

Guidance for Stakeholder Engagement

Discovery Phase

May 2016



FEMA

Requirements for the Federal Emergency Management Agency (FEMA) Risk Mapping, Assessment, and Planning (Risk MAP) program are specified separately by statute, regulation, or FEMA policy (primarily the Standards for Flood Risk Analysis and Mapping). This document provides guidance to support the requirements and recommends approaches for effective and efficient implementation. Alternate approaches that comply with all requirements are acceptable.

For more information, please visit the FEMA Guidelines and Standards for Flood Risk Analysis and Mapping webpage (www.fema.gov/guidelines-and-standards-flood-risk-analysis-and-mapping). Copies of the Standards for Flood Risk Analysis and Mapping policy, related guidance, technical references, and other information about the guidelines and standards development process are all available here. You can also search directly by document title at www.fema.gov/library.

Document History

Affected Section or Subsection	Date	Description
First Publication	May 2014	Initial version of new transformed guidance. The content was derived from the <u>Guidelines and Specifications for Flood Hazard Mapping Partners</u> , <u>Procedure Memoranda</u> , and/or <u>Operating Guidance</u> documents. It has been reorganized and is being published separately from the standards.
Second Publication	May 2016	This guidance document has been revised to address requirements resulting from Section 216 of the Biggert- Waters Flood Insurance Reform Act of 2012, as amended by the Homeowner Flood Insurance Affordability Act of 2014; FEMA organizational changes; and updates reflecting enhanced stakeholder engagement practices in place as a result of increased investment in community engagement and risk communication.

Table of Contents

1.0	Introduction	1
1.1.	Discovery Process Overview	2
1.2.	Coastal and Levee Considerations	4
1.3.	Tribal Considerations	4
1.4.	Key Terms Defined	5
1.5.	Impacts of Recent NFIP Reform Legislation	7
2.0	Engagement with Stakeholders.....	7
2.1.	Engagement with Local Officials	8
2.2.	Engagement with Regional Entities.....	9
2.3.	Engaging State Partners and Other State Agencies	9
2.4.	Engaging Other Federal Agencies	9
2.5.	Engaging Federal and State Elected Officials	10
2.6.	Engagement with Business Community	10
2.7.	Engagement with Non-Profit and Nongovernmental Organizations	10
2.8.	Engagement with Other Key Influencers	11
2.9.	Engagement with Internal Partners and Programs	11
2.10.	Coordination with In-Progress Mitigation Planning Activities	12
2.11.	Pre-Engagement Activities	12
2.12.	Initial and Followup Contacts with Stakeholders.....	13
3.0	Data and Information Collection and Evaluation	14
3.1.	Data and Information Collection Activities.....	14
3.2.	Data and Information Analysis Activities.....	16
3.3.	Discovery Map	17
3.4.	Discovery Report.....	17
4.0	Discovery Meeting	18
4.1.	Meeting Timing.....	19
4.2.	Meeting Attendees.....	19
4.2.1.	Inviting Stakeholders.....	20
4.3.	Meeting Objectives	20
4.4.	Meeting Messages	22

4.5.	Pre-Meeting Activities	22
4.6.	Meeting Activities	23
4.7.	Post-Meeting Activities.....	24
5.0	Automated Engineering	25
6.0	Scope Refinement	25
6.1.	Project Charter	28
6.2.	Project Stakeholder Engagement Plan.....	28
7.0	Finalizing Discovery	29
8.0	File Maintenance	29
9.0	Potential Techniques and Tools to Support Stakeholder Engagement Effort	29
10.0	Outcomes from Stakeholder Engagement Effort	32

List of Figures

Figure 1: Discovery Process Steps.....	3
--	---

1.0 Introduction

This document describes the activities involved in the “Discovery” of flood hazards and associated flood risk and mitigation activities in regionally prioritized areas. Discovery activities include data collection; engagement and coordination with local stakeholders, State(s), Tribal Nations, other Federal agencies (OFAs), non-profit entities, and other individuals, communities, and organizations; one or more Discovery Meetings; and post-meeting activities and requisite followup.

Discovery occurs after the Federal Emergency Management Agency's (FEMA) planning and budgeting cycle, when watersheds of interest have been identified and selected for further examination in coordination with Federal and State-level stakeholders. This guidance does not describe the activities that occur as part of the planning and budgeting cycle, as these are part of national planning activities that may be revised each fiscal year.

The primary audiences for this guidance document are staff from the 10 FEMA Regional Offices; FEMA Headquarters (HQ); and the Project Teams formed to carry out the Discovery process. The Project Teams can include the State National Flood Insurance Program (NFIP) Coordinator(s) and State Hazard Mitigation Officers (SHMOs) for the watershed area; management and staff from Cooperating Technical Partners (CTPs) and their contractors; Risk Mapping, Assessment, and Planning (Risk MAP) program providers that support the FEMA Regional and HQ Offices; other Federal agencies (OFAs), such as the U.S. Army Corps of Engineers (USACE), U.S. Geological Survey (USGS), and National Oceanic and Atmospheric Administration (NOAA); and others, such as regional planning agencies and water management districts. These Project Teams are led by the FEMA Project Officer, who is a Regional Office Risk Analysis Branch staff member.

The guidance in this document is consistent with the Risk MAP program vision. The Risk MAP program vision includes collaborating with local, State, and Tribal entities throughout a watershed to deliver quality data that increases public awareness and leads to mitigation actions that reduce risk to life and property. To achieve this vision, FEMA transformed its traditional flood hazard identification and mapping efforts into a more integrated process of identifying, assessing, communicating, planning, and mitigating flood-related risks. The goals of the Risk MAP program are:

- Goal 1: Address gaps in flood hazard data to form a solid foundation for flood risk assessment, floodplain management, and actuarial soundness of the NFIP.
- Goal 2: Ensure that a measurable increase of the public's awareness and understanding of risk management results in a measurable reduction of current and future vulnerability to flooding.
- Goal 3: Lead and support States, communities, and Tribes to effectively engage in risk-based mitigation planning that results in sustainable actions that reduce or eliminate risks to life and property from natural hazards.

- Goal 4: Provide an enhanced digital platform that improves management of Risk MAP resources, stewards information produced by Risk MAP, and improves communication and sharing of risk data and related products to all levels of government and the public.
- Goal 5: Align Risk Analysis programs and develop synergies to enhance decision-making capabilities through effective risk communication and management.

Engagement is vital to the successful execution of the Discovery process, which in turn is essential to the development of successful flood risk projects. It provides for the exchange of information between FEMA and the various communities and stakeholders involved and includes one or more meetings with stakeholders to help all participants better understand conditions in the watershed, decide whether a flood risk project is appropriate and, if so, collaborate on the scope of the project in detail. In addition, should a flood risk project move forward, the Discovery Phase represents the beginning of the partnership between FEMA and the communities within a watershed. The relationships that are formed and the groundwork that is laid during the Discovery Phase are an important contribution to the ultimate success of the project.

As mentioned earlier in this document, the guidance, context, and other information in this document are not required unless they are codified separately in a statute, regulation, or policy. Alternate approaches that comply with all requirements are acceptable. Each Regional Office has an Action Strategy that will inform the engagement support and activities performed during the Discovery Phase; the FEMA Project Officer will identify the required level of support.

1.1. Discovery Process Overview

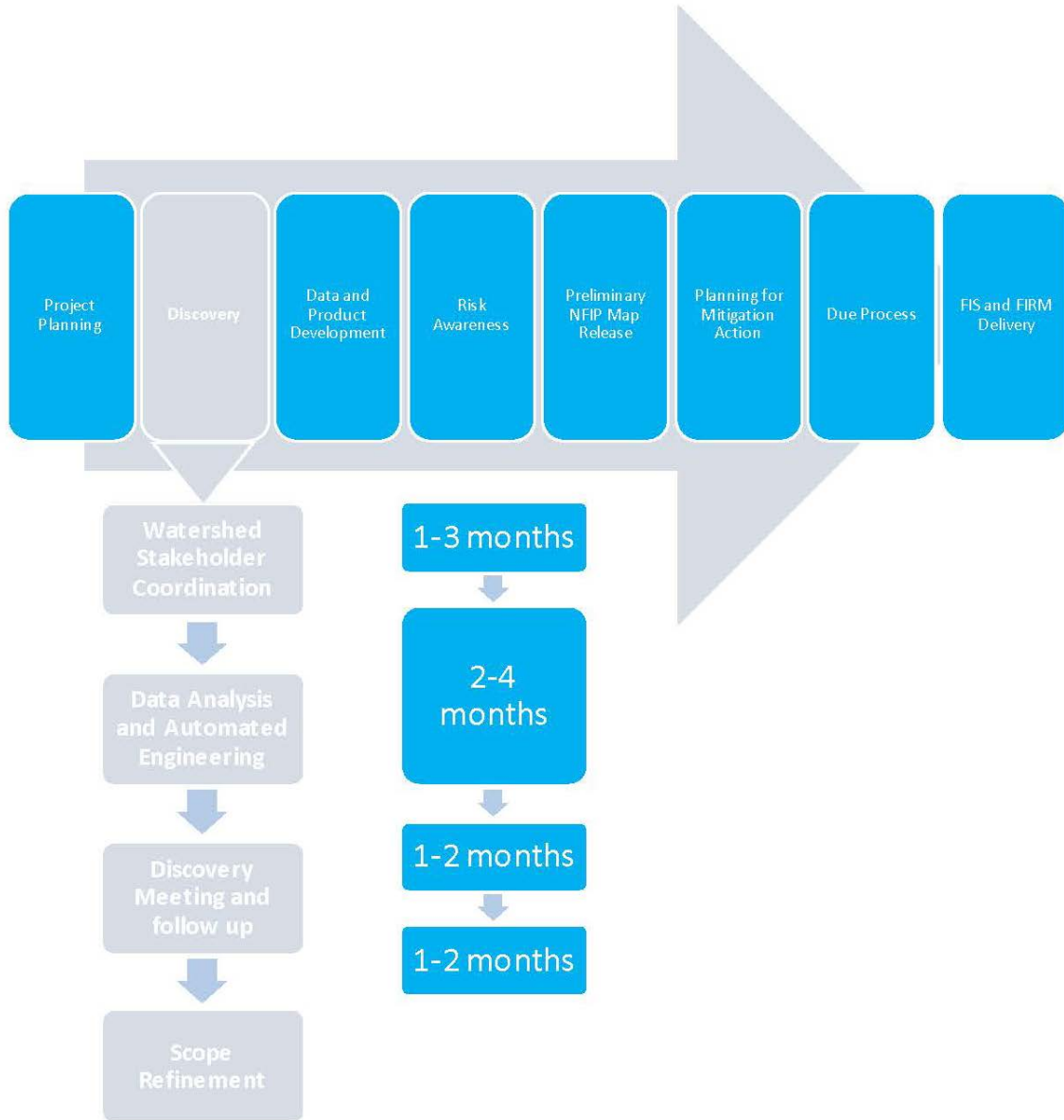
These are the primary objectives of the Discovery process:

