

Subapplicant information

Name of federal agency **FEMA**
 Type of submission **Application**

CITY OF DUNN

401 E BROAD ST
 DUNN, NC 28334 United States

State	DUNS #	EIN #
NC	075550830	566001214

Subapplicant type **Local Government**
 Is the subapplicant subject to review by Executive Order 12372 Process? **No - Not selected**
 Is the subapplicant delinquent on any federal debt? **No**

Contact information

Subrecipient Authorized Representative (SAR)

Samantha Wullenwaber swullenwaber@mccog.org	Primary phone 9196325397 Mobile	Mailing address
Mathew Boone mboone@dunn-nc.org	Primary phone 9102303502 Work	Mailing address

Point(s) of contact

Samantha Wullenwaber Director of LGS swullenwaber@mccog.org	Primary phone 9196325397 Mobile Fax	Additional phones 9196325397 Mobile	Mailing address 6205 Raeford Road Fayetteville NC 28304
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Community

Please provide the following information. If the Congressional district number for your community does not display correctly, please contact your State NFIP coordinator.

Add Communities

Please find the community(ies) that will benefit from this mitigation activity by clicking on the Find communities button. If needed, modify the Congressional District number for each community by entering the updated number under the U.S. Congressional District column for that community. When finished, click the Continue button. NOTE: You should also notify your State NFIP coordinator so that the updated U.S. Congressional District number can be updated in the Community Information System (CIS) database.

Community name	County code	CID number	CRS community	CRS rating	U.S. Congressional District
DUNN, CITY OF	085	370264	N		7,8

Please provide any additional comments below (optional).

The pre-populated U.S. Congressional District numbers listed were 2,3. According to house.gov the district numbers are 7,8.

Attachments

Filename	Date uploaded	Uploaded by	Label	Description	Action
Dunn Raw Water Tech Scoring Support.pdf	01/20/2023	swullenwaber@mccog.org	Community Attachments	No description given.	

Mitigation plan

Please provide your plan information below.

Is the entity that will benefit from the proposed activity covered by the current FEMA approved multi-hazard mitigation plan in compliance with 44 CFR Part 201? **Yes**

Please provide plan detail

Plan name	Plan type	Plan approval date
Cape Fear Regional Hazard Mitigation Plan	Local Multijurisdictional Multi-Hazard Mitigation Plan	12/07/2020
Proposed activity description		

Please provide any additional comments below (optional).

Attachments

Filename	Date uploaded	Uploaded by	Label	Description	Action
Hazard Amendment Resolution_Dunn Dec 2022.pdf	01/06/2023	swullenwaber@mccog.org	Mitigation Plan Attachments	Adopted and executed resolution from the City of Dunn City Council amending the hazard mitigation plan.	
Cape Fear HMP Goals.pdf	01/06/2023	swullenwaber@mccog.org	Mitigation Plan Attachments	Goals for the hazard mitigation plan.	
Cape Fear Hazard Mit Plan Approval Ltr.pdf	01/06/2023	swullenwaber@mccog.org	Mitigation Plan Attachments	Original approval letter for the Cape Fear Regional Hazard Mitigation Plan.	

Scope of work

The project Scope of Work (SOW) identifies the eligible activity, describes what will be accomplished and explains how the mitigation activity will be implemented. The mitigation activity must be described in sufficient detail to verify the cost estimate. All activities for which funding is requested must be identified in the SOW prior to the close of the application period. FEMA has different requirements for project, planning and management cost SOWs.

Subapplication title (include type of activity and location)

City of Dunn Raw Water Electrical Relocation & 24" line replacement

Activities

Primary activity type

Utility and infrastructure protection

Primary sub-activity type

Potable water

Primary sub-activity type

Potable water

Secondary activity type (Optional)

Floodproofing

Secondary sub-activity type

Wet floodproofing

Tertiary activity type (Optional)

Geographic areas description

Dunn Raw Water Intake structures, pump station, raw water pipeline from Cape Fear River to the Dunn Water Treatment Plant, (near Erwin NC) Dunn, NC Raw Water Intake on Cape Fear River 35.328165, -78.698344 Located in Erwin, NC, at the end of S. 19th Street and the end of Pump Station Roads East 19th and 20th Streets are off of West "E" Street (NCSR # 1857)in Erwin, NC at the Dunn Water Treatment (Filtering) Plant. Site is on the eastern side of the Cape Fear River approx. 1500 LF north of Juniper Creek

Community lifelines

Primary community lifeline

Food, water, shelter

Primary sub-community lifeline

Water

Secondary community lifeline (optional)

Health and medical

Secondary sub-community lifeline

Public health

Tertiary community lifeline (optional)

Hazard sources

Primary hazard source

Infrastructure failure

Secondary hazard source (optional)

Flooding

Tertiary hazard source (optional)

Severe storm

Is this a phased project?

