

# **FEMA CAP-SSSE PROGRAM GAP ANALYSIS TOOL**

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*User Manual & Methodology Report*

**Version 1.0**

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<b>PART I. USER MANUAL .....</b>	<b>3</b>
PURPOSE .....	4
HISTORY OF CAP-SSSE .....	4
CAP- SSSE AND EFFECTIVE STATE FLOODPLAIN MANAGEMENT PROGRAMS .....	5
GAP ANALYSIS DEFINED .....	8
<i>Summary of CAP-SSSE Program Elements and Tasks.....</i>	<i>9</i>
USING THE CAP-GAP ANALYSIS TOOL AND ANALYZING RESULTS.....	13
<i>Instructions on using the Excel Spreadsheet .....</i>	<i>13</i>
<i>Interpreting Results from the GAP Analysis, Use of Data .....</i>	<i>19</i>
<b>PART II. METHODOLOGY REPORT.....</b>	<b>22</b>
MAINTAINING STATE AUTHORITIES AND COMPLIANCE WITH FEDERAL REGULATIONS .....	23
COMPREHENSIVE, INTEGRATED STATE FLOODPLAIN MANAGEMENT.....	26
FLOOD HAZARD IDENTIFICATION AND RISK ASSESSMENT .....	28
COMMUNITY PLANNING, ZONING, AND OTHER LAND MANAGEMENT TOOL ASSISTANCE.....	31
FLOODPLAIN MANAGEMENT TRAINING / WORKSHOPS .....	35
COMMUNITY COMPLIANCE .....	39
OUTREACH AND TECHNICAL ASSISTANCE .....	42
POST FLOOD RECOVERY AND MITIGATION ASSISTANCE .....	44
STATE PROGRAM MONITORING, EVALUATION, AND REPORTING .....	47
STATE STAFF PROFESSIONAL DEVELOPMENT .....	49
<b>PART III. REFERENCES AND APPENDICES .....</b>	<b>51</b>
REFERENCES .....	52
APPENDIX A. CAP-SSSE PROGRAM ELEMENT AND ASFPM EFFECTIVE STATE FLOODPLAIN MANAGEMENT (ESFM) PROGRAM CROSSWALK.....	53
APPENDIX B. DESIGNATION, DUTIES, AND RESPONSIBILITIES OF STATE COORDINATING AGENCIES (44 CFR 60.25) .....	54
APPENDIX C. LIST OF ACRONYMS.....	56

## Part I. User Manual

## Purpose

This report is provided to the Federal Emergency Management Agency (FEMA) to review and approve recommended methodology for conducting a GAP Analysis for the Community Assistance Program – State Services Support Element (CAP-SSSE or CAP); to provide users background on the CAP-SSSE program, GAP analysis; instructions on using the GAP analysis tool in Microsoft Excel; and how to use a GAP analysis in long range strategic planning.

## History of CAP-SSSE

While flooding affects all states, state floodplain management programs were limited prior to the creation of the CAP. In 1958 – only seven states (Connecticut, Indiana, Iowa, Massachusetts, New Jersey, Pennsylvania, and Washington) had enacted state floodplain management regulations. By 1970, this number had grown to 24 either adopting statutes authorizing direct state regulation of some or all flood hazard areas or establishing state standards for local regulations. By 1980, that number reached 31, and of the remaining 19 states, 10 provided some level of technical assistance to local floodplain regulatory programs. Also by 1980, all 50 states appointed coordinators for the National Flood Insurance Program –NFIP. However, by this time, the majority of states did not have the capability to assist communities to interpret and utilize flood data and to enact and enforce required floodplain management measures.

More recently, as reflected by data from ASFPM's *Floodplain Management 2003: State and Local Programs* document, the scope of state floodplain management programs has grown, activities undertaken have increased, and innovative approaches to perennial problems have emerged. Data from 2002 indicates that state funding for floodplain management operations was approximately \$12.5 million and CAP-SSSE funding was \$5.2 million, with approximately 300 people working in state-level floodplain management programs. However, it is important

to note that there is tremendous variation among state programs in terms of activities undertaken and staffing levels.

The predecessor to CAP was the State Assistance Program (SAP) which began in 1979 with the goal of building state floodplain management capability. In the 1980's – SAP transitioned into CAP to more specifically focus on state floodplain technical assistance and encourage local program development and enforcement of any NFIP requirements. According to the 2009 FEMA program guidance, CAP-SSSE is a program to provide a means to ensure that communities participating in the NFIP are achieving the flood loss reduction goals of the NFIP. CAP is intended to accomplish this by funding States to provide technical assistance to NFIP communities and to evaluate community performance in implementing NFIP floodplain management activities with the additional goal of building State and community floodplain management expertise and capability. Today's CAP program attempts to combine both the goals of the SAP and the original CAP.

Has CAP been successful? A strong argument can be made that it has from the standpoint of building state capability and having the ability to conduct various activities that assist communities in meeting the flood loss reduction goals of the NFIP. In 1985, a study (Burby, French et al.) using multiple regression analysis determined that state flood hazard management programs are instrumental in stimulating local programs to protect property and preserve the environment, and they are instrumental in increasing the local administrative priority of flood hazard management.

### **CAP- SSSE and Effective State Floodplain Management Programs**

The CAP-SSSE program can provide a solid foundation for an effective state floodplain management program but can not, by itself, fund the comprehensive array of activities necessary to result in what might be considered a comprehensive, effective state floodplain management program. Defining an

effective state program is difficult because of each state's uniqueness – from its exposure to flood hazards, to existing laws and authorities, to the capacity of the state agencies that administer the state's floodplain management efforts. To be sure, an effective CAP program is better than no program at all; however, where states identify floodplain management needs that exceed CAP, such needs should be addressed using any and all means.

Under CAP-SSSE, ten program elements have been identified. The ten elements are components of a state floodplain management program that in total would result in should be the focus of a comprehensive CAP-SSSE program. Under each program element, CORE and ADVANCED tasks have been identified.

CORE tasks are those deemed necessary by FEMA for states to have in order to effectively maintain a basic level of state capability and competency to assist communities with NFIP participation. ADVANCED tasks are those, in addition to the CORE elements, that move a state towards a more comprehensive management of its flood hazard areas and flood risk, and provides for a more comprehensive level of assistance to communities participating in the NFIP (hence moving states towards effective state programs).

The ASFPM's *Effective State Floodplain Management Programs* 2003 document was produced as a guide for those who make policy decisions about state programs and those interested in improving their programs. It contains 10 "guiding principles" which describe the main components of what would constitute an effective state program. Although there is no single "perfect" model for a state floodplain management program, all effective state floodplain management programs should contain components that are consistent with the 10 guiding principles. Furthermore, the ten program elements of CAP-SSSE align quite well with the 10 guiding principles in the ASFPM guide. A crosswalk

is provided in Appendix A showing the linkage between this document and the ASFPM guide.

## GAP Analysis Defined

A GAP Analysis generally refers to the activity of studying the difference between standards and the delivery of those standards. In terms of delivering a governmental program effectively, there are program elements and tasks that are usually identified (through law, rule, or agreement) and must be met by the agency with this responsibility.

The goal of this GAP Analysis Tool and this Methodology Report is to:

1. Develop comprehensive list of program elements for CAP-SSSE and list of CORE and ADVANCED tasks based on previous research / focus groups, Federal law (see duties and responsibilities of State Coordinating Agencies under 44CFR60.25), FEMA guidance, and information developed on the topic.
2. Establish minimum time and effort levels for all CORE tasks in each program element to establish a baseline in order to produce a more meaningful GAP Analysis which can be subsequently used to update the Five Year Plan. These time and effort data have been partially developed through a survey of states and a summary of the survey data will be provided for each program element and task.
3. Develop methodologies to measure resources needed for each program CORE task, translating it into full-time equivalents (FTEs) based on appropriate variables (i.e., number of participating communities, insurance policies, etc.).
4. Develop a GAP Analysis Tool in Excel to provide state floodplain managers an easy-to-use, plug-and-play, and useful program where a GAP analysis can be easily conducted and data can be utilized in state Five Year Plans.



The GAP Analysis Tool is not meant to measure whether a state has an effective state floodplain management program; rather it is meant to provide information, based on a set of assumptions, as to the allocation of current staff resources and unmet needs to fully implement a CORE CAP program. To conduct a proper GAP analysis, the tool must establish baseline time and effort standards for different tasks. This has been done with a recognition that the time and effort in each state can vary dramatically (due to geographic size, understanding of task, etc.); however, it is anticipated that these data can help establish baseline numbers to identify how much time and effort is needed to fully implement a CORE CAP program.