- Engage watershed stakeholders to start the foundation of building a relationship throughout the project.
- Understand the needs of the communities in a watershed.
- Introduce or enhance flood risk discussions.
- Balance local needs with FEMA's resources and plan for a possible flood risk project.

Discovery activities include developing a community/watershed stakeholder engagement plan, gathering data and information, developing a Discovery Map and Discovery Report, and engaging watershed stakeholders at the Discovery Meeting(s). If it is decided that a flood risk project may be appropriate, Discovery activities also include engaging with communities to discuss expected changes to flood hazard information, defining the scope of the flood risk project, and outlining with project stakeholders the expected next steps (e.g., products and services to be provided, timeline, outcomes, roles/responsibilities, data sources).

The steps in the Discovery process are outlined in Figure 1. As the figure shows, Discovery is the second phase in the Risk MAP lifecycle.

Figure 1: Discovery Process Steps



It is important to “right-size” the Discovery effort for the risks and needs associated with the potential project. The Discovery process participants and the assigned Project Team members will not know the project cost until after all of the Discovery activities have been completed. However, the FEMA Project Officer already will have used his or her best judgment during the Project Planning Phase, based on input from the State NFIP Coordinator and SHMO, prioritization data, other resources, and their own experience to identify watersheds or other project areas likely to benefit from the Discovery process.

Discovery efforts in a large, urban watershed with many communities that have Hazard Mitigation Plans are likely to be more extensive than efforts in a small watershed with few communities and

no Hazard Mitigation Plans or other plans. Discovery efforts in areas with many competing priorities may require more resources. An important goal of the Discovery process, in addition to determining if the flood risk project will be conducted, is strengthening or establishing a strong collaborative working relationship with key local stakeholders.

1.2. Coastal and Levee Considerations

All newly initiated flood risk projects must be watershed-based, with the exception of coastal projects and small-scale projects related to levee accreditation status. Coastal projects and levee projects may have longer timelines than flood risk projects for watersheds, separate prioritization protocols, widely varying stakeholder audiences, as well as other differences. For example, levee projects require the formation of a Local Levee Partnership Team that includes a diverse group of stakeholders.

Project Team members involved in flood risk projects involving coastal analyses or levees should refer to separate guidance related to coastal projects and levee projects provided on the FEMA website. Additional resources related to coastal analyses and mapping are available from www.fema.gov/coastal-flood-risks-achieving-resilience-together. Additional resources related to levee analysis and mapping are available from www.fema.gov/fema-levee-resources-library.

1.3. Tribal Considerations

When Tribal lands are included in a watershed/project area, consultation with Tribal entities may be appropriate and is to be coordinated with the Regional Office Tribal Liaison. During the Discovery Phase, the Regional Office Tribal Liaison should consult the affected Tribal entities on whether they want to be included in other planned engagement efforts and Risk MAP meetings, or if separate engagement efforts or meetings with them would be more appropriate. This will depend on established working relationships between the Regional Office Tribal Liaisons and the Tribal entities within each Region, and other factors. For instance, if a Tribal entity participates in a multijurisdictional Hazard Mitigation Plan, it might be appropriate for the Tribe to participate in the Resilience Meetings held for the entire watershed or geographic area that is the focus of the flood risk project. (For information on Resilience Meetings for flood risk projects, see Guidance Document No. 63, [Guidance for Stakeholder Engagement: Risk Awareness Phase](#).) Guidance Document No. 63 is accessible through the FEMA Guidelines and Standards for Flood Risk Analysis and Mapping webpage.

Even if the FEMA Regional Office determines that a Tribe does not have the land use authority needed to implement the requirements of the NFIP, the Discovery process may provide an opportunity to inform the Tribe about the benefits of the NFIP, the Risk MAP program, and mitigation activities such as developing Hazard Mitigation Plans. Before the end of the Discovery Phase, the Regional Office usually will have an understanding, in coordination with the Tribal entity, on whether the Tribe meets the NFIP definition of a community and how the Tribal entity should be included in the flood risk project. The FEMA Regional Office Tribal Liaison may continue to work with the Tribal entity after the Discovery Phase has ended.

Only the FEMA Regional Office Tribal Liaison or other approved Regional Office staff members are to work directly with federally recognized Tribes and Tribal entities. Therefore, if a Tribal entity contacts a Project Team member about participation in the NFIP or participation in the ongoing

project, that Project Team member is to notify the FEMA Project Officer and the Regional Office Tribal Liaison immediately.

See Guidance Document No. 5, [Guidance for Flood Risk Analysis and Mapping: Discovery](#), for additional information on Tribal considerations. Guidance Document No. 5 is accessible through the FEMA Guidelines and Standards for Flood Risk Analysis and Mapping webpage.

1.4. Key Terms Defined

The terms listed below are key terms that are used in this guidance document and other stakeholder engagement guidance documents.

- *Chief Executive Officer (CEO)* – The official of a community who has the authority to implement and administer laws, ordinances, and regulations for that community
- *Discovery Map* – The term used to describe the product (i.e., paper map, set of maps, or Geographic Information System (GIS)-generated series of map layers) created to illustrate the data and information collected during the Discovery effort. The Discovery Map is used to facilitate decision-making during the Discovery Meeting(s).
- *Discovery Meeting* – The term used to describe a formal meeting held with community officials and other stakeholders for a flood risk project carried out under the Risk MAP program. During the Discovery Meeting, FEMA, community, and stakeholder representatives discuss the results of the data collection and coordination effort during the Discovery process as depicted on a draft Discovery Map; the watershed vision; and flood risks and mitigation needs.
- *Floodplain Administrator (FPA)* – The community official who is responsible for operating a floodplain management program in a community in accordance with NFIP regulatory standards
- *Flood Risk Products* – The term used to describe products provided to community officials by FEMA as a result of a flood risk project that, unlike the Flood Insurance Rate Map (FIRM) and Flood Insurance Study (FIS) report, are not subject to statutory due-process requirements. Flood Risk Products include the Flood Risk Database, Flood Risk Map, and Flood Risk Report.
- *Flood Risk Project* – The term used to describe a project undertaken by a FEMA-led Project Team under the Risk MAP program to create a new FIRM and FIS report or to update an existing FIRM and FIS report
- *Key Influencers* – The term used to describe public- or private-sector organizations and individuals who have direct or indirect power to affect the decisions of others because of their real or perceived authority, knowledge, position, or relationship.

- *Local Outreach Team* – A group of community residents that serves as the face and voice of resilience in the watershed. This group can be supported by the Community Engagement and Risk Communication (CERC) provider team through technical assistance, ongoing counsel, training, and template materials.
- *Mitigation* – A sustained action taken to reduce or eliminate long-term risk to people and property from flood hazards and their effects. Mitigation distinguishes actions that have a long-term impact from those more closely associated with preparedness for, immediate response to, and short-term recovery from specific events
- *Outreach* – The activity, process, or channel used to engage or communicate to others
- *Project Charter* – A document, usually produced during the Discovery process for a flood risk project carried out under the Risk MAP program, that summarizes the watershed/project area vision; the products that each affected community will receive; mitigation technical assistance to be provided; roles and responsibilities for all parties involved; data to be provided with associated deadlines; projected timeline for the project; and an explanation of what is expected from partners at each milestone on the project timeline
- *Project Management Team* – The term used to describe the individuals who will manage a project for its entire lifecycle. The Project Management Team includes FEMA Risk Analysis Branch staff member who is the FEMA Project Officer for a project; project manager or senior-level staff from the CTPs and/or Risk MAP providers who are participating on the Project Team; the State NFIP Coordinator; and the FEMA Regional Office Contracting Officer
- *Project Team* – The term used to describe the team of individuals and organizations who will execute a project over its lifecycle. In addition to the FEMA Project Officer for the project, the Project Team can include management and staff from the CTP(s) and/or Risk MAP provider(s) who are participating in the project; the State NFIP Coordinator and SHMO; other Federal agencies; and others, such as regional planning agencies and water management districts
- *Regulatory Products* – The term used to collectively refer to the FIRM, FIS report, and FIRM database
- *Risk MAP Providers* – The term used to collectively refer to the teams of private-sector companies that support the Risk MAP program under contract to FEMA; i.e., the Customer and Data Services (CDS), CERC, Production and Technical Services (PTS), and Program Management (PM) providers
- *Stakeholder Engagement* – The process by which an organization involves people or organizations that may be affected by the decisions it makes or can influence the implementation of those decisions

1.5. Impacts of Recent NFIP Reform Legislation

Through enactment of the Biggert-Waters Flood Insurance Reform Act of 2012 (BW-12) and the Homeowner Flood Insurance Affordability Act of 2014 (HFIAA), the U.S. Congress established a number of mapping-related requirements. For a complete breakdown of the new requirements, visit the Flood Insurance Reform portion of the FEMA website (www.fema.gov/flood-insurance-reform). Several of the new requirements from Section 216 of BW-12 are addressed in Subsection 3.1, Subsection 4.7, and Section 6.0.