No

Are you doing construction in this project?

Yes

Percentage of population impacted

100

Provide detailed description of population impacted

The City of Dunn presents an excellent opportunity for FEMA BRIC funds. The city not only serves in-town and out of town residents but they provide water to multiple towns and county's. The towns of Eastover, Falcon, Godwin, Benson all depend on water from the Dunn water treatment plant. Harnett County and Sampson County also receive water from Dunn. The total connections between these entities is 14,725 serving approximately 37,458 people. As the data shows through the Climate and Economic Justice Screening Tool, Dunn is considered as a disadvantaged community in regards to Climate Change and Health Burdens. With almost a quarter (23.2% according to Census QuickFacts) of the City's population 65 years or older, which is markedly above the state (17.0%) and national (16.8%) averages, a larger than average portion of Dunn's residents may be more susceptible and vulnerable to the challenges that come with increased weather phenomena that are brought on through Climate Change. Additionally, the Climate and Economic Justice Screening Tool presents data that shows Dunn as a disadvantaged community due to its low-income rates as well as its

percentage of higher education non-enrollment. These assertions are supported by the statistics from censusreporter.gov that show 19.2% of Dunn's population having attained a Bachelor's Degree or higher, which is well below the state average of 32.0% and the national average of 32.9%, and a median household income of \$34,464, about three-fifths the state average of \$56,642, and far less than the national average of \$64,994. Moreover, the City of Dunn has a reported 22.9% of its population below the poverty line, around 40% of which are those aged 18 and under, according to censusreporter.gov. Finally, in the screenshots posted below, according to the NCDEQ Community Mapping System, over three-quarters of the geographic area of the City of Dunn qualify as potentially underserved block groups, and around half of the City's inhabitants are classified as low-income. The NCDEQ Community Mapping System splits Dunn into four quadrants. All four quadrants of Dunn have markedly higher rates of cancer deaths, cardiovascular disease deaths, diabetes deaths, heart disease deaths, stroke deaths, and infant deaths than the state average. While Dunn may have an economically disadvantaged population, it is also one which faces serious health disparities in comparison to other communities around the state. The statistics additionally support the fact that in addition to being considered economically vulnerable, Dunn's population is also widely vulnerable in terms of overall health. Thus, any potential health hazards to the City's residents should be seriously considered and addressed as quickly as possible. These statistics show that the City of Dunn is a highly disadvantaged and underserved community. This means many in Dunn don't have the means to prepare and protect themselves from the potential increase in natural disasters heightened by Climate Change. On top of an already depleted citywide infrastructure, there are numerous health and financial risks that residents of the City already face. Any disaster only exacerbates complications within an area and does so even more in disadvantaged communities like Dunn. The abundant amount of risks in Dunn must be addressed in order to ensure the long term wellbeing and sustainability of the City and its inhabitants. If awarded, the FEMA BRIC funds will be a tremendous help in fixing the problems present in Dunn, and will stand to benefit the entirety of the community, one which has become disadvantaged and underserved for far too long.

Provide a clear and detailed description of your proposed activity

This project is entirely a critical public water supply Infrastructure Project. This utility project includes two key portions of the Dunn water supply system, one is the electrical components of the raw water pump station, and the other part will replace an old raw water line with a new 24" raw water pipeline. There is no increase in capacity of pumping or water treatment needed or proposed with this project. The project is purely for reliability, and resiliency of infrastructure. The first part is to replace and relocate all electrical components at the existing raw water pump station near the raw water intake on the Cape Fear River to a location nearby that is above and out of the flood plain. These electrical components include the Motor Control Center, (MCC), power feed from the Utility, transformer pad, Supervisory Control and Data Acquisition (SCADA) and the associated wiring conduits and communications systems, backup generator, lighting, fencing. The motors and pumps will be inspected and tested and may have some remaining service life remaining. The second part of the project will replace one of two existing Raw Water Pipelines with approx. 3500 LF of new 24" raw water pipeline. The new 24" raw water pipeline will replace the oldest existing 16" raw water pipeline (installed in 1974, was 48 years old in 2022). Another existing parallel 24" Raw Water pipeline (installed in 1993, was 29 years old in 2022) will remain as a parallel line providing redundancy, reliability, and resiliency. This line broke during Hurricane Florence in September of 2018 and required an emergency repair. The failure appears to be caused by extreme rainfall causing flooding conditions, embankment stability and flowing water undermining the pipe and not the age of the pipe. This water intake on the Cape Fear River is the only source of water for the City of Dunn. This is called a "run of the river" intake and there is no storage for the raw water other than the river. This raw water pump station and raw water pipeline moves the water from the river to the Dunn Water Treatment Plant (WTP). The pipeline will be installed in an existing utility easement running from the Cape Fear River intake to the Dunn Water Treatment Plant located in Erwin, NC on South 19-th Street extension, off of West "E" Street (NCSR 1857).

