



## EFFECTIVENESS OF FEDERAL FLOODPLAIN MANAGEMENT IN THE UNITED STATES – EXECUTIVE ORDER 11988

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**ABSTRACT:** In the United States Federal floodplain management is guided by Executive Order 11988 (E.O. 11988), which was issued in 1977. E.O. 11988 directs Federal leadership to “take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains.” These factors were intended to be considered whenever the Federal government carried out its’ responsibilities for acquiring, managing, and disposing of Federal lands and facilities, providing Federally undertaken, financed, or assisted construction and improvements, and conducting Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities. The intent of E.O. 11988 was not to strictly prohibit all Federal activity or support for activity occurring within or impacting floodplains, but rather to ensure that the effects of those activities were considered and understood, and that all practicable steps possible were taken to minimize adverse effects of those actions which must occur within or impact a floodplain. Recently, the Federal Interagency Floodplain Management Task Force (FIFM-TF), an interagency group representing ten Federal agencies with missions and authorities related to flood risk and floodplain management, investigated the implementation and overall effectiveness of E.O. 11988. The FIFM-TF designed a survey to be completed by representatives of each Federal agency with implementing requirements under E.O. 11988. This survey was designed to provide improved understanding of the effectiveness of E.O. 11988 itself and of individual agencies’ implementation of EO 11988. This paper will discuss what the Federal agencies expect to learn from the survey and next steps for improving Federal guidance on flood risk management in the United States.

Key Words: Flood Risk Management, Executive Order 11988, Federal Policy

### 1. OVERVIEW OF FLOOD RISK MANAGEMENT IN THE UNITED STATES

Responsibility for flood risk management in the United States is split between multiple Federal, state, and local government agencies. Some responsibility is also held by the private sector and the public, particularly the inhabitants of floodplains (Rabbon *et al.*, 2008). This necessarily means that flood risk management within the United States must be continually coordinated among all of these vital partners (Hecker *et al.*, 2008). Within the Federal government, there are multiple agencies with responsibility for various aspects of flood risk and floodplain management. The following sections will outline the key Federal agencies and their roles and responsibilities, as well as the roles and responsibilities of other levels of government.

#### 1.1 Federal Agencies Involved in Flood Risk Management

Within the Federal government, there are numerous agencies with missions, roles, and responsibilities related to flood risk management. The lead Federal agencies are the United States Army Corps of Engineers (USACE), a part of the Department of Defense, and the Federal Emergency Management Agency (FEMA), a part of the Department of Homeland Security. The primary differentiation between USACE and FEMA responsibilities in the floodplain is that USACE holds responsibility for reducing the impacts of flood waters, while FEMA is largely responsible for managing floodplains, which includes

providing disaster relief after a flood event and administering the National Flood Insurance Program (NFIP) (Rabbon *et al.*, 2008). However, both agencies' missions and programs are more expansive than this.

USACE involvement in flood risk management involves construction of flood risk management infrastructure, including levees, dikes, reservoirs, and dams, to manage flood waters in an effort to reduce the likelihood of loss of life and property damage during flood events in both coastal and riverine environments. In recent years, however, USACE has placed more emphasis on additional floodplain management activities and approaches, including acquisition of structures in hazardous locations, relocation of structures away from hazardous locations, and floodproofing of structures vulnerable to flooding. USACE also provides assistance to states and communities for floodplain management and hazard mitigation planning, as well as forecasting and preparation activities prior to flood events. Additionally, when flood events do occur, USACE has a number of vital emergency response services that can be provided, including providing emergency potable water and power, assisting in search and rescue operations, clearing of debris, restoring public services and facilities, rehabilitating eligible damaged flood risk management infrastructure, and providing technical assistance. USACE can also assist in long-term recovery and reconstruction efforts (Rabbon *et al.*, 2008).