### *Summary of CAP-SSSE Program Elements and Tasks*

#### **Program Element: Maintaining State Authorities and Compliance with Federal Regulations**

##### CORE Tasks:

- Maintaining / enhancing state authority pursuant to 44CFR60.25(b)(1)
- Commenting on projects funded/financed/undertaken by other Federal and state agencies
- Coordination with state building code office to ensure flood resistant design and construction requirements meet or exceed NFIP and state floodplain management standards

##### ADVANCED Tasks:

- None

#### **Program Element: Comprehensive, Integrated State Floodplain Management**

##### CORE Tasks:

- In cooperation with State Secretary of State, monitor community jurisdictional (boundary) changes for community incorporations, annexations, de-incorporations and other boundary changes
- Maintain partnership with State Department of transportation/highways to ensure compliance with floodplain management regulations.

**ADVANCED Tasks:**

- Coordination with other state programs and agencies
- State mitigation program coordination (i.e., Hazard Mitigation Assistance grant coordination, state mitigation team participation, mitigation planning assistance)

**Program Element: Flood Hazard Identification and Risk Assessment**

**CORE Tasks:**

- Maintain repository of flood data
- Participate in flood map update related meetings (scoping and final meetings)
- Prepare state mapping needs on an annual basis.

**ADVANCED Tasks:**

- Other CTP mapping activities
- Conduct HAZUS-MH or equivalent risk assessment studies
- Establishing state-specific mapping standards
- Review and approve flood studies by others

**Program Element: Community Planning, Zoning, and Other Land Management Tool Assistance**

**CORE Tasks:**

- Development / updating model community floodplain management regulations
- Review state building code updates/changes (if applicable) for consistency with NFIP standards

- Reviewing community floodplain management regulations for compliance with FEMA and state standards
- CRS coordination and support; variance process assistance
- Variance process assistance

**ADVANCED Tasks:**

- Reviewing zoning/subdivision/special regulations for floodplain management considerations
- Enforcement assistance

**Program Element: Floodplain Management Training / Workshops**

**CORE Tasks:**

- Conduct FPM 101 or equivalent workshop on NFIP topics (i.e., Elevation Certificate, LOMC, etc)

**ADVANCED Tasks:**

- Advanced topic workshop development and delivery
- Coordination of annual state floodplain management conference

**Program Element: Community Compliance**

**CORE Tasks:**

- Conducting CAVs
- Conducting CACs

**ADVANCED Tasks:**

- None

**Program Element: Outreach and Technical Assistance**

**CORE Tasks:**

- General Technical Assistance as defined by answering telephone calls / e-mails / letters on basic floodplain management issues (CRS; NFIP enrollment process; and general inquiry on insurance, mapping, ordinance, permitting, planning and grants)

**ADVANCED Tasks:**

- Developing specialized outreach publications (newsletters, fact sheets, handbooks)

**Program Element: Post Flood Recovery and Mitigation Assistance**

CORE Tasks:

- Notice to communities regarding NFIP compliance
- NFIP Briefings (including substantial damage determination training)

ADVANCED Tasks:

- EOC/JFO participation
- Mitigation program assistance

**Program Element: State Program Monitoring, Evaluation, and Reporting**

CORE Tasks:

- CIS data input
- CAP program administration, strategic/annual planning, GAP analysis

ADVANCED Tasks:

- None

**Program Element: State Staff Professional Development**

CORE Tasks:

- Attend FEMA/state regional meetings
- Attend training courses at EMI
- Attend ASFPM annual conference.

ADVANCED Tasks:

- None

## Using the CAP-GAP Analysis Tool and Analyzing Results

### *Instructions on using the Excel Spreadsheet*

The CAP-GAP Tool was developed in Microsoft Excel and the basic structure of the spreadsheet is that there are five tabs (which represent individual worksheets within the spreadsheet) at the bottom of the page: Introduction, General State Information, Time and Effort Data, GAP Analysis Results, and Summary and Analysis (see below).

	2009	2010	2011	2012	2013
<b>FEMA CAP-SSSE Gap Analysis Tool</b>					
<b>Time and Effort (total numbers of hours committed):</b>					
<b>CORE Program Elements and Tasks:</b>					
<b>Maintaining State Authorities and Compliance with Federal Regulations</b>					
Maintaining / enhancing state authority pursuant to 44CFR60.25(b)(1)	170	200	200	200	200
Commenting on projects funded/financed/undertaken by other Federal and state agencies	175	100			
Ongoing coordination with state building code office to ensure flood resistant design and construction requirements meet or exceed NFIP and state floodplain management standards	0	50			
<b>Comprehensive, Integrated State Floodplain Management</b>					
In cooperation with State Secretary of State, monitor community jurisdictional (boundary) changes for community incorporations, annexations, de-incorporations and other boundary changes	100	100			
Maintain partnership with State Department of transportation/highways to ensure compliance with floodplain management regulations	150	150			
<b>Flood Hazard Identification and Risk Assessment</b>					
Maintain repository of flood data	100	400			
Participate in flood map update related meetings (scoping and final meetings)	280	300	950	800	1000
Prepare state mapping needs on annual basis	50	0			
<b>Community Planning, Zoning, and Other Land Management</b>					
<b>Tool Assistance</b>					
Develop / update model community floodplain management regulations	0	50			
Review state building code updates/changes (if applicable) for consistency with NFIP standards	50	100			
Ordinance/Resolution review	1080	2000			
CRS Coordination and support	100	100			
Variance process assistance	200	100			
<b>Floodplain Management Training / Workshops</b>					
Conduct FPM 101 or equivalent workshop on NFIP topics (i.e.					

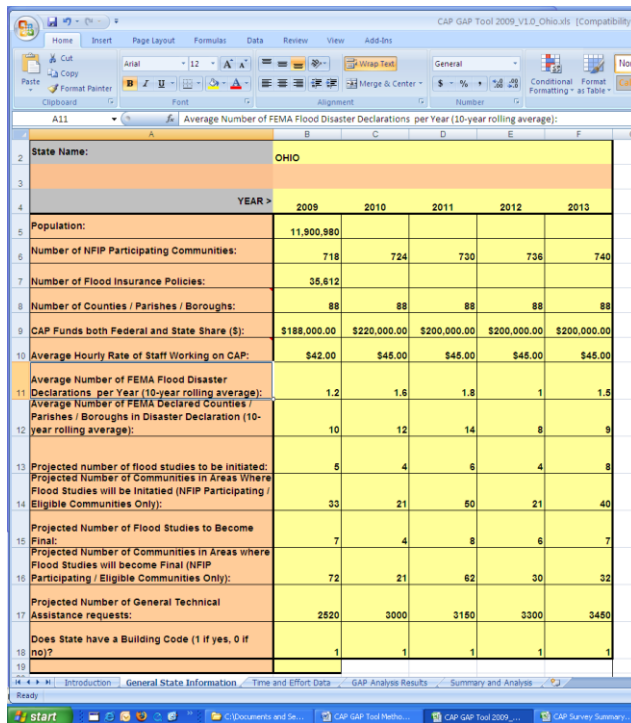
The Introduction tab includes the version of the tool, its release date, and some basic notes about the spreadsheet. The General State Information and Time and Effort Data tabs are the two tabs where the user will input information into the yellow cells. The GAP Analysis Results and Summary and Analysis tabs calculate information that the user can then use to assist in CAP and state floodplain management program planning. Please note that data entry occurs in

the yellow cells only! Also, some of the worksheets are password protected so the user will not erase formulas. The password is **CAPSSSE**.

## Getting Started

Using the CAP Gap Analysis tool is easy and requires information that is readily available. As indicated earlier, there are only two data entry worksheets. The first of these is the General State Information worksheet (tab). By clicking on the tab, you will see five columns of yellow cells as well as a cell at the top for “State Name” and cells for “Year.” Please note that the tool was developed so five years of data could be viewed at once. The users can change the “Year” cell to whichever five year period desired. The data requested on this worksheet is almost entirely used in calculating the baseline data on the GAP Analysis Results worksheet.

### General State Information Worksheet



State Name:	OHIO				
YEAR >	2009	2010	2011	2012	2013
Population:	11,900,980				
Number of NFIP Participating Communities:	718	724	730	736	740
Number of Flood Insurance Policies:	35,612				
Number of Counties / Parishes / Boroughs:	88	88	88	88	88
CAP Funds both Federal and State Share (\$):	\$188,000.00	\$220,000.00	\$200,000.00	\$200,000.00	\$200,000.00
Average Hourly Rate of Staff Working on CAP:	\$42.00	\$45.00	\$45.00	\$45.00	\$45.00
Average Number of FEMA Flood Disaster Declarations per Year (10-year rolling average):	1.2	1.6	1.8	1	1.5
Average Number of FEMA Declared Counties / Parishes / Boroughs in Disaster Declaration (10-year rolling average):	10	12	14	8	9
Projected number of flood studies to be initiated:	5	4	6	4	8
Projected Number of Communities in Areas Where Flood Studies will be Initiated (NFIP Participating / Eligible Communities Only):	33	21	50	21	40
Projected Number of Flood Studies to Become Final:	7	4	8	6	7
Projected Number of Communities in Areas Where Flood Studies will become Final (NFIP Participating / Eligible Communities Only):	72	21	62	30	32
Projected Number of General Technical Assistance requests:	2520	3000	3150	3300	3450
Does State have a Building Code (1 if yes, 0 if no)?	1	1	1	1	1

Lets look at some of the cells in detail:

Number of NFIP Participating Communities: This represents communities in both the Emergency and Regular Phase.

