INTERAGENCY – FLOOD RISK REDUCTION OPPORTUNTIES

Laura V. Ortiz – USACE Buffalo District

David Walowsky – USDA NRCS

Kevin Clapp – NYSDHSES

Bailey Sawyer - NYSDEC

Michael Foley - FEMA







US Army Corps of Engineers®

DISTRICTS IN NEW YORK STATE



USACE is organized by watersheds

Buffalo District – Lake Erie, Lake Ontario and St. Lawrence River

Pittsburgh – Allegheny River

Baltimore River – Susquehanna River

Philadelphia – Delaware River

New York – Lake Champlain, Hudson River, NY-NJ Harbor



USACE FRM PROGRAMS



Technical Assistance

- Planning Assistance to States (PAS)
- Floodplain Management Services (FPMS)
 - Base Program (Special Studies)
 - Interagency Nonstructural

Planning, Design, and Construction

- Continuing Authorities Program (CAP)
- General Investigations (GI)







PLANNING ASSISTANCE TO STATES (PAS)

Statute: 42 USC 1962d-16

Types of Assistance:

<u>Comprehensive Plans</u>: how to develop, use, and conserve water & related watershed and ecosystem resources, and recommendations for appropriate federal participation in carrying out such plans

<u>Technical Assistance</u>: hydrologic, economic, and environmental data & analyses for water resources management

Partners: states, Tribes, U.S. territories, groups of states, non-federal interests working with a state or group of states, local governments, regional coalitions of governmental entities, non-federal public bodies

Costs: Are shared 50% federal, 50% non-federal; Typically range from \$25,000 - \$100,000+ per project

Key Considerations:

- Typical duration is 12 24 months
- To request new project, send USACE a letter (template available)
- May include design only to the level of conceptual plans – no detailed designs or plans or specs
- Not for construction
- Annual program limit is \$5M per state, tribe, or territory
- Projects are started on a rolling basis – first come, first served



PAS ASSISTANCE EXAMPLES

- Preparation of water resources management plans including watershed management plans, stormwater management plans, floodplain, shoreline, sediment... and others
- Decision support tools
- Economic, environmental (species, habitat, HTRW), hydrologic, hydraulic, and geospatial analyses to support water resources planning
- Flood inundation modeling and mapping
- Lists of non-structural and structural flood risk management measures
- Rough order-of-magnitude cost estimates for FRM measures
- Loss Avoidance Studies

In support of protecting, restoring, and enhancing water and wetlands (post-Sackett Decision):

- Wetland delineations and mapping
- Stream, riparian, and wetland assessments and surveys
- Ecosystem restoration planning
- Support for water-related program and regulation updates
- Nature-based solutions and green infrastructure
- Beneficial use of dredged material for habitat creation or restoration
- Aquatic habitat surveys
- Water quality studies



FLOODPLAIN MANAGEMENT SERVICES (FPMS)



Statute: 33 USC 709a

Purpose: to compile and share information on floods and floodplain management, to reduce flood risk and improve

resiliency

Special Study: USACE assists one partner

Interagency Nonstructural FPMS: USACE cooperates with

at least two other governmental partners

Costs: \$40 - \$150K per project; cost-sharing varies

Examples:

- Nonstructural flood proofing assessments
- Flood inundation modeling and mapping
- Flood risk communication and assessments
- Mitigation planning
- Emergency tabletop exercises



Key Considerations:

- Typical duration is 12 18 months
- To request new project, send USACE a letter (template available)
- May include design only to the level of conceptual plans – no detailed designs or plans or specs
- Not for construction
- Special studies are started on a rolling basis; interagency nonstructural proposals are put in annually



CONTINUING AUTHORITIES PROGRAM (CAP)



Overview:

- Support smaller community projects without lengthy study and authorization process.
- Allows for planning, design, and construction of projects within the Great Lakes and Ohio Division generally less than \$15M.