FEMA typically addresses flood hazards through hazard mitigation programs, floodplain management measures, provision of flood insurance to limit the financial consequences to individual residents and businesses following flood events, and emergency services during and immediately after an event. FEMA administers the NFIP through its Mitigation Directorate, which makes Federally backed flood insurance available to residents (maximum coverage of \$250,000 for building property and \$100,000 for contents available) and businesses (maximum coverage of \$500,000 for building property and \$500,000 for personal property available) within participating communities. Participating communities must adopt at least the minimum standard, as defined by FEMA, for floodplain management ordinances intended to reduce flood risk within the community. FEMA develops and provides maps of the 1%-annual-chance floodplain in participating communities, which are used to guide ordinances and set insurance rates in participating communities. These maps have become significant sources of information for the purposes of flood mitigation planning as well (Rabbon *et al.*, 2008). FEMA also provides assistance to communities in implementing mitigation activities both before and after disaster events occur, through programs such as the Pre-Disaster Mitigation Grant Program (FEMA website) and the Hazard Mitigation Grant Program (FEMA website). FEMA also provides significant disaster assistance to communities and individuals after flood events (Rabbon *et al.*, 2008).

There are a number of other Federal agencies that have some involvement with flood risk or floodplain management through their missions and authorities. The U.S. Bureau of Reclamation and the Tennessee Valley Authority are both water management agencies with similarities to USACE. The Department of Agriculture, including the Natural Resources Conservation Service and the Forest Service, has programs to manage upstream runoff in watersheds, which results in reduced downstream flooding. Within the National Oceanic and Atmospheric Administration (NOAA), the National Weather Service provides flood forecasts used for warning systems and coordination of preparation and response activities. The National Ocean Service, also a department of NOAA, provides information and data on coastal flood hazards. The U.S. Geological Survey, within the Department of Interior (DOI), collects streamflow data and provides information on flood frequency analysis. Both the Department of Housing and Urban Development and the Small Business Administration provide disaster assistance after flood events. There are also numerous Federal agencies, including the Environmental Protection Agency, the U.S. Fish and Wildlife Service (within DOI), the National Marine Fisheries Service (within NOAA), and the regulatory branch of USACE, with environmental and natural resources missions that can impact flood risk management through regulatory programs (Rabbon *et al.*, 2008).

## **1.2 Other Levels of Government Involved in Flood Risk Management**

Though there are many Federal government agencies involved in flood risk management, state and local government agencies actually have the most significant responsibility for flood risk management. This responsibility comes primarily in the form of managing regulation of the floodplain through zoning

ordinances, land use regulations, and building code standards. In communities with flood risk management infrastructure, such as federally authorized and constructed levees or locally constructed levees, infrastructure maintenance is the responsibility of the project sponsor, which is usually a local government agency (Rabbon *et al.*, 2008).

Local governments, as a requirement of participation in the National Flood Insurance Program, adopt and enforce floodplain management ordinances, including zoning, subdivision or building, and special-purpose floodplain ordinances. Local governments are also typically responsible for local drainage and stormwater management. State governments tend to develop multi-hazard emergency operations plans that include flood response operations. Many state governments have also developed statewide floodplain management regulations and/or regulatory programs. Though these regulations and regulatory programs are typically aimed at preservation of natural resources within floodplains, they do also influence flood risk within the state and communities (FIFM-TF, 1992).

The authority to manage land use within the floodplain is a significant responsibility which can impact the effectiveness of Federal programs and efforts for flood risk management within an area. Thus, it is important that Federal, state, and local government agencies and representatives work together collaboratively to determine the most appropriate ways to manage flood risk, to avoid conflicting program goals and duplication of efforts (Riley, 2008).

The Unified National Program for Floodplain Management (UNP), (see description later in this article) is the document that attempts to unify and align the diverse and decentralized Federal, State, and local responsibilities in the floodplain. The Federal agencies are further guided in their activities within or impacting floodplains by Executive Order 11988 (E.O. 11988). It is worth noting that EO 11988 only applies to federal actions within a floodplain, including physical actions as well as financial assistance, among others. So, while the E.O. 11988 does not directly require state or local compliance, it does influence the way activities are considered in the floodplain.

## **2. REVIEW OF EXECUTIVE ORDER 11988**

The Constitution of the United States of America grants the President “executive power” which authorizes the President to issue executive orders to the executive branch of the federal government (i.e. the numerous federal agencies described earlier in this paper). These orders are legally binding orders with the same legal weight as laws passed by Congress, though Congress does not need to approve an Executive Order for it to be effective. Executive orders are typically used to direct Federal agency implementation and execution of congressionally established laws, but they can also be used to direct Federal agency actions in directions not aligned with Congressional intent. Because executive orders can allow the President to make significant decisions and enact laws without congressional consent, they are sometimes controversial (ThisNation.com, n.d.). Executive Order 11988 (E.O. 11988) on Floodplain Management was intended to guide Federal agency activities located in or affecting floodplains. This executive order is the only policy statement aimed solely at guiding Federal agency involvement in flood risk management.