Number of Counties / Parishes: This cell refers to the number of jurisdictions that are equivalent to a county. In some states these are parishes, and in Alaska these are boroughs.

CAP Funds both Federal and State Share: Be sure to include all funds per the Cooperative Agreement.

Average Hourly Rate of Staff Working on CAP: This includes regular rate plus any fringe and indirect cost rate associated with it. Also called the “loaded rate.” It is acknowledged that if there are three state staff working on CAP using a straight average of the hourly rate may not be as precise as a weighted average (based on their percentage of time working on CAP). However, either will be sufficient as this is a planning tool!

Average Number of FEMA Flood Disaster Declarations per Year (10-Year Rolling Average): To determine the rolling average, use the current year and go back ten years.

Average Number of FEMA Declared Counties / Parishes in Disaster Declaration (10-Year Rolling Average): For the disasters in the rolling average used in the previous cell, what were the number of counties declared in each disaster. For example if three disasters occurred in the 10-year period and the disasters included 8, 12, and 16 counties respectively, the average number of counties would be 12.

Projected Number of Flood Studies to be Initiated: This cell is the first to ask information based on a projection for the year in which the GAP analysis is being performed. For example if you were completing the GAP analysis in 2009 for the 2010 Cooperative Agreement, under the 2010 column you would include the number of studies from data source such as the MIP and/or after discussions with the Regional Office.

Projected Number of Communities in Areas Where Flood Studies will be Initiated: This cell includes NFIP participating and eligible mapped SFHA communities only based on the studies identified in the cell above. This count should not

include small communities that although could participate in the NFIP do not have identified SFHAs.

Projected Number of Flood Studies to Become Final: Again, by using information

FEMA CAP-SSSE Gap Analysis Tool					
Time and Effort (total numbers of hours committed)	2009	2010	2011	2012	2013
<b>CORE Program Elements and Tasks:</b>					
<b>Maintaining State Authorities and Compliance with Federal Regulations</b>					
Maintaining / enhancing state authority pursuant to 44 CFR 201.10 (b)	100	200	200	200	200
Commenting on projects funded/financed/undertaken by other Federal and state agencies	175	100			
Ongoing coordination with state building code office to ensure flood resistant design and construction requirements meet or exceed NFIP and state floodplain	0	50			
<b>Comprehensive, Integrated State Floodplain</b>					
community jurisdictional (boundary) changes for community incorporations, annexations, de-incorporations and other boundary changes	100	100			
Maintain partnership with State Department of transportation/highways to ensure compliance with floodplain management regulations	150	150			
<b>Flood Hazard Identification and Risk</b>					
Maintain repository of flood data	100	400			
Participate in flood map update related meetings (scoping and final meetings)	200	300	850	800	1000
Prepare state mapping needs on annual basis	50	0			
<b>Community Planning, Zoning, and Other Land Management Tool Assistance</b>					
Develop / update model community floodplain management regulations	0	50			
Review state building code updates/changes (if applicable) for consistency with NFIP standards	50	100			
Ordinance/Regulation review	1000	2000			
CBS Coordination and support	100	100			
Variance process assistance	200	100			
<b>Floodplain Management Training /</b>					
Conduct FPM III or equivalent workshop on NFIP topics (i.e., Elevation Certificate, LOMC, etc.)	250				
<b>Community Compliance</b>					
CACs	200				
CADs	1000				
<b>Outreach and Technical Assistance</b>					
General Technical Assistance	3000				
<b>Post Flood Recovery and Mitigation</b>					
Notification to communities regarding NFIP compliance	200				
NFIP Enrollings (including substantial damage determination training)	100				
<b>State Program Monitoring, Evaluation, and</b>					
CBS Data Input	200				
CAP Program Administration, Strategic/Annual Planning, GAP Analysis	200				
<b>State Staff Professional Development</b>					
FEMA/State Regional Meeting Attendance	100				
EMI Training	100				
ASFP Annual Conference	100				
<b>CORE CAP TOTAL</b>	<b>7955</b>	<b>3550</b>	<b>1150</b>	<b>1000</b>	<b>1200</b>
<b>ADVANCED Program Elements</b>					
<b>Maintaining State Authorities and Compliance with Federal Regulations</b>					
<b>Comprehensive, Integrated State Floodplain</b>					

from the MIP and/or discussions with the Regional Office, this cell should include full and partial countywide flood study updates.

Projected Number of Communities in Aras where Flood Studies will Become Final: Based on the number of studies in the cell above, this again would include only communities that participate in the NFIP, or are eligible and SHFA mapped communities.

Projected Annual Number of General Technical Assistance Requests: This number is a projection based on past experience and anticipated future level numbers.

## Time and Effort Data Worksheet

This worksheet is the second of two pages of data entry. Again, only one column, for the year in which you are doing the GAP analysis must be completed. Please note, however, that data for the same year must be completed on both the General State Information and Time and Effort Data worksheets, otherwise the GAP Analysis Results will not work.

The information provided on this worksheet will come from your early draft Cooperative Agreement for the upcoming year. Numbers in the cells represent



the total state program's level of effort. The tasks on this worksheet represent all of the CORE program tasks at the top while ADVANCED are at the bottom. Cells for ADVANCED tasks can be populated; however, there has been no baselining of the ADVANCED tasks and there will be no GAP Analysis Results provided.

## GAP Analysis Results Worksheet

Once all of the data has been entered on the General State Information and Time and Effort Data Worksheets, the GAP Analysis can be performed.

	2009			2010			2011			2012			2013		
	Input	Baseline	GAP	Input	Baseline	GAP	Input	Baseline	GAP	Input	Baseline	GAP	Input	Baseline	GAP
<b>FEMA CAP-SSSE Gap Analysis Tool</b>															
<b>Time and Effort (in hours):</b>															
<b>CORE Program Elements and Tasks:</b>															
<b>Maintaining State Authorities and Compliance with Federal Regulations</b>	345.0	439.5	-94.5	350.0	439.5	-89.5	200.0	439.5	-239.5	200.0	439.5	-239.5	200.0	439.5	-239.5
Maintaining / enhancing state authority pursuant to 44CFR 25(b)(1)	170.0	87.8	82.2	200.0	87.8	112.2	200.0	87.8	112.2	200.0	87.8	112.2	200.0	87.8	112.2
Commenting on projects funded/financed/undertaken by other Federal and state agencies	175.0	197.0	-22.0	100.0	197.0	-97.0	0.0	197.0	-197.0	0.0	197.0	-197.0	0.0	197.0	-197.0
Ongoing coordination with state building code office to ensure flood resistant designs and construction requirements meet or exceed NFIP and state floodplain management standards	0.0	154.7	-154.7	50.0	154.7	-104.7	0.0	154.7	-154.7	0.0	154.7	-154.7	0.0	154.7	-154.7
<b>Comprehensive, Integrated State Floodplain Management</b>	250.0	282.6	-32.6	250.0	282.6	-32.6	0.0	282.6	-282.6	0.0	282.6	-282.6	0.0	282.6	-282.6
In cooperation with State Secretary of State, monitor community jurisdictional (boundary) changes for community incorporations, annexations, de-incorporations and other boundary changes	100.0	61.3	38.7	100.0	61.3	38.7	0.0	61.3	-61.3	0.0	61.3	-61.3	0.0	61.3	-61.3
Maintain partnership with State Department of transportation/highways to ensure compliance with floodplain management regulations	150.0	221.3	-71.3	150.0	221.3	-71.3	0.0	221.3	-221.3	0.0	221.3	-221.3	0.0	221.3	-221.3
<b>Flood Hazard Identification and Risk Assessment</b>	430.0	870.7	-440.7	700.0	703.0	-3.0	950.0	956.6	-6.6	800.0	784.8	15.2	1000.0	784.8	215.2
Maintain repository of flood data	100.0	234.7	-134.7	400.0	234.7	165.3	0.0	234.7	-234.7	0.0	234.7	-234.7	0.0	234.7	-234.7
Participate in flood map update related meetings (scoping and final meetings)	280.0	511.3	-231.3	300.0	343.6	-43.6	950.0	597.2	352.8	800.0	425.4	374.6	1000.0	425.4	574.6
Prepare state mapping needs on annual basis	50.0	124.7	-74.7	0.0	124.7	-124.7	0.0	124.7	-124.7	0.0	124.7	-124.7	0.0	124.7	-124.7
<b>Community Planning, Zoning, and Other Land Management Tool Assistance</b>	1430.0	2070.8	-640.8	2350.0	806.0	1544.0	0.0	1822.8	-1822.8	0.0	1029.2	-1029.2	0.0	1029.2	-1029.2
Develop / update model community floodplain management regulations	0.0	59.5	-59.5	50.0	59.5	-9.5	0.0	59.5	-59.5	0.0	59.5	-59.5	0.0	59.5	-59.5
Review state building code updates/changes (if applicable) for consistency with NFIP standards	50.0	25.6	24.4	100.0	25.6	74.4	0.0	25.6	-25.6	0.0	25.6	-25.6	0.0	25.6	-25.6
Ordinance/Resolution review	1080.0	1785.6	-705.6	2000.0	520.8	1479.2	0.0	1537.6	-1537.6	0.0	744.0	-744.0	0.0	744.0	-744.0
CRS Coordinator and support	100.0	83.5	16.5	100.0	83.5	16.5	0.0	83.5	-83.5	0.0	83.5	-83.5	0.0	83.5	-83.5
Variance process assistance	200.0	116.6	83.4	100.0	116.6	-16.6	0.0	116.6	-116.6	0.0	116.6	-116.6	0.0	116.6	-116.6
<b>Floodplain Management Training / Workshops</b>	250.0	847.0	-597.0	0.0	854.1	-854.1	0.0	861.1	-861.1	0.0	868.2	-868.2	0.0	868.2	-868.2
Conduct FPM 101 or equivalent workshop on NFIP topics (i.e., Elevation Certificate, LOMC, etc.)	250.0	847.0	-597.0	0.0	854.1	-854.1	0.0	861.1	-861.1	0.0	868.2	-868.2	0.0	868.2	-868.2
<b>Community Compliance</b>	1200.0	3008.4	-1808.4	0.0	3033.6	-3033.6	0.0	3058.7	-3058.7	0.0	3083.8	-3083.8	0.0	3083.8	-3083.8
CAs	200.0	531.8	-331.8	0.0	537.1	-537.1	0.0	542.4	-542.4	0.0	547.7	-547.7	0.0	547.7	-547.7
CAIs	1000.0	2376.6	-1376.6	0.0	2396.4	-2396.4	0.0	2416.3	-2416.3	0.0	2436.2	-2436.2	0.0	2436.2	-2436.2
<b>Outreach and Technical Assistance</b>	3000.0	2526.0	480.0	0.0	3000.0	-3000.0	0.0	3150.0	-3150.0	0.0	3300.0	-3300.0	0.0	3300.0	-3300.0

