

Exhibit B Threshold Requirement

State of Iowa

Iowa\_PhaseII\_Threshold.pdf

## Threshold

The State of Iowa submits this update to MID-URN Threshold for its Phase 2 application. This is Iowa's only application to this program. The Phase 1 MID-URN threshold submission for infrastructure and environmental unmet recovery needs are still current. The Iowa Watershed Approach will include Eligible Activities to address our unmet recovery needs including: Housing Rehabilitation 105(a) (4) [see Project #1: Bee Branch Healthy Homes Resiliency Program, with activities to make homes more resilient to flooding]; Public Facilities and Improvements 105(a)(2) [see Projects #2-10: Watershed Projects and Infrastructure Projects, with activities to improve natural and community resilience to flooding]; and Planning and Capacity Building 105 (a)(12) [see Program 2, Community Resilience Programming, as incorporated into Projects #1-10, with public engagement programs designed to improve local community resilience to flooding]. These Eligible Activities are also scoped to accomplish the National Objectives of L/M Income Housing (LMH), L/M Income, Area Benefit (LMA) and Urgent Need (UN). These Eligible Activities and National Objectives are described fully in relation to the program service areas in the Soundness of Approach. The first 6 sub-county areas are additions to the MID-URN Threshold area from Phase 1. After many stakeholder engagement meetings, additional impacts and unmet recovery needs are documented. The methodology to determine most impacted and distressed sub-county areas by environmental degradation is supported by experts from the Natural Resources Conservation Service of the USDA and the Department of Agronomy at Iowa State University. See [Phase 1 Iowa Environmental Degradation Determination Methodology](#). These eligible areas within our identified target watersheds are now included in the Phase 2 Iowa Watershed Approach.

## Watersheds Projects

The target area identified as most impacted and distressed is **Fremont County**, Census Tract 9701 Block Groups 1 and 2 as a result of DR-1998 that occurred in 2011. This sub-county area qualifies as impacted under Environmental Degradation. The designated sub-county area had excessive soil loss as a result of the impacts of disaster DR-1998. This soil loss resulted in increased sediment delivery to waterways in the immediate vicinity, and further downstream effects. This in turn introduced nutrients into the stream system, including nitrates and phosphorus, which would otherwise be available as nutrients required to maintain crop productivity. This adds to the Gulf of Mexico hypoxia problem, a national environmental concern. The excessive loss of topsoil during the disaster event period degraded the productive capability of the land, resulting in permanently lower crop yield potential, even with the addition of even more nutrients and other costly inputs, which places economic revitalization at risk. The reduced productive capability as a result of the loss of topsoil reduces system resilience and means that further inputs (fertilizer) will need to be introduced to help offset a portion of the degradation impacts on lost soil productivity, introducing additional economic burdens on producers in the area, and perpetuating the environmental degradation of this area and interrelated areas downstream. If another comparable event occurs, the area can expect to see accelerated loss of soil productivity, and loss of nutrients which accelerates the environmental degradation downstream. See [DR-1998 Most Impacted](#) data for maps and supporting analysis documentation This sub-county area is an area that has prior documented environmental distress with the presence of a Category 4 or Category 5 Impaired Waters (as defined by section 303 of the Clean Water Act) stream segment within the East Nishnabotna River - Fourmile Creek, Fisher Creek, Ledgewood Creek and Mill Creek; West Nishnabotna Spring Valley Creek, Deer Creek, Honey Creek, Lower Walnut Creek, Hunter Branch, Outlet Walnut Creek, Camp Creek,

and Spring Branch-West Nishnabotna River watershed. The impairment was increased through the events that occurred in disaster DR-1998, magnifying existing problems in the watershed, and downstream of this sub-county area. This watershed contains part of the sub-county area, which indicates that it is negatively affected by and also negatively affects the sub-county area.