### **2.1 History**

Executive Order 11988 on Floodplain Management was signed by President Jimmy Carter on 24 May 1977. It was amended in 1979 but there have been no further changes made to the actual order. The executive order directed Federal agencies to avoid, to the extent possible, the long and short-term adverse impacts associated with occupancy and modification of floodplains. Federal agencies were further directed to avoid direct or indirect support of floodplain development wherever there was a practicable alternative. Several guidance documents have been developed to assist agencies in understanding how to implement the requirements of EO 11988. The first, issued by the Water Resources Council in 1978, was Guidelines for Implementing Executive Order 11988, and the second, issued by the Federal Interagency Floodplain Management Task Force in 1987, was Further Advice on Executive Order 11988 (FEMA, 2012).

A significant shift in understanding of flood risk and floodplain management in the 1960's and 1970's led to the development of E.O. 11988. In these years, there began to be a recognition of and concern for the rising costs of flood events to the Nation. This concern led Congress to pass legislation calling for a Unified National Program for Floodplain Management (UNP), which was to be a national strategy for managing flood risks and losses. During this time period, the NFIP was also established, which made Federally-backed flood insurance available to those in communities at risk of flooding (WRC, 1976). In the 1970's, especially, there began to be widespread recognition of many environmental issues, including recognition of the value of natural resources. Specifically, the natural and beneficial functions and services provided by floodplain lands came to be recognized in this time, which was a significant shift in attitudes from previous decades where the focus was generally on engineered solutions (Wright, 2000).

In 1973, the Principals and Standards for Planning Water and Related Land Resources identified two national objectives against which Federal agency plans must be formulated, national economic development and environmental quality (WRC, 1979). These shifts in understanding and attitudes during this time frame led to changes in how floods were dealt with in the United States. Different strategies for managing flood risk were developed and promulgated and the relationship between reducing flood damages and reducing environmental harm was recognized. A belief also developed that the Federal government should have a leadership role in reducing and managing flood risk. In response, E.O. 11988 charged Federal agencies with providing leadership in efforts to reduce the risk of flood loss; in efforts to minimize the impact of floods on human health, safety, and welfare; and in efforts to restore and preserve natural and beneficial values of floodplains. This executive order established the concept that continues today that Federal agencies should be leaders in flood risk and floodplain management activities (FEMA, 2012).

## **2.2 Requirements**

Under E.O. 11988 Federal agencies are required to provide leadership and take action to reduce the risk of flood loss, to minimize the impact of floods on human health, safety, and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out responsibilities for three specific categories of actions. These categories are acquiring, managing, and disposing of Federal lands and facilities; providing Federally-undertaken, financed, or assisted construction and improvements; and conducting Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities. These three categories are very broad and encompass the vast majority of activities the Federal government may take, or be involved in within the floodplain (FEMA, 2012). It is important to note that these categories encompass not just direct Federal activities, but also any activity either funded by the Federal government or for which the Federal government provides some other type of assistance (FEMA website). This means that the requirements of E.O. 11988 may also apply to some activities directly undertaken by a state or local government agency. It is further important to note that E.O. 11988 encompasses both activities located in the floodplain and activities located outside of the floodplain that could impact the floodplain (ITFFM, 1987).

The guidelines prepared to help agencies determine how to implement E.O. 11988 outlined an eight-step process for agencies to follow. These eight steps are a decision-making process which must be utilized to evaluate Federal decisions agencies intend to take, or participate in that are to be located in, or that could impact the floodplain. E.O. 11988 does not prohibit development or activity located in or impacting floodplains; it simply requires a thoughtful process by which the Federal agency considers possible alternatives that do not involve locating in the floodplain as well as impacts of taking the action in the floodplain. If the Federal agency decides that the best course of action is to locate in or otherwise impact the floodplain, then the E.O. 11988 decision-making process requires that the agency further evaluate options to minimize the impacts of the action and to restore and preserve the floodplain, as appropriate. As part of the decision-making process, E.O. 11988 also requires agencies to seek and consider public feedback on the proposed action that would be located in or otherwise impact the floodplain, and to provide a public explanation of the decision, if the decision is to move forward with the proposed action in the floodplain (FEMA, 2012).

