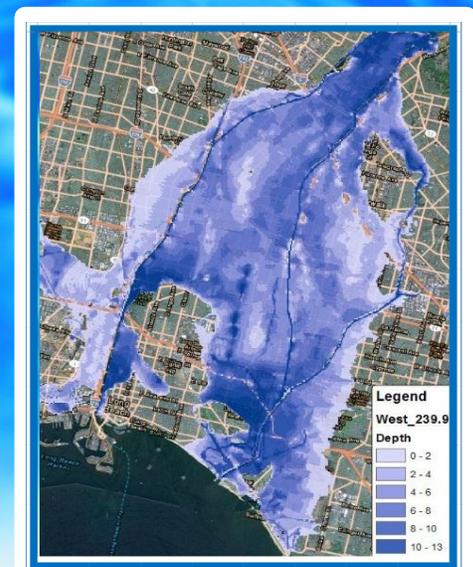


December 2015

## Evaluation of Public Involvement in Flood Risk Management Pilot Projects

2015-CPC-2





The Institute for Water Resources (IWR/Institute) is a U.S. Army Corps of Engineers (USACE) Field Operating Activity located within the Washington DC National Capital Region (NCR), in Alexandria, Virginia. Created in 1969, the Institute is the USACE center of expertise for integrated water resources management, focusing on planning analysis and hydrologic engineering and on the collection, management, and dissemination of Civil Works and navigation information, including the nation's waterborne commerce data. It also serves as the USACE center of expertise for collaborative planning and environmental conflict resolution.

The Institute has several satellite centers: the Hydrologic Engineering Center (HEC), located in Davis, CA, which specializes in the development, documentation, training, and application of hydrologic engineering and hydrologic models; the Navigation and Civil Works Decision Support Center (NDC) and its Waterborne Commerce Statistical Center (WCSC) in New Orleans, LA, which is the Corps data collection organization for waterborne commerce, vessel characteristics, port facilities, dredging information, and information on navigation locks; and the Risk Management Center (RMC), located in Denver, CO and Pittsburgh, PA, the mission of which is to manage and assess risks for dams and levee systems across USACE, to support dam and levee safety activities throughout USACE, and to develop policies, methods, tools, and systems to enhance those activities. Two other enterprise centers at the Institute's NCR office include the Collaboration and Public Participation Center of Expertise (CPCX) and the International Center for Integrated Water Resources Management (ICIWaRM).

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## Foreword

In September 2010, the United States Army Corps of Engineers (the Corps) released its Flood Risk Management Public Involvement Framework and Implementation Plan. In this document, the Corps describes a vision of a decision process for managing flood risk that is collaborative and risk informed. It highlights the importance of seeking solutions to flood risk by engaging public stakeholders and partners at all levels of government. Additionally, the Corps emphasizes multi-faceted solutions that address property protection, public health and safety, and environmental quality issues. The Corps recognizes that it should take a more active role in public engagement—one that extends beyond the required National Environmental Policy Act (NEPA) public scoping meetings and works to engage stakeholders and community members in solving problems.

In 2013, the Corps' Institute for Water Resources (IWR) initiated a pilot program to implement the collaborative and risk informed flood risk management decision process promoted by the 2010 Framework and Implementation Plan. The proponents of the Public Involvement in Flood Risk Management Pilot Program are the Corps' Flood Risk Management Program and Collaboration and Public Participation Center of Expertise:



Dr. Hal Cardwell, Collaboration and Public Participation Center of Expertise Director  
<http://www.iwr.usace.army.mil/cpc>

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This report evaluates the pilot program and draws conclusions related to additional work the Corps can do to collaboratively identify flood risk solutions. CPCX and FRMP will move forward with implementing the recommendations enclosed in this evaluation report. Initial priorities based on feedback from Corps District offices are guidance for assessing the appropriate level of public involvement in flood risk management activities, expanding on potential risks of inadequate public involvement, developing additional public involvement training materials, exploring a national public involvement mentoring program, and expanding a library of public involvement materials and tools.

## Acknowledgements

The U.S. Army Corps of Engineers' Institute for Water Resources (IWR) gratefully acknowledges the work of Abt Associates, who prepared this report for IWR under Contract W912HQ-10D-005, Task Order #0019. This report presents the results of a qualitative evaluation of a series of pilot projects implemented by IWR and its contractors to support public involvement in flood risk management. The evaluation is intended to help IWR identify best practices and lessons learned from the pilot projects.

IWR also acknowledges the contributions of pilot project participants in providing feedback on their experience with the program and informing the outcomes captured in this report. We greatly appreciate the participation of the following districts: San Francisco District, Buffalo District, New York District, Los Angeles District, Tulsa District, Honolulu District, Portland District, Savannah District, Kansas City District, and Rock Island District.

Finally, IWR acknowledges the work by the Corps' Collaboration and Public Participation Center of Expertise to support the pilot projects, shape the evaluation objectives, and assist with finalizing this report.

## Executive Summary

To support the implementation of the U.S. Army Corps of Engineers (Corps) *Flood Risk Management Public Involvement Framework and Implementation Plan* (released in 2010), the Institute for Water Resources (IWR) initiated pilot projects in 2013 for public involvement in flood risk management. This included providing a Public Involvement Subject Matter Expert (SME) from IWR or its contractors to provide support for public meetings, planning, facilitation, and other related activities.

The goals of the pilot program were to:

1. Demonstrate and evaluate the process for determining the appropriate level of public involvement,
2. Improve the Corps' capacity to engage the public and agency partners at the county, state, and federal levels, and
3. Identify best practices for improving two-way communication and collaborative problem-solving.

The pilot program supported the following projects:

- Pajaro River Flood Risk Management Project, California (San Francisco District)
- Blanchard River Watershed Study, Ohio (Buffalo District)
- Passaic River Main Stem Flood Risk Management Project, New Jersey (New York District)
- Whittier Narrows Dam Safety Modification Study, California (Los Angeles District)
- Tulsa/Arkansas River Flood Risk Management, Oklahoma (Tulsa District)
- Ala Wai Canal Feasibility Study, Hawaii (Honolulu District)
- Clackamas County/Upper Sandy River Floodplain Management, Oregon (Portland District)
- Georgia Hurricane Evacuation Study, Georgia (Savannah District)
- Big Blue and Kansas River Confluences Floodplain Management, Kansas (Kansas City District)
- Minnesota River Flood Risk Management Community Workshops, Minnesota (Rock Island District)

### Evaluation Purpose and Objectives

IWR's contractor, Abt Associates, designed an evaluation to identify best practices and lessons learned from the pilot program, and to the extent possible, to assess the impact of the program on the capacity (i.e., knowledge, ability, and values) of Corps District staff to conduct public involvement activities. The objectives of the evaluation were to:

1. **Utility of Specific Public Involvement.** Examine usefulness of specific public involvement activities implemented through the pilots (e.g., strategy development, stakeholder identification and outreach, workshop facilitation) and identify additional activities that would have been useful

2. **Public Involvement Capacity in the Districts.** Assess the extent to which public involvement knowledge and ability changed in the Corps District staff that participated in the public involvement pilot projects
3. **Value and Acceptance of Public Involvement.** Determine if the pilot program changed the extent to which District staff accept and value public involvement in flood risk management
4. **Level of Public Involvement in Pilot Projects and Impacts.** To the extent possible, collect targeted feedback from external stakeholders on if public involvement in the pilot projects met the appropriate level of participation recommended in the Framework (i.e., engage in collaborative problem solving) and any impacts of the public involvement efforts
5. **Process Improvements for Pilot Projects.** Identify process improvements for implementing future public involvement pilots in the Districts

The evaluation focused on public involvement activities, with the expectation that improved public involvement leads to better projects and better risk reduction (see Logic Model Framework, Section 2.2), as opposed to evaluating the effectiveness of a project's flood risk reduction. The "Summary of Findings" section below explains how the evaluation objectives were met.

### Evaluation Approach

Abt Associates developed a qualitative evaluation approach that allowed for a systematic review of best practices and lessons learned from the pilots. This allowed the evaluation team to better understand the impact of the pilot program on public involvement capacity (knowledge, ability, and values) in the Districts. Early in the pilot program, data collection centered on a short survey of the Project Delivery Team (PDT) members (17 individuals) to assess their knowledge and ability in public involvement. The evaluators then conducted 27 in-depth interviews with participants after the pilots were largely complete.

The evaluation team emphasized the piloting process, as well as the utility of the products and services provided and, to the extent possible, any short- and long-term outcomes. Many of the public involvement activities are ongoing and most of the Corps projects will continue beyond the pilot efforts; therefore, data to assess the full impact of public involvement activities will not be available until much later.

### Summary of Findings & Conclusions

Evaluation findings and their associated evaluation objectives are based on the brief early survey, as well as the in-depth post-pilot interviews conducted with Corps District staff, IWR and contractor public involvement SMEs, and state or local government stakeholders.

#### Objective 1. Utility of Specific Public Involvement Activities

Participants appreciated that SMEs helped establish public involvement goals and supported implementation of public involvement activities. SMEs played key roles in managing the overall public involvement process. Virtually all program participants recognized the value of the expertise of the SMEs, each of whom took on slightly different roles in the various pilots. For some projects, the SMEs focused more on products and supported the development of specific deliverables such as the public involvement plan, while for others the SME played an advisory role. The SMEs were most valuable when they served as engaged team members rather than advisors.

Participants found support from SMEs for the design and implementation of public meetings to be the most valuable activity during the pilot projects. PDTs appreciated the SMEs' assistance with the coordination of public involvement activities and logistics, which allowed PDT members to focus on their technical contributions while also delivering a comprehensive planning process. As external entities, SMEs brought a more neutral role to the process that allowed for a balanced approach to public involvement and helped PDTs navigate specific challenges.

PDTs noted that developing public involvement plans was useful because the plans help to frame questions and provide strategies for approaching communication efforts moving forward. For the pilots in which the SMEs did not develop a public involvement plan, the SMEs helped the PDTs develop skills for creating a plan, such as working to define goals and objectives, which can serve as an effective and long-standing resource. Continual access to SMEs would sustain and expand on public involvement advancements made during the pilots.

### **Objective 2. Public Involvement Capacity in the Districts**

To communicate risk messages and increase public engagement, pilot participants sought to increase their personal and team-wide public involvement capabilities and expertise. Several interviewees noted that they sought to increase the Corps' presence in the region through the pilots. Participants felt that the pilot projects increased public involvement capacity at the District level and helped District staff broaden their pre-conceived ideas about public involvement. The actions the SMEs took, such as facilitation and plan development, often served as models the PDTs could emulate and continue.

Overall, the program provided resources and tools that will continue to add value and can be applied to future public involvement efforts.

### **Objective 3. Value and Acceptance of Public Involvement**

At the beginning of the pilots, the majority of survey respondents believed that public involvement has proven to be valuable in most in water resources planning and management projects. Some PDTs were at first hesitant to embrace pilot services and fully commit to public involvement improvements, usually due to resource and time constraints or past experience. Most PDTs, however, were enthusiastic about receiving the support. During post-pilot interviews, overall, interviewees noted that as pilots progressed, PDTs became more willing to accept and value public involvement as an important part of a flood risk management strategy.

### **Objective 4. Level of Public Involvement in Pilot Projects and Impacts**

All pilot projects engaged in a two-way dialogue with stakeholders, in addition to planning for additional engagement. For all pilots, SMEs took a systematic approach to identifying the appropriate level of public participation, such as conducting a situation assessment to understand needs. Initial impacts of the pilot projects included establishing new lines of communication between the Corps, local government officials, and the public; building capacity; increasing awareness of public involvement resources; and more effective public dialogue. Other project successes included establishing a "shared vision" for the project and engaging the public in problem solving and risk-informed decision-making. These outcomes would not have occurred without the additional time and resources made available. In some cases, it is still too early or difficult to isolate the effect of the pilot. SMEs suggested that if PDTs follow through with the activities there could be a long-term impact.

