Advisory Committee on Water Information

Water Resources Adaptation to Climate Change Workgroup

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National Flood Insurance Program

- Mapping
- Insurance
- Floodplain Management (Land-Use and Building Codes)
The Goals of Floodplain Management

To reduce the loss of life and property caused by floods and to protect and restore the natural resources and functions of floodplains.

*Executive Order 11988, Floodplain Management, 1977*
Flood Hazard Mitigation

- Floods have caused a greater loss of life and property and have impacted more families and communities in the U.S. than all other natural hazards.

- Direct and indirect costs of flooding in the U.S. average about $30 billion per year.
ASFPM Recommendation:

COMPLETE FLOOD RISK MAPPING FOR THE ENTIRE NATION.

- 3.5 million miles of streams, rivers, and coastlines in the U.S.
- 1.2 million miles of floodplains mapped, only ½ have BFEs.
- About 25% of all flood losses are outside high risk areas.
Complete Flood Risk Mapping for the Entire Nation

- Accurate floodplain maps allow communities to make informed decisions regarding new development and infrastructure.

- Mapping flood hazard areas has a significant return on investment, reducing long-term disaster costs and contributing to community resilience.

- Post-disaster redevelopment options to reduce risk (e.g., elevation) are much more costly.
Complete Flood Risk Mapping for the Entire Nation

- Congress has authorized $400 million/yr for floodplain mapping, generally appropriates $100 million or less.

- Information on flood risks essential for community resilience.
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<th>Naturally Functioning Floodplains:</th>
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<td>(Water Resources, Biological Resources, Cultural Resources)</td>
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Provide flood storage and conveyance  
Reduce wave damage  
Prevent impairments of surface waters  
Provide habitats for flora and fauna  
Reduce sediments loads  
Reduces flood heights and velocities  
Provide open space and scenic amenities  
Provide historical, archaeological, and cultural opportunities  
Facilitate groundwater recharge  
Provide erosion control  
Improve water quality (e.g. denitrification)  
Reduce nonpoint source pollution  
70% of Nation’s wetlands  
Enhance property values  
Provide recreational opportunities  
Have rich alluvial soils, agriculture
“...floodplains were the second ranked ecosystem type, behind only estuaries, in terms of their per-hectare value to society. Despite representing <2% of Earth's terrestrial land surface area, floodplains provide approximately 25% of all terrestrial ecosystem service benefits."
“Natural Infrastructure”

- Floodplains are a natural asset for a community.

- Floodplains provide multiple benefits: contributes to resilience, reduces flood losses, improves water quality, provides habitats, etc.

- “Green” is often less expensive than “gray.”
USACE recognizes that living shorelines are a viable alternative to hard built infrastructure.

Nationwide Permit
Water Resources Adaptation to Climate Change Workgroup

Questions?