Frequently Asked Questions About Floodplain Management Plans and Studies with the U.S. Army Corps of Engineers

1. Why does the U.S. Army Corps of Engineers (USACE) require a floodplain management plan?

   Communities that partner with the USACE to receive construction funds are subject to a federal government requirement that the community be responsible for establishing a floodplain management plan within one year of signing a partnership agreement (Reference Section 202(c) of Water Resources Development Act of 1996).

2. What is required in a floodplain management plan?

   Program requirements are very similar at both USACE and the Federal Emergency Management Agency (FEMA).

   FEMA has two similar programs: The Hazard Mitigation Grant Program (HMGP) requires development of a Hazard Mitigation Plan to be eligible for HMGP funds. The FEMA National Flood Insurance Program, Community Rating Systems offers communities the option to receive credit for developing a floodplain management plan in Section 510 "Floodplain Management Planning." Both need to follow FEMA's 10-Step Mitigation Planning Process.

   The USACE requires that the community sponsoring the construction project make decisions and take action to attempt to protect the flood risk management project built by USACE from future flood events. This includes

   - Pursuing nonstructural activities that contribute to reducing flood risks, like zoning or freeboard ordinances, and
   - Encouraging the wise use of floodplains.

3. What are the essential elements of a floodplain management plan?

   - Public understanding of the flood risk, especially the residual risk remaining after a project has been constructed
   - Documentation of decision processes or history of decisions for managing flood risks
   - Public participation for those affected
   - Formal action items (what specifically will be done next, when, and by whom)
   - Communication process, roles & responsibilities, and charter of commitment among partners

4. How can a floodplain management plan help the public?

   Understanding the flood risk is the primary help. The floodplain management plan also serves to reflect on decisions made over a long period of time, which led to the current level of flood risks. This is useful with a watershed perspective. The public will gain a better understanding of how past development may have preceded more currently accepted standards of design. This will help get the public to look forward to the next steps: What should be done next, not why the decision

making of past leaders led to the current situation. Furthermore, these actions could include short-term actions and long term ones, which again can help manage expectations of the public.

5. Is the floodplain management plan going to refer to specific levels of risk similar to the baseflood in the FEMA floodplain regulation programs?

   Not necessarily, because a continuum of flood risk exists. Several factors affect flood risk, including amount of warning time, depth of floodwaters, proximity of population at risk, and velocity of floodwaters. Because USACE does a risk assessment during a planning project, the information is very helpful in creating a floodplain management plan.

   The floodplain management plan helps clarify residual risk that will remain after a flood risk management feature is built. Despite the existence of current stormwater infrastructure, and / or even after the proposed future features are built, the community must conduct other activities to manage flood risks. Activities like implementing floodplain ordinances, freeboard ordinances, and many other activities can reduce flood risk. However, a residual risk always remains.

   Certainly flood inundation maps, such as Flood Insurance Rate Maps are one way to visualize risk. Note that the level of tolerable risk varies with each person or business. Risk can be explained in ways besides inundation extents. Few understand the importance of understanding their risk and then sharing the responsibility by taking actions to help reduce it.

6. How does the floodplain management plan serve to solve flood risks?

   Floodplain management plans serve to reduce risks in many ways. And this deserves a thoughtful answer…

   First, by performing a risk assessment, floodplain management plans identifies flood risks. Then using the assessment to inform a thorough review of the broad spectrum of both structural and nonstructural measures, a floodplain management plan takes further steps to make informed decisions on effectively reducing the flood risks.

   Secondly, when the public is included throughout the decision process about risks affecting them, then a better, more implementable plan is the result. Public involvement leads to shorter decision planning than when leaders make decisions without broader public input. Another important consideration is that including the public helps increase understanding that there is no single solution to managing flood risk. Frequently, multiple measures need to be combined.

   Next, a good plan points out that today's watershed is not going to be the same as in the future, when land uses can change to pavement and roofs that are more impervious to rainfall. Changes in amount of rainfall runoff can lead to increased flooding. So the floodplain management plan lays out helpful action items that the community, and even communities upstream, may do to reduce the hazards from flooding.

   Finally, a floodplain management plan will also describe how drainage districts and / or levee districts can work with surrounding communities on leveraging funding opportunities to address action items.

7. Will the floodplain management plan use risk assessment information from the USACE feasibility study?

   Yes, the hydraulic and hydrologic modeling tools from the most recent FEMA flood map revisions and USACE planning work will be leveraged to keep a consistent focus on the risk assessment. This will not replace current floodplain maps, rather it should supplement it. A documentation of decision process history will also be included to the extent the information is publically available. Because the USACE studies go through extensive quality assurance processes (Agency Technical Review and Independent External Peer Review), they are excellent resources for documenting the flood risks.