### **3. IMPLEMENTATION OF EXECUTIVE ORDER 11988**

Because E.O. 11988 was signed and became effective in 1977 and has experienced minimal change since then, there is a long history of Federal agency efforts to implement and comply with its' requirements from which to draw. However, to date, there has been minimal effort on the part of the Federal government to track agency compliance with E.O. 11988 or evaluate its effectiveness.

#### **3.1 History of Implementation**

After E.O. 11988 was signed and became effective in 1977, additional guidance was produced by the Administration through the Water Resources Council in 1978. The first requirement for Federal agencies to implement E.O. 11988 was to develop individual agency implementing guidance. The Water Resources Council and FEMA were available to assist Federal agencies in developing implementation guidance. FEMA conducted a review of agency implementation in 1982 that suggested the vast majority of Federal agencies required to develop implementing guidance had developed at least preliminary guidance, if not final guidance. There has been no further tracking of the development or update of Federal agency implementing guidance, though FEMA remains available to provide assistance to agencies with questions about their obligations under E.O. 11988.

Once each Federal agency had gone through the necessary process to develop and adopt implementation guidance for E.O. 11988 the agency was expected to implement that guidance. This generally involved applying the 8 step decision-making process to all agency decisions that could directly or indirectly impact a floodplain. However, there has been no official tracking by the Federal government of whether or not agencies are in fact following their implementing guidance and correctly complying with the requirements of E.O. 11988.

#### **3.2 Common Concerns Related to Implementation**

Several key concerns have been raised over the years regarding the implementation of E.O. 11988. The two primary concerns have been the age of the document and inconsistent implementation standards among the Federal agencies. The field of flood risk and floodplain management has evolved significantly since 1977. Of particular note, the Federal government has evolved from a concept of flood control to flood damage reduction to flood risk management over the last few decades (Rabbon *et al.*, 2008). This ideological shift has resulted in changed approaches and methods to managing and reducing flood risk. As an example, under the current philosophy of flood risk management, a large levee system alone is no longer considered to be an adequate approach to managing flood risks for a community. While a levee system may still be used to provide protection, the flood risk remaining behind the levee system is better recognized and understood, such that there is also a strong focus on risk communication, warning and evacuation systems, and approaches to reduce consequences in the event of a flood, such as floodproofing structures in the leveed area. Further, levee systems or other structural solutions may no longer be the preferred approach to managing and reducing flood risk and flood damage under the philosophy of flood risk management. This change in philosophy and the significant changes in the understanding of flood risk over the last several decades are not fully reflected in E.O. 11988.

It is widely believed that many Federal agencies have not fully complied with the spirit and intent of E.O. 11988 in the last 30 years. Specifically, there is significant evidence that many Federal agencies have unnecessarily located or funded activities located in or impacting the floodplain. Issues such as these demonstrate the strong concern that many agencies are unaware of, or otherwise do not understand, the requirements of E.O. 11988 and how the document should apply to Federal agency decision-making (Wright, 2000). A related concern is the lack of enforcement authority to require agencies to comply with E.O. 11988. Though all Federal agencies are required to comply with this order, there is no Federal agency that has the responsibility to review or challenge the implementation and compliance efforts of other Federal agencies (ASFPM, 2007).

There have been numerous calls to update E.O. 11988 (IFMRC, 1994; ASFPM, 2007). Such an update could serve to bring the policy into fuller alignment with the changes that have occurred in the field of flood risk and floodplain management since 1977. It has been suggested that updating the EO 11988 should “reaffirm the Federal commitment to floodplain management” by expanding the scope of material covered by E.O. 11988 (IFMRC, 1994). In absence of a complete update, it has been suggested that the Administration should consider re-emphasizing the importance of E.O. 11988. Particular areas of focus to be re-emphasized include the requirement to avoid the floodplain where possible and enhanced protection for critical infrastructure. There have also been numerous calls for an evaluation of Federal agency compliance with E.O. 11988 as a starting point (ASFPM, 2007).