## Objective 5. Process Improvements for Future Public Involvement Pilots in the Districts

In addition to the findings summarized above, the results of the evaluation include a number of process improvements for pilot projects to be considered in future pilot programs, including those relating to project administration, timing, and funding. These findings are discussed in Section 3.5.

### Recommendations

The evaluation resulted in a number of recommendations based on conclusions related to the evaluation objectives. This suite of recommendations is further described in Section 4.

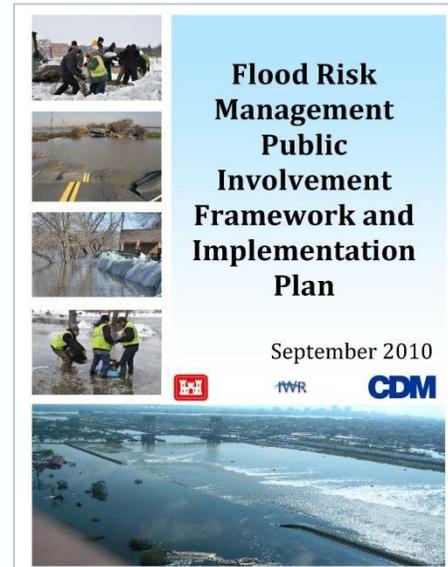
Summary of Recommendations
Establish guidelines and standardized approaches to help Districts assess the appropriate level of public involvement, as well as information on the appropriate use of each tool or approach.
Develop case studies to illustrate appropriate public involvement approaches and levels for particular types of projects and issues.
Identify best practices for public involvement, including topics such as working with socially vulnerable populations, designing public meetings, facilitating stakeholder dialogues, and others.
Develop in-depth case studies that demonstrate the benefits of collaborative processes in flood risk management projects.
Evaluate the extent to which public involvement activities contribute to an understanding of shared responsibility for flood risk management.
Develop training materials or establish a mentoring program through which IWR could share its expertise with the Districts.
Build a consolidated, comprehensive library of public involvement materials, including examples and templates that could be accessed by Corps staff and other stakeholders.
Consider additional ways for Districts to access IWR or other Corps expertise, such as through mentoring or other resources.
Require kickoff team meetings to discuss appropriate goals and responsibilities.
Focus on achievable goals and expectation management from the onset.

### **Implications of the Evaluation Findings**

The evaluation of the pilot projects allows for some inferences about the potential long-term impacts and benefits of public involvement activities. Findings show that pilot projects resulted in increased capability and confidence among District staff, improved public involvement conditions in each case, and formal plans and strategies to guide future actions. With these outputs, it is reasonable to expect that the pilot activities have made positive impacts on key long-term objectives of public involvement, such as increased awareness – and subsequent reduction of – risk, and better engagement of the public in Corps decisions. The evaluation also revealed that Corps Districts continue to face limited resources for public involvement activities and may scale back their efforts in the future, potentially diminishing newly established lines of communication. Future actions by the Corps, such as mentoring programs, new tools and standardized approaches, could augment the results of the public involvement pilots and help promote continued improvement of Corps practices.

# 1. Introduction

In September 2010, the United States Army Corps of Engineers (the Corps) released its *Flood Risk Management Public Involvement Framework and Implementation Plan*. Its goal was to “improve [the] framework and methods to encourage public involvement, with special emphasis on those who will bear the risk, in selecting the proper combination of structural, nonstructural, zoning and emergency response components in the flood risk reduction system.”<sup>1</sup> The Corps describes a vision of a decision process for managing flood risk that is collaborative and risk-informed. It highlights the importance of seeking solutions to flood risk by engaging public stakeholders and partners at all levels of government. Additionally, the Corps emphasizes multi-faceted solutions that address property protection, public health and safety, and environmental quality issues. In general, the Corps recognizes that it should take a more active role in public engagement — one that extends beyond typical public meetings and works to engage stakeholders and community members in solving problems.



To support the implementation of the Framework, in 2013 the Corps’ Institute for Water Resources (IWR) initiated a series of pilot projects for public involvement in flood risk management. IWR received 22 applications for the pilot program, from which IWR selected 13 projects and ultimately fully supported 10 of them. The pilot program was meant to demonstrate and evaluate the process for determining the appropriate level of public involvement, to improve the Corps’ capacity to engage the public and partner agencies, and to identify best practices for improving two-way communication and collaborative problem solving. In addition to applying the recommendations in the Framework, IWR intended for the pilots to help develop a better understanding of information and expertise needed by local, non-Federal stakeholders to foster and sustain public engagement with respect to flood risk management.

As part of the implementation of the public involvement pilot projects, Abt Associates conducted a qualitative evaluation of the program. By conducting an evaluation, IWR received valuable feedback on public involvement services, products, and capacity, while demonstrating an approach for how public involvement activities could be evaluated. The evaluation provided IWR with an understanding of potential barriers to public involvement in the Corps, as well as the needs and limitations of the Districts.

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<sup>1</sup> *Flood Risk Management Public Involvement Framework and Implementation Plan*, USACE Institute for Water Resources, September 2010, Submitted by CDM Federal Programs Corporation

## 1.1 Evaluation Purpose

Abt Associates designed this evaluation to identify best practices and lessons learned from the pilot program, and to the extent possible, assess impact of the program on the knowledge, ability, and values of Corps District staff to conduct public involvement activities. IWR will use the results of the evaluation to inform the development of future pilot projects as well as further shape activities relating to the *Flood Risk Management Public Involvement Framework and Implementation Plan*.

## 1.2 Pilot Project Selection

In implementing the pilot projects, IWR and its contractors established goals for the pilot projects and conducted a systematic selection process to identify the pilot projects.

### 1.2.1 Goals for the Pilot Projects

Consistent with the Framework, IWR identified three main goals for the pilot projects:

- Demonstrate and evaluate the process for determining the appropriate level of public involvement;
- Improve the Corps' capacity to engage the public and agency partners at the county, state, and federal levels; and
- Identify best practices for improving two-way communication and collaborative problem-solving in flood risk management projects.

### 1.2.2 Pilot Project Selection Criteria

IWR and its contractors used the following criteria to select the pilot projects. Some criteria were required, whereas others were only preferred.

The required criteria were as follows:

- **Concurrence and/or Support** – The project should have support from some or all of the following organization levels:
  - That responsible staff at the relevant District expressed support was crucial.
  - That responsible staff at Division expressed support was important, but not crucial.
  - That staff at Headquarters expressed support was preferable, but not crucial.
- **Existing Flood Risk Management Activity** – The project should focus on an existing flood risk management activity with a substantial Corps role.
- **Support and Resources to Implement Public Involvement Activities** – The PDT and relevant District for the project should support and have the resources to implement public involvement activities. IWR provides expert guidance/input; the PDT should have the resources to work with IWR and to implement activities after IWR support concludes.
- **Public Involvement Champion** – At least one member of the PDT should be responsible for leading the public involvement effort and should demonstrate interest in championing more robust public involvement approaches.

IWR and its contractors then evaluated project proposals that met the required criteria, above, on the following criteria:

- **Level of Public Involvement Need, Urgency, or Controversy** – IWR considered the degree to which the project has an immediate and compelling need for public involvement in order to improve chances for a successful flood risk management outcome.
- **Flood Risk Management Benefits** – IWR considered the degree to which the project could benefit a community or region in terms of reduced flood hazard, reduced potential human and structural exposure to flooding, and/or reduced vulnerability to flood impacts.
- **Degree to which the Pilot Advances the Public Involvement Framework** – The Framework calls for early and substantive public involvement in flood risk management decisions and emphasizes working with difficult-to-reach and/or vulnerable populations. IWR considered the project’s potential to use and test the Framework ideas (e.g., application of collaborative decision-making).
- **Vulnerable Communities** – IWR considered the project’s potential for involving vulnerable communities (e.g., the elderly, people living in poverty), which are traditionally very difficult to reach.
- **Replicability** – IWR considered the degree to which the lessons learned, approaches, and tools from the project could be applied to other Corps projects nationwide.

### 1.2.3 Selected Pilot Projects

IWR received 22 applications for the pilot program, and selected 13 projects based on the criteria above. IWR ultimately implemented 10 pilot projects. These 10 projects were evaluated as part of this study (see Exhibit 1- 1).<sup>2</sup> Pilot projects were relevant to a wide variety of flood risk management program activities, including dam and levee safety, Silver Jackets, and planning studies.

**Exhibit 1-1: Public Involvement Pilot Projects Evaluated**

Pilot Project and Location	Program Area and Flood Risk Management Needs
<p><b>Pajaro River Flood Risk Management Project</b>  <i>Cities of Pajaro and Watsonville and counties of Monterey and Santa Cruz, California</i>  <i>(San Francisco District)</i></p>	<p>Flood Risk Management General Re-Evaluation            Study of flood risk reduction strategies along rivers with aging USACE-built levees</p>
<p><b>Blanchard River Watershed Study</b>  <i>City of Findlay (OH), Village of Ottawa, and surrounding agricultural lands</i>  <i>(Buffalo District)</i></p>	<p>Feasibility Study for watershed improvements including flood control measures, navigation, and other improvements</p>

<sup>2</sup>Three pilot projects were not fully implemented and only received minimal support under the program (Upper Cedar River Risk Management Community Workshops; Northwest Flood Fight Workshops and Training; and Missouri Roundtables). For this reason, they are not included in the evaluation.

<b>Pilot Project and Location</b>	<b>Program Area and Flood Risk Management Needs</b>
<b>Passaic River Main Stem Flood Risk Management Project</b> <i>Passaic River Basin, New Jersey</i> <i>(New York District)</i>	General Re-Evaluation Study for flood risk management options in the Passaic River Basin
<b>Whittier Narrows Dam Safety Modification Study</b> <i>Los Angeles County, California</i> <i>(Los Angeles District)</i>	USACE Dam Safety Program, Dam Safety Modification Study to reduce risks associated with potential dam failure
<b>Tulsa/Arkansas River Flood Risk Management</b> <i>Tulsa County, Oklahoma</i> <i>(Tulsa District)</i>	Silver Jackets efforts to raise awareness of flood risks associated with existing dams and levees
<b>Ala Wai Canal Feasibility Study</b> <i>Honolulu, Hawaii</i> <i>(Honolulu District)</i>	Flood Risk Management Feasibility Study in highly-populated tourist area
<b>Clackamas County/Upper Sandy River Floodplain Management</b> <i>Villages of Mount Hood, Oregon</i> <i>(Portland District)</i>	Silver Jackets efforts to raise awareness of flood risk among local residents
<b>Georgia Hurricane Evacuation Study</b> <i>Georgia's coastal counties</i> <i>(Savannah District)</i>	Silver Jackets efforts to raise awareness of hurricane risks and to engage the public in evacuation decision-making
<b>Big Blue and Kansas River Confluences Floodplain Management</b> <i>Manhattan, Kansas</i> <i>(Kansas City District)</i>	Silver Jackets efforts to form a public work group to help raise awareness of flood risk and identify flood risk reduction strategies
<b>Minnesota River Flood Risk Management Community Workshops</b> <i>Southwestern Minnesota</i> <i>(Rock Island District)</i>	Silver Jackets efforts to initiate public engagement process to identify public goals and eventually develop a watershed plan

### 1.3 Background on Pilot Projects

District staff responsible for each of the selected pilot projects had access to the services of a Public Involvement Subject Matter Expert (SME) from either IWR or its contractors, who had expertise in public participation and stakeholder engagement. The SMEs engaged in different activities depending on the pilot project. Generally, they supplemented the skills and resources available at the District or program level. Activities included stakeholder outreach; planning, facilitating, and/or documenting workshops; and designing training or educational materials. Further, several SMEs developed public involvement plans, which provided an outline of next steps and goals for future public involvement activities. Exhibit 1-2 below summarizes the services provided for each pilot project.