Funding/Cost Share:

- Nonfederal cost share required but varies by authority
- \$10M federal spending limit

Examples:

- Section 14: Emergency Streambank and Shoreline Protection
- Section 103: Hurricane and Storm Damage Reduction (Beach Erosion)
- Section 205: Flood Damage Reduction
- Section 206: Aquatic Ecosystem Restoration





Above: Lake County RWPS Section 103
Project in Painesville, OH
Left: Thatcher Brook Section 205 Study in
Gowanda NY





- RECEIPT OF LETTER FROM NON-FEDERAL SPONSOR IDENTIFYING NEED
- 2. SITE VISIT
- 3. RECEIPT OF FUNDING FEDERAL INTEREST DETERMINATION
 - -Documents need for study
 - -Benefit to Cost Ratio greater than 1
- 4. IF POSITIVE ENTER IN FEASBILITY COST SHARE AGREEMENT Identifies study costs
 - -Cost shared study 50% FEDERAL/50% NON-FEDERAL BASIS
- DESIGN and IMPLEMENTATION
 - -cost shared 65% FEDERAL / 35% NON-FEDERAL
 - -real estate counts toward non-federal share
 - -for Section 205 non-Federal sponsor must provde 5% of Total Project Costs
 - -NYSDEC must be non-federal sponsor for Section 205 projects

U.S. ARMY

SILVER JACKETS

- State-led interagency teams focused on managing flood risk – each federal and state agency with an FRM mission contributes 1+ team member
- USACE receives funding to coordinate teams, e.g., by facilitating quarterly team meetings
- Each agency funds its own participation on the team and any team-related work
- Team members share knowledge, help coordinate their agencies' efforts, and collaborate on activities and projects
- Team members also discuss assistance requests their agencies have received to figure out how best to address







NEW YORK SILVER JACKETS





















Department of Environmental Conservation



SILVER JACKETS POINTS OF CONTACT



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Buffald District

Pittsburgh
District
Baltimore
District
District



United States Department of Agriculture





WATERSHED PROGRAMS

David Walowsky, State Design Engineer, USDA-NRCS

david.walowsky@usda.gov

Natural Resources Conservation Service

nrcs.usda.gov/

AGENDA

▶ Power-point presentation

- 15 minutes
- ▶ Emergency Watershed Protection Program (EWPP) Recovery
- Emergency Watershed Protection Program (EWPP) Floodplain Easements (FPE)
- PL83-566 Watershed and Flood Prevention Operations (WFPO) Program
- ▶ Question and Answer

5 minutes

PL83-566 WATERSHED AND FLOOD PREVENTION OPERATIONS (WFPO) PROGRAM

EMERGENCY WATERSHED PROTECTION (EWP)
PROGRAM

HOW COULD THESE PROGRAM WORK FOR YOU?

USDA-Natural Resources Conservation Service



PROTECTION (EWP) PROGRAM

HOW COULD THE PROGRAM WORK FOR YOU?

USDA-Natural Resources Conservation Service



- ► EWP is a federal emergency recovery program which helps local communities recover after a natural disaster strikes
 - EWP Program has two distinct options for assisting local communities and individual landowners
 - ► EWP Program Recovery
 - ▶ Response to natural disasters sudden watershed impairment, immediate and extreme hardship
 - ▶ Relieve threat of imminent hazards to life and property caused by flooding, erosion, fires, windstorms and other natural disasters
 - ▶ Restore watershed to a stable condition
 - EWP Program Floodplain Easements (FPE)
 - ▶ A major goal is to restore the land to the maximum extent possible to its natural conditions
 - ► Floodplain easements restore, protect, maintain and enhance the functions of floodplains while conserving their natural values such as serving as fish and wildlife habitat, improving water quality, retaining flood water, and recharging groundwater
 - Structures, including buildings within the floodplain easement, must be removed