#### **4. FEDERAL REVIEW OF EXECUTIVE ORDER 11988**

There has long been concern about both the effectiveness and adequacy of E.O. 11988 itself and of the effectiveness and consistency of agency efforts to implement it. The Federal Interagency Floodplain Management Task Force (FIFM-TF) has for several years been interested in better understanding both aspects of the concerns that have surrounded E.O. 11988. The FIFM-TF is a national-level, Federal interagency group that brings together ten Federal agencies with missions, authorities, and responsibilities for water management that relate to flood risk and floodplain management. Many of the Federal agencies described in Section 1.1 participate in this group. This Federal interagency group focuses on development of coordinated national flood risk management policy, and ensuring that the policies and activities of all the participating Federal agencies are aligned in support of the common national policy. Given the long-running concerns related to E.O. 11988, the FIFM-TF determined that a better understanding of current efforts to implement E.O. 11988 would be necessary. Based on information gained through these efforts, the FIFM-TF would then be better positioned to provide recommendations to the Administration on potential changes in either the E.O. itself or in the guidance to Federal agencies on how to implement the E.O. in order to ensure that the national policy set by the Administration for Federal involvement in flood risk management is as effective as possible.

##### **4.1 Methodology Design to Examine EO Implementation**

In order to better understand the current state of implementation among the Federal agencies of E.O. 11988, the Working Group supporting the FIFM-TF prepared a survey to be distributed among the Federal agencies. In developing the survey and making plans for distribution of the survey, the FIFM-TF Working Group coordinated very closely with the Council on Environmental Quality (CEQ), which serves as a liaison between the FIFM-TF and the Administration. Coordinating with CEQ was essential to developing and eventually disseminating the survey. In the absence of an agency with responsibility for “enforcement” of E.O. 11988, CEQ, as a representative of the Administration, is best positioned to gain the authority to conduct progress reviews and request information regarding the implementation of an E.O. CEQ played a primary role in finalizing the survey originally developed by FIFM-TF and in distributing it to agencies to ensure participation.

The survey that was developed and shared with agencies asks a number of questions about the status of the agencies’ guidance for implementation of E.O. 11988, including historical information as to if the agency provided updates to the implementation guidance or if the agency has plans for future updates. The second category of survey questions focused on the agency activities to which E.O. 11988 would apply. This category also sought further explanation as to why an agency may choose to take an action seemingly counter to the guidance outlined in E.O. 11988. The third category of questions focused on critical actions by Federal agencies. Specifically, these questions were structured to identify what actions different agencies consider to be critical and what specific steps are included in the responding agencies’ implementation guidance for critical actions. While E.O. 11988 itself does not require additional steps be taken or additional protection be provided for critical actions, the additional implementation guidance developed by the Administration does identify this need. The fourth category of survey questions focused on agency efforts to minimize the impact of actions taken in the floodplain after following the required decision-making process of E.O. 11988. These questions sought to understand the processes used by Federal agencies to avoid adverse effects of actions, measures used to mitigate for unavoidable impacts,

and agencies' successes when choosing to locate an action outside the floodplain. The final category of survey questions sought information about the perceived effectiveness of individual agency implementation guidance and E.O. 11988 itself. To do this, the survey questions inquired about what aspects of the responding agency's implementation guidance are believed to be the most effective at reducing or minimizing the increase in flood risk. Further, to better understand the effectiveness of E.O. 11988, the survey questions sought information on conflicts between agency missions and E.O. 11988 and on challenges experienced in implementing E.O. 11988. The final survey question asked for input about any changes that the responding agency believed would improve the implementation of E.O. 11988.

The FIFM-TF Working Group designed a draft set of survey questions, based on interagency discussion and agreement. The draft survey questions were presented to the FIFM-TF and additional feedback was obtained. After incorporating this additional feedback, the FIFM-TF Working Group coordinated closely with CEQ regarding the survey. After a thorough review by CEQ, including discussion of the intent of each question and the desired information to be obtained by each, a revised set of survey questions was prepared.