It is important to note that prior to initiating the pilot projects, the SMEs held a kickoff meeting with the PDTs (Project Delivery Team) to discuss the scope of services provided, as well as to ensure a common understanding of issues and objectives. In general, a PDT is a multidisciplinary team assembled to develop a feasibility study. A PDT generally includes staff from within the District and other Corps offices, as well as project sponsor staff and representatives of other agencies.

Short descriptions of each pilot project follow, including the public involvement issues and concerns faced by each, along with additional detail on the services IWR or its contractors provided.

Information in the following summaries comes from the pilot program applications and interviews with representatives from each pilot project.

**Exhibit 1-2: Summary of Public Involvement Services Provided to Pilot Projects by Public Involvement SME or Other Corps Personnel**

<b>Pilot Projects</b>	<b>Situation Assessment</b>	<b>Stakeholder ID/Outreach</b>	<b>Facilitation for Team</b>	<b>Facilitation for Stakeholder/Public</b>	<b>Facilitation for Working Group</b>	<b>Process Design &amp; Planning</b>	<b>Other</b>
<b>Pajaro River Flood Risk Management</b>	X			X		X	
<b>Blanchard River Watershed Study</b>			X	X		X	
<b>Passaic River Main Stem Flood Risk Management</b>			X	X		X	
<b>Whittier Narrows Dam Safety Modification Study</b>				X		X	
<b>Tulsa/Arkansas River Flood Risk Management</b>		X				X	Supported early implementation of public involvement plan
<b>Ala Wai Canal Feasibility Study</b>		X		X		X	
<b>Clackamas Co./ Upper Sandy River Floodplain Mgt</b>			X		X	X	
<b>Georgia Hurricane Evacuation Study</b>		X	X	X		X	
<b>Big Blue/Kansas River Confluences Floodplain Mgt</b>		X		X	X	X	Provided technical assistance for map libraries and models

Pilot Projects	Situation Assessment	Stakeholder ID/Outreach	Facilitation for Team	Facilitation for Stakeholder/Public	Facilitation for Working Group	Process Design & Planning	Other
Minnesota River Community Workshops				X	X	X	

### 1.3.1 Pajaro River Flood Risk Management Project

The city of Watsonville and the town of Pajaro, California, in addition to the surrounding agricultural areas in Monterey and Santa Cruz counties, have been subject to flooding since legacy levees were constructed in 1949. The PDT applied for the pilot program in order to gain assistance for public engagement activities as part of an ongoing study of flood risk reduction strategies.



Additionally, they needed a facilitator to help bring together the various stakeholders, sponsors, and regulatory agencies that hold widespread interests in urban and agricultural flooding, riparian habitat, endangered species, life safety, and clean water protection.

In this pilot, the SME conducted a small-scale situation assessment to understand the types of activities that could advance public engagement in the area. This included stakeholder interviews to gauge understanding of public involvement-related issues and whether there would be opposition to new efforts conducted as part of the pilot. The SME also arranged and led in-person and virtual stakeholder meetings. Separate meetings were conducted with agricultural landowners, county farm bureaus, environmental groups, and state and Federal resource agencies. Further, the SME and Corps staff members put together a public involvement plan. This document includes a stakeholder assessment (discussing topics such as social vulnerability), a list of organizations with which the PDT could partner to leverage resources for messaging, references to risk communication materials and how to locate them, and a fact sheet to distribute to the public.

### 1.3.2 Blanchard River Watershed Study

The Blanchard River has a long history of flooding, with the river having reached or exceeded major flood stage 24 times since 1913. The most recent flood, in April 2013, was the 16th highest flood of record. The city of Findlay, Ohio, and village of Ottawa are the two largest communities in the watershed and therefore experience the most damages associated with flood events. Flood damages primarily occur in the business district, residential, and rural areas of the city and village. However, many of the proposed flood risk



management strategies would impact agricultural properties and land use outside of the city and village proper, which has resulted in strong opposition from agricultural communities. Recent flood events have placed additional pressure on the non-Federal sponsor and the Corps to expedite completion of a multi-year study of flood control measures. The PDT sought support from the pilot program to assist with public engagement and help address any concerns regarding alternatives under consideration.

In this pilot, the SME participated in a kickoff meeting with the Buffalo District and the PDT, where the SME received approval to support planned activities. The SME provided assistance with bi-weekly stakeholder calls and supported a workshop to discuss public involvement practices. At this workshop, the SME provided an overview of public involvement practices and explained proposed communications. At the same time, in the summer of 2014 the Corps changed its approach to stakeholder communications, largely focused on on-site visits to the watershed conducted by Buffalo District's Lieutenant Colonel. As of the spring of 2015, the SME was helping the Blanchard PDT plan for upcoming public meetings on the draft study report.

### 1.3.3 Passaic River Main Stem Flood Risk Management Project

The Passaic River Basin in northern New Jersey and southern New York covers over 900 square miles and is highly developed. Over 2.5 million people live and work in the basin.



Flooding in the basin is regular and severe. Since 1968, there have been 15 Federal disaster declarations. Six of occurred since 2005. Since 1900, the basin has sustained over \$6 billion in flood-related damages, with over half (approximately \$3.5 billion) occurring since 1990. Given these

high stakes, the PDT sought assistance to communicate with diverse populations in the river basin. Specifically, they needed support for public engagement techniques to better communicate how the Corps formulates alternatives, why conducting a study takes a significant amount of time for the Corps, and why certain communities and neighborhoods will not receive protection under the current flood risk management plan. The team also sought input from the public and stakeholders in a constructive manner.

In this pilot, the SME participated in an initial kickoff meeting with the PDT. The SME also attended a public meeting, provided feedback, and helped officials to develop a better understanding of public involvement techniques.

### 1.3.4 Whittier Narrows Dam Safety Modification Study

The Whittier Narrows Dam is located at a natural gap in the hills that forms the southern boundary of the San Gabriel Valley in Los Angeles County, California. Modifications are needed to address potential failure modes at Whittier Narrows Dam and to reduce the flood risk for over one million people in 25 cities downstream of the dam. The Corps is conducting a Dam Safety Modification Study to present the investigation, documentation, and justification of modifications. A recent survey conducted by emergency



management staff indicated that a majority of the population at risk are unaware of the high risk associated with living close to the dam, making risk communication a significant challenge. It was important that the study include a very strong public involvement framework to communicate effectively the risk to potentially affected communities. These communities include socially vulnerable populations – in particular, a large population of non-English speaking residents. The PDT sought assistance with developing and implementing an effective risk communication and emergency preparedness strategy. Additionally, the team needed support to conduct public scoping meetings and workshops as part of the development of the Environmental Impact Statement (EIS). The EIS will evaluate the impacts to biological and environmental resources, and is expected to generate significant public interest.

In this pilot, the SME and Corps staff provided advice on public involvement and facilitated meetings as needed. To begin with, the SME created a document to demonstrate the relationship of various key Corps programs to this initiative. The SME then helped Corps staff plan and facilitate a meeting with local emergency preparedness officials to identify the current state of flood-related emergency preparedness. The SME subsequently worked with Corps staff to develop a public involvement plan, which included recommendations on how the Corps could discuss the study with the public and certain agencies, gather input, and coordinate with partners.

### **1.3.5 Tulsa/Arkansas River Flood Risk Management**

Along the Arkansas River in Tulsa County, Oklahoma, the aging levee system poses a significant concern. The public, according to the PDT, lacked awareness of the risks and showed complacency about flood risk in the area. The PDT, consisting of the Oklahoma Silver Jackets and Tulsa District Modeling, Mapping, and Consequences Team, applied for the pilot program to address these issues through the implementation of a broad public engagement strategy. With the support of the pilot program, they sought to develop messages to communicate flood risks, particularly by tailoring communications to rural and agricultural communities, and to collaborate with agencies at the local and state level.



In this pilot, the SMEs focused on developing a public involvement plan. They conducted outreach to a newly established regional flood risk work group, and included the work group’s relevant activities in the public involvement plan. SMEs helped the work group identify strategies to organize and target community partnerships as preparation for implementation of the public involvement plan. The SMEs also built rapport with local community members and accounted for their perspectives in the plan.

### 1.3.6 Ala Wai Canal Feasibility Study

The Ala Wai Canal Feasibility study area is the most densely populated watershed in Hawaii, with approximately 160,000 residents. The potential for flooding creates a life safety risk for people in the watershed. Over 3,000 properties are located in the Corps-modeled 1% annual chance floodplain, with estimated damages at \$311 million. The PDT became interested in the pilot program due to this high flood risk and the diversity of local stakeholders (including individual homeowners and the tourism sector). A key challenge the PDT faced was preparing the local tourism industry for a flood event on short notice. The PDT identified two desired outcomes from the pilot project: (1) a better understanding of the shared risk among the diverse stakeholders in the watershed, and (2) a focused opportunity to work with the tourism sector to raise their awareness about the risk and to increase awareness of their role in mitigating this risk to Hawaii's visitors. The PDT highlighted the importance of building the non-Federal sponsors' capacity to articulate risk effectively.



In this pilot, initial activities included stakeholder outreach to discuss the issues and concerns regarding the Ala Wai Canal. In doing so, the Corps District better understood the local tourism industry's existing capacity. Based on this information, the District approached IWR for additional support in developing a workshop focusing on public-private partnership opportunities for flood risk management in Ala Wai. The District completed this workshop as a separate follow-on activity to the original pilot effort.

### 1.3.7 Clackamas County/Upper Sandy River Floodplain Management

The primary flood hazard of the upper Sandy River is channel migration, meaning that at elevated flow rates, the river erodes banks before over-topping. As a result, Federal Emergency Management Agency (FEMA) flood maps are inadequate for characterizing the real flood potential of the river. This incomplete message creates a challenge for educating the community on the area's flood risk. Prior to the pilot, a wealth of new flood risk information about the river became available from FEMA and other agencies. This

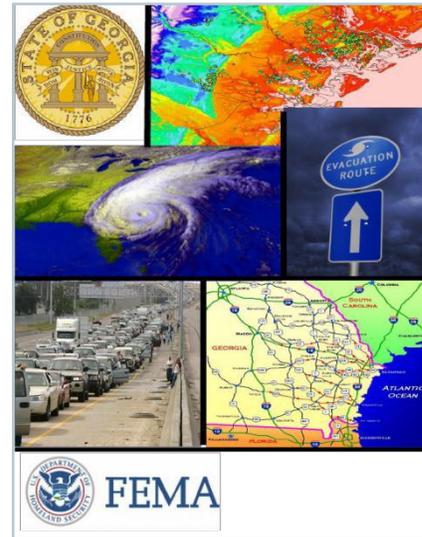


information needed "translation" for the public so they could better understand implications for land use, flood exposure to facilities and private property, and limited funding options for flood risk management. From the applicant's perspective, the pilot program presented an opportunity for Clackamas County to partner with IWR to access IWR's expertise and facilitate a community-level discussion about flood risk management. Pre-existing public involvement challenges identified by the PDT included a lack of trust towards local government, difficulties in engaging with rural communities, and promoting behavior change on flood risk management.

In this pilot, the IWR SME did not assist in developing a written public involvement plan, but instead served as a general resource and subject matter expert on public involvement. The SME coordinated several public meetings, phone calls, and facilitated a Flood Risk Action Committee.