So what is this worksheet telling us? First the layout – for each year, there are three columns – Input, Baseline and GAP.

The Input column pulls the data from the Time and Effort Data worksheet and displays it.

The Baseline column is critically important. This column calculates what, based on national survey data, custom formulas, and state specific information, a baseline level of effort should be provided for specific tasks. While the Baseline data accounts for state specific information, it is nationally consistent. For example, the level of effort for the General Technical Assistance task is based on the state's input into the General State Information Tab as to the projected number of requests, but to calculate the level of effort, a time per request calculation is made based on national survey data. In this way national baseline data can be calculated while also recognizing state specific data. The assumptions and formulas for the baseline calculation are described in detail in Part II of this manual.

The GAP column is the difference between the Input and the Baseline columns. A positive number indicates that the proposed state level of effort for the task is higher than the baseline, while a negative number represents the opposite. The data on the worksheet is broken out by task, subtotaled by element, and totaled for the entire year.

Much like the Time and Effort Worksheet, the GAP Analysis Results Worksheet

FEMA CAP-SSSE GAP ANALYSIS TOOL			
SUMMARY AND ANALYSIS			
STATE OF: OHIO			
YEAR:	2009		
GAP (HOURS):	2,727.44		
GAP (\$\$):	\$114,552.57		
<b>ELEMENT BREAKDOWN:</b>			
	GAP SIZE >>	MINOR	MAJOR
11	Maintaining State Authorities and Compliance with Federal Regulations	1	0
12	Comprehensive, Integrated State Floodplain Management	1	0
13	Flood Hazard Identification and Risk Assessment	0	1
14	Community Planning, Zoning, and Other Land Management Tool Assistance	0	1
15	Floodplain Management Training / Workshops	0	1
16	Community Compliance	0	0
17	Outreach and Technical Assistance	1	0
18	Post Flood Recovery and Mitigation Assistance	1	0
19	State Program Monitoring, Evaluation, and Reporting	0	1
20	State Staff Professional Development	0	1
21	Minor Gap < 25% variance from baseline (positive or negative)		
22	Major Gap > 25% variance from baseline (positive or negative)		
23	GAP doesn't include ODCs such as travel, equipment purchases, publications, etc.		

includes ADVANCED program elements; however there are no Baseline formulas (which is why the column is yellow – it can be a user defined formula).

### Summary and Analysis Worksheet

This worksheet provides a quick and clear summary of the data from the GAP Analysis Results worksheet. In the summary table at the top, the year of the analysis, the GAP in hours, and the GAP in dollars is provided. It is important to note that the GAP in dollars does not include direct, line item costs such

as travel, supplies, postage, materials, etc.

The second table shows, by program element the GAP size. A variance of less than 25% from the baseline is considered MINOR while a variance of more than 25% is considered MAJOR. The table calculates this variance and the cell will change color accordingly.

The worksheet is formatted to where the summary of each year will print on one page. Go to the Print Preview command to determine which sheet you want to print.

### ***Interpreting Results from the GAP Analysis, Use of Data***

The GAP Analysis is designed to be a program planning tool that can be used for a variety of purposes. One of the most useful is resource allocation among the 10 CAP-SSSE Program Elements. For example, as the Map Modernization program was being implemented, it became clear that assisting communities with updating their regulations would become a priority and create a GAP in other state program elements. With the CAP GAP Tool, changes in CAP priorities and targeted needs can be forecasted and planned. Ultimately, the CAP GAP Tool can be used to show a minimal level of effort necessary, based on logic and data, to implement a BASIC CAP program.

An examination of the extent to which states engage in the activities specified in the NFIP and CAP-SSSE program requirements can be found in the most recent ASFPM survey of floodplain management program coordinators. State floodplain management programs devoted time to at least nine categories of activities. In 2003, state floodplain management staffs spent 42% of their time on average in training and education, 16% monitoring local programs, 6% working on local ordinances, 9% on administration, and about 25% on other activities. Comparing this work breakdown to the elements of the CAP-SSSE program at that time, it

appears that much more time was devoted to recommended activities rather than to requirements.

Using the Summary and Analysis Worksheet, the table breaking down the elements and identifying whether a minor or major GAP exists is helpful in providing showing what a baselined, balanced state program should look like versus what is being proposed. That is not to say that all major GAPs are inherently bad, sometimes they are necessary based on program priorities or resources. However, the CAP GAP Tool can better enable a state to balance out its level of effort and strive to implement a more comprehensive program.

### **Using Results for Annual Cooperative Agreement**

The CAP GAP Tool should be used early in the planning process after the first estimates of levels of effort for various tasks are developed. The level of effort should be reflective of the state program's priority as well as FEMA's. Then, the tool can identify where there are major variances. It will be up to the state to determine whether the major variance is a true "red flag" or not. For example if a state updates its model community floodplain management regulations every five years, Element 1 may show a major variance in year 5 when the update is occurring because of the level of effort required. In this case, the major GAP may simply indicate that there will be another element in the Cooperative Agreement for which resources are not available.

### **Using Results for 5-Year Strategic Plans**

Data from the CAP GAP tool can be used for long range planning as well. For the past several years there has been a requirement for states to develop five-year floodplain management plans indicating how their program will meet the general goals outlined in the CAP-SSSE agreement.

The intent of the five-year plans is to get state and FEMA regional staff to think through their workloads over a multi-year period, and create a plan allowing them to provide a complete range of services to their communities. Secondly, it is

intended that the planning exercise document resource short-falls which may support efforts to obtain additional resources.

The worksheets can be populated based on multi-year estimates and from those results, assumptions can be made for the future. For example, will some initiative that is just getting started impact the rest of the program? What are the effects of budget and staff cuts? What happens if additional funds are appropriated, where should they be applied? To which elements does our state program not provide adequate resources? The CAP GAP Tool can help answer these questions!

## **Part II. Methodology Report**

## Maintaining State Authorities and Compliance with Federal Regulations

**Element Description** – This element involves activities that are related to 44CFR60.25(b)(1) and to a lesser extent (b)(10) and (b)(11). The difference between this element and the next element, Comprehensive, Integrated State Floodplain Management, is that this element focuses on consistency with minimum regulatory requirements when reviewing projects impacting flood hazard areas and not general programmatic/activity coordination which is the focus on the latter element.

### **CORE CAP Task/Description:**

*Maintaining / enhancing state authority pursuant to 44CFR60.25(b)(1)* – This task could involve a variety of specific measures such as an official periodic review (such as a 5 year rule review), a review of proposed and new state legislation to ensure compliance with NFIP standards, and proposing/assisting in the drafting of state legislation in response to specific state needs.