The target area identified as most impacted and distressed is **Iowa County**, Census Tract 9601 - Block Groups 1, and 3; as a result of DR-4119 that occurred in 2013. This sub-county area qualifies as impacted under Environmental Degradation. The designated sub-county area had excessive soil loss as a result of the impacts of disaster DR-4119. This soil loss resulted in increased sediment delivery to waterways in the immediate vicinity, and further downstream effects. This in turn introduced nutrients into the stream system, including nitrates and phosphorus, which would otherwise be available as nutrients required to maintain crop productivity. This adds to the Gulf of Mexico hypoxia problem, a national environmental concern. The excessive loss of topsoil during the disaster event period degraded the productive capability of the land, resulting in permanently lower crop yield potential, even with the addition of even more nutrients and other costly inputs, which places economic revitalization at risk. The reduced productive capability as a result of the loss of topsoil reduces system resilience and means that further inputs (fertilizer) will need to be introduced to help offset a portion of the degradation impacts on lost soil productivity, introducing additional economic burdens on producers in the area, and perpetuating the environmental degradation of this area and interrelated areas downstream. If another comparable event occurs, the area can expect to see accelerated loss of soil productivity, and loss of nutrients which accelerates the environmental degradation downstream. See [DR-4119 Most Impacted](#) data for maps and supporting analysis documentation. This sub-county area is an area that has prior documented environmental distress with the presence of a Category 4 or Category 5 Impaired Waters (as defined by section 303 of

the Clean Water Act) stream segment within the Clear Creek - Upper Clear Creek and Middle Clear Creek; English River - Jordan Creek, Deep River, Middle English River, Middle South English River, Gritter Creek, Devils Run, Middle North English River, Lower North English River, Lower South English River, Outlet North English River, Deer Creek and Birch Creek watershed. The impairment was increased through the events that occurred in disaster DR-4119, magnifying existing problems in the watershed, and downstream of this sub county area. This watershed contains part of the sub-county area, which indicates that it is negatively affected by and also negatively affects the sub-county area.

The target area identified as most impacted and distressed is **Johnson County**, Census Tract 103.01 - Block Groups 1, 2, 3 and 4; Census Tract 2 Block Groups 1-3; Census Tract 4 Block Groups 1-3 and Census Tract 23 Block Groups 1-2, and Census Tract 5 Block Groups 1-4 as a result of DR-4119 that occurred in 2013. This sub-county area qualifies as impacted under Environmental Degradation. The designated sub-county area had excessive soil loss as a result of the impacts of disaster DR-4119. This soil loss resulted in increased sediment delivery to waterways in the immediate vicinity, and further downstream effects. This in turn introduced nutrients into the stream system, including nitrates and phosphorus, which would otherwise be available as nutrients required to maintain crop productivity. This adds to the Gulf of Mexico hypoxia problem, a national environmental concern. The excessive loss of topsoil during the disaster event period degraded the productive capability of the land, resulting in permanently lower crop yield potential, even with the addition of even more nutrients and other costly inputs, which places economic revitalization at risk. The reduced productive capability as a result of the loss of topsoil reduces system resilience and means that further inputs (fertilizer) will need to be introduced to help offset a portion of the degradation impacts on lost soil productivity, introducing additional economic burdens on producers in the area, and perpetuating the

environmental degradation of this area and interrelated areas downstream. If another comparable event occurs, the area can expect to see accelerated loss of soil productivity, and loss of nutrients which accelerates the environmental degradation downstream. See [DR-4119 Most Impacted](#) data for maps and supporting analysis documentation. This sub-county area is an area that has prior documented environmental distress with the presence of a Category 4 or Category 5 Impaired Waters (as defined by section 303 of the Clean Water Act) stream segment within the Clear Creek - Middle Clear Creek and Lower Clear Creek watershed. The impairment was increased through the events that occurred in disaster DR-4119, magnifying existing problems in the watershed, and downstream of this sub county area. This watershed contains part of the sub-county area, which indicates that it is negatively affected by and also negatively affects the sub-county area.