### 1.3.8 Georgia Hurricane Evacuation Study

The 2013 Georgia Hurricane Evacuation Study revealed serious flood risk management issues that could affect local citizens. The study showed that a large percentage of the local population did not perceive flooding as a threat. The PDT applied for the pilot program for assistance to engage the public in the decision-making process, which involves close and continuous coordination between Federal, state, county, and city agencies, local communities, and the public. Strategies for improving public involvement were necessary for the success of comprehensive coastal flooding evacuation decision-making. The team thought that the pilot could support improving the framework and methods to encourage public involvement, including outreach efforts to inform citizens of mitigation and emergency response measures, with a specific focus on vulnerable and marginalized communities.



In this pilot, the SME worked with District staff to identify stakeholders and organize public and interagency meetings on messages and other issues. The SME participated in a presentation to an interagency coordination committee on hurricanes and distributed informational materials. The SME also produced a public involvement plan outlining the different strategies and opportunities for public engagement in the area.

### 1.3.9 Big Blue and Kansas River Confluences Floodplain Management

In applying for the pilot, the Big Blue and Kansas River Confluences PDT sought to improve public perception of flood hazards and to demonstrate that managing flood risks is a shared responsibility across various stakeholders. According to the team, there has been a general misconception about the Corps operation of Tuttle Creek and other reservoirs in the vicinity and the ability of these features to provide necessary levels of flood protection. The team wanted to increase the public's understanding that neither the Manhattan Levee nor any other large structural improvement is a "silver bullet" in preventing impacts from major floods.



Residual risk for various flood risk management features needed to be made clear to the public. Several flood-related projects were underway in the City of Manhattan, Riley County, and Pottawatomie County that required committee work, public open houses, work sessions, and formal public hearings. The PDT thought that all of these activities would benefit from professional assistance in public involvement in order to communicate current levels of risk and conduct risk-informed decision making.

In this pilot, the Kansas City District supported the non-Federal partner by creating map libraries, working with the National Weather Service, and creating a Future Conditions Flood Model. The District also aided the local partner in planning activities with homeowners and business owners about actions they can take to reduce their individual flood risk. Further, the SME and District assisted the local staff in writing a Floodplain Management Plan and public involvement plan. The SME also organized and assisted with public meetings and provided public involvement expertise to the local partners.

### 1.3.10 Minnesota River Flood Risk Management Community Workshops

The primary objective of the Minnesota River Watershed Study is to prepare a plan for watershed, aquatic ecosystem, and water quality management and restoration in the Minnesota River Basin. The Minnesota River local team sought assistance in developing a basin-wide communications plan and facilitating a stakeholder engagement process in several locations throughout the river basin. They proposed a series of workshops to identify stakeholders' vision for the basin, present information on existing conditions, and discuss potential future scenarios and the implications for floodplain management decisions. The local team saw the pilot program as an opportunity to develop a comprehensive watershed plan, leverage individual agency efforts to yield meaningful information for decision-making, and present technical information within a multi-jurisdictional framework to guide implementation of measures that benefit water resources.



In this pilot, the SME supported the Minnesota River local communication and public engagement team by participating in working group meetings, either in person or by phone, and by facilitating an interagency meeting in one of the sub-watersheds. The SME also offered strategic planning tools and resources from IWR, which helped inform the distribution of technical information to state and county-level personnel. This planning, completed by the local team with oversight from the SME, provided the framework for a jointly developed public involvement plan.

## 2. Evaluation Approach

Abt Associates developed a qualitative evaluation approach that allowed for a systematic review of best practices and lessons learned from the pilots. This allowed the evaluation team to understand better the impact of the pilot program on public involvement capacity (knowledge, ability, and values) in the Districts. This evaluation provides information specific to individual efforts and projects, which supplements broader evaluation efforts, such as the Collaborative Capacity Assessment Initiative.<sup>3</sup>

A qualitative approach was used given the diversity of pilot projects and the time window for the pilots and their evaluation. Data collection centered on an early survey of PDTs to assess knowledge and ability in public involvement, followed by in-depth interviews with participants after the pilots were largely complete.

### 2.1 Evaluation Objectives

To evaluate the pilot projects and provide IWR with feedback to inform future implementation of the Flood Risk Management Public Involvement Framework, Abt Associates designed the evaluation to meet the following objectives:

1. **Utility of Specific Public Involvement.** Examine usefulness of specific public involvement activities implemented through the pilots (e.g., strategy development, stakeholder identification and outreach, workshop facilitation) and identify additional activities that would have been useful
2. **Public Involvement Capacity in the Districts.** Assess the extent to which public involvement knowledge and ability changed in the Corps District staff that participated in the public involvement pilot projects
3. **Value and Acceptance of Public Involvement.** Determine if the pilot program changed the extent to which District staff accept and value public involvement in flood risk management
4. **Level of Public Involvement in Pilot Projects and Impacts.** To the extent possible, collect targeted feedback from external stakeholders on whether public involvement in the pilot projects met the appropriate level of participation recommended in the Framework (i.e., engage in collaborative problem solving) and any impacts of the public involvement efforts
5. **Process Improvements for Pilot Projects.** Identify process improvements for implementing future public involvement pilots in the Districts

### 2.2 Logic Model Framework

To best review the public involvement pilot projects, Abt Associates first considered the approach of a logic model. For this project, a logic model offered a framework for categorizing what could be learned regarding what the Corps has done to implement the Public Involvement in Flood Risk Management Framework, including the pilot program. In a logic model, activities and outputs represent what a program does, along with the expected outcomes. Exhibit 2-1, below, presents the logic model framework for the public involvement pilot projects.

<sup>3</sup> <http://www.iwr.usace.army.mil/Portals/70/docs/iwrreports/2011-CPC-R-04.pdf>

**Exhibit 2-1: Logic Model Concept for Public Involvement in Flood Risk Management Pilot Projects**  
 (with relationship to evaluation objective noted in italics)

Inputs	Activities and Outputs	Stakeholders	Outcomes and Impacts		
			Short-Term	Intermediate	Long-Term
<b>Resources Invested</b>	<b>Tasks and Products Produced</b>	<b>Recipients</b>	<b>Change in Knowledge</b>	<b>Change in Behavior</b>	<b>Change in Condition</b>
IWR Staff and Contractor Support  Policies and initiatives, including Public Involvement Framework	Services provided under the Pilot Program, including: <ul style="list-style-type: none"> <li>• Training and consultation with IWR SMEs</li> <li>• Meeting facilitation</li> <li>• Public involvement strategies &amp; plans</li> </ul>	District staff  Local governments  Residents	Increased public involvement capacity in Districts	Enhanced level of public involvement in projects, more consistent with the 2010 Framework	Increased public awareness of flood risk  Shared responsibility for flood risk management  Reduced flood risk
<b><i>Relevant Evaluation Objective(s)</i></b>					
<i>#5</i>	<i>#1</i>	--	<i>#2 &amp; #3</i>	<i>#4</i>	--

First, the evaluation was designed to measure whether the inputs of the pilots (i.e., the resources invested, primarily the time and efforts of public involvement experts) resulted in the expected outputs, which include training, consultation, direct support for new public involvement activities and development of strategies and plans. Next, the evaluation sought to assess how recipients viewed the value of those outputs and how their knowledge and attitudes may have changed as a result. But the ultimate purpose of the pilots and of public involvement in general is not simply to run effective meetings and produce well-written plans. The meaningful goals are to increase awareness of risk, improve decisions about flood risk management, and, ultimately, reduce risk. Achieving these long-term goals requires sustained, collaborative public involvement processes implemented by Corps staff, and by extension, Corps staff that are skilled and comfortable with implementing these collaborative approaches.

Measuring long-term outcomes as part of the relatively limited, short-term pilot project effort is not possible in this instance. As depicted in the logic model, the outputs of the pilots are expected to create conditions that should help lead to the longer-term goals. Specifically, outputs are expected to include new public involvement processes, enhanced Corps capacity, and documented future strategies for public involvement. If evaluation results show that the pilots did not create these conditions, the pilots would fail to meet the goals and objectives for which they were designed and would result in little positive impact on the short-, medium-, and long-term goals.

If the evaluation does show that the pilots created the desired conditions, then the pilots themselves were successful in producing desired outputs, but there would still be limitations regarding what could be said about the short-, medium-, and long-term goals. Enhanced public involvement is expected to increase public awareness of flood risk, for example, but measuring this outcome across all the pilots would require an investigation that is beyond the scope of the evaluation study described here. Instead, the logic model framework is used to draw inferences about how certain results and the conditions they create may or may not lead to the desired long-term outcomes.

### **2.3 Early Survey of Pilot Project Delivery Teams**

Abt Associates first conducted an early PDT Survey to assess attitudes and capacity for public involvement. The survey took the form of a short questionnaire that was delivered online via Fluid Surveys to Federal PDT staff (e.g., Project Manager, Public Involvement Lead, etc.) to help establish a baseline for public involvement capacity, including comfort, skills, and experience. SMEs identified those who were expected to benefit directly from the pilot project services and they were selected to receive the survey. Appendix A provides a list of the survey questions. Section 3 of this report provides a discussion of survey results.

The evaluation team sent the survey to 29 recipients, based on information provided by SMEs, and only 17 of 29 (58%) recipients responded; this is a low response rate for such a targeted sample. Therefore, instead of conducting a post-pilot survey as originally planned, Abt Associates instead focused on conducting the interviews to gather more in-depth feedback and lessons learned from the pilots.

### **2.4 Post-Pilot Interviews**

Abt Associates conducted a series of semi-structured interviews with SMEs, Corps District staff participating in the pilots, and selected stakeholders from state or local government. Exhibit 2-2 identifies the roles represented in the interviews conducted. In total, they interviewed 27 individuals about the pilot projects; some of these interviewees participated in multiple projects. It was important to conduct interviews with several types of pilot participants in order to get the broadest perspective on the program as well as help counter any self-reporting biases from participants.

**Exhibit 2-2: Roles Represented in Pilot Project Interviews**

<b>Pilot Project</b>	<b>Corps District Staff</b>	<b>Public Involvement SME</b>	<b>State or Local Govt. Stakeholder</b>
Pajaro River Flood Risk Management Project	✓	✓	✓
Blanchard River Watershed Study – Flood Risk Management	✓	✓	✓
Passaic River General Re-evaluation Study	✓	✓	
Whittier Narrows Dam Safety Modification Study	✓	✓	
Tulsa/Arkansas River Flood Risk Management	✓	✓	
Ala Wai Canal Feasibility Study	✓		
Clackamas County/Upper Sandy River Floodplain Management	✓	✓	✓
Georgia Hurricane Evacuation Study	✓	✓	✓
Big Blue and Kansas River Floodplain Management	✓	✓	✓
Minnesota River Watershed Plan	✓	✓	✓

Interviews focused on lessons learned, best practices, and other outcomes from the pilots. Appendix B of this report provides the interview guides for each interview type. Two Abt Associates staff conducted each interview, with one leading the interview and the other taking notes as close to verbatim as possible. Abt Associates conducted interviews over the phone, with most interviews lasting approximately an hour.

## 3. Summary of Findings

In this section, findings are summarized as they relate to the evaluation objectives outlined above. Data are drawn from the early pilot survey, which collected information from PDT members regarding their attitudes and capacity for public involvement, and from the in-depth post-pilot interviews.

This section presents information at the summary level – the report does not attribute responses to particular projects or individuals. This approach encouraged candid responses and is consistent with the goal of the evaluation, which was to consider impacts of the overall pilot program, not to evaluate particular projects or staff.

### 3.1 Utility of Specific Public Involvement Activities (Objective 1)

PDTs in the Districts sought to address various public involvement challenges through the pilot program, which help to illuminate particular challenges staff face in the field. In post-pilot interviews, participants commented on the value of specific services provided under the pilots. To better understand the value the pilot services added to projects, interviewees commented on particular services provided, including project meetings, public meetings, facilitation support, and development of public involvement plans.