As part of the reform legislation, the U.S. Congress also required the establishment of a new Technical Mapping Advisory Council (TMAC) to advise FEMA on certain aspects of the national flood mapping program. Additional information on the TMAC is accessible through the FEMA website at www.fema.gov/technical-mapping-advisory-council.

FEMA continues to work with TMAC on fully implementing the NFIP reform legislation and the recommendations from TMAC. As new FEMA standards for the Discovery Phase are established, FEMA will update and re-issue this guidance document.

2.0 Engagement with Stakeholders

Although engagement with Federal, State-, regional-, and local-level partners begins during the Project Planning phase, engagement with communities and other stakeholders is substantially expanded during, and is a very important component of, the Discovery process. During the initial coordination with watershed stakeholders, the Project Team collects data and information that will help Project Teams advance in the following ways:

- Understanding the watershed in a more comprehensive and holistic way, as opposed to the NFIP's historical emphasis on mapping and engineering study needs alone.
- Determining the level and types of mitigation planning and other assistance (such as outreach and communication) that may be needed in the watershed.
- Establishing the trust and transparency required for a successful collaboration, the completion of a flood risk project across the Risk MAP lifecycle, and future coordination.
- Learning the capabilities of watershed communities, including GIS capabilities, to determine appropriate assistance in possible future Risk MAP product deployment.
- Identifying data that may be used to create regulatory products (i.e., FIRM(s), FIS report(s), FIRM database).
- Identifying data that may be used to create Flood Risk Products (i.e., Flood Risk Database, Flood Risk Report(s), Flood Risk Map(s)) a
- Identifying factors that may be contributing (positively or negatively) to flooding and flood losses in a watershed. (Some of these items may eventually be used for Areas of Mitigation Interest, one of the Risk MAP datasets).

Project Team members may need to coordinate with several different officials or offices during the Discovery process. Some of these groups are described below. In drawing together this diverse group, the Project Team should be able to clearly articulate why each of these stakeholders should participate and how each stakeholder will benefit from the Discovery process. Project Teams should be aware of what each stakeholder can contribute to the effort, and what each stakeholder takes away.

After compiling an initial contact list using community websites and the FEMA Community Information System (CIS), the Project Team may find it helpful to refine the list with the assistance of the State NFIP Coordinator, SHMO, and representatives of larger communities in the watershed. In addition, because unnecessary duplication of Federal, State, or local mapping efforts must be avoided, coordinating with State and Federal partners at the beginning of the flood risk project is very important.

2.1. Engagement with Local Officials

The Project Team must engage at least two representatives from each participating community within the watershed during the Discovery process. These community contacts usually are the CEOs – mayors, county/parish judges, county executives, or board of supervisors/council chairs and presidents – and FPAs. However, including a broader array of stakeholders is one of the guiding principles and keys to success for engaging communities under the Risk MAP program. For example:

- If a community parks department is responsible for drainage system maintenance, the Project Team should include that department in the watershed stakeholder coordination efforts, because drainage systems are directly related to flooding and flood risk.
- If a substantial amount of development is planned in the community, it is appropriate to include the community engineer or code enforcement official, because they will review development plans and determine if risk has increased or decreased based on development patterns.

The community FPA may assist in the effort to identify the appropriate community leaders and officials. The FPA likely has contact information for local organization leaders and officials like city engineers, planners, or GIS specialists that may be beneficial to the Discovery effort. A dialogue with the FPA may reveal other stakeholders who are able to provide valuable insight into the study area.

In addition to the CEOs and FPAs, CRS coordinators (if applicable), local planners or economic development contacts, GIS specialists, and emergency managers are all valuable community representatives for the Project Team to contact during the Discovery Phase. Other valuable representatives may include the following:

- City/Town/Borough council members
- Hazard mitigation planners and officials involved in implementation (While few communities have a designated hazard mitigation planner, Project Teams should use the mitigation plan to identify those involved in the planning effort for engagement in Discovery and other stages of the Risk MAP process.)

- Lead community planners
- Other community representatives identified by stakeholders

2.2. Engagement with Regional Entities

It is appropriate for the Project Team to engage, during the Discovery Phase and at least periodically in later phases, with some of the regional entities in the watershed or geographic area that is the focus of the project. Potential regional entities with whom the Project Team may want to engage include, but are not limited to, the following:

- Planning districts and authorities
- Flood control, water management, and water conservation districts and authorities
- Economic development commissions, councils, boards, authorities, and agencies
- Transportation planning organizations

2.3. Engaging State Partners and Other State Agencies

In addition to State CTP(s), State NFIP Coordinator(s), SHMO(s), and their staff who are already active members, the Project Team may want to involve other State agencies. These agencies also may have appropriate data and information and may be able help communicate about flood risk and support flood risk reduction activities in the watershed. Potential State agencies with whom the Project Team may want to engage include, but are not limited to, the following:

- State agencies that own and/or operate levees or dams
- State historic preservation offices
- State dam safety officials
- State departments of environmental protection
- State transportation departments
- State housing and economic development authorities

2.4. Engaging Other Federal Agencies

As mentioned earlier in this guidance document, some OFA partners and their staff may be active Project Team members. The Project Team may want to involve additional OFAs because they also may be able help to communicate about flood risk and support flood risk reduction activities in the watershed. OFAs with whom the Project Team may want to engage include, but are not limited to, the following:

- Natural Resources Conservation Service
- NOAA, including the National Weather Service and Office for Coastal Management
- USACE
- U.S. Bureau of Indian Affairs, when Tribal lands/entities may be affected
- U.S. Bureau of Land Management

- U.S. Bureau of Reclamation
- U.S. Census Bureau
- U.S. Department of Housing and Urban Development
- U.S. Economic Development Administration
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- USGS

2.5. Engaging Federal and State Elected Officials

Engagement with the Federal and State elected officials listed below and their staffs may be beneficial during the Discovery Phase and periodically during later phases. This engagement could result in gaining their cooperation in minimizing disruptions or delays in the flood risk study process that could be caused by local misunderstandings of processes, procedures, or technical findings; obtaining their support for study findings and products; and obtaining their support for mitigation projects that community officials would like to undertake.

- U.S. Senators
- U.S. Representatives for Congressional Districts within the watershed or project area
- State Senators for the watershed or project area
- State Representatives for the watershed or project area
- Governor(s)

2.6. Engagement with Business Community

When significant business and commercial districts are located in areas of the watershed with known flood risk, the Project Team may find it valuable to engage local economic development and chamber of commerce representatives during the Discovery process. These groups may have data to offer and would benefit from an understanding of flood risk, including the increased risks of placing more businesses in areas subject to flood hazards and what that would mean to community rebuilding efforts if a flood disaster occurs. These groups may also be interested if the risk is primarily in residential areas, because flooding in those locations will affect their customers and employees. It may also be helpful for these groups to learn more about the risk so they can make safe and educated decisions.

2.7. Engagement with Non-Profit and Nongovernmental Organizations

Project Teams should also consider engaging non-profit organizations (NPOs) and nongovernmental organizations (NGOs) that focus on land or water conservancy, flood risk management, emergency management, or other related topics. State or watershed groups that may have data or other contributions might include regional watershed organizations, planning

districts, or grassroots watershed groups. State and local affiliates of professional associations (e.g., American Public Works Association, American Water Resources Association, American Society of Civil Engineers, Association of State Floodplain Managers) can provide valuable insight and data regarding flooding sources and local flood risks. Local citizen groups and other groups may also be appropriate in some watersheds. FPAs and other community officials may be able to help the Project Team identify these groups.

2.8. Engagement with Other Key Influencers

Other key local influencers may also be valuable contributors to the Discovery process. They could include high-profile local leaders of industry, civic organizations, faith-based organizations, and other entities that have the respect of residents and the ability to reach substantial portions of the population. It is also worth considering contacting representatives of the National Partnership Network who are affiliated with a local office or chapter. Information about the National Partnership Network may be obtained through FEMA HQ or the CERC provider.

2.9. Engagement with Internal Partners and Programs

In addition to coordinating with external stakeholders, the Project Team may want to engage (or continue to engage) with internal partners such as the following:

- Federal Insurance and Mitigation Administration (FIMA) staff at FEMA
- FEMA Regional Offices that are not represented on the Project Team
- Risk MAP providers that are not represented on the Project Team (i.e., CERC provider, CDS provider, PTS providers)

FIMA is charged with integrating the efforts of teams who oversee individual programs within its organization to ensure that resources are better leveraged and steps are taken to reduce duplication of effort and better achieve complementary goals and objectives. The management and staff in the Risk Management Directorate, Mitigation Directorate, Federal Insurance Directorate, Funds Management Directorate, Office of Environmental Planning and Historic Preservation, Customer Experience office, and Integration Office are uniquely positioned to accomplish this because of the natural synergies among the staff and the programs, initiatives, and activities they oversee.