*Commenting on projects funded/financed/undertaken by other Federal and state agencies* – All projects involving federal funds must be reviewed for compliance with floodplain management standards; however, it is recognized that depending on the structure of the state's own authorities the review and comment agencies could vary. Executive Orders 11988 and 12372, as well as state executive orders require some level of review and comment. In some states, this effort is a formal, multi-agency, multi-statute review, and in others, no formal coordination mechanism exists. Also, states may execute interagency agreements to enable other agency staff to perform these reviews.

*Ongoing coordination with state building code office to ensure flood resistant design and construction requirements meet or exceed NFIP and state floodplain management standards* – Floodplain management programs in states with

building codes should be involved to some extent in ensuring that the codes are not modified in such a way to be inconsistent with NFIP standards. This might also include working with special commissions (i.e., manufactured housing commission) that have jurisdiction over pieces of a state's building and/or construction code.

**ADVANCED CAP Task/Description:**

N/A.

**Factors for Establishing Minimum Time and Effort Required for CORE Tasks:**

- It is assumed that all states have some form of enabling authority that must be maintained. In commenting on federal and state projects and maintaining a state building code, it is recognized that not all state programs may either do these tasks or have a state building code to maintain; however the tool shows the level of time and effort based on as if these tasks were done.
- Level of effort based on survey data from 2009 CAP GAP Survey of State Coordinators indicates (in hours):
  - Maintaining state authority : 87.8 (avg), 800 (high), 1 (low), 400.5 (median).
  - Federal/state project comment: 197 (avg), 2080 (high), 1 (low), 1040.5 (median).
  - Maintaining NFIP compliance for state building code: 154.7 (avg), 960 (high), 5 (low), 482.5 (median).

**Assumptions on Minimum Time and Effort Required for CORE Tasks:**

- **Critical Variable:** N/A.
- **Formula:**
  - Annual effort maintaining / enhancing state authority = avg. number hours based on 2009 CAP GAP survey.



- Annual effort conducting reviews for federal/state project comment  
= avg. number hours based on 2009 CAP GAP survey.
- Annual effort maintaining compliance of state building code with  
NFIP standards = avg. number hours based on 2009 CAP GAP  
survey.

## Comprehensive, Integrated State Floodplain Management

**Element Description** – This element involves tasks that lead to a better integrated state floodplain management program. CORE Tasks are differentiated from ADVANCED tasks as a result of the specificity and priority of the task as identified in Federal regulations. Tasks could involve coordination with state EPA, soil and water conservation, dam safety, emergency management, or other similarly aligned programs.

### **CORE CAP Task/Description:**

*In cooperation with State Secretary of State, monitor community jurisdictional (boundary) changes for community incorporations, annexations, de-incorporations and other boundary changes* – This task involves activities related to monitoring community boundaries. It is recognized that coordination with the Secretary of State may or may not be the primary agency in some states and that communities should notify states and FEMA directly upon the occurrence of these events.

*Maintain partnership with State Department of transportation/highways to ensure compliance with floodplain management regulations* – State transportation departments authorize and fund projects that have disproportionately high impact on flood hazard areas as compared with other state agencies and, as a result, coordination with state highway/transportation departments is identified as a CORE task vs. an ADVANCED task.

### **ADVANCED CAP Task/Description:**

*Coordination with other state programs and agencies* – Tasks could include coordinating with state dam safety, and water protection programs, and water resources councils. A comprehensive discussion of agencies and programs that could have involvement in floodplain management activities can be found in the *Effective State Floodplain Management Programs 2003*, Section 2.

*State mitigation program coordination.* Tasks could include Hazard Mitigation Assistance (HMA) grant coordination, integrating/coordinating with other state functions such as participating in the development/update of the state mitigation plan, state mitigation team participation, and/or mitigation planning assistance. Since these activities tend to be much more closely aligned with state floodplain management programs, they are broken out from the general coordination with other state programs and agencies task above.

## **Factors for Establishing Minimum Time and Effort Required for CORE**

### **Activities:**

- Among all elements and CORE tasks, these are the most highly variable as to a state's involvement.
- Level of effort based on survey data from 2009 CAP GAP Survey of State Coordinators indicates (in hours):
  - Coordinate with Secretary of State, monitor community jurisdictional boundary changes : 61.25 (avg), 150 (high), 10 (low), 80 (median).
  - Coordination with state highway departments: 221.3 (avg), 2080 (high), 10 (low), 1045 (median).

### **Assumptions on Minimum Time and Effort Required for CORE Activities:**

- **Critical Variable:** N/A.
- **Formula:**
  - Annual effort coordinating with Secretary of State = avg. number hours based on 2009 CAP GAP survey.
  - Annual effort coordination with state highway department = avg. number hours based on 2009 CAP GAP survey.

## Flood Hazard Identification and Risk Assessment

**Element Description** – This element involves the array of activities that are involved in identifying the locations of flood hazard areas and the different levels of risk assessments from the hazard of flooding – riverine, lacustrine, or coastal. Also, this element involves the storage, filing, and cataloging flood hazard data and mapping needs. In accordance with 44 CFR 59.22, participating communities (including states) make a commitment to assist FEMA in the “delineation of the limits of areas having special flood, mudslide, or flood-related erosion hazards.”

### **CORE CAP Task/Description:**

*Maintain repository of flood data* – Designated state coordinating offices are to designate a repository of flood hazard information. Actions associated with this task involve receiving, processing, storing, cataloging and retrieving flood hazard information such as FIRMs and FISs as well as other federal, state, regional, local and private flood studies. Some states may have information management systems where these data are cataloged.

*Participate in flood map update related meetings (scoping and final meetings)* – This task is self explanatory and involves meeting preparation, participation, and travel. Final meetings may include public meetings and/or open houses.

*Prepare state mapping needs on annual basis* – This task is related to the efforts related to providing information to FEMA and other agencies on mapping, for the preparation of multi-year prioritization and sequencing. Prior to Map Modernization, this was a much less automated and more labor intensive activity. Under Map Modernization, significant data has been collected and a multi-year sequencing scheme has been developed. This will continue under Risk MAP. There is a level of time and effort needed to review and communicate the statewide mapping priorities and may not be limited to just FEMA as agencies

who conduct flood studies such as the US Army Corps of Engineers and others may request these data as well.

**ADVANCED CAP Task/Description:**

*Other CTP mapping activities* – For states that have more robust mapping efforts, some other CTP mapping activities may also be considered ADVANCED CAP activities.

*Conduct HAZUS-MH studies* – Risk assessment studies using HAZUS or other similar methodologies may be considered an ADVANCED CAP activity.

*Establishing state-specific mapping standards* – A state has in code or by rule flood mapping standards that are specific to hazards and/or more comprehensive than FEMA mapping standards.

*Review and approve flood studies by others* - For states where in statute or regulation, a state entity has review and/or approval responsibilities for flood studies done by other entities (agencies, developers, consultants) for any purpose.

**Factors for Establishing Minimum Time and Effort Required for CORE Tasks:**

- It is assumed that all states will maintain a flood data repository and be involved in the preparation of annual statewide mapping needs/priorities.
- Participation in flood mapping related meetings is dependent on the number of new flood studies that are finalized in a given year.
- Level of effort based on survey data from 2009 CAP GAP Survey of State Coordinators indicates (in hours):
  - Maintain flood data repository on an annual basis : 234.7 (avg), 2040 (high), 4 (low), 1022 (median). One value in the survey was discarded as extreme outlier.

- Total hours per scoping meeting: 45 (avg), 111 (high), 2 (low), 56.5 (median). Survey results indicated several respondents did not properly answer the question – data was modified and significant outliers were discarded.
- Total hours per final meeting / open house: 40.9 (avg), 140 (high), 2 (low), 71 (median). Survey results indicated several respondents did not properly answer the question – data was modified and significant outliers were discarded.
- Prepare state mapping needs on an annual basis: 124.7 (avg), 750 (high), 2 (low), 376 (median).

#### **Assumptions on Minimum Time and Effort Required for CORE Tasks:**

- **Critical Variable:** N/A for maintaining flood data repository and preparing state mapping needs. Number of counties / parishes / boroughs for participation in flood mapping related meetings.
- **Formula:**
  - Annual effort maintaining flood data repository = avg. number hours based on 2009 CAP GAP survey.
  - Annual effort conducting flood map update related meetings (final / scoping meetings) = (projected number of flood studies initiated x avg. number of hrs. per scoping meeting) + (projected number of flood studies finalized x avg. number of hrs per final meeting).
  - Annual effort preparing state mapping needs = avg. number of hours based on 2009 CAP GAP survey.

## Community Planning, Zoning, and Other Land Management Tool Assistance

**Element Description** – This element focuses on tasks that involve assisting communities with land use codes and programs.