#### Subject Matter Expertise

***Virtually all program participants recognized the value of the expertise of the SMEs, each of whom took on slightly different roles in the various pilots.*** In some projects, the SMEs were more focused on products and supported the development of specific deliverables such as the public involvement plan. In other pilots, the SME was not directly involved with on-the-ground facilitation or writing a public involvement plan, and instead played an advisory role. For example, in one project, a non-Federal staff member had already made headway with developing a public involvement plan prior to the implementation of the pilot, and for this pilot the SME focused on public meeting design and planning initiatives. In general, the SMEs served as hubs of information and topical experts on public involvement, and in many cases they directly built capacity for public involvement through coaching, providing feedback, and supplying tools and resources.

#### Project Kickoff Meetings

***Project kickoff meetings proved to be useful activities for the pilot teams that held them. At these meetings, the teams discussed expectations and set roles and responsibilities for the pilot activities, which helped to improve coordination and communication throughout the pilot.*** At one team's meeting, the SME and Corps staff member encouraged the PDT members to gain a better understanding of the existing state of Corps programs that could support or inform their flood risk communication efforts. To do this, the SME created a comparison table and outline describing various Corps initiatives. She stated that this helped to fill information gaps for the local staff and gave them a better understanding of the state of public involvement and public engagement initiatives in the Corps.

#### Support for Public Meetings

***Participants found support for public meetings valuable because the structured preparation provided dedicated time and space in which PDT members could focus on their engagement with the public.*** They credited public meetings with helping to initiate a two-way dialogue and build relationships. PDT members noted that it was helpful to have the SME (either from IWR or its contractors) attend these meetings. Some SMEs led the discussions, others allowed the PDT to lead while they assisted, and still

others observed the proceedings and provided feedback, which was often incorporated into strategies and recommendations in the public involvement plan. SMEs helped guide the discussion to better understand issues of public concern. When the SMEs led the public meetings, according to several Corps District staff, it took the pressure off the Corps staff to be the lead and allowed them instead to serve as “partners in progress.” In speaking with two external stakeholders, both commented on the importance of the design of a public meeting. It is critical that the Corps provide meaningful opportunities for public comment and that members of the public feel like they are being heard. In particular, they commented on the value of senior Corps managers attending the meetings demonstrating the Corps’ commitment to project goals.

***Participants valued support for stakeholder meetings with local officials and specific parties, which helped to build relationships and encourage a two-way, collaborative dialogue.*** In one pilot, the SME helped establish a small working group that consisted of the local project staff, other Corps representatives, and local officials. In another, several larger meetings took place with various stakeholders, including local officials, representatives from state and Federal resource agencies, and property owners. According to that pilot’s District staff member, the design and implementation of these meetings helped build momentum for public involvement activities because participants exchanged high-quality information in a manner that was constructive and not contentious, as it had previously been. Another pilot project featured staff from several diverse county-level agencies to brainstorm and gather input on current and future public involvement activities. Yet another project implemented two “open-house” style public meetings for which SMEs organized a technical presentation and breakout groups tailored to individuals who live in different styles of homes, which team members said seemed to increase public awareness of specific risks.

### **Facilitation Support**

***Assistance from the SMEs for planning and coordinating public meetings was highly praised. It was valuable when they helped identify potential invitees, developed meeting agendas, and prepared meeting materials.*** Participants appreciated the systematic approach that SMEs provided, such as in one pilot where he created a list of planning activities, delegated tasks, and provided oversight for the overall planning process. The SMEs’ assistance with program coordination and logistics allowed the PDT members to focus on their technical contributions, while also delivering a comprehensive planning process.

***SMEs brought a more neutral perspective to the process, which allowed for a balanced approach to public involvement and helped projects navigate specific challenges.*** Several non-Federal participants and Corps District staff members expressed that it was beneficial that SMEs, whether contractor or from IWR, were external entities who had not previously been involved with the projects. They suggested that external SMEs allowed the public to be more candid because they were not seen as authorities or as having a stake in the project. In one case, the fact that the SME was not a Corps staff member helped the PDT better deliver messages to the public that structures, such as levees, are not the only concern of the Corps.

### **Public Involvement Plan Development**

***PDTs noted that developing public involvement plans was useful because they help frame questions and provide strategies for approaching communication efforts moving forward.*** The plans generally included information about stakeholders, key issues, and potential communication channels and strategies. In certain pilots, the public involvement plan was a deliverable from the SMEs to the PDT.

SMEs used a variety of approaches to develop public involvement plans, including:

- Helping the PDT turn a pre-existing communications guidance document into a living public involvement plan through working sessions
- Meeting with the project staff to finish the plan where they discussed each section and clarified roles and responsibilities to support plan implementation
- Using the plan developed by the SME to guide the team's implementation of its strategy

In the pilots where the SMEs did not develop a concrete public involvement plan, they helped the PDTs develop skills for creating a plan, such as working to define goals and objectives, which can serve as an effective and longstanding tool.

### Tools and Products

**Several interviewees expressed that public involvement plans would be more effective if they were tailored for outreach to marginalized communities.** Applying general outreach principles to communities where there are public involvement challenges, such as language barriers and a lack of access to technology, is a time-intensive process. It would be beneficial if such strategies could be captured in the broader public involvement plan frameworks, although some plans for pilot projects did address social vulnerability directly.

One Corps District staff member commented that the large amount of background material included in the public involvement plan poses a problem because this information needs to be updated frequently. This individual is working with the SME to reduce the amount of background and focus on the actions and plans moving forward, which could transform the public involvement plan into a longer-term document.

**Interviewees recommended additional tools that could have been useful products of the pilots.** These suggestions included flood-proofing demonstrations and public-facing webpages regarding flood risk mitigation strategies. One local stakeholder noted that a "Frequently Asked Questions" document regarding the local project and its milestones would be helpful. This stakeholder found it particularly frustrating that the Corps' communication was limited as it completed multi-year studies and it was reluctant to say anything when decisions were not yet final. Additionally, there could have been further instruction on using tools such as public feedback surveys and questionnaires to understand levels of public engagement and ways to improve public engagement.

### Process Management

**In general, participants appreciated that SMEs helped establish public involvement goals and move efforts forward.** SMEs played key roles in managing the overall public involvement process. For example, several District staff members noted that the SMEs were particularly adept at explaining how the team should interact with the public or specific stakeholder groups to advance public involvement in the future. One SME convened a community-based group and developed charters for how the group might function, while another created a diverse stakeholder work group and provided ideas for how to organize future meetings and sustain the group. Finally, one Corps District staff member appreciated the SME for supporting her public involvement ideas, which the PDT had not embraced prior to the pilot.

## 3.2 Public Involvement Capacity in the Districts (Objective 2)

The early pilot survey provided baseline information on public involvement capacity among the PDTs, including their experience and knowledge of particular aspects of public involvement approaches.

Following implementation of the pilots, District staff and other direct participants were asked to comment on changes to capacity among the PDT.

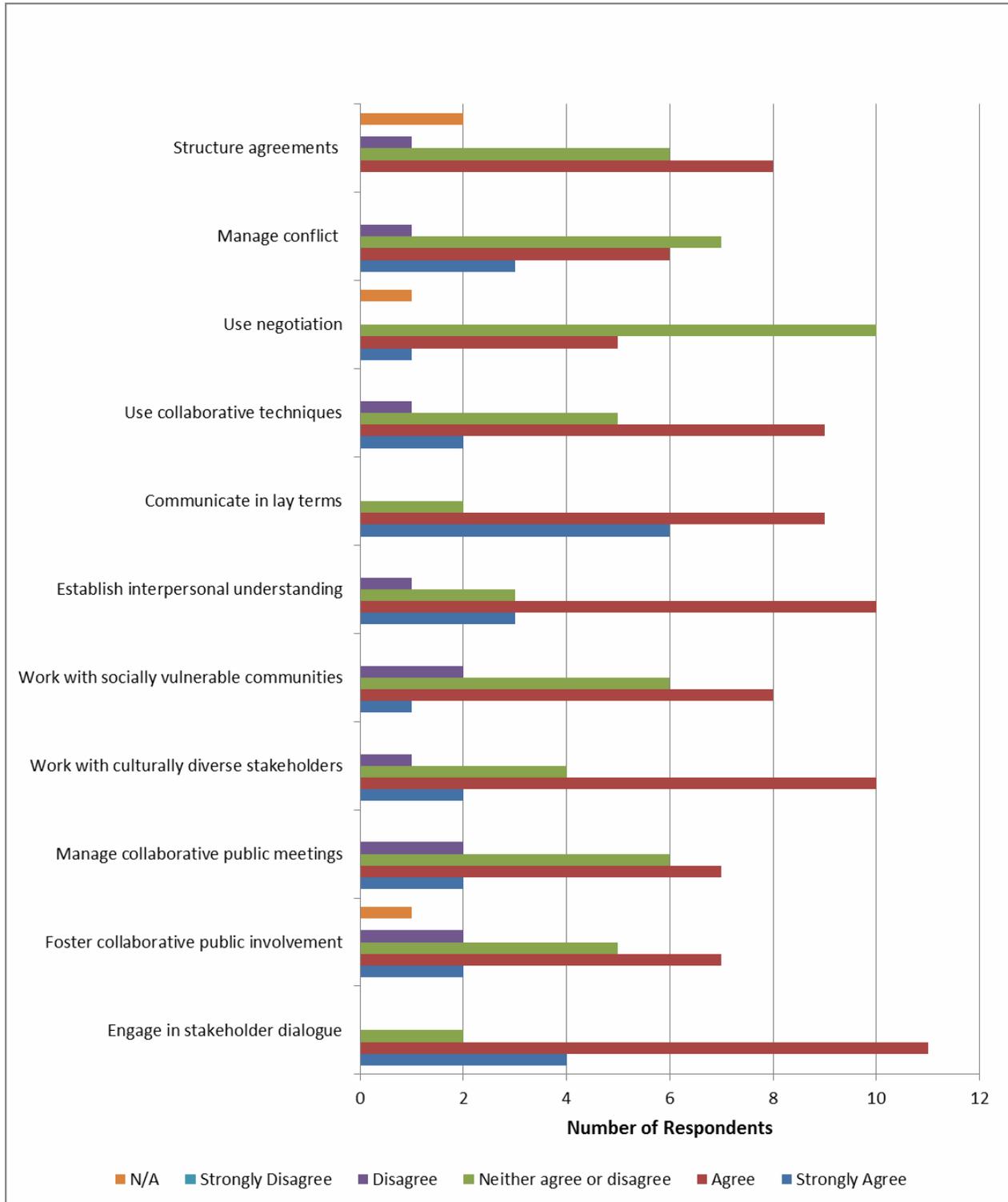
***At the outset of the pilots, PDT members reported having significant experience in public involvement.***

As pilots began, 17 Federal staff representing five pilot projects completed the early pilot survey, and overall results showed significant experience with public involvement and confidence in applying public involvement skills and techniques. Sixteen of the 17 respondents had experience organizing collaborative meetings featuring two-way information exchange between the Corps and its stakeholders. The majority of those individuals had organized five or fewer meetings.

***Also at the outset, survey respondents generally reported having the knowledge or ability to engage effectively in dialogue with stakeholders, to foster collaborative public involvement for a specific situation, and to manage collaborative public meetings.***

Respondents were asked to rate their confidence in their knowledge and abilities to execute a number of public involvement activities (see Exhibit 3-1). Respondents generally reported feeling comfortable interacting with culturally diverse groups as well as socially vulnerable populations. They also reported having the knowledge or ability to communicate in lay terms and use collaborative techniques to resolve conflict. Overall, respondents indicated that they are confident in their abilities to execute most public involvement activities, except for negotiating and navigating challenges that may arise.