How will the mitigation activity be implemented?

This project will mitigate known hazards from natural causes, extreme rainfall events, hurricanes, and flooding that have occurred multiple times in recent years and are expected to recur again in coming years. Planning and technical solutions proposed for this project will significantly improve the outcomes.

Describe how the project is technically feasible and will be effective in reducing the risk by reducing or eliminating damage to property and/or loss of life in the project area. Please include engineering design parameters and references to the following: preliminary schematic or engineering drawings/design; applicable building codes; engineering practices and/or best practices; level of protection (e.g., life safety, 100-yr flood protection with freeboard, 100-yr wind design, etc.):

Reliable water and sewer are key to a healthy life and safe communities. People, and businesses consider their water and sewer systems to be the most reliable and important utility they have. Water systems like all infrastructure require good operations, maintenance, and asset management. Water system components last a long time, however repairs and replacement are expected and planned for based on a Utility Asset Management plan that projects pipes to last 50-75 years, and pumps and electrical parts to last 25-35 years. The expected lifespan for these components has been reached. The hazard and risk of more failures requiring emergency repairs to these critical water supply system components has increased to the point that replacement is required. The reliability of adequate and safe water supply during emergencies, flooding, and power outages is something often taken for granted. Potential life safety and emergency response depends on water supply for fire, emergency, hospitals, dialysis centers and shelter operations. This project will provide economic, environmental, and social benefits to everyone.

Who will manage and complete the mitigation activity?

Project team

Will the project address the hazards identified and what risks will remain from all hazards after project implementation (residual risk)?

The project completely addresses the hazard as presented. The relocation of the raw water pump station and electrical components will completely mitigate the risk from flooding. Installing an additional 24" water line will create redundancy to prevent future water loss to the entire city and neighboring communities who purchase water from the City of Dunn.

Does the mitigation activity incorporate nature-based solutions?

Yes

When will the mitigation activity take place?

Construction will initiate in 2024.

Explain why this project is the best alternative. What alternatives were considered to address the risk and why was the proposed activity considered the best alternative?

The relocation of the pump station, all electrical components and construction of a secondary water main is the best alternative because of the location of the current infrastructure. The current infrastructure has been damaged by flooding resulting in severe loss for the city. Relocating the infrastructure out of the floodplain and creating redundancy to prevent future failures is the best alternative.

Please identify the entity that will perform any long-term maintenance and provide a maintenance, schedule and cost information. The subapplicant or owner of the area to be mitigated is responsible for maintenance (including costs of long-term care) after the project is completed?

The City of Dunn has a full-time maintenance staff at the water treatment facility. All maintenance will be provided by City of Dunn staff.

Additional comments (optional)

Attachments

Filename	Date uploaded	Uploaded by	Label	Description	Action
Dunn Raw Water Qual 3 Implementation.pdf	01/06/2023	swullenwaber@mccog.org	Scope of Work Attachments	Narrative describing the implementation measures for the project.	
Dunn Raw Water Qual Criteria 1 R&R.pdf	01/06/2023	swullenwaber@mccog.org	Scope of Work Attachments	Documentation supporting the recovery and resiliency.	
pump_station_pics_Dunn.pdf	01/06/2023	swullenwaber@mccog.org	Scope of Work Attachments	Pictures of the existing pump station.	
Dunn raw water 24 line.jpg	01/06/2023	swullenwaber@mccog.org	Scope of Work Attachments	Map illustrating the raw water line.	
Water Line after Hurrincae Florence at RW Station.jpg	01/09/2023	swullenwaber@mccog.org	Scope of Work Attachments	Picture hurricane	
Raw Water Intake-Mud Line after Flood.jpg	01/09/2023	swullenwaber@mccog.org	Scope of Work Attachments	Picture hurricane	
Raw Water Station-After the Rain Stops (Florence).jpg	01/09/2023	swullenwaber@mccog.org	Scope of Work Attachments	Picture hurricane	
Raw Water Qual Criteria 4 Population Impacted.pdf	01/06/2023	swullenwaber@mccog.org	Scope of Work Attachments	Narrative describing the population impacted by the proposed project.	

Filename	Date uploaded	Uploaded by	Label	Description	Action
Raw Water Qual 5 Comm Eng_Outreach.pdf	01/06/2023	swullenwaber@mccog.org	Scope of Work Attachments	The attached document describes the community engagement and outreach activities proposed for the project.	

Schedule

Specify the work schedule for the mitigation activities.

Add tasks to the schedule

Please include all tasks necessary to implement this mitigation activity; include descriptions and estimated time frames.