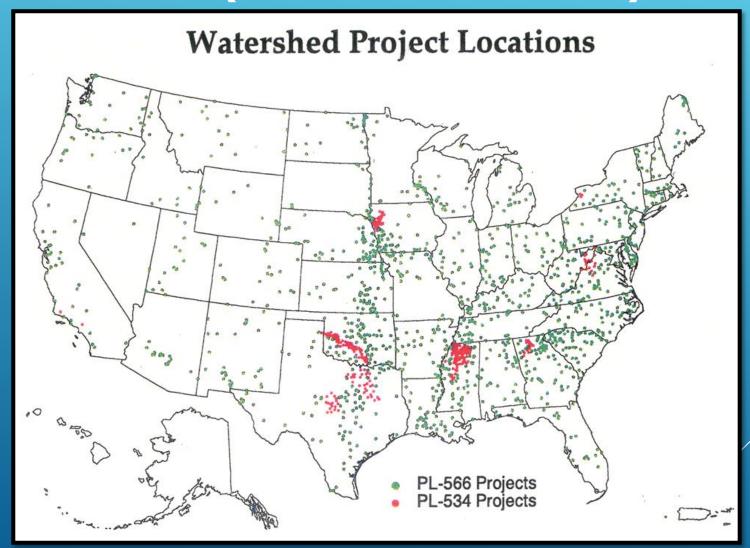
PL83-566 WATERSHED AND FLOOD PREVENTION OPERATIONS PROGRAM

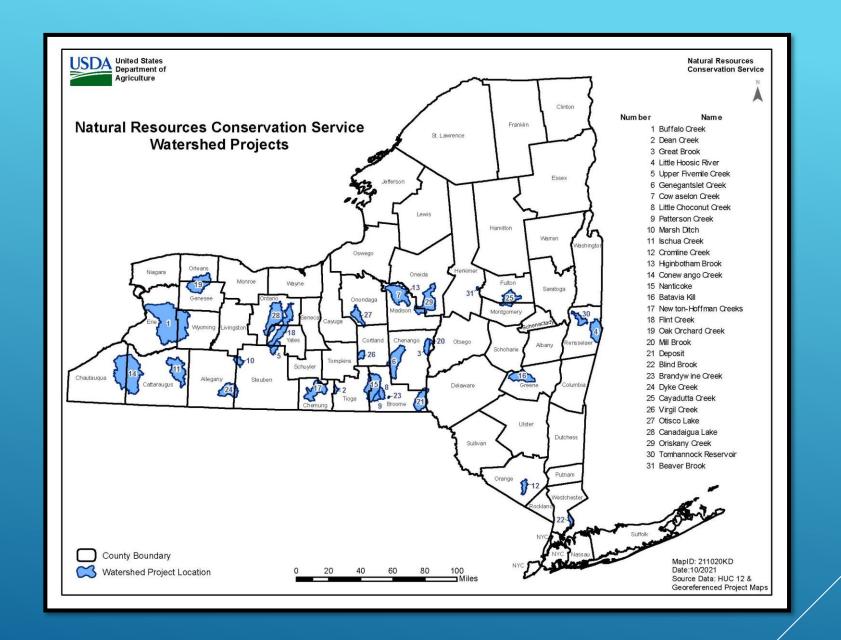
HOW COULD THE PROGRAM WORK FOR YOU?

USDA-Natural Resources Conservation Service



PL83-566 WATERSHED PROTECTION AND FLOOD PREVENTION ACT (PUBLIC LAW 83-566) OF 1954





PL83-566 PROJECTS IN NEW YORK

- ► Flood Prevention (Flood Damage Reduction)
- ▶ Watershed Protection
- ▶ Public Recreation
- ▶ Public Fish and Wildlife
- ► Agricultural Water Management
- Municipal & Industrial Water Supply
- Water Quality Management
- * Watershed Structure Rehabilitation



Mill Brook Site 2 Dam

PURPOSES OF THE PROJECTS

- Public sponsorship entities legally organized under state law
 - ▶ Projects can have one or multiple sponsors
- ► Watershed is under 250,000 acres "Small Watershed Program."
- ▶ Benefits that are directly related to agriculture, including rural communities, must be at least 20 percent of the total benefits for the project

ELIGIBLE PROJECT CRITERIA

- 1. Sponsor applies for planning assistance for the project
- 2. Application is authorized for Project planning
- 3. Watershed Project Plan and Environmental Document is developed
 - ► After review and approvals, the Watershed Project Plan is authorized for design and construction
- 4. Project is designed
 - Project is permitted
- 5. Project is implemented/constructed

PROCESS OVERVIEW

WHAT ARE SOME POTENTIAL ALTERNATIVES?