**Exhibit 3-1: Reported Confidence in Public Involvement Skills and Abilities at the Outset of the Pilot Projects.**



***In general, participants felt that the pilot projects increased public involvement capacity at the District level.*** The pilots helped District staff broaden their pre-conceived ideas about public involvement. For example, one or more interviewees noted that through the pilot:

- They gained a better understanding of the types of public engagement activities available to support floodplain management.
- The SME helped to build confidence with the Corps staff member who can now be a more effective leader in public involvement initiatives.
- The SMEs helped to enhance capacity by developing new relationships, establishing points of contact, and identifying avenues with which to start engaging the public.
- The SME and Corps staff member helped to better integrate communications with the various Corps staff involved with the project. They focused on internal planning for the PDT.
- The pilot project helped the non-Federal staff to develop a working group that they had initiated prior to the start of the project.
- The pilot enhanced public involvement capacity by developing model materials and helping reach new audiences, including emergency managers.
- The pilot helped the local team reduce their fears of public involvement.

The actions taken by the SMEs, such as facilitation or development of plans, often served as models that the PDTs could emulate and continue. Overall, the program provided resources and tools that will continue to add value to these projects and can be applied to future public involvement efforts.

***In interviews, when considering why they applied to the program, several program participants reported that they applied because of significant flood risk coupled with inadequate public understanding of those risks.*** One Corps District staff member had conducted a screening-level risk assessment, which revealed to the Corps that the community's awareness of local levee risk was lacking. Others expressed concern over vulnerable populations that may be less informed than others, and highlighted the need to implement engagement strategies tailored specifically to those populations. Other Districts were looking to implement particular outreach efforts around projects. For example, one District released an evacuation study and sought to build public awareness of that plan. They also hoped that the pilot services would help to empower vulnerable communities and give them the tools with which to make mitigation decisions for themselves.

***To communicate risk messages and increase public engagement, pilot participants sought to increase their personal and team-wide public involvement capabilities and expertise.*** For example, one non-Federal staff member had experience in facilitation of project-directed type work, but not a basin-wide communication project, and saw the pilot as an opportunity to receive guidance from a specialist on this topic. The PDT had been conducting outreach exclusively to resource agencies on an as-needed basis for particular issues. This team wanted to transition to engaging with the broader public in a more consistent and comprehensive manner. Another PDT applied because they previously had received helpful support from the Corps' Silver Jackets program and hoped to gain additional support through IWR. They sought to identify best practices for improving two-way communication with key stakeholders, and another sought to leverage other, ongoing public engagement initiatives in Districts. Finally, one participant noted that she hoped the pilot would help the PDT identify their audience and

formulate proper risk messages. They had been making an effort to engage with the public, but she wanted to understand what frequency of communication is appropriate and most effective.

**Several interviewees noted that they sought to increase the Corps' presence in the region through the pilots.** In one area, the county representatives initiated the application process because they thought the presence of a SME could transform the perception of the Corps from an organization that primarily issues permits to one that frequently engages with the public. In one District, the team wished to supplement their public involvement capabilities with increased Corps presence, given that, according to a staff member, her team had been the primary communicator of flood risk to the public in the past ten years because the Corps was largely absent.

**The expected role of the Corps relative to state and local agencies also was a consideration for PDTs when deciding to apply.** One non-Federal staff member noted that local officials were skeptical to commit many resources to flood risk management because they believed that the Federal government was responsible for these actions. She hoped that the pilot would bring these officials a clearer understanding of their flood risks and a willingness to provide greater funding for mitigation measures. Local officials in other areas commented that in their experience the Corps is not accountable to the public, does not communicate in layman's terms, and provides infrequent project status updates, so additional Federal support was welcomed.

Further challenges for which local teams and Corps District staff members sought assistance through the pilots included navigating contentious relationships between the Corps, local political leaders, and stakeholders, and balancing competing interests between economic development and flood risk.

### 3.3 Value and Acceptance of Public Involvement (Objective 3)

Information regarding the extent to which District staff accept and value public involvement in flood risk management was collected in the early pilot survey, as well as from those interviewed after the pilots were largely complete.

**When thinking about when to use public involvement in water resources planning and management projects, the majority of the survey respondents believed that public involvement is a good practice.** Five of 17 respondents believed that only certain circumstances require collaborative (i.e., two-way) public involvement, and a couple of respondents noted that not every project has the funding or a need for public involvement. Of note, 12 respondents reported they had worked on projects that would have benefited from better collaborative public involvement.

When reflecting on collaborative public involvement, a respondent noted that at times involvement needs to be managed with discretion based on the sensitivity of the situation, information, or the sponsor concerns. Other respondents believed that appropriate public involvement approaches varied, ranging from informing to collaborating, and it is important to understand what is needed for a particular project. Schedule, budget, and resources were mentioned as important constraints to consider.

**In terms of the results achieved through collaborative public involvement on water resources planning and management projects, a majority (11 of 17) of survey respondents said that in most cases, collaborative public involvement has proven to be valuable.** Six respondents said that in some cases, collaborative public involvement was valuable, but in other cases, it was not helpful. When considering

the results achieved, one respondent felt that often the utility of public involvement is limited by a lack of the public's understanding of technical issues (e.g., legal requirements, science, or policy). Often, the public wants to be much more pragmatic than institutional requirements will allow. Another respondent commented that the Corps generally listens and responds to public comments, but the "wall of skepticism stands strong between us and them." In the survey one District manager commented that when funds are provided for public involvement, they are often provided too early in the process when the Corps is not yet ready to involve the public.

***During post-pilot interviews, overall, interviewees noted that PDTs were more willing to accept and value public involvement as an important part of flood risk management strategy towards the end of the pilots.*** Although some PDTs were at first hesitant to embrace pilot services and fully commit to public involvement improvements, due to constraints or past experience, most were enthusiastic about receiving the support. One PDT was very open to collaboration yet hesitant to organize public meetings out of concern that they would be contentious. However, with the SME's assistance, the meetings were effective and the PDT's confidence and comfort with interacting with the public increased. Another team's perspective shifted when a neighborhood association president attended a public meeting. Prior to that particular event, mostly agency staff members would attend the meetings. The neighborhood president helped the PDT realize that it is important to tailor their communication to lower-income populations, including people who might not have regular access to technology.

***Over the course of one of the pilots, there was some frustration on the part of the SMEs and Corps staff with some PDT members who were not as supportive and involved as was anticipated.*** For example, some staff were not as engaged as others would have preferred, given time and schedule constraints, whereas others had long histories with projects that made it challenging to revisit public involvement activities under the pilot with a fresh perspective. However, the PDT leads were strong advocates for public outreach and took advantage of the pilot activities.

### **3.4 Level of Public Involvement in Pilot Projects and Pilot Impacts (Objective 4)**

A focus of the post-pilot interviews was to determine the level of public involvement realized in pilot projects, as well as recognize impacts of pilot-sponsored public impacts to date.<sup>4</sup> Part of this objective included collecting feedback from external stakeholders on if the level of public involvement used in the pilot projects was appropriate. Abt Associates was able to collect feedback from nine external stakeholders representing Federal, state and local governments. While their feedback provided limited insight into appropriate levels of public involvement, their responses did contribute to the findings below.

***All pilot projects engaged in a two-way dialogue with stakeholders and planned for additional engagement.*** For some pilot projects, the dialogue was enhanced by additional meetings, opportunities for public input and comment, or establishing working groups. In other pilots, the public dialogue was expanded to previously unreached stakeholder groups. For all pilots, SMEs took a systematic approach to identifying the appropriate level of public participation. These took the form of situation assessments, stakeholder interviews, and outreach efforts to assess the audiences, their needs, and key messages.

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<sup>4</sup> Note that several of the pilot projects were ongoing, which limits the extent to which impacts have been realized, while other pilots focused on planning for public involvement and are now turning to implementing public involvement plans developed.

***The pilot projects established new lines of communication between IWR, Corps Districts, local government officials, and the public.*** Several interviewees in the Districts noted that the pilots made them aware of people or resources within the Corps that they could access in the future, even if on a more informal basis. One in particular praised the pilot program for applying IWR’s research and academic perspective to specific projects. Several external stakeholders commented on the increased presence of the Corps in the local community, but noted that sustained, periodic communication is required to more fully develop a two-way dialogue.

***Participants identified a number of successful outcomes of the pilot projects, ranging from capacity-building to better public involvement resources and more effective public dialogue.*** For all projects, interviewees noted that the SMEs helped the teams to concentrate on public involvement, guide decisions and strategies, and formalize their approach to it. In particular, key successes of the pilot projects identified by participants included:

- Establishing standing community or stakeholder working groups for several pilot projects
- Increasing the credibility of the local government and the Corps through designing and holding effective public meetings
- Increasing the Corps’ engagement with local officials since the initiation of the pilot project
- Helping Corps staff better integrate public involvement considerations into other project activities
- Developing additional outreach material on flood risk, including websites, presentations, and handouts
- Developing public involvement plans that will guide future outreach efforts
- Increasing confidence of District staff to administer public meetings and increasing the likelihood that they will organize them in the future
- Initiating the process of building trust and communicating complicated, policy-centric issues in a way that meets the needs of the audience with which the local team interacts
- Building a dialogue, including increased press coverage for flood risk management projects

In addition, developing a “shared vision” was a key success in another pilot. The Corps staff member explained that the pilot helped to build a comprehensive plan and cohesive team out of the staff members from the Corps, the City, and the County. These individuals are now all working from the same plan as opposed to focusing on their own goals, which will make their activities more coordinated and effective.

For another pilot, a representative from the District commented that he felt the pilot was successful in engaging the public in risk-informed decision-making. He expected that the pilot would help move the project from sharing results with the public stakeholders to getting them involved in the decision process. He also believed that was achieved through a series of public working groups and outreach efforts involving mitigation planning and emergency response. Further, the District staff member noted that in reference to MG Riley's "driving down the risk" graphic, the only way the communities can drive risk to the lowest point of residual risk is if individual stakeholders are involved, and the pilot did that. The local contact for the department also noted that the local dialogue regarding mitigation plans for floodplains has been particularly helpful. He noted that the whole process has “opened folks’ eyes to

what the risk is” and that getting that information out has been valuable.

**Most interviewees explained that if pilot services had not been provided, the PDTs would not have advanced public involvement as much as they did.** Several pilots established two-way communication between the Corps staff and community stakeholders. Participants noted that this probably would not have occurred without the additional time and resources provided through the pilot program. Others noted that the public meetings would have been less effective and that the public involvement plans would not have progressed without the SME’s assistance. Another PDT noted that the public involvement impacts might have been possible, but the time-scale would have been so long that the people involved might have started to lose interest. The pilot’s activities were constant and on the forefront of everybody’s mind due to consistent project meetings. If the public outreach process had been left to develop organically, one District staff noted, it would not have had the scale of success.

Generally, project staff noted that they could have achieved a smaller portion of what was completed under the pilots, but that the pilots were providing proactive opportunities to supplement existing public involvement planning and activities.

**In terms of the extent to which the pilot projects influenced public involvement outcomes, most participants noted it was too soon to comment or too difficult to isolate the effect of the pilot.** SMEs suggested that if PDTs can sustain planned public involvement activities, there could be a long-term impact. However, several interviewees noted that the pilot services helped to further engage the public in problem solving. One SME stated that the pilot has helped to address public misconceptions of risk level for citizens who live below the local dam by leveraging other agency tools, like FEMA risk maps.

The public involvement efforts did bring more attention to flood risk in local communities, but interviewees explained that the projects were most successful in the shorter-term goals of enhancing the PDTs’ public involvement knowledge and abilities.

### 3.5 Process Improvements for Pilot Projects (Objective 5)

Interviewees provided a number of suggested improvements to the way in which the pilot program was run, which could inform future piloting efforts at IWR or related public involvement efforts.

