

Climate Resilient Farming

Pilot Round

Proposal Rating Sheet

TRACK 1: Agricultural Waste Storage Cover and Flare

The goals of the Climate Resilient Farming Program are to reduce the impact of agriculture on climate change and to increase the adaptability and resiliency of New York State farms in the face of a changing climate. Agricultural waste storage cover and flare systems have the capacity to immediately impact both the greenhouse gas emissions from the farm and the farm's resiliency to major precipitation events.

1. Mitigation: Project clearly demonstrates capacity to decrease greenhouse gas emissions. (16 points)

- Extent of GHG emission savings through
 - Methane destruction potential (based on waste volume proposed to be covered and type of storage)
 - Capacity of the flare to combust methane when produced
- Demonstrated commitment of producer to utilize low emission, carbon sink, or renewable energy methods on other areas of the farm
- Commitment by producer and District to engage in regular testing and/or recording to be able to demonstrate GHG emission savings as a result of practice systems implemented

2. Adaptation/Resiliency: Project clearly demonstrates opportunity to increase farm resiliency. (16 points)

- Extent/capacity of project to expand farm resiliency through demonstration of current risks, needs, and climate change concerns
 - Farms with a high risk of overtopping or applying manure in adverse conditions will score higher than farms with low risks
- Management of water excluded from the storage (i.e., water that falls on the cover)
 - Projects that retain and store the water excluded from the storage will score more highly than projects that convey the water away from the farm
- Resiliency need is clearly established:
 - Proposal clearly demonstrates the actual (previous experience) and potential impacts of adverse weather
 - Maps of local hydrology, farm's location within flood plain/watershed are provided and demonstrate high risk of adverse weather to the farm and/or surrounding community
 - Local emergency management plans identify the farm/farm's region as high risk
- Demonstrated commitment of producer to emergency management planning and preparations
- Commitment by producer and District to record results in event of adverse weather

3. Scope of Work and Timeframe (8 points)

- Feasibility of the project is clearly demonstrated
 - Project proposal is comprehensive, coordinated and integrated and uses an interdisciplinary team of public and/or private sector professionals to maximize the ability to implement BMPs
 - Project proposal includes engineering/technical services commensurate with BMP deliverables
 - There is demonstrated experience and ability of the sponsor and project staff to undertake the proposed activity
 - Project deliverables are clearly defined and consistent with program objectives. Proposal clearly defines what is to be done, how it will be done, who will do it and when it will be done
- Project implements best management practices
 - Comprehensive Nutrient Management Plan and/or Whole Farm Plan clearly addresses the need for proposed systems
 - Preliminary design work has been completed.
 - The project will encourage the adoption of additional BMPs in the watershed beyond what the grant will be funding. For example, a BMP that demonstrates a practice not widely used in an area that could encourage replication on nearby farms, or the farmer commits to using their farm as a “demonstration project” and the District commits to conducting educational programming regarding Climate Resilient Farming.
- Linkages to soil conservation and water quality are also identified in the project.

4. Cost Effectiveness (10 points)

- Landowner support is documented
 - Landowner provides a sufficient match in cash or in-kind services.
 - Projects that reflect needs due to farm expansion (as opposed to solely due to the new realities of a changing climate) include a landowner contribution greater than required
- Cost effectiveness of the project is demonstrated
 - BMPs to be implemented are cost effective relative to the expected mitigation/adaptation benefit
 - Estimated time to complete and hourly rates being charged for equipment, administrative or technical/engineering services are reasonable (i.e., reflect average costs documented in the NRCS Field Office Technical Guide; administrative, technical, and engineering services reflect an appropriate percentage of the total project cost).
 - The project contains additional matching funds above the minimum required or leverages additional funding (e.g. local, EQIP, CREP, CRP, EPA 319, etc.), especially if requesting a substantial amount of State grant funds.
 - The project will be evaluated to ensure that proper operation and maintenance will be conducted for continuation of the project’s stated benefits.

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TRACK 2: On-Farm Riparian, Floodplain, and Upland Water Management

Improved water management on farms through the implementation of conservation systems can significantly enhance a farm's resiliency to the impacts of climate change, including both drought and flood. Some conservation systems, such as transferring land to perennial production or forest buffer, can also create beneficial carbon sinks.

1. Mitigation: Project clearly demonstrates capacity to decrease greenhouse gas emissions. (16 points)

- GHG emission savings are estimated
- Extent of GHG emission savings
- Acres of annual cropland converted to woody perennial cropland or riparian buffer
- Acres of annual cropland converted to herbaceous perennial cropland or riparian buffer
 - Note: Woody perennials sequester more carbon than herbaceous perennials, and therefore will be ranked higher
- Extent of fuel savings, if any, through less tillage, converted fields, etc.
- Extent of improved nitrogen management (less nitrous oxide released), if any
- Demonstrated commitment of producer to utilize low emission, carbon sink, or renewable energy methods on other areas of the farm
- Commitment by producer and District to engage in regular testing and/or recording to be able to demonstrate GHG emission savings as a result of practice systems implemented

