FEMA Funding for Stormwater Projects

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Experience

Majority Share

$20.3 Million Funding

Majority Share or Local Match

5 Years
2015 - 2020

IDNR
MWRD
Experience

Before

After
Experience

Before

After
What is hazard mitigation?

Hazard mitigation is defined as any **sustained action** taken to reduce or eliminate **long-term risk** to human life and property from a hazard event.

**Acquisition**  
**Elevation**  
**Flood-proofing**  
**Flood-relief Projects**
Funding Programs - HMGP

Hazard Mitigation Grant Program (HMGP)

Post-disaster

Requires Disaster Declaration
Funding Programs - HMGP

Disaster
- Governor Requests Federal Assistance
- Preliminary Damage Assessments
- Presidential Disaster Declaration
Flood Mitigation Assistance (FMA)
Funding for flood hazard mitigation projects as well as plan development

Pre-Disaster Mitigation (PDM)
Funding to reduce overall risk to people and structures as well as reduce reliance on Federal funding in future disasters

Structures must have Flood Insurance

Being replaced with BRIC
Application Period

Local Community
(Sub-applicant)
1 month

IEMA
(Applicant)
2 months

Notes
1. Pay close attention to the sub-applicant deadline
2. Not all sub-applications will be included in IEMA’s application
## Eligible Activities

### Eligible Project Types

*(most common in IL)*

<table>
<thead>
<tr>
<th>Project Type</th>
<th>HMGP</th>
<th>PDM</th>
<th>FMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property Acquisition &amp; Structure Demolition</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Structure Elevation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Mitigation Reconstruction</td>
<td>X</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td>Dry Floodproofing <em>(Historic &amp; Non-residential)</em></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Minor Localized Flood Reduction Projects</strong></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Infrastructure Retrofit</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hazard Mitigation Planning</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
# Hazard Modules

## Riverine Flood
- Coastal A Flood
- Coastal V Flood
- Coastal Unknown Flood
- Hurricane Wind
- Hurricane Safe Room
- Tornado Safe Room
- Seismic
- Wildfire
- Drought
- Landslide
- Dam/Levee Break
- Extreme Temperature
- Infrastructure Failure
- Severe Storm
- Tsunami
- Volcano
- Winter Storm
- Uncategorized

## Mitigation Action Types
- Acquisition
- Elevation
- Floodproofing Measures
- Drainage Improvement
- Floodplain and Stream Restoration
- Floodwater Diversion and Storage
- Other
## Sub-application Contents

Sub-application
(same for all grant programs)

- ✔ Scope of Work (SOW)
- ✔ Project Schedule
- ✔ Cost Estimate
- ✔ Benefit-Cost Analysis (BCA) & Documentation
- ✔ Feasibility & Effectiveness Documentation
- ✔ Environmental & Historic Preservation (EHP) Documentation
Scope of Work (SOW)

- Project Location
- Who is affected
- 3 Options (min)
- Selected Option
- Describe Problem
- Plan to Complete

Scope of Work
SOW – Supporting Documentation

- Topographic Maps
- Pertinent Studies
- Street Map
- Site Photos
Document Everything

Elevations, Flood Depths, Historical Data, Market Values, Annual Budgets, etc.

Repeat, Repeat, Repeat

Written descriptions, exhibits, figures, attachments, egrants, etc.

Next Higher Floor
5 steps * 7" = 2.9
571.0 + 2.9 = 573.90

First Floor =
573.90 - 8 = 565.90
## Schedule

<table>
<thead>
<tr>
<th>Task</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Completed by:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Month</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Startup</td>
<td></td>
<td></td>
<td>City</td>
</tr>
<tr>
<td>Design</td>
<td></td>
<td></td>
<td>Consultant</td>
</tr>
<tr>
<td>Permitting</td>
<td></td>
<td></td>
<td>Consultant</td>
</tr>
<tr>
<td>Bidding &amp; Contracting</td>
<td></td>
<td></td>
<td>City</td>
</tr>
<tr>
<td>Construction &amp; Restoration</td>
<td></td>
<td></td>
<td>Contractor</td>
</tr>
<tr>
<td>Project Closeout</td>
<td></td>
<td></td>
<td>City</td>
</tr>
</tbody>
</table>
Schedule – Tips

Keep it simple

Generic dates (year 1, month 1) reduces revisions.