### **CORE CAP Task/Description:**

*Develop / update model community floodplain management regulations –*

Nearly all states provide model floodplain management regulations as a basis for communities to adopt NFIP compliant development standards. These model regulations may be reviewed and updated annually or every couple of years. Actions associated with this task involve reviewing, researching, coordinating and writing updated model regulations.

*Review state building code updates/changes (if applicable) for consistency with NFIP standards -* Where states have building codes, this task is to review changes in the building code that occur to ensure compatibility with state and/or federal floodplain management regulations. Typically state building codes are changed on an annual basis. This task include participation in state building standards board meetings.

*Community ordinance/resolution review -* This task is to review a community's floodplain management regulations for NFIP and state law compliance (if applicable), usually resulting in the completion of a FEMA/state ordinance review checklist and follow-up with the community.

*CRS coordination and support -* This task is related to all actions a state coordinating office undertakes to promote the CRS program as well as community specific assistance for communities already participating in the CRS such as help with the CRS application, monitoring efforts, and other actions as needed.

*Variance process assistance* - This task relates to assistance provided, outside of a CAV or CAC, when a community requests state assistance on a specific variance issue. This may include activities such as providing reference materials, reviewing variance applications, and/or attending variance hearings.

**ADVANCED CAP Task/Description:**

*Reviewing zoning/subdivision/special regulations for floodplain management considerations* – Whether by statute, rule, or policy, some state floodplain management programs conduct reviews on regulations - not the regulations meant to meet NFIP standards – to ensure there are no conflicts with NFIP standards and/or suggest effective floodplain management measures.

*Enforcement assistance* – While enforcement is a local responsibility, except where state laws require a state permit or allow for a state to be a party to an enforcement action, some state floodplain management programs provide assistance with enforcement actions. Enforcement assistance could include a variety of activities including collecting data on violations, etc.

**Factors for Establishing Minimum Time and Effort Required for CORE Tasks:**

- It is assumed that all states have model community floodplain management regulations and update them periodically.
- The bulk of community ordinance/regulations review are driven by the number of FIRMS that are developed and/or updated in a given year.
- It is assumed all states will provide basic CRS and variance assistance.
- Level of effort based on survey data from 2009 CAP GAP Survey of State Coordinators indicates (in hours):
  - Develop / update model community floodplain management regulations: 59.5 (avg), 400 (high), 2 (low), 201 (median).



- Review state building code updates/changes (if applicable) for consistency with NFIP standards: 25.6 (avg), 100 (high), 1 (low), 50.5 (median). Survey results indicated a poor response rate to this question.
- Total hours per ordinance/resolution review: 24.8 (avg), 120 (high), 1 (low), 60.5 (median). Survey results indicated some respondents did not properly answer the question – data was modified and significant outliers were discarded.
- CRS Coordination and support: 83.5 (avg), 750 (high), 2 (low), 376 (median). There were two questions (14, 15) on the survey related to CRS, and the questions may have been unclear. Given reasonable results and correlation between the answers of the two questions, the GAP tool is using the answers to question 14 as it is more conservative.
- Variance process assistance: The survey had two questions related to variances. The first question relates to time (in hours) per variance request: 14.4 (avg), 40 (high), 2 (low), 21 (median). The second question relates to number of variance assistance requests received annually: 8.1 (avg), 30 (high), 1 (low), 15.5 (median). Survey results indicated some respondents did not properly answer the question – data was modified and significant outliers were discarded.

### **Assumptions on Minimum Time and Effort Required for CORE Tasks:**

- **Critical Variable:** N/A for developing/updating model community regulations. Projected number of flood studies to become final and projected number of communities where flood studies will become final for ordinance/resolution reviews. N/A for CRS coordination and variance process assistance.
- **Formula:**

- Annual effort to develop / update model community floodplain management regulations = avg. number hours based on 2009 CAP GAP survey.
- Annual effort to review state building code updates/changes (if applicable) for consistency with NFIP standards = avg. number hours based on 2009 CAP GAP survey.
- Annual effort for community ordinance/resolution review = projected number of communities in areas where flood studies will become final x avg. number of hrs. per ordinance/resolution review based on 2009 CAP GAP survey.
- Annual effort CRS coordination & support = avg. number of hours based on 2009 CAP GAP survey.
- Annual effort variance process assistance = avg. number of hours per assistance request x avg. number of assistance requests annually based on 2009 CAP GAP survey.

## Floodplain Management Training / Workshops

**Element Description** – Floodplain Management Training / Workshops activities are those formal training “events” that are delivered by the State Coordinator’s Office, minus those that are delivered in a post-disaster scenario as they are accounted for in a different element. These activities are separate from those such as general technical assistance which although have the net effect of training local officials, are not formal training events.

### **CORE CAP Task/Description:**

*Conduct FPM 101 or equivalent workshop on NFIP topics (i.e., Elevation Certificate, LOMC, etc)* - Conducting floodplain management and NFIP related workshops have traditionally been used to train local floodplain managers and other key stakeholders (i.e., engineers/surveyors, planners, emergency managers). Most states have a version of a Floodplain Management 101 workshop that includes a range of topics. Based on the 2009 CAP GAP Survey of State Coordinators, other equivalent workshops topics may include but not limited to:

- Elevation Certificate
- Floodproofing
- Coastal Construction
- FPM for Elected Officials
- LOMAs/LOMRs

There have been suggestions that insurance agent training be included; however, there is another mechanism for these workshops therefore they are excluded from CAP.

### **ADVANCED CAP Task/Description:**

*Advanced topic workshop development and delivery* – Such a workshop focuses on topics for experienced floodplain managers and communities.

*Coordination of annual state floodplain management conference* – A state floodplain management conference is a very efficient method to reach out to numerous local floodplain managers and other stakeholders. Currently there are 28 ASFPM state chapter organizations and most of these have at least one floodplain management conference. This task involves SC office participation in preparation, planning, and execution of these conferences.

## **Factors for Establishing Minimum Time and Effort Required for CORE**

### **Activities:**

- According to statistics provided by ASFPM (May 2009), there are 1,374 Certified Floodplain Managers employed by local governments. It can be reasonably assumed that these communities participate in the NFIP and that it is unlikely there is more than one CFM per community. Based on this assumption, and that there are approximately 20,000 NFIP participating communities, it is estimated that over 6% of NFIP participating communities have CFMs.
- CFMs have a requirement of 18 Continuing Education Credits every two years, resulting in 9 CECs needed per year on average. ASFPM generally awards CECs on a one credit per hour basis. This correlates well with the 2009 CAP GAP survey findings of SCs for minimum numbers of training a local floodplain manager should have on an annual basis.
- Relevant survey data from the 2009 CAP GAP Survey of State Coordinators indicates (in hours):
  - Minimum number of hours, based on SCs best professional judgment, that a local floodplain manager should have in basic NFIP training to enable them to effectively administer a local floodplain management program: 9.9 (avg), 40 (high), 4 (low), 22 (median).
  - Average number of attendees in workshops conducted by SCs: 33.4 (avg), 200 (high), 8 (low), 104 (median).

- Average number of hours for a SC office to conduct a workshop (includes scheduling, planning, conducting, follow-up): 39.4 (avg), 108 (high), 15 (low), 61.5 (median).

#### **Assumptions on Minimum Time and Effort Required for CORE Tasks:**

- It is assumed that 60% of the training for a local floodplain manager is achieved through workshops conducted by state floodplain management offices. This reflects the fact that there is training on-line through FEMA and other providers, conferences and workshops provided by SCs and other sponsors (annual conferences, ASFPM conference) and training through reading and understanding various manuals and other print materials. This assumption should be validated in the future through a survey of local floodplain administrators. 60% of 9.9 hours equals approximately 6 hours per community which is equivalent to the average number of hours per workshop (see assumption below).
- Average amount of time for conducting workshops, average attendance, and estimates by State Coordinators as to the amount of training on an annual basis a local floodplain manager needs as identified on the CAP GAP survey is relevant to establish the baseline. The amount of training on an annual basis a local floodplain manager needs is the best professional judgment of state coordinators surveyed.
- Average length of workshop is estimated to be 6 hours. This determination was made after reviewing data collected from the ASFPM Certification Board of Regents.
- **Critical Variable:** Number of NFIP participating communities
- **Formula:**
  - Annual FPA hours training \*.60 = 6 hours = one workshop attended. Assume attendance at one workshop annually would meet training requirement as estimated by SCs.

- Annual Effort by state floodplain management program to conduct training workshops = (# NFIP Communities/avg. attendance at workshop)\*amount of state time and effort per workshop.

## Community Compliance

**Element Description** – Community compliance activities are those that are formal assessments of local floodplain management programs to determine compliance with NFIP standards.

### **CORE CAP Task/Description:**

*Community Assistance Visit (CAV)* – A CAV is an in-depth assessment of a community's floodplain management program consisting of the following broad tasks: background research/preparation, field tour, on-site interview with local official, and completion of follow-up including provision of technical assistance to remedy violations to the maximum extent practical.