The target area identified as most impacted and distressed is **Mills County**, Census Tract 401 - Block Groups 1, 2, 3 and 4 as a result of DR-1998 that occurred in 2011. This sub-county area qualifies as impacted under Environmental Degradation. The designated sub-county area had excessive soil loss as a result of the impacts of disaster DR-1998. This soil loss resulted in increased sediment delivery to waterways in the immediate vicinity, and further downstream effects. This in turn introduced nutrients into the stream system, including nitrates and phosphorus, which would otherwise be available as nutrients required to maintain crop productivity. This adds to the Gulf of Mexico hypoxia problem, a national environmental concern. The excessive loss of topsoil during the disaster event period degraded the productive capability of the land, resulting in permanently lower crop yield potential, even with the addition of even more nutrients and other costly inputs, which places economic revitalization at risk. The reduced productive capability as a result of the loss of topsoil reduces system resilience and means that further inputs (fertilizer) will need to be introduced to help offset a portion of the

degradation impacts on lost soil productivity, introducing additional economic burdens on producers in the area, and perpetuating the environmental degradation of this area and interrelated areas downstream. If another comparable event occurs, the area can expect to see accelerated loss of soil productivity, and loss of nutrients which accelerates the environmental degradation downstream. See [DR-1998 Most Impacted](#) data for maps and supporting analysis documentation. This sub-county area is an area that has prior documented environmental distress with the presence of a Category 4 or Category 5 Impaired Waters (as defined by section 303 of the Clean Water Act) stream segment within the West Nishnabotna River - City of Carson, Mud Creek, Middle Silver Creek, Lower Silver Creek, Willow Slough, Farm Creek, Lower Indian Creek, Outlet Silver Creek, White Cloud, Deer Creek, Spring Valley Creek, Hunter Branch and Honey Creek watershed. The impairment was increased through the events that occurred in disaster DR-1998, magnifying existing problems in the watershed, and downstream of this sub-county area. This watershed contains part of the sub-county area, which indicates that it is negatively affected by and also negatively affects the sub-county area.

The target area identified as most impacted and distressed is **Pocahontas County**, Census Tract 7801 - Block Groups 1, 2, 3; Census Tract 7802 - Block Group 1; Census Tract 7803 - Block Groups 1 and 3 as a result of DR-1977 that occurred in 2011. This sub-county area qualifies as impacted under Environmental Degradation. The designated sub-county area had excessive soil loss as a result of the impacts of disaster DR-1977. This soil loss resulted in increased sediment delivery to waterways in the immediate vicinity, and further downstream effects. This in turn introduced nutrients into the stream system, including nitrates and phosphorus, which would otherwise be available as nutrients required to maintain crop productivity. This adds to the Gulf of Mexico hypoxia problem, a national environmental concern. The excessive loss of topsoil during the disaster event period degraded the productive

capability of the land, resulting in permanently lower crop yield potential, even with the addition of even more nutrients and other costly inputs, which places economic revitalization at risk. The reduced productive capability as a result of the loss of topsoil reduces system resilience and means that further inputs (fertilizer) will need to be introduced to help offset a portion of the degradation impacts on lost soil productivity, introducing additional economic burdens on producers in the area, and perpetuating the environmental degradation of this area and interrelated areas downstream. If another comparable event occurs, the area can expect to see accelerated loss of soil productivity, and loss of nutrients which accelerates the environmental degradation downstream. See [DR-1977 Most Impacted](#) data for maps and supporting analysis documentation. This sub-county area is an area that has prior documented environmental distress with the presence of a Category 4 or Category 5 Impaired Waters (as defined by section 303 of the Clean Water Act) stream segment within the North Raccoon River - Headwaters Cedar Creek, Headwaters Little Cedar Creek, Drainage Ditch 21-Cedar Creek, Little Cedar Creek, Drainage Ditch 74-Cedar Creek, Prairie Creek, Drainage Ditch 29, Drainage Ditch 1, Upper Drainage Ditch No 9, and Drainage Ditch 37-Cedar Creek watershed. The impairment was increased through the events that occurred in disaster DR-1977, magnifying existing problems in the watershed, and downstream of this sub county area. This watershed contains part of the sub-county area, which indicates that it is negatively affected by and also negatively affects the sub-county area.