Nanticoke Creek Site 10

Newtown Hoffman Creek Site 3A





STRUCTURAL - FLOOD CONTROL OPTIONS



LEVEES/DIKES



STREAMBANK/ SHORELINE STABILIZÁTION



- ► Elevating Structures
- ► Floodproofing Structures
- ► Floodplain management
- **►** Easements
- ► Acquisition/Buyouts
- ► Warning Systems

NON-STRUCTURAL

Application & Award

• 1 Year

Planning

• 2-3 Years

Design

• 2-3 Years

Construction

• 2-3 Years



GENERAL TIMELINE

- ▶ Permits and Licenses
- ▶ Public Participation
- ► Watershed Management
- ▶ Financial
- ▶Operation and Maintenance

SPONSOR RESPONSIBILITIES





THANK YOU AND QUESTIONS?



NYS DEC – Division of Water

Bailey Sawyer, Environmental Program Specialist Floodplain Management Bureau of Flood Protection and Dam Safety Division of Water

Bureau of Flood Protection and Dam Safety

Floodplain Management

 Works with communities participating in the NFIP to administer local regulations and increase resiliency to flooding

Flood Protection

Structural flood damage reduction projects (levees, floodwalls, etc.)

Dam Safety

 Enforces NYS dam operation and maintenance requirements to remain compliant and in safe condition

Coastal Erosion

- Coastal Erosion Hazard Area (CEHA) permit program
- Works with USACE to address erosion through large scale projects





NYS DEC – Floodplain Management Program

State NFIP Coordinating Office



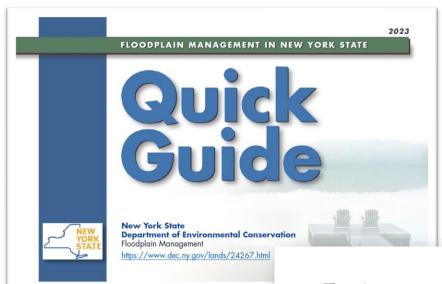
NYS DEC's Role in the National Flood Insurance Program (NFIP)

- Community Assistance Visits (CAVs) / Community Assistance Contacts (CACs)
- Compliance Activities and Follow-up with Communities
- Flood Damage Prevention Ordinance Review
 - NYS model local law
 - Review for compliance with state and federal requirements
 - Assistance during floodplain mapping updates
- Program Technical Assistance
 - Community/County officials
 - Property owners
- Provide Trainings
 - NYSFSMA webinars
 - NYSBOC chapters
 - Regional Planning Boards





Development of Floodplain Management Resources



FLOODPLAIN MANAGEMENT GUIDELINES FOR SOLAR ARRAY AND WIND FARM PROJECTS





SOLAR ARRAYS AND WIND FARMS are collections of multiple solar panels or wind turbines that generate electricity as a system. They are often constructed across rural areas of New York State, including in floodplain areas. You should avoid or minimize negative impacts to floodplain areas during installation of these projects.

ppers considering a project site must check MA Flood insurance Rate Maps (FIRM) at //msc.fema.gov to determine if any part site, or access roads, encroaches into odplain.

st obtain a Floodplain Development Permit e Local Floodplain Administrator for any ade change in the floodplain, including limited to: excavation, fill, mining, dredging, uction of buildings, installation of utilities, wage of equipment. The site construction plans should delineate all floodplain and floodway areas. Design criteria for areas of floodplain disturbance include:

- AVOID FLOODWAY AREAS, if possible. Conduct hydraulic and hydrologic analysis showing no-rise (0.00 feet) if any development will encroach into designated floodway (see item 3 below).
- 2. FOR SOLAR ARRAYS: Elevate the lowest edge of all photovoltaic panels, when at full tilt, at least 2 feet above the Base Flood Elevation (BFE) in Zone AE or Zone At-A30. If the site is in Zone A, with no BFEs, the panels must be elevated at least 3 feet above the Highest Adjacent Grade of the full tilt position. Column embedment must be enough to provide structural stability while assuming reasonably anticipated sour during the 1% event.