Task Name State Grant Contracting	Start Month 1	Task Duration (in Months) 2 months	Task Description State grant contracting tasks
Task Name Surveying, CCTV'ing and mapping	Start Month 3	Task Duration (in Months) 6 months	Task Description Surveying, CCTV, Mapping, Condition Assessment, includes work by Sub-Consultants
Task Name Planning, design, contract preparation for construction	Start Month 9	Task Duration (in Months) 6 months	Task Description Design, Prepare Plans, Permitting, Prepare Contract Documents
Task Name Receive bids, vet firms, award contract, construction	Start Month 15	Task Duration (in Months) 14 months	Task Description Plan and Project Manual Review and Approval Bidding, Awarding of Bids
Task Name Management Costs	Start Month 1	Task Duration (in Months) 29 months	Task Description Grant administration activities pre-award through closeout and monitoring with reporting.
Task Name Go-No Go Milestone	Start Month 3	Task Duration (in Months) 1 months	Task Description Go-No Go Milestone

Estimate the total duration of your proposed activities (in months). **29**

Proposed project start and end dates

Start Date **2023-07-01**
 End Date **2025-12-01**

Introduction

Project location

Provide a detailed description of the proposed project's location.

The project is located at the water treatment plant and surrounding property on S. 19th Street in Erwin, NC. Please note, the City's plant is located in Erwin along the Cape Fear River.

Latitude

35.324715

Longitude

-078.688053

Attachments

Filename	Date uploaded	Uploaded by	Label	Description	Action
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Project benefiting area

Provide a detailed description of the proposed project's benefiting area.

The project benefits the entire city. The project ensures that fresh water will still be available in the case of a disaster

Attachments

Filename	Date uploaded	Uploaded by	Label	Description	Action
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Project impact area

Provide a detailed description of the proposed project's impact area.

The project is located at the existing water treatment plant property and alongside existing infrastructure.

Attachments

Filename	Date uploaded	Uploaded by	Label	Description	Action
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Project site inventory

Does this project subapplication propose to mitigate a property/structure(s)? (Examples: residential home, commercial building, bridge, fire station, levee, pumping station, wastewater treatment plant, telephone pole, electric line, etc.)

Yes

Please describe how the propert(ies) will be selected upon subgrant approval. (Example: Saferoom Lottery Project, Fix the Bricks Project)

It is the existing raw water station at the water treatment plant property. Dunn Raw Water Intake structures, pump station, raw water pipeline from Cape Fear River to the Dunn Water Treatment Plant, (near Erwin NC) Dunn, NC Raw Water Intake on Cape Fear River 35.328165, -78.698344 Located in Erwin, NC, at the end of S. 19th Street and the end of Pump Station Roads East 19th and 20th Streets are off of West "E" Street (NCSR # 1857)in Erwin, NC at the Dunn Water Treatment (Filtering) Plant. Site is on the eastern side of the Cape Fear River approx. 1500 LF north of Juniper Creek

Please [download the excel template](#), and then fill out the template with building or infrastructure data.

Budget

Budget cost estimate should directly link to your scope of work and work schedule. You must add at least one item(s) greater than 0 for your cost estimate. As necessary, please adjust your federal/non-federal cost shares, and add the non-federal funding source(s) you are planning to use this project. Once you have completed this section, please click the Continue button at the bottom of this page to navigate to the next section.

Add budget cost types and item(s)

First, click the Add cost type button below to add cost type cost estimate and then click the Add item(s) button to add the item(s) for the cost estimate.

Grand total: \$9,014,565.00

Budget type: Construction

▶	Cost type: Cost estimate	\$8,585,300.00
▶	Cost type: Management cost	\$429,265.00

Program income (optional)

Cost share

Cost share or matching means the portion of project costs not paid by federal funds.

Proposed federal vs. non-federal funding shares

Hazard mitigation assistance (HMA) funds may be used to pay up to 75% federal share of the eligible activity costs. Building Resilient Infrastructure and Communities (BRIC) and small impoverished communities may be eligible for up to 90% federal share. Flood Mitigation Assistance (FMA) and severe repetitive loss (SRL) properties may be eligible for up to 100% federal share. Repetitive loss (RL) properties may be eligible for up to 90% federal share.

Is this an Economically Disadvantaged Rural Community? ⓘ This determines your federal/non-federal share ratio. No		% Percentage	\$ Dollar amount
	Proposed federal share	71.43	6438975.00
	Proposed non-federal share	28.57	2575590.00
			Based on total Budget cost: \$9,014,565.00

Non-federal funding sources here

That portion of the total costs of the program provided by the non-federal entity in the form of in-kind donations or cash match received from third parties or contributed by the agency. In-kind contributions must be provided and cash expended during the project period along with federal funds to satisfy the matching requirements.