Be generous

Use the full grant performance period. Allow time for paperwork.
Example Cost Estimate/Budget

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MOBILIZATION (10%)</td>
<td></td>
</tr>
<tr>
<td>CONCRETE FLOODWALL SYSTEM</td>
<td></td>
</tr>
<tr>
<td>AUTOMATIC BOUYANT RISING WALLS</td>
<td></td>
</tr>
<tr>
<td>PAVEMENT/SIDEWALK REMOVAL</td>
<td></td>
</tr>
<tr>
<td>CURB AND GUTTER REMOVAL &amp; REPLACEMENT</td>
<td></td>
</tr>
<tr>
<td>PCC DRIVEWAY</td>
<td></td>
</tr>
<tr>
<td>REAR ACCESS DRIVE &amp; RAMP</td>
<td></td>
</tr>
<tr>
<td>ASPHALT PAVEMENT</td>
<td></td>
</tr>
<tr>
<td>STORM SEWER, PVC 18&quot;</td>
<td></td>
</tr>
<tr>
<td>STORM MANHOLE</td>
<td></td>
</tr>
<tr>
<td>FLOODWALL DRAINAGE SYSTEM</td>
<td></td>
</tr>
<tr>
<td>LIGHTING SALVAGE &amp; REPLACEMENT</td>
<td></td>
</tr>
<tr>
<td>TREE REMOVAL &amp; REPLACEMENT</td>
<td></td>
</tr>
<tr>
<td>COMPENSATORY STORAGE</td>
<td></td>
</tr>
<tr>
<td>RESTORATION (SEED &amp; BLANKET)</td>
<td></td>
</tr>
</tbody>
</table>

CONSTRUCTION SUB-TOTAL: CONTINGENCY (20%): ENGINEERING DESIGN (10%): GEOTECHNICAL INVESTIGATION

Line Items
Detailed, but not too detailed

Include All Eligible Expenses
Engineering, Management, Contingency, Geotechnical, etc.
## Budget Narrative

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobilization</td>
<td>Preparatory work and operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project site to install the proposed floodwall.</td>
</tr>
<tr>
<td>Concrete Floodwall System</td>
<td>Construction of a concrete floodwall around the perimeter of the Fire Station property, which will include reinforcement bars, concrete, footings, drain tile, and all other labor and materials necessary to construct the proposed floodwall. Concrete floodwall serves as a permanent barrier to prevent water from reaching Fire Station during flood events and reduce future flood damage.</td>
</tr>
<tr>
<td>Automatic Buoyant Rising Walls</td>
<td>Passive flood barriers deployed by the rising floodwater without dependency on people or power. The proposed automatic buoyant rising walls will be installed at the existing and proposed driveway entrances to the Fire Station to create a complete barrier around the Fire Station to mitigate flooding.</td>
</tr>
<tr>
<td>Pavement/Sidewalk Removal</td>
<td>Removal of pavement and sidewalk along the proposed floodwall alignment and within the parking lot/driveway as necessary to transition the ground elevations to meet the proposed access drive. Removal is necessary to achieve favorable grading between the Fire Station and surrounding pavement including necessary access to Rand Road.</td>
</tr>
<tr>
<td>Curb and Gutter Removal &amp; Replacement</td>
<td>Removal and replacement of existing curb and gutter on the project site is necessary to allow for construction of the proposed floodwall.</td>
</tr>
<tr>
<td>PCC Driveway</td>
<td>Reconstruction of the driveway on River Road as necessary to install the proposed floodwall.</td>
</tr>
<tr>
<td>Rear Access Drive &amp; Ramp</td>
<td>Construction of the proposed access drive and ramp between Rand Road and the existing parking lot.</td>
</tr>
</tbody>
</table>

Include all budget items

**Detailed Description**

*Explain why each item is necessary for flood mitigation*
Budget - Tips

Budget cannot be increased

Include all eligible costs.
Be prepared for FEMA comments.

Prepare to document Costs

Get quotes from suppliers and signed cost estimates.
Cost-Share Requirements

Grant Funds: In general, FEMA Mitigation funds may be used to pay up to 75% of the eligible activity of the costs.

Matching Funds:

- IDNR
- MWRD
- Local
- Other
Matching Funds

Verify eligibility during FEMA application

Check with the agency providing matching funds early.

Apply once selected by FEMA

FEMA’s review and grant agreement take time.
Benefit Cost Analysis

BCA Calculator

Used to validate cost effectiveness of hazard mitigation projects prior to funding.

➢ Must use FEMA software

➢ Majority of the application effort
Additional Project Application Elements

➢ BCR must be 1.0 or larger
➢ BCR is used to rank applications
➢ FEMA must be able to duplicate
Environmental and Historic Preservation

[Logos of Illinois Department of Natural Resources, FEMA, HUD.gov, and EcoCAT]
Questions?

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