Prioritizing Projects* in Iowa for Funding with Hazard Mitigation Assistance

*for non-planning projects

With limited hazard mitigation funds (HMA) funds and continual need for hazard mitigation projects in the state, the Iowa Homeland Security and Emergency Management Department (HSEMD) has identified processes and criteria to evaluate hazard mitigation project proposals for funding. The criteria HSEMD utilizes align with FEMA grant guidance and the recently adopted Iowa Hazard Mitigation Plan. The steps of the evaluation process and criteria are briefly described here:

Step 1: Meet the basics

First, the applicant must be a participant in the planning process for the FEMA approved local hazard mitigation plan and the project must be identified as a mitigation action within the plan. The applicant must also meet the financial risk assessment and local match requirements.

Step 2: The project fits into which priority category?

Project proposals will be categorized and ranked in accordance with the *Iowa Hazard Mitigation Plan* (the "State Plan").

Projects will be placed in one of three categories: A, B or C. These categories are based on priority mitigation actions established by the State Hazard Mitigation Team (see section 5.6 of the State Plan). Over a five-year period, available grant funding will be divided among the project categories with the majority designated for category A projects. Category B will receive the next portion of funding, followed by Category C. Historically, for example, safe rooms have received 6 percent of HMA funding and are designated as a Category C project. It is anticipated safe room projects will receive a similar percentage of grant funding over the next five years. There is a possibility additional funds will be made available for category C projects but the allocation will not exceed the total allotted for projects in Category B.

Category A Projects include (see the last table in section 5.6 of the State Plan for all mitigation actions with priority A):

- Property acquisition and conversion to green space
- Projects that elevate at least one foot above base flood elevation
- Restoration of floodplain, including oxbows, that reduce peak flow
- Streambank stabilization projects that reduce peak flow
- Channel improvements that reduce peak flow
- Channels, culverts and structures connected together as a system for flood protection
- Farm/Rural Pond for flood protection
- Detention basin
- Sanitary sewer improvements
- Urban infiltration projects that prevent flooding, including bioswales or infiltration trenches
- Riparian forest buffers done in cities for flood prevention
- Wet detention systems in cities
- Urban wetlands for flood prevention
- Vegetated swales for flood prevention in cities
- Permeable pavement resulting in flood prevention
- Other green infrastructure in accordance with Iowa Storm Water Management Manual design criteria
- Hardening/retrofitting line and constructing design failure structures
- System, series or collection of practices and small projects that together provide flood protection for roads and bridges downstream.
- Bridge retrofit or reconstruction
- Road reconstruction and installation of unconnected culvert(s) that cross under a road (typically rural)
- Signage or educational materials to improve awareness of hazard risks and ways to prevent/reduce impacts (typically limited to 5% of HMA funding)
- Watershed plans and studies of hydrology, study of groundwater issues and study of areas of risk to erosion
- Projects recommended in watershed plans, hydrology studies, and similar documents
- Warning sirens (no more than 5% of HMA funds)

- River/flood gauges and other alert devices installed to provide advance warnings and alerts (limited to 5% of HMA funding)

Category Priority B projects include (see the last table in section 5.6 of the State Plan for all mitigation actions with priority B):

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- Projects that promote the use of NOAA all-hazards weather radio
- Wetlands, prairie strips and other vegetated cover outside of cities for flood prevention
- Elevate or protect wastewater lift stations
- Purchase/install backup power generators to ensure essential and emergency services can continue

Category C projects include (see the last table in section 5.6 of the State Plan for all mitigation actions with priority C):

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- Public safe rooms
- Obtain and distribute copies of *ICC/NSSA Standard for the Design and Construction of Storm Shelters* and F*EMA P-320 - Taking Shelter from the Storm: Building a Safe Room for Your Home or Small Business* to cities, architects, and builders
- Small flood-control measures
- Projects that provide model standards and guides, including the *Iowa Stormwater Management Manual,* to local jurisdictions about construction, design and landscaping measures that direct water away from structures

Step 3: Rank the projects within each category

Step 3 A: Prioritize projects according to criteria in the State Plan

There are several criteria mentioned in the State Plan (section 4.2.6) upon which to evaluate different projects. These include:

1. Number of repetitive loss and/or severe repetitive properties that can be resolved
2. Number of highly-vulnerable people that can be protected
3. Places under the most development pressure
4. Preservation of essential services by protecting critical facilities
5. Applicant's demonstrated commitment to mitigation
6. Quality of the application

Each project will be evaluated and/or scored according these criteria.

Step 3 B: Prioritize according to criteria stipulated by the specific grant NOFA

Certain competitive grant programs have additional criteria which will be used to supplement the above criteria. For instance, a Notice of Funding Availability may prioritize projects for small, impoverished communities or projects with private partnerships. Iowa HSEMD will make accommodations for these factors when ranking project proposals for specific grant programs.

Step 4: Analyze the benefits and costs and compute a BCR

Once ranked according to above criteria, FEMA's BCA tool is used to analyze costs and benefits of the top 10 to 20 projects. The analysis also considers ongoing maintenance costs and accomplishing objectives besides loss avoidance. (Another prioritization factor stated in the State Plan is a criteria to consider measures designed to accomplish multiple objectives, including damage reduction and environmental enhancement.) After an initial benefit to cost ratio (BCR) is calculated with the BCA tool, projects with a BCR of at least .75 can receive additional benefit credit according to how much ecosystem service benefits the project brings. So, for example, for each acre of green open space created by the project, an extra benefit of $8208 per year is credited to the project in the BCA tool. Riparian areas restored or created reap a benefit credit of $39,535 an acre per year, wetlands $6010 an acre per year, and forest $554 an acre per year. With these additional benefit credits added into the BCA tool, a BCR is recalculated for the project. Projects with the highest BCRs within the defined category will be first priority for funding.

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