Funding source	Funding amount	% Non-federal share by source
▶ Funding source: Cash Contributions	100.00%	\$2,575,590.00

Please provide any additional comments below (optional).

The City of Dunn has committed to an overmatch of 70/30 for the proposed project. The percentages above are skewed due to the grant administration cost added to the federal share per the instruction video.

Attachments

Filename	Date uploaded	Uploaded by	Label	Description	Action
Dunn Commitment Letter Raw Water.pdf	01/06/2023	swullenwaber@mccog.org	Budget Attachments	Do Not Use	

Filename	Date uploaded	Uploaded by	Label	Description	Action
Dunn Raw Water Budget Final.pdf	01/20/2023	swullenwaber@mccog.org	Budget Attachments	Cost Estimate	
BRIC2022-Dunn-RawWater-MatchLetter.pdf	01/23/2023	kaine.riggan@ncdps.gov	Budget Attachments	Local Fund Match Letter	

Cost-effectiveness

How was cost-effectiveness determined for this project?

- BCA completed in FEMA's BCA toolkit
Subapplicant must attach supporting documentation.
- Pre-calculated benefits
- Substantial damage in special flood hazard area
- Other BCA methodology approved by FEMA in writing
- Not applicable
- Not applicable

What are the total project benefits? (\$) **9994321**

What are the total project cost? (\$) **9006060**

What is the benefit-cost ratio (BCR) for the entire project? **1.10**

Was sea level rise incorporated into the flood elevations in the BCA? **No**

Were environmental benefits added to the project benefits? **Yes**

Were social benefits added to the project benefits? **Yes**

Please provide any additional comments below (optional).

The Census Tract that includes the project area has a Centers for Disease Control and Prevention (CDC) Social Vulnerability Index (SVI) rating among the highest in the nation: 0.876 offering the BCA waiver and further assistance from FEMA in addressing any issues found with the BCA in the NTR review. Evidence is presented in the Technical Scoring Support document.

Attachments

Filename	Date uploaded	Uploaded by	Label	Description	Action
Dunn Raw Water BCA Narrative.pdf	01/09/2023	swullenwaber@mccog.org	Cost Effectiveness Attachments	Narrative explaining the BCA for the raw water project.	
DUNN-FEMA-BRIC-BCA--RAW-WATER-ELEC--2023-01-09--Report-01.pdf	01/09/2023	swullenwaber@mccog.org	Cost Effectiveness Attachments	BCA report from toolkit.	
Dunn Raw Water Budget Final.pdf	01/20/2023	swullenwaber@mccog.org	Cost Effectiveness Attachments	<i>No description given.</i>	

Environmental/Historic Preservation (EHP) Review Information

Introduction

An environmental/historic preservation review is required for all activities for which FEMA funds are being requested. FEMA will complete this review with the assistance of both the state or tribal government and the local applicant. It is important that you provide accurate information. If you are having problems completing this section, please contact your application point of contact.

A. National Historic Preservation Act - Historic Buildings and Structures

1. Does your project affect or is it in close proximity to any buildings or structures 50 years or more in age? **No**

Please confirm that you have provided the information listed below by selecting each check box. (If you have not provided these documents in any other section of the application, please attach the required documents below.)

- The property address and original date of construction for each property affected (unless this information is already noted in the Properties section).
- A minimum of two color photographs showing at least three sides of each structure (Please label the photos accordingly).
- A diagram or USGS 1:24,000 scale quadrangle map displaying the relationship of the property (s) to the project area.

To help FEMA evaluate the impact of the project, please indicate below any other information you are providing. (optional)

- Information gathered about potential historic properties in the project area, including any evidence indicating the age of the building or structure and presence of buildings or structures that are listed or eligible for listing on the National Register of Historic Places or within or near a National Register listed or eligible historic district. Sources for this information may include the State Historic Preservation Officer, and/or the Tribal Historic Preservation Officer (SHPO/THPO), your local planning office, historic preservation organization, or historical society.
- Consideration of how the project design will minimize adverse effects on known or potential historic buildings or structures, and any alternatives considered or implemented to avoid or minimize effects on historic buildings or structures. Please address and note associated costs in your project budget.
- For acquisition/demolition projects affecting historic buildings or structures, any data regarding the consideration and feasibility of elevation, relocation, or flood proofing as alternatives to demolition.
- Attached materials or additional comments.

Please provide an explanation and any information about this project that could assist FEMA in its review. (optional)

Please provide an explanation and any information about this project that could assist FEMA in its review.

Attachments

Filename	Date uploaded	Uploaded by	Label	Description	Action
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B. National Historic Preservation Act - Archeological Resources

Does your project involve disturbance of ground? **Yes**

Please confirm that you have provided the information listed below by selecting each check box. (If you have not provided these documents in any other section of the application, please attach the required documents below.)