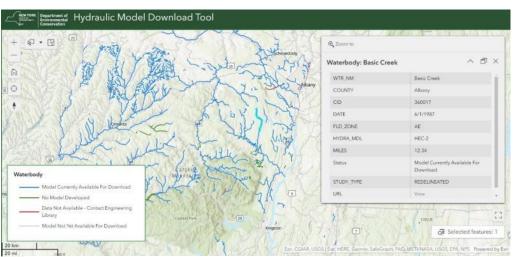
FOR WIND TURBINES: Any buildings and all utilities associated with the project must be elevated at least 2 feet above the BFE, or 3 feet above the Highest Adjacent Grade if located in





Cooperating Technical Partner (CTP)

- Supporting FEMA Risk Analysis Branch with Mapping efforts in NYS
- Ongoing development of Base Level Engineering (BLE) mapping for counties using paper-based regulatory maps.
- BLE has been completed for the following counties: Allegany, Cattaraugus, Chautauqua, Franklin, St. Lawrence, Wyoming, and portions of Livingston
- Hydraulic Model Download Application:



Conservation

DEC Floodplain Coordinators

Central Office Floodplain Management Coordinators Main Number, 518-402-8185

Kelli Higgins-Roche, PE, CFM: NYS NFIP Coordinator 518-408-0340 kelli.higgins-roche@dec.ny.gov

Bailey Sawyer: Lead for Regions 1 – 4 518-402-9148 <u>bailey.sawyer@dec.ny.gov</u>

Brad Wenskoski, CFM: Lead for Regions 5 – 6 518-402-8280 <u>brad.wenskoski@dec.ny.gov</u>

Geoff Golick, EIT: Lead for Engineering 518-402-7350 geoffrey.golick@dec.ny.gov

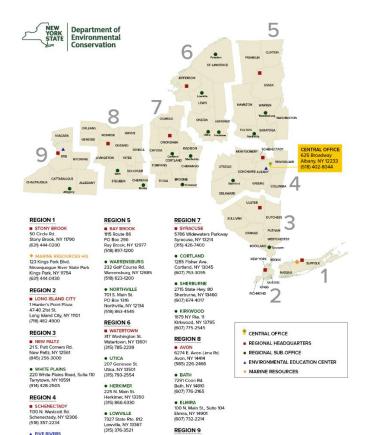
Victoria Agens: Floodplain Coordinator 518-402-8135 <u>victoria.agens@dec.ny.gov</u>

Western NY Flood Hub Floodplain Management Coordinators Assisting with Regions 7-9

Karis Manning, PE: Chief, Western Flood Hub 585-226-5445 <u>karis.manning@dec.ny.gov</u> **Brienna Wirley, CFM:** Lead for Regions 7 – 9 585-226-5465 <u>brienna.wirley@dec.ny.gov</u>

Email us at floodplain@dec.ny.gov





■ BUFFALO

700 Delaware Ave Buffalo, NY 14209

REINSTEIN WOODS

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Depew, NY 14043 (716) 683-5959

• ALLEGANY 182 E. Union St., Suite 3 Allegany, NY 14706 (716) 372-0645

POTSDAM

(315) 265-3090

190 Outer Main St., Suite 103 Potsdam, NY 13676

56 Game Farm Rd. Delmar, NY 12054

65561 State Hwy. 10, Suite 1

(518)475-0291

Regional Floodplain Coordinators

Region 1 – Eric Star/Ryan Porciello

Region 2 – Jean Occidental

Region 3 North: New Paltz – Vacant (Contact Bailey Sawyer, Central Office)

Region 3 South: Tarrytown - Berhanu Gonfa, PE

Region 4 – Dave Sherman

Region 5 North – Madisen Hetman

Region 5 South - Danielle Baldwin

Region 6 - Gavin Denison

Region 7 North: Syracuse – Vacant (Contact Brienna Wirley, Flood Hub)