The target area identified as most impacted and distressed is **Winneshiek County**, Census Tract 9501 - Block Groups 1, 2, 3, 4; as a result of DR-4135 that occurred in 2013. This sub-county area qualifies as impacted under Environmental Degradation. The designated sub-county area had excessive soil loss as a result of the impacts of disaster DR-4135. This soil loss resulted in increased sediment delivery to waterways in the immediate vicinity, and further downstream

effects. This in turn introduced nutrients into the stream system, including nitrates and phosphorus, which would otherwise be available as nutrients required to maintain crop productivity. This adds to the Gulf of Mexico hypoxia problem, a national environmental concern. The excessive loss of topsoil during the disaster event period degraded the productive capability of the land, resulting in permanently lower crop yield potential, even with the addition of even more nutrients and other costly inputs, which places economic revitalization at risk. The reduced productive capability as a result of the loss of topsoil reduces system resilience and means that further inputs (fertilizer) will need to be introduced to help offset a portion of the degradation impacts on lost soil productivity, introducing additional economic burdens on producers in the area, and perpetuating the environmental degradation of this area and interrelated areas downstream. If another comparable event occurs, the area can expect to see accelerated loss of soil productivity, and loss of nutrients which accelerates the environmental degradation downstream. See [DR-4135 Most Impacted](#) data for maps and supporting analysis documentation. This sub-county area is an area that has prior documented environmental distress with the presence of a Category 4 or Category 5 Impaired Waters (as defined by section 303 of the Clean Water Act) stream segment within the Upper Iowa River - Bear Creek, North Bear Creek, North Canoe Creek, Canoe Creek, Freeport, Trout River, Trout Creek, Pine Creek, Cold Water Creek, Daisy Valley, Silver Creek, Martha Creek, Ten Mile Creek, Dry Run Creek and Nordness watershed. The impairment was increased through the events that occurred in disaster DR-4135, magnifying existing problems in the watershed, and downstream of this sub-county area. This watershed contains part of the sub-county area, which indicates that it is negatively affected by and also negatively affects the sub-county area.

As part of the **Threshold Update**, the following sub-counties additionally qualify under the disaster impact criteria: Environmental Degradation. They had excessive soil loss as a result of

the impacts of their disaster. Their soil loss resulted in increased sediment delivery to waterways in their immediate vicinity, and further downstream effects. This in turn, introduced nutrients into the stream system, including nitrates and phosphorus (see counties above). They all have prior documented environmental distress with the presence of Category 4 or Category 5 Impaired Waters (see also prior counties). **Allamakee County:** Census Tract 9602 - Block Group 1, Block Group 2 and Block Group 3 as a result of DR-4135 that occurred in 2013. See [DR-4135 Most Impacted](#) data for maps and supporting analysis documentation. This sub-county area is an area that has prior documented environmental distress with the presence of a Category 4 or Category 5 Impaired Waters (as defined by section 303 of the Clean Water Act) stream segment within the Upper Iowa River (Clear Creek, Waterloo Creek, Bear Creek, Paint Creek, Coon Creek, Patterson Creek, Silver Creek and French Creek watershed). **Buchanan County:** Census Tract 9506 - Block Group 1, Block Group 2, Block Group 3 and Block Group 4 as a result of DR-4135 that occurred in 2013. See [DR-4135 Most Impacted](#) data for maps and supporting analysis documentation. This sub-county area is an area that has prior documented environmental distress with the presence of a Category 4 or Category 5 Impaired Waters (as defined by section 303 of the Clean Water Act) stream segment within in Middle Cedar River stream segments - Spring Creek, Lime Creek, Bear Creek, and McFarlane State Park; Upper Wapsipinicon River - Malone Creek, Smith Creek, Pine Creek, Winthrop-Buffalo Creek, Silver Creek-Buffalo Creek, Dry Creek, Walton Creek, Sand Creek, and Nugents Creek-Buffalo Creek. **Delaware County,** Census Tract 9504 - Block Group 3 and Block Group 4 as a result of DR-4135 that occurred in 2013. See [DR-4135 Most Impacted](#) data for maps and supporting analysis documentation. This sub-county area is an area that has prior documented environmental distress with the presence of a Category 4 or Category 5 Impaired Waters (as defined by section 303 of the Clean Water Act) stream segment within in stream segment within the Upper Wapsipinicon River - Silver Creek-