- A description of the ground disturbance by giving the dimensions (area, volume, depth, etc.) and location.
- The past use of the area to be disturbed, noting the extent of previously disturbed ground.
- A USGS 1:24,000 scale or other site map showing the location and extent of ground disturbance.

To help FEMA evaluate the impact of the project, please indicate below any other information you are providing. (optional)

- Any information about potential historic properties, including archeological sites, in the project area. Sources of this information may include SHPO/THPO, and/or the Tribe's cultural resources contact if no THPO is designated. Include, if possible, a map showing the relation of any identified historic properties to the project area.
- Attached materials or additional comments.

Please provide an explanation and any information about this project that could assist FEMA in its review. (optional)

Please provide an explanation and any information about this project that could assist FEMA in its review.

Attachments

Filename	Date uploaded	Uploaded by	Label	Description	Action
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C. Endangered Species Act and Fish and Wildlife Coordination Act

1. Are federally listed threatened or endangered species or their critical habitat present in the area affected by the project? **No**

Please confirm that you have provided the information listed below by selecting each check box. (If you have not provided these documents in any other section of the application, please provide the required documents either through attachment and/or comment box below.)

Information you obtained to identify species in or near the project area. Provide the source and date of the information cited.

To help FEMA evaluate the impact of the project, please indicate below any other information you are providing. (optional)

Any request for information and associated response from the USFWS, the National Marine Fisheries Service (NMFS) (for affected ocean-going fish), or your State Wildlife Agency, regarding potential listed species present and potential of the project to impact those species.

Attached materials or additional comments.

Please provide an explanation and any information about this project that could assist FEMA in its review. (optional)

Please provide an explanation and any information about this project that could assist FEMA in its review.

2. Does your project remove or affect vegetation?

No

Please confirm that you have provided the information listed below by selecting each check box. (If you have not provided these documents in any other section of the application, please provide the required documents either through attachment and/or comment box below.)

Description of the amount (area) and type of vegetation to be removed or affected.

A site map showing the project area and the extent of vegetation affected.

Photographs or digital images that show both the vegetation affected and the vegetation in context of its surroundings.

To help FEMA evaluate the impact of the project, please indicate below any other information you are providing. (optional)

Attached materials or additional comments.

Please provide an explanation and any information about this project that could assist FEMA in its review. (optional)

Please provide an explanation and any information about this project that could assist FEMA in its review.

3. Is your project in, near (within 200 feet), or likely to affect any type of waterway or body of water? No

If Yes, and project is not within an existing building, you must confirm that you have provided the following: (If you have not provided these documents in any other section of the application, please attach the required documents below.)

A USGS 1:24,000 scale quadrangle map showing the project activities in relation to all nearby water bodies (within 200 feet).

Any information about the type of water body nearby including: its dimensions, the proximity of the project activity to the water body, and the expected and possible changes to the water body, if any. Identify all water bodies regardless whether you think there may be an effect.

A photograph or digital image of the site showing both the body of water and the project area.

To help FEMA evaluate the impact of the project, please indicate below any other information you are providing. (optional)

Evidence of any discussions with the US Fish and Wildlife Service (USFWS), and/or your State Wildlife Agency concerning any potential impacts if there is the potential for the project to affect any water body.

Please provide an explanation and any information about this project that could assist FEMA in its review. (optional)

D. Clean Water Act, Rivers and Harbors Act, and Executive Order 11990 (Protection of Wetlands)

1. Will the project involve dredging or disposal of dredged material, excavation, adding fill material or result in any modification to water bodies or wetlands designated as 'waters of the U.S.' as identified by the US Army Corps of Engineers or on the National Wetland Inventory? No

E. Executive Order 11988 (Floodplain Management)

1. Does a Flood Insurance Rate Map (FIRM), Flood Hazard Boundary Map (FHBM), hydrologic study, or some other source indicate that the project is located in or will affect a 1% annual chance floodplain, a 0.2% annual chance floodplain, a regulatory floodway, or an area prone to flooding? No

2. Does the project alter a watercourse, water flow patterns, or a drainage way, regardless of its floodplain designation? No

F. Coastal Zone Management Act

1. Is the project located in the state's designated coastal zone? **No**

G. Farmland Protection Policy Act

1. Will the project convert more than 5 acres of prime or unique farmland outside city limits to a non-agricultural use? **No**

H. Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (Hazardous and Toxic Materials)

1. Is there a reason to suspect there are contaminants from a current or past use on the property associated with the proposed project? **No**

2. Are there any studies, investigations, or enforcement actions related to the property associated with the proposed project? **No**

3. Does any project construction or operation activities involve the use of hazardous or toxic materials? **No**

4. Do you know if any of the current or past land-uses of the property affected by the proposed project or of the adjacent properties are associated with hazardous or toxic materials? **No**