#### **4.2 Execution of Federal Agency Survey**

Since no Federal agency is responsible for overseeing compliance with E.O. 11988, it was determined that the survey should be distributed to the Federal agencies by CEQ. CEQ, as a representative of the Administration, served as an authoritative agency in this effort and requested Federal agencies respond to surveys within 30 days of receipt. CEQ considered which agencies should receive the request to participate in the survey in great detail prior to distribution, eventually determining to send the survey to 55 Federal agencies; these agencies were identified as those Federal agencies that take actions that directly or indirectly impact the floodplain, and that have implementing guidance developed in response to E.O. 11988.

The FIFM-TF and CEQ desired that the survey reach all of these agencies, and worked to determine the most appropriate recipient for the survey for all agencies. Some agencies or departments were represented on FIFM-TF; in these cases, the FIFM-TF representative was identified as the survey recipient, since it was believed the FIFM-TF representative could appropriately disseminate the survey for response within their respective agencies. In the many cases, there was not a representative of an agency or department participating with the FIFM-TF, which resulted in CEQ and FIFM-TF identifying a high-level senior leader as the point of contact to receive the survey, along with a request to distribute the survey to the most appropriate responders within the agency or department. Admittedly, obtaining an adequate number of responses to this survey to draw significant conclusions was dependent on whether this request was favorably received by agencies unfamiliar with FIFM-TF. However, it was believed that the request from CEQ would carry sufficient weight to ensure that most agencies would provide thoughtful responses to the survey.

An additional challenge considered in developing this survey was that the information received would be self-reported data by the Federal agencies on their own practice. It was hoped information received would include thoughtful responses to the survey, allowing the FIFM-TF Working Group to draw the most accurate conclusions and develop a set of recommendations to improve policy and guidance for national flood risk management. It was believed that there would be a natural reticence among the Federal agencies to report activities or practices that could result in the responding agency being viewed negatively. Thus, a great deal of care was taken in developing the wording of the survey questions. It was important to ensure that the tone of the survey questions was neutral, to avoid the inference that the practices or activities of the responding agency may not be appropriate.

Though the request to Federal agencies to participate in the survey was to be issued from CEQ, this effort was always intended to be an activity of the FIFM-TF. The survey responses were set up to be returned to the FIFM-TF agencies within 30 days of receipt. Within the FIFM-TF Working Group, a subgroup of several agency representatives was established to review and interpret the results.

### 4.3 Desired Outcomes of Federal Agency Survey

At the time of this writing, the survey had just been distributed to Federal agencies, but results had not yet been received. Thus, there are currently no results or specific conclusions to draw from this effort yet<sup>1</sup>. Despite the lack of data thus far, the FIFM-TF has identified desired outcomes of this effort.

As previously described, the survey questions were organized into five categories based on the type of information the FIFM-TF desired to receive. The first category of questions focused on the status of the responding agency's implementing guidance. Because a total of 55 Federal agencies were required to develop implementing guidance once E.O. 11988 was established by the Administration in 1977, these questions will assess whether or not the basic intent of E.O. 11988 was met. Further questions regarding the most recent update or planned update to the responding agency's guidance will allow the FIFM-TF to assess whether Federal agencies are operating in floodplains based on reasonably current and accurate data, understandings, and approaches, or whether outdated information may be guiding Federal agency floodplain decisions. These questions may result in recommendations from the FIFM-TF to the current Administration on ways to ensure that the basic intent of E.O. 11988 is more completely met and strongly encourage that all agencies adopt and use current and accurate information and approaches in making decisions about floodplain activities. These questions may also inform specific components of the available implementing guidance, or possibly of E.O. 11988 itself, that would most benefit from an update.

The second category of survey questions focused on the applicability of E.O. 11988 to the activities of the responding agency. This question will provide baseline information about the type of activities and actions being undertaken by the Federal government in and otherwise affecting floodplains, and why those actions or activities are being undertaken; this type of insight currently exists only anecdotally. These answers will also allow the FIFM-TF to determine whether or not the E.O. 11988 is being more consistently implemented on certain types of activities or actions. If certain actions are consistently being undertaken without compliance with the E.O. 11988 decision-making process, this could suggest a need for improved guidance from the Administration to help Federal agencies understand why those actions should be compliant with E. O. 11988 and how the decision-making process should be used when those types of actions are being considered.