*Community Assistance Contact (CAC)* – A CAC is a more cursory assessment of a community's floodplain management program consisting of the following broad tasks: Background research/preparation, telephone interview, field tour (optional), and completion of follow-up, including a determination whether a CAV is needed.

### **ADVANCED CAP Task/Description:**

N/A

### **Factors for Establishing Minimum Time and Effort Required for CORE Activities:**

Minimum frequencies of conducting CAVs and CACs have been established by FEMA in Manual 7810.4, dated August 1989: “. . . FEMA has established (as a general goal) a 5 year cycle within which all communities are assessed and/or provided some type of community floodplain management assistance.” Based on this goal, the following information is important to establish assumptions to calculate time and effort:

- Not all communities have the same community compliance issues. Communities with detailed flood hazard areas have more compliance responsibilities than those with approximate flood hazard areas. Small, slow/no growth communities have less compliance issues than do larger, fast growth communities. Half of the 20,600 communities participating in the NFIP nationwide have fewer than 10 flood insurance policies each. This may indicate communities with potential need for compliance monitoring as higher numbers of policies may indicate active development, growth, or higher numbers of at-risk structures (AIR 2006).
- FEMA recognizes, in the stated goal above, that other community assistance activities – workshops, other meetings (final meetings, etc.) may be considered to assist in meeting the 5-year goal. However the AIR study indicates that “other” contacts cannot be considered as effective as a CAV or CAC in assessing compliance because they have different objectives. Communities with acute compliance problems may require more frequent contacts than the 5-year goal.
- Compliance studies conducted by the American Institutes of Research (AIR - 2006) indicate that: 1) Based on CIS data, a compliance rate of 70-80 percent is estimated; however that number includes communities that addressed deficiencies within 2 years; 2) Based on an assessment of structures, 63% of buildings are fully compliant with the NFIP, and 3) based on interviews of FEMA and state staff, 78% of communities are thought to be compliant.
- The AIR study indicates that, based on current resources, only about 10% of communities have a CAV or CAC conducted each year, with half of the contacts involving a field visit, and between 15% and 30% of NFIP communities may be persistently non-compliant. The report recommends that an increase in monitoring occur and that there is some basis for considering a five year cycle as reasonable.
- From 1997-2001, of all compliance contacts conducted, 53% were CACs and 47% were CAVs.



- Level of effort based on survey data from 2009 CAP GAP Survey of State Coordinators indicates (in hours):
  - CAVs: 33.1 (avg), 146 (high), 4 (low), 75 (median).
  - CACs: 8.8 (avg), 25 (high), 1 (low), 13 (median).

### **Assumptions on Minimum Time and Effort Required for CORE Tasks:**

- 5-year frequency for CAV and CAC is relevant. This goal should not include other contacts as the objective of the contact is different.
- CAVs and CACs should each represent 50% of the overall contacts.
- Average amount of time for conducting CACs and CAVs based on state survey data is relevant to establish the baseline.
- **Critical Variable:** Number of NFIP participating communities
- **Formula:**
  - Annual Effort CAV =  $((\# \text{ of NFIP communities} * .5) / 5 \text{ years}) * \text{avg number hours to conduct CAV}.$
  - Annual Effort CAC =  $((\# \text{ of NFIP communities} * .5) / 5 \text{ years}) * \text{avg number hours to conduct CAC}.$

## Outreach and Technical Assistance

**Element Description** – While state programs are constantly providing outreach and technical assistance, this element involves activities that are geared towards providing general technical assistance activities. These are usually associated with assistance requests by phone, FAX, and e-mail from varying audiences for all topics related to the NFIP. For example, a technical assistance request may be related to a question from a citizen related to flood insurance policies, interpreting a flood map, or discussing a development proposal with a consulting engineer. This element is differentiated from community land management assistance as that element has very specific activities associated with it and usually requires more time and effort on a per request basis (such as assisting with a variance request vs. answering a telephone question on flood insurance).

### **CORE CAP Task/Description:**

*General Technical Assistance* – These are relatively short duration responses to general questions about the NFIP related to any of the three “legs” of the program – mapping, insurance, and regulations.

### **ADVANCED CAP Task/Description:**

*Developing specialized outreach publications (newsletters, fact sheets, handbooks)* – To further communicate flood risk and NFIP issues, state programs have long produced a variety of materials for different audiences. For example, most states have developed handbooks for local floodplain administrators to assist them in developing and implementing their local programs. Other publications may include a program newsletter on an annual or biannual basis, specialized fact sheets, and website enhancements.

### **Factors for Establishing Minimum Time and Effort Required for CORE Tasks:**

- Level of effort based on survey data from 2009 CAP GAP Survey of State Coordinators indicates (in hours):
  - General Technical Assistance (GTA): 1.21 (avg), 3 (high), .5 (low), 1.75 (median). Survey results indicated some respondents did not properly answer the question and the wording of the question was confusing – data was modified and significant outliers were discarded. Also due to the way the question was asked and as verified by several different state coordinators, the average per GTA request was adjusted downward to 1 hour.

**Assumptions on Minimum Time and Effort Required for CORE Tasks:**

- **Critical Variable:** Number of General Technical Assistance requests estimated for the upcoming year based on previous year's experience.
- **Formula:**
  - Annual effort maintaining flood data repository = projected number of General Technical Assistance requests x avg. number hours per request based on 2009 CAP GAP survey.

## Post Flood Recovery and Mitigation Assistance

**Element Description** – This element involves activities that are undertaken by a state floodplain management office after a significant flood event, regardless of whether it results in a Presidential disaster declaration. Most state floodplain management programs are involved in a variety of activities which include:

- EOC/JFO participation including monitoring the event and providing technical assistance to the state emergency management agency
- Assisting in Preliminary Damage Assessments
- Notifying communities of their NFIP participation responsibilities
- Conducting HAZUS-MH runs for flood scenarios
- Conducting substantial damage, recovery and mitigation workshops/training
- Performing on-site damage assessments with local floodplain administrators
- Permitting assistance
- Mitigation program assistance

While any of these activities could be critical; state floodplain management programs have difficulty in providing the resources for these activities and budgeting for them.

### **CORE CAP Task/Description:**

*Notification to communities regarding NFIP compliance* – This activity is described as an action, usually letter, e-mail or some similar notification to the local floodplain administrator of their duties as a local official post-flood, including the need to conduct substantial damage determinations. These notifications occur soon after an event and assistance is sometimes obtained from FEMA if a JFO is opened and FEMA floodplain management resources are assigned. Often included in these notifications are publications or other resources that can assist the floodplain administrator in implementing their responsibilities.

*NFIP Briefings* – This task involves conducting a more formalized review and training of the activities and issues that arise post-flood. Briefings are often organized at the county level and the briefings are held soon after the flood event to ensure proper timing of conducting substantial damage determinations and ahead of the rebuilding and reconstruction activities. These briefings may review topics such as substantial damage / substantial improvement, Increased Cost of Compliance, NFIP development standards, permitting issues, hazard mitigation and flood insurance issues.

**ADVANCED CAP Task/Description:**

*EOC / JFO participation* – As a flood disaster unfolds and after the event, state floodplain management program staff may participate in EOC and/or JFO operations. In the EOC, staff generally provide technical and interpretative assistance (stream gage / stage relationships, impact forecasting using HAZUS or other tools, etc.). In the JFO, staff work with FEMA counterparts on NFIP and flood insurance issues.

*Mitigation Program Assistance* – State floodplain management program staff may assist during PDAs in identifying mitigation opportunities, disseminate mitigation program information, and provide technical and review assistance to state hazard mitigation program staff on project applications.

**Factors for Establishing Minimum Time and Effort Required for CORE**

**Tasks:**

- Because it is impossible to forecast disasters, past disaster history is the only feasible option to forecast possible level of effort. It is acknowledged that there are some states that have not had a disaster event in more than a decade.
- Level of effort based on survey data from 2009 CAP GAP Survey of State Coordinators indicates (in hours):

- Notification of communities regarding NFIP participation responsibilities (on a per disaster basis): 63 (avg), 200 (high), 2 (low), 101 (median). One value in the survey was discarded as extreme outlier.
- Total hours per NFIP briefing (usually held at the countywide level): 15.9 (avg), 180 (high), 3 (low), 91.5 (median). One value in the survey was discarded as extreme outlier.

### **Assumptions on Minimum Time and Effort Required for CORE Tasks:**

- **Critical Variable:** 10-year rolling average of number of FEMA flood disaster declarations for notification of communities regarding NFIP participation. Average number of FEMA declared counties/parishes/boroughs per declaration for NFIP briefings.
- **Formula:**
  - Annual effort notification of communities regarding NFIP participation responsibilities = avg. number hours (on a per disaster basis) based on 2009 CAP GAP survey x avg. number of FEMA flood disaster declarations per year (10-year rolling average).
  - Annual effort conducting NFIP briefings post-disaster = avg. number hours (on a per disaster basis) based on 2009 CAP GAP survey x avg. number of FEMA flood disaster declarations per year (10-year rolling average) x avg. number of FEMA declared counties/parishes/boroughs in a disaster declaration (10-year rolling average).