Periodic engagement with staff from individual divisions and branches within these directorates and offices may be appropriate during the Discovery Phase for Project Team members to obtain the following:

- Latest stakeholder engagement tools and materials
- Information on existing programs and initiatives and on near-term and longer term initiatives that are in progress or planned and that are expected to have a positive impact on stakeholder engagement
- Support for answering community questions regarding existing programs and initiatives and any newly implemented programs and initiatives
- Support for responding to inquiries from U.S. Congress and State legislatures

Periodic engagement with staff in the Office of the Flood Insurance Advocate (OFIA) also may be beneficial for the Project Team. The OFIA staff includes program professionals who are experts in all aspects of the NFIP, including claims processes, map review and amendment processes, floodplain management, and flood mitigation techniques and resources. The Flood Insurance Advocate also will work with the Regional Offices to develop a long-term regional mapping outreach and education support strategy.

As a result of their day-to-day activities, the Flood Insurance Advocate and OFIA staff may have information and documentation to help identify problem areas in the national flood mapping program and specific watersheds or communities with mapping needs that should be considered for prioritization. Therefore, Regional Offices are encouraged to engage with OFIA staff. The two-way communication that takes place during engagement may be equally beneficial to OFIA staff, as they will receive information on planned Risk MAP projects for areas that may be the subject of, or pertinent to responding to, a particular inquiry.

Periodic engagement with other Regional Offices that do not have a geographic stake in the project could be carried out by the FEMA Project Officer or other Project Team members to obtain information on lessons learned and best practices developed for similar projects or situations (e.g., contentious projects). This can be accomplished through telephone conversations, participation in IPTs and work groups, or attendance at training sponsored by another Regional Office.

As mentioned earlier in this document, some Risk MAP provider staff may participate actively on the Project Team. When Risk MAP provider staff members are not actively involved, periodic Project Team engagement with the providers could still prove to be valuable and should be considered.

2.10. Coordination with In-Progress Mitigation Planning Activities

Communities engaged in mitigation planning activities may hold meetings that could be held in conjunction with Discovery Meetings to maximize effectiveness and reduce the burden on affected stakeholders and officials. Stakeholder engagement may also be coordinated with mitigation plan development, maintenance, and update activities. For example, some communities post their plans online for review and comment, especially when they participate in a multi-jurisdictional plan. Similarly, existing mitigation planning web pages that keep communities informed about plan maintenance and update activities could be leveraged and used throughout the Risk MAP process, starting with the Discovery Phase. The Project Team should also coordinate with the Planning Team(s) in the Regional Office(s) for information about specific community Hazard Mitigation Plans.

2.11. Pre-Engagement Activities

Before contacting any local officials for Discovery, Project Team members should mine community websites to gather as much publicly available information and data as possible. Examples include the following:

- Organization of the community and the various departments and divisions, including their roles and responsibilities

- Planning documents (e.g., Hazard Mitigation Plans, Emergency Management Plans, Master Plans)
- Stormwater ordinances
- Maps
- Contact information for community officials
- Lists of levee districts or drainage districts, district contact information, levee maintenance plans, or drainage master plans
- Floodplain management ordinances
- Building codes and amendments

Reviewing a community website may provide an overview of its floodplain, stormwater, mitigation, and emergency management activities and organizational structure, and it should guide the selection of community contacts for the Discovery process. The Project Team should gather information that will provide insight into the production of regulatory products (i.e., FIRM, FIS report, and FIRM database) and Flood Risk Products, and into a community's risk communication and flood risk-reduction actions. Many stormwater or floodplain management activities are part of a community's day-to-day routine; some of these activities support flood risk reduction, but do not necessarily correlate to the NFIP and therefore may not be known to the Project Team.

2.12. Initial and Followup Contacts with Stakeholders

Contact with watershed stakeholders must be an ongoing, two-way dialogue (e.g., telephone call, web-enabled meeting, in-person meeting), as opposed to a letter or email message with no two-way followup) that starts well in advance of the Discovery Meeting(s) and continues with regular touchpoints after the Discovery Meeting(s). This consistent dialogue is essential to building a collaborative relationship and partnership between the community and FEMA.

During the initial contact with a community, the Project Team member should explain the Risk MAP program to the local officials, discuss the community's flood and mitigation programs and efforts, request data, and discuss setting up the Discovery Meeting(s). Additionally, during conversations with local officials, Project Team members should listen for, or even elicit, community concerns related to flood risk, everyday activities that they conduct that may reduce flood risk, and any other related information. Such conversations are likely to be needed with multiple community officials, because the FPAs may not have complete insight into the activities of other community departments and programs. This contact is an opportunity for the Project Team to confirm the information that was gathered prior to the community contact during the Project Planning Phase or the website review.

Community officials or other stakeholders may suggest or offer a location for the Discovery Meeting. In some cases, it may be appropriate to hold multiple Discovery Meetings. In these situations, the Project Team should invite all watershed stakeholders to all of the meetings, although it is generally expected that each stakeholder would only attend one meeting. This will increase the transparency of the process, encourage watershed-wide communication and awareness, and support watershed risk and mitigation planning concepts. Likewise, the Project Team should include meeting notes from all Discovery Meetings in the Discovery Report, which

will be shared with all of the watershed stakeholders, regardless of whether they were able to participate in a Discovery Meeting.

Many stakeholders could participate in the Discovery process, and the Project Team is likely to contact multiple community officials more than once during this process. However, not every contact will be made by telephone; other forms of communication will also be used, such as email messages, letters, and social media. FEMA has developed tools and templates (including assessments and questionnaires, letter and email templates, and other items) to assist Project Team members in engaging watershed stakeholders. Project Team members are encouraged to use the tools and templates as appropriate for the watershed or project, and to revise or change them as necessary and in accordance with the guidance provided by the FEMA Project Officer.

The Discovery process provides an opportunity to discuss Risk MAP goals with communities and to begin collecting information that will help identify Risk MAP successes. The Project Team should engage communities and tribes in a dialogue about what mitigation action looks like; what the community's existing mitigation priorities are; and, most importantly, what information and resources are available to the community to take those actions.

3.0 Data and Information Collection and Evaluation

One of the goals of the stakeholder engagement effort is for the Project Team to become familiar with the watershed. This includes information on the communities' flood hazards, flood risks, and stormwater and floodplain management activities, such as public works or parks department activities. This also may include collecting some socioeconomic data, information about economic drivers in the watershed, and other information. Project Team members may need to plan their community engagement strategy using this information.

3.1. Data and Information Collection Activities

Data and information collection activities should begin immediately after the initial contact with key stakeholders, so that by the time of the Discovery Meeting(s), the Project Team has collected most of the necessary information. The data collection activities will help support the production of regulatory products and Flood Risk Products, but they will also provide Project Team members with a context and background to make decisions on the appropriate Hazard Mitigation Technical Assistance and support needed to develop a practical and effective communication and outreach plan that best suits each community. Data will also help the Project Team understand how to better share information with the community in the future.

Working closely with local stakeholders allows the Project Team to gain a sense of the community staff and their ability to contribute to the flood risk project. If the communities in a specified watershed do not have dedicated FPAs or GIS analysts, for example, the Project Team may need to develop a comprehensive implementation plan for delivering the Flood Risk Products to ensure the products are used to the fullest advantage.

Many of the data sources sought during the Discovery Phase are at the regional, State, or Federal level. FEMA maintains points of contact for each State, and a national and State-by-State standard operating procedures for geospatial data coordination to help reduce the level of effort

needed to find appropriate data and respect the ongoing geospatial data coordination efforts at Federal, State, and local agencies.

The partnership will help determine whether the affected communities have comprehensive plans, whether the Hazard Mitigation Plans are coordinated with the comprehensive plans, whether local governments have experience with flood disasters and flood disaster recovery, and whether the communities coordinate floodplain management programs with programs for managing and planning for open space. The partnership also will help determine if the communities have planning staff or planning/zoning commissions and other mechanisms, such as ordinances, administrative plans, or other programs, to mitigate flood loss and contribute to effective administration of floodplain and stormwater management.

Project Team members should build relationships with community officials to learn about the daily activities and actions that communities take to reduce stormwater runoff, maintain channels, and other activities and actions. Because these activities and actions may support managing or reducing flood risk, they are important pieces of information for understanding risk in the watershed. In addition, this information will help Project Team members work with communities to determine where they can help to incorporate flood risk communication, mitigation planning, and risk reduction into their plans. This information will also help Project Team members explore how communities can become involved in CRS or expand their activities toward CRS classification improvements.

Project Teams also should review historical information on community participation in the NFIP and compliance with NFIP regulations. This information will contribute to an understanding of past relations between the community and FEMA, and improve the Project Team's insight into community activities and efforts toward flood risk reduction.

A major activity that reduces flood losses is participation in, and full compliance with, the NFIP. Some compliance issues that may be of use for Discovery efforts include physical changes in the Special Flood Hazard Areas (SFHAs) or regulatory floodways without Conditional Letters of Map Revision (CLOMRs) and Letters of Map Revision (LOMRs). If encroachment issues are identified, Project Team members can discuss the related compliance issues early in the Risk MAP lifecycle. Project Team members also should review information regarding the number of Submit to Rate flood insurance policies and existing cases that represent a potential violation of NFIP regulations. This information can help the Project Team recommend improvements.

In regions of the United States where ice jams are typical, the Project Team will investigate historical floods for evidence of ice-jam contribution. The Project Team will coordinate methodology with the impacted communities and State as part of the Discovery process.

Project Team members are encouraged to ask for community input on planned development to determine the risk class of the study areas, with input from the State and local officials. The risk class, which can be based on factors such as county decile, population growth data, repetitive losses, and at-risk infrastructure, can vary within a watershed. The risk classifications can be agreed to by the community, State, and FEMA during the Discovery process.