The third category of survey questions focused on critical actions. Critical actions will differ for each Federal agency, but generally speaking, the guidance promulgated by the Administration to implement E.O. 11988 requires that those activities identified as critical should be protected to a higher degree. However, the Administration guidance does not provide a single definition of a critical action, instead leaving this determination up to each agency. The questions focused on critical actions will provide an enhanced understanding of how agencies have chosen to identify critical actions and whether or not Federal agencies are providing additional protection to these actions. This information will ideally allow the FIFM-TF to make recommendations as to whether or not the Administration should consider offering more specific guidance on what should be considered a critical action or to what degree those critical actions should be protected or have special considerations applied to them during the decision-making process.

The fourth category of survey questions identifies efforts by Federal agencies to minimize the harm associated with their actions in or effecting floodplains. The decision-making process called for in E.O. 11988 requires agencies to evaluate locations outside of the floodplain and to take action to minimize the adverse impacts to floodplains if a floodplain location is deemed necessary. The questions associated with this category will identify how Federal agencies are making decisions as to whether or not potential actions in or effecting floodplains are acceptable, as well as whether or not Federal agencies are giving full consideration to locating actions outside the floodplain during the decision-making process. These

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<sup>1</sup> It is anticipated that results should be available by late summer 2014.

questions will further evaluate how agencies are attempting to mitigate for or minimize the harm due to activities or actions in the floodplain. These questions will allow the FIFM-TF to better understand whether or how the intent of E.O. 11988 is being met by Federal agencies today. These findings may result in recommendations to the Administration as to where additional guidance or clarification is needed on these steps of the decision-making process, to ensure that Federal agencies truly do all that can be done to “avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplains and to avoid the direct or indirect support of floodplain development wherever there is a practicable alternative” as directed in E.O. 11988.

The final category of survey questions focuses on the effectiveness of the current implementation of E.O. 11988 as well as of E.O. 11988 itself. These questions will provide more detailed information on what components of E.O. 11988 are being effectively implemented currently through Administration guidance and individual agency implementation guidance. The questions will also assess the challenges and opportunities that have been experienced by the responding agency in implementing E.O. 11988, including situations in which implementing E.O. 11988 may conflict with the responding agency’s mission. An enhanced understanding of what aspects of implementing E.O. 11988 have and have not worked well to date may lead the FIFM-TF to make recommendations to the Administration on changes that could be made to either E.O. 11988 or the implementing guidance to improve future decision-making in and effecting floodplains. Through all of the questions included in the survey, it is anticipated that the FIFM-TF will be able to gain a better understanding of how effective E.O. 11988 and its implementing guidance have been to date and what could be changed to improve upon implementation of national guiding policy for the Federal government’s involvement in flood risk and floodplain management.

## **5. CONCLUSIONS**

In the United States, there is no single entity, at the Federal government level, or at any other level of government, that is responsible for flood risk management. Instead, flood risk management is viewed as a shared responsibility across multiple Federal government agencies, as well as across various state and local government agencies. Among the Federal government agencies with missions and responsibilities related to flood risk management, E.O. 11988 is the only policy guidance document devoted solely to guiding the activities of the Federal government in floodplains. This document directs Federal agencies to provide leadership and take action to reduce the risk of flood loss, to minimize the impact of floods on human health, safety, and welfare, and to restore and preserve the natural and beneficial values served by floodplains. Specifically, Federal agencies are to comply with these requirements when they take an action that is in, or that impacts the floodplain. This includes actions to acquire, manage, or dispose of Federal lands and facilities, when they provide Federally-undertaken, financed, or assisted construction and improvements, and when they conduct activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing.

Though E.O. 11988 is nearly 40 years old, the policy approaches and directives contained within it still apply to Federal agencies. Though in some ways E.O. 11988 is considered out of date, specifically because the shifts in philosophy regarding flood risk management over the last few decades are not fully reflected, much of E.O. 11988 is still highly relevant today. The Administration has taken an interest in better understanding the current implementation of E.O. 11988, in order to determine whether or not an update may be needed to the Federal guidance for flood risk and floodplain management. To assist in obtaining an enhanced understanding of the current implementation of E.O. 11988 across the Federal government, the FIFM-TF has worked with CEQ to prepare and distribute a survey to the Federal agencies to assess current implementation efforts. At the time of this writing, the survey had been distributed to the Federal agencies, but responses to the survey had not yet been received. Findings from this survey effort are anticipated to be available in the late summer or early fall of 2014.

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