Region 7 South: Kirkwood – Dan Fuller, PE/Ben Girtain-Plowe, PE

Region 8 North: Avon – Jonathan Tamargo

Region 8 South: Elmira - Brad Chaffee

Region 9 – Vacant (Contact Brienna Wirley, Flood Hub)

NYS DEC Funding Opportunities

- Water Quality Improvement Project (WQIP)
- Nonpoint Source Planning and MS4 Mapping Grant
- Wastewater Infrastructure Engineering Planning Grant



NYS DEC Funding Finder Tool:

https://dec.ny.gov/get-involved/grantapplications/funding-finder-tool





Hazard Mitigation Program

HAZARD MITIGATION

Sustained actions that reduce or eliminate long-term risk to people and property from future disasters

- Creates safer communities, reduces loss of life and damage to improved property, and diminishes financial and emotional stress
- Breaks the cycle of disaster damage and loss
- Allows communities to rebuild more quickly
- Saves money: every mitigation \$1 spent avoids an average of \$6 in future damages





Hazard Mitigation Programs

Hazard Mitigation Grant Program (HMGP)

Funding made available following a federal disaster declaration in New York

Building Resilient Infrastructure & Communities (BRIC)

Nationally competitive and announced annually, subject to Congressional appropriation

Flood Mitigation Assistance Program (FMA)

Nationally competitive and announced annually, subject to Congressional appropriation



Hazard Mitigation Grant Program (HMGP)

HMGP assists communities in rebuilding in a better, stronger, and safer way in order to become more resilient overall. The grant program is available after a presidentially declared disaster and can fund a wide variety of mitigation projects including:

- 1) Mitigation Planning & Enforcement
- 2) Flood Protection
- 3) Retrofitting
- 4) Construction

New York State establishes priorities for each HMGP funding cycle.



Building Resilient Infrastructure and Communities (BRIC)

BRIC replaced the Pre-Disaster Mitigation (PDM) program and prioritizes comprehensive, long-term risk reduction strategies that improve public infrastructure, mitigate risk to one or more Community Lifelines, incorporate nature-based solutions, and support adoption and enforcement of improved/modernized building codes.

1) Capability and Capacity Building (C&CB)

C&CB activities are those which enhance the knowledge, skills and expertise of the current workforce to expand or improve the administration of mitigation assistance.

2) Mitigation Projects

Cost-effective projects designed to increase resilience and public safety, reduce injuries and loss of life, and reduce damage to property, critical services, facilities, and infrastructure.



Flood Mitigation Assistance (FMA)

The FMA program is specifically designed to reduce or eliminate the risk of repetitive flood damage to buildings and structures insured under the National Flood Insurance Program (NFIP).

1) Project Scoping (previously Advance Assistance)

Activities to develop community flood mitigation projects and/or individual flood mitigation projects that will subsequently reduce flood claims against the NFIP.

2) Community Flood Mitigation Projects

Projects that address community flood risk for the purpose of reducing NFIP flood claim payments. Examples include, but are not limited to:

- Stormwater management
- Localized flood control
- Floodwater storage and diversion
- Floodplain and stream restoration
- Wetland restoration/creation



Requirements: Applicants

Eligible Applicant: NYS, acting through DHSES Eligible Sub-applicants:

- State agencies & local governments
- Federally-recognized Indian Tribal Governments
- State-recognized Indian Tribes
- Private non-profits providing government services (HMGP only, not BRIC or FMA)
- Individuals/businesses are not eligible applicants, but may be represented by their local government



Requirements: Justice40

The Justice 40 initiative establishes a goal that 40 percent of the overall benefits of certain federal investments flow to disadvantaged communities that are marginalized, underserved, and overburdened by pollution.

Hazard Mitigation Assistance programs <u>are included</u> in those covered by the federal Justice40 initiative.

New York State is prioritizing Hazard Mitigation Assistance funding for the highest-risk communities and underserved populations. Mechanisms for achieving this objective are outlined in Notices of Funding.



