outside assistance.
- The city of **the second seco**
- We are a small city with population 418 and located entirely in a floodway and floodplain on the River. We have only 3 very part time employees which includes our maintenance worker and elected treasurer and city clerk.
- The position in the Village of **constant** is a part-time position doing 5 hours per week. I am the chairperson for the past 3 1/2 yrs.
- We are a small community that has not been effected by any flooding like other parts of the country, but we do the best that we can when it comes to floodplain.
- County in Virginia is interested in participating in the CRS program to improve floodplain management and to somewhat reduce the cost of flood insurance. We have heard presentations about CRS and are familiar with some of the regulations regarding CRS. We have been hesitating about joining CRS due to fear about the requirements of a federal program and the burdens that would place on local staff.
- I am a new code officer very much in need of flood management education. I'm also open to any type of education that is available.