8. Who sets the goals and objectives and how is that supposed to be done?

   First, the federal agencies do not dictate what these may be. Local stakeholders decide on the goals, objectives and priorities, once they see their flood risk, because the floodplain management plan belongs to and is used by the local community. It should be a "living document," which is required for those communities in the FEMA Community Rating System (CRS) who need to revise it on an annual basis for Section 510 "Floodplain Management Planning."

   Some goals and objectives can be developed on a broad basis, especially if a floodplain management plan is done on a watershed basis, but every community will have their own. Communities sharing the same tributary should come to agreement on shared goals and objectives that can be pursued with the floodplain management plan. This allows the communities to use the common objectives to focus and leverage their combined funding sources to address action items.

9. What strategies are best for addressing the goals and objectives?

The Federal Interagency Floodplain Management Task Force recommends a strong approach using the menu of common strategies and tools for doing flood risk management (below).

a) **Strategy**: Modifying Human Susceptibility To Flood Hazards
   - Tool: Land Use Regulations
   - Tool: Public Redevelopment Policies
   - Tool: Flood Warning Systems
   - Tool: Flood Proofing Of Structures In The Floodplain
   - Tool: Process For Relocation Of Structures

b) **Strategy**: Modifying The Impact Of Flooding
   - Tool: Information And Education
   - Tool: Flood Insurance
   - Tool: Tax Adjustments
   - Tool: Emergency Relief
   - Tool: Post-Flood Recovery Processes

c) **Strategy**: Preserving And Restoring Floodplains' Environmental Quality
   - Tool: Wetlands Protection And Restoration
   - Tool: Erosion And Sediment Control
   - Tool: Water Quality Enhancement
   - Tool: Enhancement Of Recreation And Educational Opportunities
   - Tool: Preservation Of Cultural Resources

d) **Strategy**: Modifying Floodwaters
   - Tool: Stormwater Detention Basins
   - Tool: Levees, Floodwalls, And Landforms
   - Tool: Channel Alterations, Diversions, And Bypasses
   - Tool: Pump Stations

With public input, a planning study normally reviews this list and narrows it down to the most acceptable (to the extent the project budget allows) and most effective tools. Communities will likely view each tool differently, and consensus will need to be established over time.

The community leading the establishment of a floodplain management plan should (at the least) check-off on each and every one of the possible tools with one of the following terms:

- Not Recommended,
- Further Evaluation Needed (which would be updated periodically- annual revisions for CRS),
- Effective, or Highly Effective and
- Recommended.

These specific terms help stakeholders to better understand the decision history for flood risk management along any creek, river, or coastline. The specific terms also help improve public involvement. The terms are intended to be applied by specific reaches of a creek, river or segment of coastline. Since the public needs to be involved with defining their individual tolerable level of risk, these terms facilitate buy-in and get the community focused on the actual action items identified later in this plan. These action items eventually lead to more effective hazard mitigation by the city, the county and even state and federal agencies, whom are all partners sharing the responsibility of reducing the risks from natural hazards like flooding.

This approach allows an FMP to be started and established. Communities can work on annual revisions to the FMP and update evaluations on the tools. Over a period of several years, consensus will be established and a collaborative approach to building projects can be done, effectively leveraging the infrastructure dollars in each community to do shared, heavy lifting needed to implement various tools in the menu.

10. Will the public be involved or just city staff?

    Public involvement is encouraged, and multiple public meetings would be more beneficial to the plan's development. Work between USACE and city will continue until enough understanding and staff availability is established to move forward with public participation.

11. Is the federal government forcing specific actions in the formal action plan?

    No, although expertise is available to help. Much of the investigation on possible solutions is happening in the USACE feasibility study, although the communities also have smaller scale stormwater projects happening independently. The communities will collaborate and be the deciders on the best specific actions that need to be in the first, and future versions of the floodplain management plan.

12. Will the floodplain management plan be where roles and responsibilities are established?

    It can be. Previous work that the affected communities have done is the foundation that would be cited and used. A communication plan could be included in the floodplain management plan to reinforce who does what and what each city's NFIP coordinator or floodplain manager is expected to be doing. Previously established charters or helpful definitions for a watershed-wide organizational structure can be reinforced with a floodplain management plan.

13. How does this integrate with other plans?

    The floodplain management plan should be synchronized with future revisions of the county hazard mitigation plans, which in turn are coordinated with the state level hazard mitigation plans. Any future watershed management plan can also synchronize and reference the floodplain management plan.

14. Won't the floodplain management plan just end up on the shelf?

    The floodplain management plan should be a "living document," which gets periodic revisions. For communities in FEMA's CRS, an annual revision is required for Section 510. Further, both USACE and FEMA do require that action items identified within the plan be implemented, to the extent possible. The action items should be the main thing updated annually. This should be coordinated with all the stakeholders.