Additionally, the Project Team should identify areas of increasing population and/or development within the 1- and 0.2-percent-annual-chance floodplains.

Project Team members should ask communities what their flood risk communication and mitigation planning needs are. Where specific community needs can be supported by an enhanced Risk MAP dataset, FEMA and the community will discuss the dataset as a potential project element.

To help determine what kinds of Mitigation Planning Technical Assistance would be appropriate in a watershed, Project Team members also should request information about whether the community has received, is currently using, or intends to apply for Federal grants to achieve mitigation planning, including whether an application for mitigation planning grants is under review. If Federal funds are being used, Project Team members should determine whether the community hired a contractor to assist with the development of the mitigation plan or whether they need FEMA or CTP assistance.

The State Historical Preservation Office may help the Project Teams determine the location of assets (including sites of cultural, historic, and religious significance) within a watershed, and Project Team members can verify or discuss this information with communities. This information is integral to the planning process and to mitigation.

Several valuable data and information types and sources are listed below. Much of the information and data are available in FEMA data systems, through OFAs, or via the Internet. As discussed in Guidance Document No. 21, Guidance for Stakeholder Engagement: Project Planning Phase, the Project Team should collect some of the data and information described during the Project Planning Phase in one pass, if possible, for all areas of a State or FEMA Region. Guidance Document No. 21 is accessible through the FEMA Guidelines and Standards for Flood Risk Analysis and Mapping webpage.

The Project Team should engage with external public- and private-sector stakeholders (including stakeholders internal to FEMA HQ), as appropriate, to collect and review the extensive variety of data and information documented in Section 7 of Guidance Document No. 5, Guidance for Flood Risk Analysis and Mapping: Discovery, before engaging with communities. Guidance Document No. 5 is accessible through the FEMA Guidelines and Standards for Flood Risk Analysis and Mapping webpage.

3.2. Data and Information Analysis Activities

As data and information are collected, they should be analyzed thoughtfully. This analysis has two main purposes: (1) support the Project Team in a more holistic understanding of the nature of flooding in the watershed and the activities that the communities take to address their flood hazards and risk; and (2) summarize the data and information that may be used for developing the regulatory products and Flood Risk Products.

With regard to the first purpose, communities often act to address the reduction of flood hazards and risks in ways that are not related to the NFIP. However, this information is useful if the Risk MAP program is to be successful in encouraging communities to take action to reduce their flood risk. Understanding flood risk from the community's perspective, rather than solely from an NFIP point of view, can potentially improve the success of the Risk MAP program.

With regard to the second purpose, it is important to understand what parts of the watershed have data/information, if the data/information are usable and meet FEMA quality standards for use in developing products, and if the data/information are available in the areas with the highest flood risk. During the Discovery process, it is important for the Project Team to distinguish where the quality data/information are available and whether they cover areas of high risk or low risk. Even if quality data/information are available for areas of low risk, the Project Team may determine that initiating a flood risk project would not be beneficial if the project is not warranted by risk and need.

The Project Team will include the data/information and the analysis performed on the Discovery Map as appropriate and describe the data/information collection and analysis in the Discovery Report. The Discovery Map and Discovery Report are discussed in some detail in Subsections 3.3 and 3.4.

3.3. Discovery Map

The Project Team will create a draft Discovery Map using the data and information collected during the Discovery process and share it with communities to facilitate further discussion and collaboration about future mapping and mitigation actions in the watershed. The Project Team will bring a draft Discovery Map to the Discovery Meeting(s) to spur discussion, and will provide a final Discovery Map to communities and other stakeholders after the Discovery Meeting(s).

Project Team members should include all spatial data in the Discovery Map database, so that the data can be presented during the meeting. While it is likely that some of the data layers will combine best to show areas of risk, all data should be available for use. The data and information to be included on the Discovery Map is documented in Section 9 of Guidance Document No. 5, Guidance for Flood Risk Analysis and Mapping: Discovery. A sample Discovery Map also is provided in Section 9 of FEMA Guidance Document No. 5. Guidance Document No. 5 is accessible through the FEMA Guidelines and Standards for Flood Risk Analysis and Mapping webpage.

3.4. Discovery Report

The Discovery Report is a living document that the Project Team should update as necessary throughout the Discovery process. In the Discovery Report, the Project Team should include a list of all of the stakeholders contacted, the data and information collected, information about whether the data and information collected can be used for regulatory products and/or Flood Risk Products, and a thoughtful analysis or description of the data/information. Some examples are discussed below.

The Project Team should review State, Tribal, and local Hazard Mitigation Plans thoroughly as part of the Discovery process. An HMA grant may be a solution for funding the mitigation actions identified in the Hazard Mitigation Plans. In the Discovery Report, the Project Team should describe which activities and communities might benefit from HMA programs and review the HMA grant cycles, application, and submission requirements to be prepared to discuss these options with those communities during the Discovery Meeting.

The Project Team should identify the CRS status for each community and be prepared to offer to specific communities a high-level overview of how they can participate in CRS or move to a higher

CRS class (if applicable and appropriate) and what the benefits would be for their community. The Regional CRS Coordinator or Insurance Services Office representative can help the Project Team determine what activities communities in this watershed already undertake.

If data-sharing agreements are in place between Federal or State agencies or regional organizations, the Project Team should review these for relevance to potential projects and document findings in the Discovery Report.

The Project Team should share an initial version of the Discovery Report that includes a list of the data and information collected, the analysis of the data and information, and the stakeholders contacted before the Discovery Meeting(s) with all watershed stakeholders. The Project Team should share a second and final version of the Discovery Report with all watershed stakeholders after the Discovery Meeting(s). The Project Team should update this version of the report with meeting notes, sign-in sheets, and other meeting-related information.

Additional information on the Discovery Report is provided in Section 10 of FEMA Guidance Document No. 5, [Guidance for Flood Risk Analysis and Mapping: Discovery](#). The Project Team can obtain a Discovery Report template from the FEMA Project Officer.

4.0 Discovery Meeting

The Discovery Meeting(s) may be the first formal face-to-face meeting(s) that the Project Team will have in which most if not all key watershed and community stakeholders participate. To achieve a better understanding of the needs of the watershed, Project Team members may wish to hold a planning meeting or conference call with key stakeholders before a Discovery Meeting.

The purpose of this planning meeting/conference call is to discuss and review what material is already available and what strategies may be useful in optimizing the success of the Discovery Meeting(s) with local communities and other stakeholders. The Project Team also may use the planning meeting/conference call as an opportunity to work with the watershed communities to choose the time(s) and place(s) to hold the Discovery Meeting(s) that encourage maximum attendance and active stakeholder participation.

In the best-case scenario, information previously collected through communication with key stakeholders is validated and expanded on at the Discovery Meeting(s). This should not be a forum for hearing the bulk of necessary information for the first time. Rather, it is an opportunity to increase understanding, confirm priorities, and identify any remaining knowledge gaps.

A broad representation of watershed stakeholders should be invited to attend the Discovery Meeting(s). When appropriate, the Project Team may hold multiple Discovery Meetings to encourage stakeholder attendance.

Decisions to perform additional analyses, data development activities, and/or community engagement within the flood risk project area must be supported by the outcomes from the Discovery process. These decisions shall be communicated to project stakeholders before executing those activities.

The Discovery Meeting may be the Project Team's first required meeting with community officials (including officials of affected Tribes, if appropriate) and other key stakeholders in the watershed. It is important for the Project Team to understand as much as possible about watershed flood hazards and risk before the Discovery Meeting(s). Discovery Meetings are intended to be working meetings, not FEMA briefings; therefore, the Project Team must inform attendees, in preparation for each Discovery Meeting, to expect to participate in discussions about their flood risk.

The Discovery Meeting is to bring together communities and other stakeholders in the watershed. The meeting should be focused on introducing or enhancing watershed risk concepts and discussing the flooding hazards in the watershed and their associated flood risk. The meeting should be co-led by the Project Team and a local champion or key influencer, if possible.

In the best-case scenario, data and information collected previously through engagement with key stakeholders should be validated and expanded on at the Discovery Meeting. As mentioned earlier, the meeting should not be a forum for receiving the bulk of the necessary data/information for the first time. Rather, the Project Team should use the meeting as an opportunity to increase understanding, confirm priorities, and identify any remaining knowledge gaps.

4.1. Meeting Timing

The Discovery Meeting occurs in the middle of the Discovery Phase, after the Project Team has collected and analyzed appropriate data and information. The Discovery Meeting is planned in coordination with the watershed communities, and the Project Team should work with the communities to choose a time and a place that will encourage attendance and active participation.

4.2. Meeting Attendees

It is vitally important that the Project Team identify all appropriate stakeholders to attend the Discovery Meeting. Although many stakeholders will be included in the Discovery process, not every individual contacted needs to or is expected to attend the Discovery Meeting(s). FEMA has developed tools and templates to help the Project Team identify and share information with meeting participants.

At least one representative from each affected community should be invited, among the wider array of stakeholders that will participate. Required invitees for each project include:

- State NFIP Coordinator
- SHMO
- Community FPAs and CEOs
- Regional CRS Coordinator (when applicable)
- Local planner/economic development contacts

It may not be possible for State NFIP Coordinator(s) and SHMO(s) to attend all of the Discovery Meetings in their States; however, their input is invaluable, and the Project Team should consult them before the meetings if they are unable to attend a meeting. The State NFIP Coordinator(s) and SHMO(s) should be able to provide the Project Team with suggestions on who to include at

the community level. It is also important for the Project Team to follow up with State-level partners after the meeting if they are unable to attend.