## State Program Monitoring, Evaluation, and Reporting

**Element Description** – This element involves activities associated with duties related to CAP program administration as well as strategic planning and other overarching state floodplain management program activities.

### **CORE CAP Task/Description:**

*CIS Data Input* – This task involves the input of various data into FEMA's CIS system for monitoring and tracking.

*CAP Program Administration, Strategic/Annual Planning, GAP Analysis* - This task is related to all activities related to administering the CAP program (developing the Cooperative Agreement, quarterly reporting, closeout), strategic and annual planning (5-year floodplain management plans), and completing related strategic planning activities such as a GAP analysis.

### **ADVANCED CAP Task/Description:**

N/A.

### **Factors for Establishing Minimum Time and Effort Required for CORE Tasks:**

- It is assumed that all states will perform these functions.
- Level of effort based on survey data from 2009 CAP GAP Survey of State Coordinators indicates (in hours):
  - CIS Data Input: 107.2 (avg), 350 (high), 1 (low), 175.5 (median).
  - CAP program administration, strategic/annual planning, GAP analysis: 53.2 (avg), 160 (high), 8 (low), 84 (median).

### **Assumptions on Minimum Time and Effort Required for CORE Tasks:**

- **Critical Variable:** N/A.

- **Formula:**

- Annual effort CIS data input = avg. number hours based on 2009 CAP GAP survey.
- Annual effort CAP program administration, strategic/annual planning, GAP analysis = avg. number hours based on 2009 CAP GAP survey.



## State Staff Professional Development

**Element Description** – This element involves activities associated with some professional development of state floodplain program staff. These staff development activities are focused on the NFIP, FEMA/state coordination, and CAP program implementation.

### **CORE CAP Task/Description:**

*FEMA / State Regional Meeting Attendance* – This task involves participation of state staff in joint FEMA/state regional meetings. These meetings usually happen once or twice per year.

*EMI Training* – EMI, the Emergency Management Institute, offers in-depth, low cost training for state and other staff on topics related to the NFIP and floodplain management. This task is related to state staff participation in EMI training courses.

*ASFPM Annual Conference* – The ASFPM Annual Conference is the nation's largest conference dedicated to all aspects of floodplain management and represents an excellent opportunity for state staff training. This task relates to state staff participation in the ASFPM annual conference.

### **ADVANCED CAP Task/Description:**

N/A.

### **Factors for Establishing Minimum Time and Effort Required for CORE**

#### **Tasks:**

- It is assumed that all states will desire to participate in these activities.
- Level of effort based on survey data from 2009 CAP GAP Survey of State Coordinators indicates:

- There are three questions related to FEMA/State regional meeting attendance. 1) How many regional meetings are conducted on an annual basis: 2.1 (avg), 3 (high), 1 (low), 2 (median). 2) How many state staff attend the regional meeting: 2.2 (avg), 4 (high), 1 (low), 2.5 (median). 3) What is duration of meetings (in hours): 18.5 (avg), 30 (high), 2 (low), 16 (median).
- How many EMI training sessions are attended by state staff on an annual basis: 1.9 (avg), 6 (high), 1 (low), 3.5 (median).
- How many state staff attend the ASFPM Annual Conference: 1.9 (avg), 4 (high), 1 (low), 2.5 (median).

#### **Assumptions on Minimum Time and Effort Required for CORE Tasks:**

- **Critical Variable:** Number of meetings, number of state staff attendance, and duration of meetings for regional meeting attendance; number of staff on an annual basis for EMI training attendance; and number of staff on an annual basis for ASFPM Annual Conference attendance.
- **Formula:**
  - Annual effort regional meetings = avg. number of meetings x avg. number of state staff attending x avg. duration of meeting (hours based on 2009 CAP GAP survey).
  - Annual effort EMI attendance = avg. number of EMI training sessions attended x 40 hours (avg. session and travel time).
  - Annual effort ASFPM Annual Conference = avg. number of state staff attending x 40 hours (avg. conference duration and travel time).

## **Part III. References and Appendices**

## References

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## Appendix A. CAP-SSSE Program Element and ASFPM Effective State Floodplain Management (ESFM) Program Crosswalk

ASFPM Principle →	Authority for State and Local Floodplain Management	Comprehensive, Integrated State Floodplain Management	Flood Hazard Identification and Risk Assessment	Respect for Floodplain Functions and Resources	Guiding Development and Managing its Impacts	Flood Mitigation and Recovery Strategies	Public Awareness	Training and Technical Assistance	Funding and Staffing	Evaluation and Documentation	Comments
CAP-SSSE Program Element ↓											
Maintaining State Authorities and Compliance with Federal Regulations	+	+									Compliance with Federal regulations as a CAP element includes project reviews – obviously requires a measure of integration with other agencies.
Comprehensive, Integrated State Floodplain Management	+	+									Interagency coordination identified in Section 1.1.2 of ESFM, while Section 2 of focuses on state agency coordination.
Flood Hazard Identification and Risk Assessment			+								
Community Planning, Zoning, and Other Land Management Tool Assistance					++						
Floodplain Management Training / Workshops								+			
Community Compliance										+	
Outreach and Technical Assistance							+	++			
Post Flood Recovery and Mitigation Assistance						+					
State Program Monitoring, Evaluation, and Reporting										+	
State Staff Professional Development									+		

++ Substantially Consistent    + Somewhat Consistent    -- Not Consistent

## **Appendix B. Designation, Duties, and Responsibilities of State Coordinating Agencies (44 CFR 60.25)**

(a) States are encouraged to demonstrate a commitment to the minimum flood plain management criteria set forth in §§ 60.3, 60.4, and 60.5 as evidenced by the designation of an agency of State government to be responsible for coordinating the Program aspects of flood plain management in the State.

(b) State participation in furthering the objectives of this part shall include maintaining capability to perform the appropriate duties and responsibilities as follows:

- (1) Enact, whenever necessary, legislation enabling counties and municipalities to regulate development within flood-prone areas;
- (2) Encourage and assist communities in qualifying for participation in the Program;
- (3) Guide and assist county and municipal public bodies and agencies in developing, implementing, and maintaining local flood plain management regulations;
- (4) Provide local governments and the general public with Program information on the coordination of local activities with Federal and State requirements for managing flood-prone areas;
- (5) Assist communities in disseminating information on minimum elevation requirements for development within flood-prone areas;
- (6) Assist in the delineation of riverine and coastal flood-prone areas, whenever possible, and provide all relevant technical information to the Administrator;
- (7) Recommend priorities for Federal flood plain management activities in relation to the needs of county and municipal localities within the State;
- (8) Provide notification to the Administrator in the event of apparent irreconcilable differences between a community's local flood plain management program and the minimum requirements of the Program;
- (9) Establish minimum State flood plain management regulatory standards consistent with those established in this part and in conformance with other Federal and State environmental and water pollution standards for the prevention of pollution during periods of flooding;
- (10) Assure coordination and consistency of flood plain management activities with other State, areawide, and local planning and enforcement agencies;
- (11) Assist in the identification and implementation of flood hazard mitigation recommendations which are consistent with the minimum flood plain management criteria for the Program;
- (12) Participate in flood plain management training opportunities and other flood hazard preparedness programs whenever practicable.

(c) Other duties and responsibilities, which may be deemed appropriate by the State and which are to be officially designated as being conducted in the capacity of the State

Coordinating Agency for the Program, may be carried out with prior notification of the Administrator.

(d) For States which have demonstrated a commitment to and experience in application of the minimum flood plain management criteria set forth in §§ 60.3, 60.4, and 60.5 as evidenced by the establishment and implementation of programs which substantially encompass the activities described in paragraphs (a), (b), and (c) of this section, the Administrator shall take the foregoing into account when:

- (1) Considering State recommendations prior to implementing Program activities affecting State communities;
- (2) Considering State approval or certifications of local flood plain management regulations as meeting the requirements of this part.

[51 FR 30309, Aug. 25, 1986]

## Appendix C. List of Acronyms

AIR	American Institutes of Research
ASFPM	Association of State Floodplain Managers
CAC	Community Assistance Contact
CAP-SSSE	Community Assistance Program State Support Services Element
CAV	Community Assistance Visit
CEC	Continuing Education Credit
CFM	Certified Floodplain Manager
CFR	Code of Federal Regulations
CIS	Community Information System
CRS	Community Rating System
CTP	Cooperating Technical Partner
EMI	Emergency Management Institute
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
FPM	Floodplain Management
JFO	Joint Field Office
LOMA	Letter of Map Amendment
LOMC	Letter of Map Change
LOMR	Letter of Map Revision
NFIP	National Flood Insurance Program
SAP	State Assistance Program
SC	State Coordinator