Buffalo Creek, Nugents Creek-Buffalo Creek watershed. **Tama County**, Census Tract 2901 - Block Group 1, Block Group 2; Census Tract 2902 - Block Group 1, Block Group 2, Block Group 3; Census Tract 2903 - Block Group 1 and Block Group 2 as a result of DR-4126 that occurred in 2013. See [DR-4126 Most Impacted](#) data for maps and supporting analysis documentation. This sub-county area is an area that has prior documented environmental distress with the presence of a Category 4 or Category 5 Impaired Waters (as defined by section 303 of the Clean Water Act) stream segment within in stream segment within the Middle Cedar River - Mosquito Creek, Little Wolf Creek, Devils Run-Wolf Creek, Fourmile Creek, Twelvemile Creek, Rock Creek, Village of Reinbeck-Black Hawk Creek, Rock Creek, Deadwaters Miller Creek, Wolf Creek, Coon Creek and Rock Creek watershed.

All sub-county areas identified in this narrative above have an aggregate Unmet Recovery Need in the form of Environmental Degradation, and are the result of losses of topsoil as a direct result of eligible disaster events. Because topsoil takes generations to regenerate, the loss of this resource can be considered permanent as the needs of continued production outstrip nature's ability to replenish the soil. Utilizing a benchmark value for one potentially beneficial conservation practice program implemented to a limited degree within the state by the Iowa Department of Agriculture and Land Stewardship, it has been estimated that it would cost [\\$69,786,201.15](#) to repair the damage from environmental degradation in all of these areas. For further details on the determination of this estimate, see [Environmental Distress Data](#).

#### [City of Dubuque / Bee Branch](#)

Most Impacted and Distressed Threshold: The target area identified as most impacted and distressed is the City of Dubuque as a result of Severe Storms and Flooding (DR-4018) that occurred in 2011. The area is a sub-county area within Dubuque County, which was declared Major Disaster Area under the Stafford Act.

Name of Area: City of Dubuque: Dubuque exhibits Most Impacted Characteristics and Most Distressed Characteristics, which affect the ability of the area to recover from severe storms and flooding (DR-4018) that occurred in 2011, as demonstrated below:

Most Impacted Characteristics: Housing: Following the July 2011 storms, the City of Dubuque received reports of damage to 200+ homes concentrated in the Bee Branch Creek target area. Impacts included flooded basements, collapsed foundations, destroyed furnaces and water heaters, and other structural damages. Substantiating data includes city records of calls to pump flooded homes, as well as records of calls for volunteer assistance. See <https://drive.google.com/open?id=0B4GkEW8yVGbtWXISRIF5TFg4U2c> for Dubuque records supporting the Most Impacted Characteristics criteria.

Most Distressed Characteristics: Housing: Census tracts 1, 4, 5, 6, and 11.02 are in the flood-prone area. Approximately 69% of the people in the flood-prone area are at less than 80% median income. Substantiating data includes percentage of low and moderate income information for Census tracts 1, 4, 5, 6, 11.02. For maps showing the most impacted area, see Phase I Attachment E, B-10 CDBG Target Areas 2014 – with Bee Branch. Dubuque routinely spends a significant portion of its CDBG resources in the area identified for disaster assistance. See <https://drive.google.com/open?id=0B4GkEW8yVGbtampYV2g1NmZxd0k> for Census Bureau data supporting the Most Distressed Characteristics criteria.