#### Project Administration

**Several SMEs noted that, as external entities, it was challenging to contribute to public involvement efforts given the often-intricate history and context of the projects.** SMEs from one project explained that it took some time to get up-to-speed with the complex flood risk management efforts as well as the local political and social climate. They suggested that in future initiatives, more time should be built-in to the schedule to allow external team members to become acquainted with the project.

**SMEs, Corps District staff, and non-Federal team members all commented on the challenge of various team members being geographically separated given that the pilots depended on building relationships with the PDT and stakeholders.** Several participants noted that it would have been helpful to have additional in-person interaction, both to build rapport between the SME and the PDT, but also to allow the SME to provide more in-person support for meetings. In one pilot, participants attributed the lack of coordination between the Corps project manager and the rest of the team to being based in different locations. The PDT heard contradictory ideas and instructions from the manager and other team members, which hindered the success of the pilot. It would have been helpful if the SMEs and other project staff could have been located in the project areas to coordinate local,

state, and Federal efforts. Alternatively, PDTs could have used additional tools or resources to help manage remote teams and interactions.

**Several interviewees suggested that periodically assessing progress and tracking specific milestones during the pilot process would have been helpful.** That effort could have provided an opportunity to adjust or re-focus pilot initiatives along the way. When pilot projects did not have kickoff meetings, coordination challenges also arose. One SME noted that an initial meeting and training would have been helpful in getting the SME and the Corps staff member “on the same page.” At this meeting, Corps staff could have clarified the expectations of the pilot project and the role of each team member. They also could have shared information regarding guidance and policy so that the staff could begin the pilot with a mutual understanding of the correct and current information.

**Participants noted that expectations of the pilot program and SMEs should have been more clearly defined.** Expectation management appeared to be a challenge for both SMEs and the PDTs. According to one SME, IWR should have been more explicit that the intent of the pilots was to build capacity within the Districts, as opposed to providing a SME who would do the majority of the public involvement work for the team. He also stated that there was not a clear expectation of whether he was supposed to draft a public involvement plan for the PDT or not. He understood his role to be more focused on coordination of a public involvement plan as opposed to development of it. However, this SME created the plan because the PDT did not have the time to do it. Another participant noted that the team had very high expectations for the pilot, and that it would have been helpful if the SME had explained early on that they would probably not be able to achieve all that they wanted to, given time and resource constraints.

In another pilot, one Corps representative explained that the SME needed to walk a fine line between taking a leadership role and allowing the local community to lead. A community work group established as part of the pilot had a difficult time uniting around specific actions, and in hindsight, it would have been beneficial if the SME played a stronger role to push the group to make decisions and set expectations. The group had a difficult time taking leadership, and the non-Federal participants did not anticipate how much effort it would take to maintain the group without the SME.

In one instance, the SME felt that the PDT and District management lacked commitment to the project, limiting its success. For example, the PDT members were overtaxed with other commitments and were not as responsive to the SME as she would have expected. Similarly, District staff and management did not make the pilot a priority. The SME suggested that in future efforts that the PDT and its management should be further vetted to ensure that they would benefit from the pilot.

### **Timing and Funding**

**Several District staff expressed that the SME and/or other Corps staff were too limited in the time available for the pilots due to other project commitments.** Corps staff members noted that they would have liked the SMEs to be more engaged and responsive, but often found that their workload was too heavy for them to spend a significant amount of time on a particular pilot. For example, one PDT member noted that the project moved slowly at times because the team was dependent on Corps staff members who were not as available to work on the project as they could have been. Another PDT waited on flood risk modeling support for a significant amount of time, which slowed down the public involvement process. When SMEs were assigned to several projects, they also felt that they were stretched too thin and could not devote an adequate amount of time to each one. Generally, interviewees believed that extending the duration of the pilot projects would have been preferable and

would have led to better outcomes.

***The pilots could also have been more effective, interviewees explained, with increased funding for outreach activities and travel to allow SMEs to attend all public meetings.*** Additional outreach activities could have included more public meetings or Corps staff member attendance at public events. One PDT member noted that with greater funding, the SME could have expanded the PDT's reach by serving as a direct member of the team as opposed to an external advisor.

In addition, drafting the public involvement plan took longer than expected according to several individuals because of scheduling conflicts among members of the team. In some cases, the SMEs felt constrained by time, and wished that the pilot could have been conducted over a longer period so that a more comprehensive public involvement plan could have been developed. Development of the public involvement plan for one pilot moved slowly at times because of the limited time of the SME.

***One interviewee stated that it would have been useful for the SME to provide more guidance on milestones appropriate for longer-term public involvement processes.*** If the pilot had focused more on Corps SMART Planning or public involvement milestones, it could have made the District management staff more accountable and enhanced their long-term public involvement capabilities. According to one Corps District staff member, IWR should have provided some sort of expectation of a schedule as part of their initial application request for the pilots.

## 4. Conclusions and Recommendations

The following conclusions and recommendations are based on the objectives for the evaluation (see Section 2).

### 4.1 Utility of Specific Public Involvement Activities (Objective 1)

***Planning and facilitating public and stakeholder meetings were the most valuable activities during the pilot projects.*** PDTs appreciated the SMEs' logistical support and assistance with respect to public meetings. Due to timing issues, budget constraints, and in some cases a lack of confidence in interacting with the public, PDTs have often had trouble organizing public meetings or making them effective when they were held. Interviewees appreciated when SMEs administered the public meetings and fostered constructive dialogue. They were able to do this successfully in part because the public perceived them as neutral entities who could provide a fair and balanced approach to flood risk management. Multiple interviewees praised the public meetings for ushering in a new trend of two-way communication between project staff and the public, as well as increasing the visibility of the Corps within the local communities. Meetings with local officials and other key stakeholders, held in several pilots through established working groups, were also positive outcomes of the pilots. PDTs highly valued the SMEs' logistical support of public meetings, facilitation of the meetings themselves, and the improved stakeholder relationships that have resulted.

***The SMEs were most valuable when they served as engaged team members instead of advisors.*** It was valuable for PDTs when the SMEs acted as team members that directly engaged in public involvement activities and often took on many tasks themselves. Corps District staff especially noted that they felt that they did not have enough time to devote to the pilot projects and that the SMEs helped compensate for this deficit. SMEs were most helpful when they worked on the ground to implement public involvement strategies, instead of advising the PDT how to do these activities themselves.

***Continual access to SMEs would sustain and expand upon public involvement advancements made during the pilot projects.*** Multiple interviewees noted that public stakeholders seemed to be more aware of flood risk and accepting of the need to mitigate it because of the pilot projects. However, in most cases not enough time has passed since the end of the pilots to determine the impact of the pilots on flood risk management decisions. Several interviewees recommended that if PDTs had frequent or longer-term access to facilitators or public involvement experts, that it would make their public engagement efforts more robust.

#### **Recommendations:**

- Given the limitations of IWR staff and the extent of the need for assistance with public involvement, consider additional ways for Districts to access expertise. Examples could include mentoring, tools, or resources, as discussed above, which would support the most valued activities but without the more significant commitment of a pilot.
- When an SME supports a District PDT, he or she needs to ensure they are passing on knowledge and skills to the team members so that the expertise remains with the team after the SME's support concludes.

## 4.2 Public Involvement Capacity in the Districts (Objective 2)

***The pilot projects improved public involvement capacity in District teams by increasing their skills, abilities, and confidence.*** The SMEs provided advice to PDTs about how public involvement could be incorporated into their flood risk management approach. The public involvement plans that they developed have served as blueprints for PDTs moving forward. Further, the SMEs served as models for the PDTs when they took on tasks and personally engaged with the public. By partaking in these activities, SMEs helped to boost the confidence of PDT members. This increased confidence has allowed PDT members to feel more comfortable with continuing or expanding upon public involvement activities that were initiated in the pilots.

### **Recommendations:**

- Since opportunities for assistance will be limited, IWR could develop additional public involvement training materials or expand its public involvement champion program into a national mentoring program to share its expertise with the Districts.
- Working from the 2010 Framework, IWR could develop best practices for public involvement, including topics such as working with socially vulnerable populations, designing public meetings, facilitating stakeholder dialogues, and others. This would provide consistent guidelines, milestones, and principles of engagement.
- IWR could develop a library of public involvement materials, including resources developed on the project level, that could be adapted and used more broadly for other projects or in other Districts. The library could include templates for public involvement plans, along with guidance on how to adapt the templates for specific types of projects and customize a plan to make it meaningful.

## 4.3 Value and Acceptance of Public Involvement (Objective 3)

***Most District staff had experience conducting public involvement activities and they valued public involvement.*** Staff includes project managers, planners, public involvement specialists, District managers, and other members of the PDT. In general, staff valued public involvement and were confident in their skills or abilities. However, the initial survey did show that staff experience was limited, which indicates that staff do not regularly conduct public involvement activities.

***The pilots further increased the Districts' willingness to engage in public involvement.*** Public involvement is not often a top priority for Corps District staff because other tasks take precedence, there is limited funding for public involvement, and relationships with the public and stakeholders are often challenging. The pilots addressed these issues by providing dedicated time for PDT members to focus exclusively on public involvement strategies and formalize their approach to public engagement. In cases where teams or managers might not believe that public involvement is necessary for flood risk management, the SMEs demonstrated the importance of engaging the public and including public involvement strategies in future planning as a means to avoid misunderstanding and conflict and promote collaboration.

**Recommendation:**

- Develop case studies for public involvement efforts that demonstrate the benefits of collaborative processes, with an emphasis on situations in which attitudes and perspectives changed due to effective public involvement outcomes. Similarly, information on the potential risks of poor public involvement could be provided as cautionary tales or lessons learned.

#### **4.4 Level of Public Involvement in Pilot Projects (Objective 4)**

**All of the pilot projects incorporated two-way communication activities with stakeholders.** Activities included work groups, public meetings, and targeted outreach. The pilot projects achieved outcomes that would not otherwise have been possible, including increased dialogue, shared understanding, and increased public awareness of risk. However, to fully implement public involvement requires a potentially significant commitment of staff and resources, and speaks to the need to develop resources to help Districts assess the needed level of involvement.

**Recommendations:**

- Guidelines and standardized approaches would help Districts assess the level of public involvement that is appropriate for a given situation and inform public involvement planning. Consideration should be given to project characteristics that inform public involvement needs, along with when and how particular approaches should be applied.
- A series of in-depth case studies could illustrate appropriate public involvement approaches and levels, considering the project type, the role of the Corps, and the expected duration.
- As two-way collaborative approaches are increasingly used in flood risk management projects, the Corps should evaluate public involvement outcomes more broadly, including the extent to which public involvement activities contribute to an understanding of shared responsibility for flood risk management and the degree to which public involvement improves decision processes. Assessing the perspective of affected stakeholders will be particularly important.

#### **4.5 Recommended Process Improvements (Objective 5)**

**Future pilot initiatives should more clearly define goals, expectations, and individual responsibilities at the onset.** In terms of process improvements for implementing public involvement pilots in the Districts, a recurring theme was the need to clarify goals, expectations, and responsibilities from the start.

Because engaging the public is often a long-term process with no clear end point, it was a challenge to define goals and expectations for a shorter-term pilot project. Therefore, it is important in future programs that SMEs focus on achievable goals and managing expectations from the onset. SMEs should set objectives and focus on creating deliverables that are achievable within the project time frame. They should develop milestones for these goals, and hold the PDT accountable to them throughout the process, making adjustments as necessary. Further, the coordination difficulties that occurred, such as confusion over which team member was responsible for certain tasks, could have been avoided had clearer direction been set for the pilot.