It is strongly recommended that the Project Team include a community GIS contact; community and/or county emergency manager; and engineering, public works, and/or parks/recreation staff members, as applicable. Communities and their governments can be organized in many different ways, so it is important to take into account the community's organizational structure. In some watersheds, it may also be possible to include representatives of OFAs, NGOs, and other stakeholders.

4.2.1. Inviting Stakeholders

The Project Team should send Discovery Meeting invitations at least 1 month before the first Discovery Meeting, with followup email messages or telephone calls to confirm and encourage attendance. The Project Team should begin planning for the Discovery Meeting during the watershed stakeholder coordination stage. In some areas, it may be beneficial for FEMA to send an introductory email message or letter to watershed stakeholders to explain the process and note that Project Team members will contact them for data and information and meeting planning. This email message should also encourage invited stakeholders to disseminate meeting information to others with relevant interests in the Discovery process.

4.3. Meeting Objectives

The overarching Discovery Meeting objectives are to introduce watershed stakeholders to each other or reacquaint them with one another and discuss areas of flood risk, potential mitigation activities, priority study areas, and risk communication strategies. To accomplish these objectives, the Project Team performs a considerable amount of research, data collection, and analysis in advance, as described earlier in this guidance document and in [Guidance Document No. 5, Guidance for Flood Risk Analysis and Mapping: Discovery](#). [Guidance Document No. 5](#) is accessible through the FEMA Guidelines and Standards for Flood Risk Analysis and Mapping webpage.

Though it is preferable for the Project Team to meet key stakeholders ahead of the Discovery Meeting, this may be the first time they meet in person, so the Discovery Meeting also represents another important step in the ongoing relationship development between FEMA and the communities in the watershed.

A comprehensive list of Discovery Meeting objectives is included below. It is not possible to cover all of these objectives at every Discovery Meeting. However, this list includes the array of topics that may be discussed, which depends on the specifics of each Discovery effort:

- Solicit input from watershed stakeholders regarding their flood risk and needs in the watershed.
- Validate and further discuss the flood risk data and information collected from Federal, State, regional, Tribal, and local sources and collectively identify areas in need of studies, outreach, mitigation planning, risk assessments, and other Risk MAP-related products and services.

- Discuss the regulatory products and Flood Risk Products provided by FEMA, the types of data and information presented by each product, and how communities can use the products to reduce flood risks.
- Discuss the importance of flood risk assessments in determining and addressing flood risk as a means of protecting the viability and economy of affected communities, and explain how local data/information can significantly improve the value of a flood risk assessment.
- Discuss the critical role of mitigation planning in helping communities mitigate, prepare for, and recover from all hazards, and how the flood risk data and information gathered can bolster the flood risk portion of mitigation plans.
- Hand out the Building Science Toolkit CD emphasizing the mitigation resources offered by FEMA Building Science and provide FEMA Building Science staff contact information.
- Discuss community building codes and emphasize the importance of upgrading to the latest national building codes and standards.
- Set expectations for planning inputs and available technical support.
- Discuss the FEMA and non-FEMA programs that support flood risk reduction, and provide an overview of FEMA and other (such as USACE) resources for mitigation planning and implementation assistance, such as grant programs, along with related eligibility and cycle information.
- Encourage community participation in the NFIP, review the benefits and responsibilities of joining and sanctions that will apply in disaster situations if communities do not join (for non-participating communities).
- Encourage NFIP compliance and target NFIP-participating communities that are already compliant for new or improved CRS participation.
- Review and begin to fill in the Risk MAP Action Measure Data Collection sheet, which captures the extent to which Risk MAP communities are moving down the path to taking action to reduce risk from flooding.
- Discuss the role of community officials in raising stakeholder awareness of flood risk and mitigation activities.
- Introduce or enhance the concept of the watershed vision with stakeholders. What will the watershed look like in 20 years? In 50 years?
- Introduce or discuss the concepts of long-term erosion, sea level rise, and subsidence for a coastal community or region. What will the community or region look like in 20 years? In 50 years?
- Introduce the idea of resilience and discuss the various tactics a community can use to achieve it.
- Validate data and information gathered before the Discovery Meeting regarding flood risk, mitigation and mitigation plan status, planned or ongoing mitigation activities, and risk assessments.

- Discuss multi-hazard issues, if necessary and appropriate, while noting that FEMA provides products and assistance focusing on the flood risk through the Risk MAP program.
- Confirm best available data and follow up on data-sharing agreements.
- Identify a number of champions, information conduits, or other community contact leads, if appropriate.
- Determine communication points of contact and share next steps (expectations for length of process, final products (if any), and future interactions).

4.4. Meeting Messages

The Discovery Meeting messages include the following:

- We want to help you develop or enhance your vision for the watershed. What should the watershed look like in 20 years? In 50 years? We want to better understand your watershed vision so that we can better align our study activities and products to facilitate you achieving that vision.
- We want to listen to your thoughts and concerns regarding flood risk in your community, and share the data and information we have gathered to provide a clear picture about your flood risk. We are fully committed to partner with your community in this effort.
- The Risk MAP program can provide mapping, assessment, and planning assistance in areas where a flood risk project is appropriate or needed.
- The Risk MAP program offers a useful, credible, and fair process for helping communities become safer and stronger by working together to identify real hazards, actions that can reduce their impact, and available resources and solutions.
- If we continue with a flood risk project in the watershed, we share the responsibility with the State and the communities for developing and providing data/information to help communities make informed decisions about how to further insulate themselves from harm.

The Project Team can access tools and templates for the Discovery Meeting, including information on meeting messages, talking points, and other items through the “Templates and Other Resources” section of the FEMA online library. The Project Team should consult the FEMA Project Officer to determine whether Region- or State-specific tools and templates are available.

4.5. Pre-Meeting Activities

The Project Team should take meeting-related actions and compile materials before the Discovery Meeting:

- Conduct upfront and consistent coordination with stakeholders to obtain data/information and understand local flood hazards; learn about the watershed’s risk assessment, mitigation planning, and risk communication needs or interests; and identify resources (including personnel), assets, future plans, and the watershed vision.

- Confirm the best available data, including the timing of such data, discuss data-sharing agreements, and discuss data that may be useful for mitigation plan updates and FEMA HMA grant applications.
- Prepare talking points to discuss flood hazard studies, flood risk assessments, mitigation planning, the watershed approach; and the Risk MAP project lifecycle.
- Review FEMA guidance.
- Prepare to bring NFIP compliance/adoption information, if appropriate, such as FEMA 495, Adoption of Flood Insurance Rate Maps by Participating Communities, and FEMA 496, Joining the National Flood Insurance Program.
- Prepare and send meeting invitation letters, a meeting agenda appropriate for the watershed, a draft Discovery Report, and a draft Discovery Map. The invitation letter should clearly state the expectations for the Discovery Meeting, including the need for active participation by community officials and other stakeholders.
- Prepare a Tribal contact list and other documentation from contacting Tribal officials, Tribal Historic Preservation Officers, and others.
- Compile the additional items needed when Tribal Nations are affected, as defined through consultation and coordination with Tribal officials.
- Obtain copies of the FEMA Building Science Toolkit CD.
- Review the PowerPoint presentation associated with FEMA Building Science titled “Integrating Building Science into Risk MAP Projects:”.
- Prepare building code adoption and compliance information and prepare talking points speaking to the relevance of FEMA Building Science and building codes.
- Compile Building Science staff contact information for the community.

4.6. Meeting Activities

During the Discovery Meeting, the Project Team listens to communities and learns what is important to watershed stakeholders. The Project Team should ensure that each Discovery Meeting includes an interactive, collaborative discussion. During the Discovery Meeting(s), the Project Team should facilitate discussions between community officials and watershed stakeholders, offer suggestions, and manage the time. Meeting participants must have a sense of ownership for the recommendations resulting from the meeting, because they will then be more likely to relay the risk information to their colleagues, constituents, and other stakeholders and generate support for projects that may follow.

The Project Team shares the Discovery Map with communities at the Discovery Meeting to provide a watershed-wide picture of flood risk. The GIS format of the Discovery Map allows a Project Team member to zoom in and out to specific, targeted areas for discussion purposes at the meeting. For this reason, it is important that a GIS specialist attend the meeting on behalf of the Project Team. If the Project Team does not have a GIS specialist at the meeting, the Project Team members attending the meeting could bring printed copies of the Discovery Map for the watershed as a whole and for highlighted areas of importance based on the Discovery effort. A State, Tribal, or local partner may be able to assist with the Discovery Map presentation as well.

The most efficient and productive Discovery Meeting will include simplified documents and maps that summarize the data and illustrate the risk areas. The meeting is not the time for all stakeholders to evaluate the data independently; the Project Team should present the analyzed data and information in a logical way that illustrates the risk areas and allows the majority of the meeting time to be focused on gaining a better understanding of the flood risk for all participants.

Tools and templates, including a Discovery Meeting agenda, presentation, and other items, have been developed for Project Team use; however, the Project Team should adjust the materials to suit the communities in a specified watershed or project area better.

4.7. Post-Meeting Activities

Several activities are necessary after the Discovery Meeting to finalize the Discovery effort. The Project Team should give all community/Tribal participants an opportunity to review and correct any data and information collected during the Discovery process before the final Discovery Map and Discovery Report are distributed. The Project Team should add the meeting notes and other meeting information, such as attendance records, to the Discovery Report and distribute it to attendees and those who could not attend. The Project Team should keep this information, along with any community or stakeholder correspondence records and a community contact list, which includes contact information for the county and every incorporated community in the project area, on file. (See Section 8.0 for more information on file maintenance.)

The Project Team should also update the Discovery Map with any additional information, including areas discussed or decisions made at the Discovery Meeting, and distribute it to communities. Project team members will also follow up with community officials, as appropriate, to determine progress toward FEMA Risk MAP metrics.