2. Adaptation/Resiliency: Project clearly demonstrates opportunity to increase farm resiliency. (16 points)

- Degree that multiple BMP systems are assembled across land uses as part of a broader water management strategy
 - Proposals which include multiple BMP systems (e.g., Irrigation Water Management Systems for wetland or pond creation, resizing culverts and channels in Erosion and Sediment Control Systems to better meet today's climate's needs, and Stream and Shoreline Management Systems to clear debris from a stream) will score more highly than proposals which focus on only one area of need.
- Acres of area treated (catchment basin), volume of water managed
- Size of storage and amount of freeboard, if applicable
- Size of conveyances and level of storm in the design, if applicable
- Extent of risk to farm and local area posed by untreated stream in the event of a severe storm, if applicable
- Resiliency need is clearly established:
 - Proposal clearly demonstrates the potential impacts of adverse weather, including through previous experiences
 - Maps of local hydrology, farm's location within flood plain/watershed are provided and demonstrate high risk of adverse weather to the farm and/or surrounding community
 - Local emergency management plans identify the farm/farm's region as high risk
- Demonstrated commitment of producer to emergency management planning and preparations
- Commitment by producer and District to record results in event of adverse weather

3. Scope of Work and Timeframe (8 points)

- Feasibility of the project is clearly demonstrated.
 - Project proposal is comprehensive, coordinated and integrated and uses an interdisciplinary team of public and/or private sector professionals to maximize the ability to implement BMPs.
 - Project proposal includes engineering/technical services commensurate with BMP deliverables.
 - There is demonstrated experience and ability of the sponsor and project staff to undertake the proposed activity.
 - Project deliverables are clearly defined and consistent with program objectives. Proposal clearly defines what is to be done, how it will be done, who will do it and when it will be done.
- Project implements best management practices.
 - A higher level of planning than what is required has been completed, e.g. a complete farmstead plan, field level Resource Management System, Comprehensive Nutrient Management Plan, Whole Farm Plan.
 - Preliminary design work has been completed.
 - The project will encourage the adoption of additional BMPs in the watershed beyond what the grant will be funding. For example, a BMP that demonstrates a practice not widely used in an area that could encourage replication on nearby farms, or the farmer commits to using their farm as a “demonstration project” and the District commits to conducting educational programming regarding Climate Resilient Farming.
- Linkages to soil conservation and water quality are also identified in the project.

4. Cost Effectiveness (10 points)

- Landowner support is documented
 - Landowner provides a sufficient match in cash or in-kind services.
 - Projects that reflect needs due to farm expansion (as opposed to solely due to the new realities of a changing climate) include a landowner contribution greater than required
- Cost effectiveness of the project is demonstrated
 - BMPs to be implemented are cost effective relative to the expected mitigation/adaptation benefit
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TRACK 3: Soil Health

Improved soil health on farms can significantly enhance a farm's resiliency to the impacts of climate change, including benefits during times of drought, wet weather, as well as optimal growing conditions. Soil health practices can also create carbon sinks, increase water holding capacity and improve recycling of nitrogen by crops, thereby mitigating greenhouse gas emissions.

1. Mitigation: Project clearly demonstrates capacity to decrease greenhouse gas emissions. (16 points)

- GHG emission savings are estimated
- Extent of soil carbon sequestration potential of cropland conservation systems, for example, systems involving year round cover will be ranked higher. RUSLE2 estimates will also be used in comparing projects
- Acres of annual cropland converted to cropland conservation systems, including reduced tillage, crop rotations involving conserving higher residue crops, organic amendments, cover crops, riparian forest buffer, etc.
- Acres of annual cropland converted to perennial cropland or pasture
- Extent of fuel savings, if any, through less tillage, converted fields, etc.
- Extent of improved nitrogen management (less nitrous oxide released), if any
- Demonstrated commitment of producer to utilize low emission, carbon sink, or renewable energy methods on other areas of the farm
- Commitment by producer and District to engage in regular testing and/or recording to be able to demonstrate GHG emission savings as a result of practice systems implemented

2. Adaptation/Resiliency: Project clearly demonstrates opportunity to increase farm resiliency. (16 points)

- Acres of annual cropland converted to cropland conservation systems, including reduced tillage, crop rotations involving conserving higher residue crops, organic amendments, cover crops, riparian forest buffer etc.
- Extent of water holding capacity improvements, as estimated by RUSLE2
- Resiliency need is clearly established:
 - Proposal clearly demonstrates the potential impacts of adverse weather, including through previous experiences
 - Maps of local hydrology, farm's location within flood plain/watershed are provided and demonstrate high risk of adverse weather to the farm and/or surrounding community
 - Local emergency management plans identify the farm/farm's region as high risk
- Extent/capacity of project to expand farm resiliency
- Demonstrated commitment of producer to emergency management planning and preparations
- Commitment by producer and District to record results in event of adverse weather

3. Scope of Work and Timeframe (8 points)

- Feasibility of the project is clearly demonstrated.
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 - There is demonstrated experience and ability of the sponsor and project staff to undertake the proposed activity.
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