**Consider providing future pilot projects with more time and funding.** The most frequently noted suggestion for future pilots was to increase the time allotted and the available funding. Some PDT members felt that the pilot did not allow enough time for great strides to be made with respect to public involvement, and that further funding would have extended the reach of the pilot activities. If IWR funds pilot initiatives, it may be beneficial to include fewer pilots each with more funding and/or more time for pilot activities. This would allow SMEs to participate more in project activities or for the timeline of the pilot projects to be extended, which would benefit the PDT and public involvement in the area. Some interviewees noted that they were left with a public involvement plan that they did not have the resources or expertise to implement.

**Recommendations:**

- A kickoff team meeting should be required for any future pilot programs to discuss appropriate goals and responsibilities, including management commitment in the Districts.
- In early planning meetings, focus on achievable goals and expectation management from the onset. Only develop plans that can be reasonably implemented by the District given their expertise and resources.

## 4.6 Implications for the Benefits of Public Involvement

The 2010 Framework recommends that the Corps move toward collaborative problem solving in its public involvement practices. This type of public involvement is increasingly emphasized throughout the natural resources and environmental management arena as the best way to make contentious decisions. The promise is that collaborative problem solving processes will increase social capital, improve public understanding of and support for agency-produced science, and result in broadly supported decisions by enabling competing interests to find mutually beneficial solutions. However, whether this level of public involvement offers real benefits for decision-making and for economic, social and environmental outcomes is subject to debate.<sup>5</sup> The debate is difficult to resolve because it is very difficult to measure the impact of collaborative approaches.

The evaluation discussed in this report is limited by a similar challenge. A subset of the participants in pilot projects responded to a survey at the beginning of the pilot process and a different (but overlapping) subset of participants was interviewed over the span of several months, generally after or near the conclusion of the IWR-supported public involvement pilot project. Each pilot took place within a broader study or other activity (e.g., a feasibility study, or the roll out of a hurricane evacuation plan). The information gathered provides clear evidence of the impact of the pilots on participants' knowledge and attitudes and their views of the quality of public involvement within their study (or other activity).

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<sup>5</sup> See for example:

Kenney, Douglas S. *Arguing about consensus: Examining the case against Western watershed initiatives and other collaborative groups active in natural resources management*. Boulder, CO: Natural Resources Law Center, University of Colorado School of Law, 2000.

Bingham, Gail. *When the sparks fly: Building consensus when the science is contested*. RESOLVE, Center for Environmental Conflict Resolution, 2003.

Reed, Mark S. "Stakeholder participation for environmental management: a literature review." *Biological conservation* 141.10 (2008): 2417-2431.

However, the information gathered does not provide direct evidence for progress toward long-term outcomes of increased awareness of risk, improved Corps decision-making and, ultimately, reduction of risk, as illustrated in the logic model provided in Chapter 2.

However, as discussed earlier, the evaluation of the pilot projects and the logic model more generally allows for some inferences. Most Districts applied to the pilot program because they believed their existing capacity to implement successful public involvement activities was limited (either in terms of District capability, resources, or both). Further, they believed that there was inadequate awareness of flood risk among the public. Most District participants reported that they learned new strategies and gained confidence in implementing various public involvement strategies. In addition, those interviewed reported that the pilot activities resulted in various improvements in public involvement, including:

- New channels of communication between the Corps, local agencies, stakeholders and the public at large
- New work groups, formed to provide formal mechanisms for the public to engage with the Corps on flood risk management studies and other activities
- Improved relationships, such that previously contentious meetings and communications became less contentious and more constructive

With increased capability and confidence among District staff, improved public involvement conditions in each case, and formal plans and strategies in place to guide future actions, it is reasonable to expect that the pilot activities have made positive impacts on key long-term objectives of public involvement. In other words, it is reasonable to conclude that in these cases, the Corps has moved further along the spectrum of public involvement approaches toward the goal of collaborative problem solving. The enhanced, two-way communication would be expected to increase public awareness of flood risk. Improved engagement with the public should help the Corps better understand public concerns and objectives and incorporate that information into decisions. In some cases, communication with vulnerable populations has been improved, which would be expected to increase awareness among those who may bear the greatest risk, and may equip those vulnerable populations with information and resources to reduce their risk.

The evaluation of the pilots also revealed limitations. District teams sought IWR assistance through these pilots because of limited resources for public involvement, inadequate skill within the District, and/or existing challenges in working with the public. Pilot activities provided a temporary solution to the resource issue and quite clearly improved skills and capabilities among District staff. In some cases, the pilot activities helped establish new lines of communication and improve relationships that had previously been contentious. However, there is risk that the activities that led to these improvements will not be sustained. Districts still face limited resources for public involvement. This may force District teams to revert to approaches in which they carry out the bare minimum of required public involvement activities (e.g., public comment meetings under NEPA). Indeed, some teams reported that they may not have the resources and/or capability to implement activities described in the public involvement plans.

If District public involvement activities are scaled back after the pilots conclude, the newly established lines of communication could erode and contentious, less constructive dialogues could re-emerge.

Future actions by IWR, such as mentoring programs, new tools and standardized approaches, could augment the results of the public involvement pilots and help promote continued improvement of Corps practices.

## Appendix A: Early Pilot Project Delivery Team Survey

The following survey was distributed to Federal members of the PDT, as identified by the SMEs, closely after the first scoping meeting. Open-ended fields were provided to allow respondents to provide additional commentary, if they so wished.

1. Pilot Project (drop down menu of 13 pilots)
2. Role in Pilot Project (drop down menu)
  - District Management (Division/Branch/Section Chief, etc.)
  - Project Manager
  - Lead Planner
  - Public Involvement Lead/Public Involvement Specialist/PAO/Facilitator
  - Technical Specialist (Engineer, Biologist, etc.)
  - Other member of the Project Delivery Team
3. How often have you engaged in a collaborative process (i.e., interactive two-way workshop, not a one-way NEPA scoping meeting)?
  - Never
  - 1-2 times
  - 3-10 times
  - >10 times
4. In terms of the frequency with which you engage in collaborative public involvement as part of your job responsibilities, please put an X in the blank of the statement below that best reflects your experience:
  - \_\_\_ a. I engage in collaborative public involvement frequently.
  - \_\_\_ b. I engage in collaborative public involvement occasionally.
  - \_\_\_ c. I engage in collaborative public involvement rarely.
5. I feel: (check all that apply)
  - \_\_\_ a. Public involvement is a good practice generally.
  - \_\_\_ b. Certain circumstances call for collaboration.
  - \_\_\_ c. We are required to use collaboration.
6. In terms of the results achieved through collaborative public involvement on water resources projects prior to the pilot project: (check the answer that best reflects your experience)
  - \_\_\_ a. Collaborative public involvement has proven to be very valuable.
  - \_\_\_ b. In some cases, collaborative public involvement has proven to be very valuable, but in others it has not been very helpful.
  - \_\_\_ c. Results have not warranted the effort involved in collaborative public involvement.
  - \_\_\_ d. I wish we applied collaborative public involvement on a previous project.

7. Put an X next to the statement that best represents your response to the following.

I feel confident about my knowledge and/or ability to....	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	N/A	Don't know
Make good judgment calls about how and when to engage in dialogue with stakeholders to help advance USACE's mission							
Design an appropriate public participation, consensus-building, or conflict resolution approach to a specific situation to best advance the USACE mission							
Manage public meetings							
Work with culturally diverse stakeholder groups							
Establish interpersonal understanding – e.g., to understand emotion, content, underlying issues, and meaning of another's message							
Translate scientific and technical information into lay terms and accessible format							
Use collaborative modeling techniques to engage stakeholders, build consensus, and resolve conflict							
Use negotiation to advance the USACE mission							
Manage conflict that arises during water resources planning and management							
Structure agreements that meet all stakeholders' needs							

## Appendix B: Interview Guides

The evaluation team posed the following questions to USACE District staff, SMEs, and non-Federal staff.

### *USACE District Personnel*

- Please describe your role in the pilot. To what extent were you involved in the project's public involvement activities more generally?
- Why did you apply to participate in the pilot? What were your particular challenges with respect to public involvement?
- What support services did you receive as part of the pilot? Which services were most valuable? Which could have been improved? What else would have been helpful?
- To what extent was it helpful to have support with a public involvement plan?
- To what extent was it helpful to have support with an outside Facilitator?
- Did the pilot meet your expectations? In what ways did it? Did it not?
- In what ways was the pilot project successful?
- What challenges were associated with the pilot project?
- How would you characterize the attitude of various team members toward collaborative public involvement at the beginning of the project? Did this change during the course of the pilot?
- To what extent do you believe the pilot improved public involvement capacity in those who participated? Please be specific regarding roles and how skills/knowledge were affected. (Probe with examples, such as organizing meetings, working with vulnerable populations, etc. as needed)
- Please describe any impact you believe the pilot services have had to date on the outcome of the project. Would it have been possible without the pilot program?
- Please provide any additional feedback that you think would help inform future efforts.

### *Public Involvement SME*

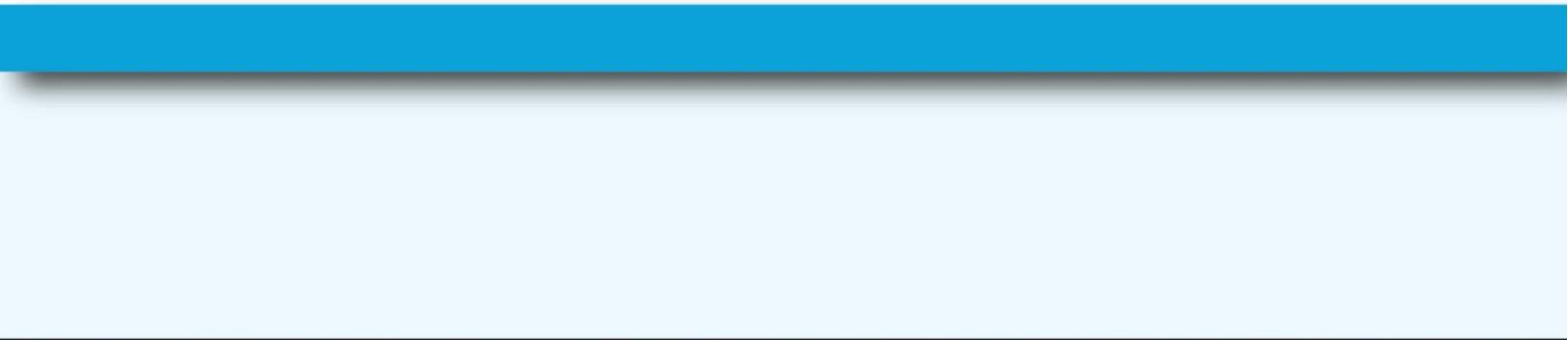
- Please describe your role in the pilot. What was the scope of services you provided?
- Which services do you think provided the most value to the pilot? Which could have been improved? Which could be eliminated? What else would have been helpful?
- Do you think the pilot project was a good candidate for services? Why or why not?
- If you supported more than one pilot, how did you experience on this project compare with others?
- Did the pilot meet your expectations? In what ways did it? Did it not?
- In what ways was the pilot project successful?
- What challenges were associated with the pilot project?

- How would you characterize the attitude of various team members toward collaborative public involvement at the beginning of the project? Did this change during the course of the pilot?
- To what extent do you believe the pilot improved public involvement capacity in those who participated? Please be specific regarding roles and how skills/knowledge were affected.
- Please describe any impact you believe the pilot services have had to date on the outcome of the project. Would it have been possible without the pilot program?
- Please provide any additional feedback that you think would help inform future efforts.

### ***External Stakeholders***

Questions asked of external stakeholders were customized depending on the individual role or involvement of particular interviewees. For example, some external stakeholders were not aware of the pilot project itself nor the services provided, so questions for them related to overall impressions of public involvement on a particular project. For others, external stakeholders were involved in the implementation of the pilot and were able to speak to more specific questions regarding pilot services and processes, in addition to the level of public involvement achieved and preliminary impacts of the pilot.

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