The FEMA Project Officer will determine whether to proceed with a flood risk project, given the data and information gathered by the Project Team during the Discovery process. As mentioned earlier, flood risk projects may include mapping, risk assessment, Mitigation Planning Technical Assistance, and/or other assistance, such as outreach and communication planning. A project may be appropriate in an area, even if the effective flood hazard information is found to be valid, because Mitigation Planning Technical Assistance is needed. Alternatively, if the FIRMs are valid, the risk is low, and the watershed communities are involved in actions to reduce their risk, a flood risk project may not be needed. If the communities have no interest in the Risk MAP program, efforts may be better spent in areas where the products are desired.

If the model or models that will be used to update the flood hazard information shown on the FIRM(s) are known at this stage, to comply with Section 216 of BW-12, the Project Team must notify each community affected by the update of the planned model or models to be used and provide the community with (1) an explanation of why the model or models are appropriate, and (2) a 30-day period (beginning on the date of notification) to confer with FEMA regarding the appropriateness of the model or models to be used. Please see [Guidance Document No. 61, Guidance for Stakeholder Engagement: Data and Product Development Phase](#) for more information, best practices, and associated tools and templates for use by the Project Team. Guidance Document No. 61 is accessible through the FEMA Guidelines and Standards for Flood Risk Analysis and Mapping webpage.

5.0 Automated Engineering

If a flood risk project is appropriate for the watershed and the project involves the issuance of new or revised regulatory products (i.e., FIRM(s), FIS report(s), FIRM database), the Project Team should coordinate with the affected communities to discuss anticipated changes to the flood hazard and risk depicted on the FIRM and in the FIS report. This engagement will help set community expectations regarding map revisions and their effects on existing structures, and help refine the scope of the flood risk project.

The Project Team should use the information collected during the Discovery process, including mapping needs, Community Needs Management System information, information collected on new development, pinch points, and other information, to inform this engagement. For example, if the information collected during the Discovery process and discussed at the Discovery Meeting(s) reveals that significant development since the original flood study has increased flood discharges, then the discussion should elaborate on areas where the flood elevations are likely to increase if a new study is initiated. This engagement occurs before the Project Team initiates a flood risk project. The discussions must include an explanation of the expected impacts of potential study results (i.e., increase/decrease in flood hazard area delineations, increase/decrease in flood elevations). Those expectations will also be documented in the Project Charter, if appropriate. The Project Team should develop the Project Charter concurrently through coordination with community officials and Tribal entities (when appropriate).

In coastal areas where an updated surge model is available, the Project Team should use data from the model to foster these discussions with communities. In cases where the surge study occurs in advance of the Discovery effort, the Project Team should ensure that this information is reviewed and discussed at the Discovery Meeting(s).

6.0 Scope Refinement

The Project Team must develop a flood risk project scope of work in coordination with community officials, Tribal entities (if appropriate), and State partners. Several standards related to regulatory product production could be discussed with communities during scope refinement. For instance, because all regulatory floodway changes must be coordinated with affected community officials and other stakeholders as early as possible, scope refinement may be a good time to start these conversations if a regulatory floodway change is expected when a FIRM update is completed. Other examples are listed below:

- The Project Team should engage communities to determine their preference on vector versus raster-based map.
- Communities should discuss with FEMA whether any reservoirs exist in the study area and how they are to be analyzed.
- If a community wants to use local transportation features data in place of the default U.S. Census Bureau Master Address File /Topologically Integrated Geographic Encoding and Referencing transportation data, the Project Team should discuss the format and structure of the data with the community.

- To calculate regulatory floodways using methodologies other than steady-state, one-dimensional models, the FEMA Project Officer and the affected communities and States with floodway authority must approve the approach in advance.
- For coastal FIRM updates, the Limit of Moderate Wave Action (LiMWA) must be included in the FIRM database if it has been calculated as part of a coastal flood risk project, and it will normally be shown on the affected FIRM panels. Communities can request to have the LiMWA not be shown on the FIRM, but certain timelines and requirements apply. Scope refinement would be a good time for the Project Team to introduce the LiMWA concept, describe its purpose, and share information with the community.
- In all cases, regulatory products and Flood Risk Products must be based on hydrologic and hydraulic analyses or coastal analyses using existing ground conditions in the watershed and floodplain, and multiple-profile and floodway runs must have the same physical characteristics in common for existing ground conditions. However, a community may choose to include flood hazard information that is based on future conditions on a FIRM (shown as shaded Zone X); in an FIS report; or in Flood Risk Products, in addition to the existing-conditions. Scope refinement may be a good time to discuss whether a community would be interested in showing future conditions and whether data to support such information being shown on a FIRM exist.
- Areas of shallow flooding must not have modeled/computed regulatory floodways due to the inherent uncertainties associated with their flow patterns. However, communities can choose to have administrative floodways for such areas. Scope refinement is a good time for the Project Team to discuss whether a community is interested in having an administrative floodway shown on the FIRM.
- Because any existing mismatches in floodplain and flood hazard information between communities and counties must be resolved as part of a FIRM and FIS report update, scope refinement is a good time for the Project Team to identify such locations and discuss with the communities the best way these mismatches can be resolved.
- Where ice jams occur, the Project Team must backwater effects into account. In addition, the Project Team should determine the appropriate methodology for the floodway designation in areas mapped with an ice-jam analysis in coordination with the community. The Discovery process provides an opportunity to acquire as much data as possible concerning ice-jam events in the community, on the streams being studied, and in the region. Scope refinement is a good time for the Project Team to discuss these issues with communities.
- The FEMA Regional Risk Analysis Branch Chief must provide written approval regarding the use of an alluvial fan methodology before a full analysis is begun. To inform this decision, the Project Team must provide sufficient field data and analysis and records of community engagement relative to the scope and methodology.
- If a revised FIS report is to be prepared, an assessment of the current, effective FIS report may be helpful in determining the level of effort needed. A section-by-section review of the effective FIS report may be useful, and community input is valuable for this process. Scope refinement is a good time for the Project Team to obtain this input from community officials.

- If a revised FIRM includes Coastal Barrier Resource System (CBRS) areas or Otherwise Protected Areas, the Project Team should engage the U.S. Fish and Wildlife Service to verify that the boundaries are up-to-date or to determine whether the CBRS area boundaries have been revised or corrected for any reason.

FEMA's goal is to have the entire inventory of flood hazard products referenced to the North American Vertical Datum of 1988 (NAVD88), and several standards are related to datum conversions. During scope refinement, datum conversion may be an appropriate topic for the Project Team to discuss with communities with an effective FIRM referenced to the National Geodetic Vertical Datum of 1929, for which regulatory product revisions are planned. The Project Team should explain the datum conversion process to the community and clarify why conversion to NAVD88 is a recommended.

The Project Team also should inform community officials that FEMA, in collaboration with the National Geodetic Survey, has developed many datum conversion protocols, all designed to ensure that all converted flood elevations retain their original value to within 0.25 foot, and to ensure that no existing flood hazard determinations (primarily Letters of Map Amendment and Letters of Map Revision Based on Fill) would change as a result.

The Project Team also should inform community officials that full documentation of the datum conversion will be shared with them during the process and will be documented in the Technical Study Data Notebook after the project has been completed. For communities that do not wish to have their FIRM and other products converted to NAVD88, FEMA may grant a waiver; however, the Project Team should explain the negative impact this decision will have on the ability to revise the products in the future.

FEMA also has some standards associated with the types of data collected and how these data can be used. For instance, locally provided, sourced, or validated building footprint, location, and/or population data are the only acceptable data sources for populating structure and population count attributes within the Changes Since Last FIRM dataset.

To the extent that these data sources will be used for the flood risk project, the Project Team should discuss this standard with community officials who may be providing such information. The Project Team should also inform the community officials that FEMA must be able to distribute the base map data and floodplain information freely to the public in hardcopy and digital formats. Therefore, if community-supplied base map data will be used, this should be discussed during scope refinement.

To validate and revise the preliminary list of potentially useful geospatial data for use in a flood risk project, the Project Team should invite comments on the list from members of the geospatial data community interested in the geographic area of the project. Also, Project Team members should communicate with the appropriate Federal, State, and local entities.

Many of the Flood Risk Datasets require a significant amount of data collection and coordination, but rely on other Federal, State, and local sources. An outreach process in which the Project Team familiarizes stakeholders with the type and format of data sought is important.

Lastly, FEMA must be notified of any potential floodplain management violations identified through the submittal of new or revised flood hazard data. If data are submitted or violations are uncovered through the Discovery process, the Project Team should notify appropriate FEMA Regional Office staff of the issue(s) so the appropriate Regional office staff can conduct appropriate coordination with the State and community.

The Project Team must share the final, purchased scope of work with project stakeholders.

The Project Team should maintain all project documents, including letters; transmittals; memorandums; general status reports and queries; documentation of technical issues; a narrative that summarizes the scope, assumptions, and issues; and any information that may be useful for everyone working on the flood risk project or subsequent users of the data generated during the Discovery process.

In addition to scopes of work for mapping and engineering activities, scopes of work for CERC should be developed. These will cover outreach activities for the next phase or phases of the Risk MAP lifecycle. The Project Team should tailor the CERC activities to the needs of each community, include ongoing communication and dialogue with key stakeholders, and focus on (1) increasing awareness of and belief in local flood risks, (2) establishing the value of mapping data as a tool for increasing local resiliency, and (3) increasing the propensity of communities to commit to mitigation actions.