Unmet Recovery Needs Threshold: While Dubuque did receive earmarked CDBG Disaster Recovery funds to address the July 2011 storms, the City has Unmet Recovery Needs that have not been addressed by federal, state, or other sources, in the area(s) identified in this letter as “most impacted and distressed.”

*Housing:* A windshield survey of the impacted Bee Branch Creek area was conducted in October and November of 2014. The windshield survey visually assessed exterior damage to

housing units within the Bee Branch Watershed. The units that were inspected were identified using requests for assistance made to the City of Dubuque immediately following the 2011 floods. The preliminary windshield survey identified 22 households with remaining damage in the Bee Branch Watershed, as demonstrated in the Phase 1 application.

For the Phase 2 application, additional housing inspections were conducted August and September 2015. The goal of these inspections was to focus on the needs of those most impacted by the 2011 storms and to reach as many homeowners in the heavily affected areas as possible. To reach these homeowners, the City completed a direct-mailing effort to over 200 households that requested assistance after being inundated with water during the 2011 storms. The additional outreach resulted in a combined total of 40 identified households that remain damaged as a result of the 2011 storms. The Housing and Community Development Department's housing inspectors conducted at minimum an exterior inspection of the property, and in most cases an in-depth inspection to document damages and identify ways the properties could be made resilient to future flooding events. A list of units inspected with remaining damage can be viewed here:

<https://drive.google.com/file/d/0B4GkEW8yVGbtemJ4bTU4OFJVb2s/view?pli=1>

The results of the windshield survey and resiliency inspections may be viewed here:

<https://drive.google.com/file/d/0B4GkEW8yVGbtQ0J1cmRMbmJUeGc/view?pli=1>

The City of Dubuque's Housing Rehabilitation Inspector interviewed the owners of the surveyed properties to verify the damages were caused by the 2011 storms. Two homeowners did not own the residence at the time of the flood, the remaining owners verified the damage was related to the 2011 storms and they have been unable to make all necessary repairs due to insufficient resources from insurance.

The Iowa Economic Development Authority completed a duplicate of benefits check on 13 of the households to verify insurance and SBA assistance. These property owners confirmed

damage was due to the disaster and insurance/FEMA/SBA benefits were not sufficient to complete repairs. Of the 13 households where insurance claims were verified, five received compensation for hail damage, one for personal items, and six received no compensation from insurance. No homeowners received SBA assistance and there was no FEMA individual assistance available for residents of Dubuque. The Iowa Economic Development Authority provided a letter confirming the verifications that can be viewed here:

<https://drive.google.com/file/d/0B4GkEW8yVGbtaS1KMG1FdWZjUTQ/view?pli=1>

While many property owners made some repairs to their homes, nearly all are still at risk for infiltration during heavy rains. When repairs were made, few, if any, measures were implemented to make the homes more resilient. An integrated approach combining green infrastructure and improvements to increase health and safety of the structures is needed. The resiliency needs are identified in the housing inspections, and include: addition of sump pumps with battery back-up; installation of back-flow preventers to eliminate the risk of sewage backup; foundation repairs and water-proofing applications for basements; elevated furnaces and water heaters; and replacement of deteriorated windows/repair of window wells. The most effective efforts to increase resiliency will be achieved when improvements are made to neighboring or adjoining properties. This “neighborhood” approach to overall health, safety, and resiliency of homes will benefit residents in multiple ways. The proposed Health Homes Bee Branch Resiliency Project will increase education and outreach raising awareness of what it means to live in a watershed. The combined rehabilitation, education, and infrastructure improvements will contribute to Dubuque’s goal of preserving and rehabilitating quality, affordable housing inhabited by many of Dubuque’s low and moderate-income residents.

**Access to all linked data:** <https://drive.google.com>

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