I. Executive Order 12898, Environmental Justice for Low Income and Minority Populations

1. Are there low income or minority populations in the project's area of effect or adjacent to the project area? **No**

J. Other Environmental/Historic Preservation Laws or Issues

1. Are there other environmental/historic preservation requirements associated with this project that you are aware of? **No**

2. Are there controversial issues associated with this project? **No**

3. Have you conducted any public meeting or solicited public input or comments on your specific proposed mitigation project? **No**

K. Summary and Cost of Potential Impacts

Having answered the questions in parts A. through J., have you identified any aspects of your proposed project that have the potential to impact environmental resources or historic properties? **No**

Evaluation

Is the applicant participating in the Community Rating System (CRS) ?	No
Is the applicant a Cooperating Technical Partner (CTP) ?	No
Was this application generated from a previous FEMA HMA Advance Assistance or Project Scoping award or any other federal grant award, or the subapplicant is a past recipient of Building Resilient Infrastructure and Communities (BRIC) non-financial Direct Technical Assistance?	No
Has the applicant adopted building codes consistent with the international codes ?	Yes
Year of building code	2018
Please provide the building code.	International Code Council NC Building Code, International Code Council NC Residential Code
Have the applicant's building codes been assessed on the Building Code Effectiveness Grading Schedule (BCEGS) ?	Yes
Select rating.	4
Describe involvement of partners to enhance the mitigation activity outcome.	<p>Dunn has and will partner with an extensive list of partners including: North Carolina Department of Public Safety, Mid-Carolina Regional Council, Neighboring towns, Economic Development Partnership of North Carolina, Harnett County Economic Development, Engineering firm, North Carolina Office of Recovery & Resiliency, Harnett County, Cape Fear Regional Hazard Mitigation Plan Partners, City Council, UNC-CH SOG Listserv, Industrial businesses, Police Athletic League and the Dunn Community Development Corporation. The City of Dunn is partnering with Mid-Carolina Regional Council throughout the length of the project. Mid-Carolina is a voluntary coalition of local governments and functions as a multi-county planning, development, and human services organization. The Council reaches across county and municipal borders to provide technical assistance to our local governments and to administer programs that benefit our region's citizens. Mid-Carolina will utilize its resources to include all relevant partners in the region. Dunn is extremely close to Sampson and Cumberland counties which are the other areas that Mid-Carolina serves. The regional council will act as the catalyst to bring all parties together, public and private. The City of Dunn has been actively involved in the RISE grant program initiative through the North Carolina Office of Recovery & Resiliency. The city hosted one of two public engagement events in September to help facilitate the drafting of the Resilience Portfolio because of climate change. Dunn is an integral part of the hazard mitigation planning for Harnett County. Through this process they have partnered with Harnett County Emergency Management and the Development Services Department. As a regional water and sewer provider Dunn will partner with all entities to carefully facilitate construction and mitigation efforts. Another extremely beneficial partner is the North Carolina Department of Public Safety. The Department of Public Safety is the liaison between applicants and FEMA. The knowledge, experience and assistance that has been and will be provided will ensure that the entire project is completed efficiently and accurately. The UNC-CH School of Government blogs, listservs and publications provides critical information to all involved in the project. It will serve as a tool during the request for qualification process by being able to advertise the request for qualification on the listservs that reaches thousands of people. The school of government has valuable information for every step of the project process. The Dunn Community Development Corporation is a non-profit supported by the City that assists disadvantaged communities. Approximately 5 years ago the corporation completed a \$9 million renovation of a city owned property occupied by a historic Rosenwald school to create affordable senior housing, an early college, barbering school and culinary school in partnership with the community college. The corporation is well versed and successful and will immediately assist with redevelopment.</p>
Discuss how anticipated future conditions are addressed by this project.	<p>The City of Dunn has been proactively anticipating and preparing for future conditions related to climate change. According to the climate mapping for resilience and adaptation change tool, https://livingatlas.arcgis.com/assessment-tool/explore/details, Dunn is expected to have extreme heat, drought and flooding. Using the higher emissions scenario in the climate mapping tool, by 2070-2099 the city will have an average of 81.8 days each year with temperatures above 95 degrees. Historically, there has been an average of 10.4 days each year with</p>