6.1. Project Charter

If a flood risk project will be undertaken in the watershed, the Project Team, community, and other key stakeholders could use the Project Charter as a means of documenting the scope of the project and other items. The Project Team should develop a Project Charter in coordination with stakeholders in the watershed, and all parties should sign it where possible. The Project Team should obtain the Project Charter template from the Project Officer or other FEMA Regional Office staff. The Project Charter should be renamed if the term “charter” is not acceptable to community officials.

The Project Charter is not a binding agreement, but a tool to convey a clear understanding of the project scope and its impact in a community. The Project Charter also is a way for the Project Team to assist communities in developing a sense of “ownership” in the flood risk project. Therefore, while not required, the Project Team should encourage community officials to sign and return a final Project Charter. If used, the Project Team should encourage as many affected communities as possible to sign the Project Charter.

6.2. Project Stakeholder Engagement Plan

All flood risk projects must have a communication plan, referred to here as a stakeholder engagement plan, which is designed to keep project stakeholders informed of and involved in key decisions, draft findings, and finished outputs. The Project Team should design the stakeholder engagement plan to engage key stakeholders in dialogue about local risks and potential actions to manage and reduce those risks regularly.

Project Team members can obtain a stakeholder engagement plan template by contacting the FEMA Regional Office. At the discretion of the FEMA Project Officer, responsibility for planning

stakeholder engagement activities will be assigned to the CERC provider, and specifically the Regional CERC Liaison. In other cases, the FEMA Project Office may assign the responsibility for planning stakeholder engagement activities to a designated member of a CTP.

Additional information regarding the information that should be included in a stakeholder engagement plan is provided in Section 2, “Documenting Outreach and Engagement Activities,” of Guidance Document No. 61, [Guidance for Stakeholder Engagement: Data and Product Development Phase](#). Guidance Document No. 61 is accessible through the FEMA Guidelines and Standards for Flood Risk Analysis and Mapping webpage.

7.0 Finalizing Discovery

The goals of stakeholder engagement during the Discovery process are to understand the needs of the communities in a watershed, introduce or enhance flood risk discussions, balance FEMA resources with a plan for a possible flood risk project, and coordinate with watershed stakeholders to define the project scope. For watersheds that will not receive a flood risk project, the Discovery process is finalized after FEMA has delivered the final Discovery Report and Discovery Map to the affected communities. For watersheds for which flood risk projects will be performed, the Discovery process is finalized after the automated engineering analysis and communication (if required) have been completed, and a project scope of work and Project Charter, if used, have been prepared.

Additional information on the project scope of work and Project Charter is provided in Section 13 of Guidance Document No. 5, [Guidance for Flood Risk Analysis and Mapping: Discovery](#). Guidance Document No. 5 is accessible through the FEMA Guidelines and Standards for Flood Risk Analysis and Mapping webpage.

8.0 File Maintenance

To be compliant with Section 66.3 of the NFIP regulations (44 CFR 66.3), the Project Team needs to maintain community files for the communities affected by the project following protocols established by the Regional Office. The Project Team should place records of engagement activities (e.g., letters, email messages, memorandums, meeting notes) during the Discovery Phase in community files. The Project Team should add the meeting notes and other Discovery Meeting information distributed to Discovery process participants, along with a community contact list that includes contact information for the county and every incorporated community in the watershed/project area, in the community file.

9.0 Potential Techniques and Tools to Support Stakeholder Engagement Effort

A number of engagement techniques and tools are discussed in earlier sections of this guidance document. The Project Team may want to consider a variety of techniques and tools when determining how to engage effectively with both internal and external stakeholders during the Discovery Phase. Several potential techniques and tools that the Project Team may consider are listed below. The Project Team should document the techniques and tools selected for each stakeholder group in the stakeholder engagement plan discussed in Subsection 6.2 and should monitor their effectiveness in meeting project goals so that the Project Team may determine

whether to use a particular technique or tool during future project phases or on future flood risk projects.

- **Facilitated Conference Calls:** The Project Team will need to carry out ongoing periodic engagement with both internal and external stakeholders/partners that are actively involved or otherwise interested in the project and whose support is required for the overall success of the project. This periodic engagement can be accomplished via facilitated conference calls. Each conference call should have an agenda, and the Project Team should document the results of the conference call in writing for future reference as discussed in Section 4.0.
- **Facilitated Webinars:** For engagement opportunities that involve the delivery of a volume of information, that require attendees to see materials being discussed, or that require orientation and training, properly facilitated webinars using Adobe Connect or similarly capable platforms can be very effective. Depending on the platform used, these sessions also can be recorded, allowing participants to review sessions at a later date or direct other stakeholder staff to listen to the recording. Facilitated webinars can be an effective tool when the Project Team is explaining complex technical issues.
- **In-Person Meetings/Site Visits/Community Events:** While time-consuming and somewhat expensive when long-distance travel is required, in-person meetings with key stakeholders and interim site visits to watersheds are invaluable opportunities for the Project Team to engage with stakeholders.

The Project Team also should consider the types of community events where engagement and outreach can be leveraged—either events that already exist or events that FEMA develops in cooperation with community leaders, stakeholders, and partners.

- **Correspondence:** As a precursor of, or followup to, a facilitated conference call, webinar, or in-person meeting, tailored letters and email messages are an effective way to keep stakeholders engaged. Email messages are also effective for delivering interim status updates and for soliciting feedback from stakeholders. The Project Team will need to prepare the documentation in a form to be stored in the community files discussed in Section 8.0.
- **Fact Sheets, Flyers, and Brochures:** Project Teams have, for many years, relied on fact sheets, flyers, brochures, and other printed publications to communicate information. These tools are most effective as a means of one-way communication of information. However, the Project Team can use them effectively as an integral part of engagement efforts to announce webinars, meetings, conferences, and workshops. They can be effective as “leave-behinds” at in-person meetings and workshops, as digital attachments to email messages, as attachments for webinars, or as content posted to partner or Regional Office websites.
- **Newsletters, Listservs, or Other Means of Maintaining General, Ongoing Engagement:** The Project Team could employ the use of newsletters, Listservs, or other means of monthly or bimonthly engagement with Federal and State partners, regional

entities, and local communities. This kind of ongoing communication encourages relationship-building with these partners.

- **Templates:** FEMA has developed templates for letters, email messages, and newsletter articles. These template materials have been, and can continue to be, modified to fit Project Team needs. Project Team members should consult the FEMA Project Officer about the availability of previously developed templates that may be appropriate for the project, including template materials developed to address the requirements of Section 216 of BW-12, as discussed in Subsection 4.7.
- **Websites/Web Content:** If a CTP is a member of the Project Team, it would be possible and beneficial to engage with stakeholders through a project-dedicated website or through the posting of project-related information to web pages controlled by the CTP. As with the fact sheets, flyers, and brochures discussed above, websites and web content have been used most often and effectively as a means of one-way communication. However, they also can be used effectively as an integral part of engagement efforts to announce webinars, meetings, conferences, and workshops.

Where Regional Offices already have established websites, these sites also could be used to announce webinars, meetings, conferences, and workshops or to post project-related fact sheets, flyers, and brochures. Before establishing new websites, however, Regional Office staff should confer with the FEMA HQ Office of External Affairs.

Where resources are available, chat rooms or other two-way communication vehicles hosted on websites also can be effective. For example, a Project Team may want to make draft work maps available for comment before and after Flood Risk Review Meetings in support of engagement efforts.

- **Videos:** Although the production of videos can be cost-prohibitive, they are invaluable for explaining complex technical and programmatic issues and providing consistent messaging, and they can be very effective to promote discussion during in-person meetings, webinars, conferences, and workshops. It may be possible for the Project Team to use videos developed for other projects, including projects in other FEMA Regions, to reduce production costs.
- **Animations:** Because of their visual impact, animations are also an effective way to explain processes and complex concepts. Animations are generally not as expensive to produce as videos; however, it would be beneficial for the Project Team to use animations developed for other projects or animations developed by OFAs (e.g., NOAA, USACE, USGS) for other programs where possible.
- **Social Media and Shareable Content:** Social media is an increasingly important channel for receiving and sharing information. Project Teams may want to explore channels such as Facebook and Twitter for sharing messaging on resilience and mitigation action. Project Teams should coordinate with FEMA Regional External Affairs staff for coordination, approval, and execution of social media outreach on FEMA-owned platforms. Social media platforms owned by communities, partners, and other stakeholders also can be

used for information sharing. Facebook posts, Tweets, newsletter articles, and web content can be prepared by the Project Team and shared with stakeholder groups for their use. The Project Team will need to consult Regional Office of External Affairs staff for approvals, counsel on content, and possible coordination with public information officers from stakeholder organizations.

10.0 Outcomes from Stakeholder Engagement Effort

Successful stakeholder engagement during the Discovery Phase should result in the following outcomes:

- More comprehensive and holistic understanding of the watershed
- Initial establishment of trust and transparency required for a successful collaboration, the completion of a flood risk project across the Risk MAP lifecycle, and future coordination
- Improved understanding of the capabilities of watershed communities, including GIS capabilities, to determine appropriate assistance in possible future product deployment
- Identification of data source(s) and collection of data that may be used to create regulatory products (i.e., FIRM(s), and FIS) report(s), FIRM database)
- Identification of data source(s) and collection of data that may be used to create Flood Risk Products (i.e., Flood Risk Database, Flood Risk Report(s), Flood Risk Map(s))
- Identification of factors that may be contributing (positively or negatively) to flooding and flood losses in a watershed
- Establishment of initial stakeholder expectations about the flood risk project to be undertaken, when appropriate
- Improved stakeholder understanding of, and support for, mitigation planning and action through local flood risk reduction activities
- New or enhanced relationships between and among FEMA, State partners, community officials, other key influencers, and other stakeholders
- Improved compliance with the requirements of BW-12, as amended by HFIAA