Requirements: FEMA-Approved Mitigation Plans

- Sub-applicants seeking project funds must be covered by a current hazard mitigation plan
 - [A current mitigation plan is one approved by FEMA and adopted by the community; some plans cover a community while others were regional or county-wide efforts]
- Sub-applicants that have begun the update process when grants are announced are potentially able to meet this requirement

Requirements: Eligibility Criteria

All mitigation projects must:

- Be technically feasible
- Be proven cost-effective using FEMA's Benefit-Cost Analysis (BCA) v6.0 software;
- Include a BCA containing all back-up/supporting documentation;
- Solve a problem independently, or constitute a functional portion of a long-term solution for which there is assurance that the project as a whole will be completed;
- Address a problem that has been repetitive or that poses a risk to public health and safety and improved property if left unresolved;
- Contribute to a long-term solution to the problem it is intended to address; and
- Account for long-term changes to the areas and entities it protects and has manageable future maintenance and modification requirements



Requirements: Cost Share

All projects require a non-federal cost-share which may consist of cash, donated or third-part in-kind services, materials, or any combination thereof.

- The cost share for **HMGP** is typically 75% federal and 25% non-federal
- The cost share for **BRIC** is 75% federal and 25% non-federal.

 Economically Disadvantaged Rural Communities are eligible for an increase in cost share up to 90% federal and 10% non-federal.
- The cost share for **FMA** is generally 75% federal and 25% non-federal.

 FEMA may increase the cost share to 100% federal for Severe Repetitive Loss (SRL) properties and 90% federal for Repetitive Loss (RL) properties.

Other Federal funds cannot be used toward the non-Federal match, with some exceptions:

- Increased Cost of Compliance (ICC) payouts from a National Flood Insurance Program (NFIP) policy
- Most HUD Community Development Block Grants (CDBG)



Eligible Activities

- Creating or updating a Multi-jurisdictional Hazard Mitigation Plan
- Planning Related Activities (including enhanced risk assessments)
- Project Scoping to result in a complete project proposal
- Acquisition and Demolition/Relocation or Elevation
- Structural Retrofitting; Dry Floodproofing
- Localized flood reduction measures
- Floodplain restoration, green infrastructure improvements
- Roadway elevation, culvert enlargements
- Storm water drainage system expansion/upgrade
- Retention or detention basins
- Streambank stabilization to protect infrastructure
- Placing overhead electrical systems underground



Ineligible Activities

- Preparedness activities: shelters, sandbags
- Projects dependent on other phases for benefits
- Deferred repairs, negligence, operating expenses
- Dredging, limb & debris removal, beach nourishment
- Projects initiated or completed prior to FEMA approval



Hazard Mitigation Programs: the Process

- State establishes priorities
- Application phase to DHSES: detailed SOW, estimate (engineering, construction, etc.), maps, Benefit Cost Analysis, etc.
- Provide information to evaluate environmental impacts
- DHSES submits eligible applications to FEMA for review



Questions

For more information, please contact us:

Hazard Mitigation Programs

NYS Division of Homeland Security & Emergency Services

1220 Washington Avenue, Bldg. 7A, Floor 3

Albany, NY 12242

518-292-2304 (Main Line)
HazardMitigation@dhses.ny.gov
www.dhses.ny.gov/recovery



PUBLIC SERVICE ANNOUNCEMENT - NWS



This is a reminder that the National Weather Service's new **NWPS website** will go public on **Wednesday, March 27th**. Beginning on that date, NWPS (National Water Prediction Service) will be the National Weather Service's primary web dissemination platform for critical hydrologic information, replacing the current AHPS webpage with which many of you are familiar. The AHPS webpage will remain active for another 60 days, running in tandem with NWPS until late-May. After that, the AHPS page will be retired and the old AHPS link will simply forward users to the NWPS page.

There is a preview NWPS webpage that is currently available to users at https://preview.water.noaa.gov/.

Beginning March 27th, the official NWPS web address will transition to https://water.noaa.gov/.

https://www.weather.gov/owp/operations/.

U.S. ARMY

Thank you for your continued partnership with the National Weather Service. We look forward to working with you as the NWS continues to evolve and modernize. Please let me know if you have any questions or concerns.