temperatures above 95 degrees. In less than 80 years the number of extreme heat days is expected to increase by 686%. Dunn will also suffer from drought conditions. On average the number of dry days will increase by 15 days. The city is also expected to see an increase in flooding. In the past five years the city has seen unprecedented flooding caused by Hurricane Florence and Hurricane Matthew. The precipitation and flooding during Hurricane Florence caused the 24" water main to break. There was no redundancy in place which resulted in loss of water to the city. The electrical components were also flooded during Hurricane Florence. Historically Dunn has approximately 46.9 inches of rain that will increase to at least 51.2 inches a year. Any increase in precipitation will have a negative impact on the infrastructure of the city. For a number of years, the city's growth remained steady but not demanding of the utility system. In the past 3 years Dunn has experienced exponential growth. From fiscal year 2021 to 2022 the number of residential building permits increased by 76% as shown in the table below. In fiscal year 2022 the city issued 5 commercial building permits. Only five months into fiscal year 2023, the city has already issued 9 commercial building permits. With the increased development also comes an increased demand for the water system. The City of Dunn maintains a land use plan, comprehensive transportation, capital improvement plan, strategic plan and hazard mitigation plan. Not only does the city maintain these and numerous other plans they actively engage and implement the plans. Each plan, takes into account the future anticipated conditions of the city and makes a plan for how to address the issues. One goal of the hazard mitigation plan is to 'protect the most vulnerable populations, buildings, and critical facilities through the implementation of cost-effective and technically feasible mitigation actions'. Through this goal the city has carefully drafted his capital improvement program to address infrastructure needs in Dunn. Dunn is a member of Mid-Carolina Regional Council and has played a critical role in the development of the Mid-Carolina Regional Portfolio of Resilience Project also known as the RISE project. (Project website: www.risecentralnc.com). The objective of the RISE project is to identify priority actions that reduce risk and enhance resilience in the region through the development of the Climate Hazard Vulnerability Assessment. Through the vulnerability assessment, the RISE project also identified flooding, hurricanes, storms, extreme heat and drought as anticipated future conditions. The portfolio includes a small set of priority actions (six total) that have been selected based on their high impact toward achieving resilience in Dunn and across the region. Additionally, these actions were selected based on the feasibility of implementing in the near- to medium-term. The goal is to produce shovel-ready actions including detailed implementation pathways to further leverage state and federal funding opportunities while establishing partnerships and heightening collaboration. The City held one of the two public participation meetings for the RISE project. Dunn's active involvement in the RISE project, which is focused solely on the impacts of climate change in the future and ways to mitigate said impacts.

Additional comments (optional)

Attachments

Filename	Date uploaded	Uploaded by	Label	Description	Action
Dunn Raw Water Qual Criteria 2 Future Cond. Climate Change.pdf	01/06/2023	swullenwaber@mccog.org	Evaluation Attachments	Qualitative narrative describing future conditions and climate change related to the project.	
Raw Water Qual 6 Leveraging Partners.pdf	01/06/2023	swullenwaber@mccog.org	Evaluation Attachments	Qualitative narrative describing project partners.	
Building Code Email.pdf	01/06/2023	swullenwaber@mccog.org	Evaluation Attachments	Email stating building code that the City of Dunn uses.	
Dunn BCEGS Rating.pdf	01/06/2023	swullenwaber@mccog.org	Evaluation Attachments	Email stating Dunn's BCEGS rating.	
Dunn Raw Water Tech Scoring Support.pdf	01/20/2023	swullenwaber@mccog.org	Evaluation Attachments	<i>No description given.</i>	

Comments & attachments

▶ Community	1 comment, 1 attachments
▶ Mitigation plan	0 comment, 3 attachments
▶ Scope of work	0 comment, 9 attachments
▶ Budget	1 comment, 2 attachments
▶ Cost-effectiveness	1 comment, 3 attachments
▶ Evaluation	0 comment, 5 attachments
▶ Environmental/Historic Preservation (EHP)	0 comment, 0 attachments
▶ Location	0 comment, 0 attachments

Assurances and certifications

OMB Number: 4040-0009, Expiration Date: 02/28/2025 [View burden statement](#)

SF-424D: Assurances - Construction Programs

Content:

OMB Number: 4040-0009

Expiration Date: 02/28/2025

Certain of these assurances may not be applicable to your project or program. If you have any questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

- Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of the project described in this application.
- Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, the right to examine all records, books, papers, or documents related to the assistance; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
- Will not dispose of, modify the use of, or change the terms of the real property title or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the Federal awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with Federal assistance funds to assure nondiscrimination during the useful life of the project.
- Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.
- Will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progressive reports and such other information as may be required by the assistance awarding agency or State.
- Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
- Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
- Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
- Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
- Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee- 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
12. Will comply with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (F.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a--1 et seq.).
18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.
20. Will comply with the requirements of Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. 7104) which prohibits grant award recipients or a sub-recipient from (1) Engaging in severe forms of trafficking in persons during the period of time that the award is in effect (2) Procuring a commercial sex act during the period of time that the award is in effect or (3) Using forced labor in the performance of the award or subawards under the award.

Certifications regarding lobbying

OMB Number: 4040-0013

Expiration Date: 02/28/2025

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions. Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.