

Golden LEAF Foundation Flood Mitigation Grant Program

Addendum for Projects Requesting \$500,000 or More

Applicant Name: Town of Oak Island
System Project

Project Title: Crowell St Dune Infiltration

The purpose of this addendum is to provide additional details regarding the frequency and effect of flooding.

This addendum is intended to gather additional information about these characteristics of competitive proposals:

- Efforts to mitigate against frequent flooding, including hazards with a documented frequency beyond a hurricane or other named storm.
- Clear benefit for residents, businesses, and other entities within a community with priority on those where flooding poses a risk for life, health, and safety.
- Leveraging of non-Golden LEAF funds or demonstrating that local funds are unavailable and/or insufficient to complete the project.

Frequency of Flooding

Awards will be prioritized for projects that are able to document frequent occurrences of flooding including during average rain events or other unnamed storms. Fill in the table below with dates from events in the last five years where there is at least one form of documentation of flooding available. Label the document to match the count number and upload to Fluxx.

Eligible documentation of flooding frequency includes: Photos, videos, news reports, 911 or other emergency response reports, public works reports, minutes from council meetings, and emails or public comments documented by the local government. Other similar forms of documentation may also be provided, but clear and detailed evidence of flooding is necessary. Documentation provided may vary by date. Each Count must have a unique date. Multiple forms documentation may be provided per date, but are not required. *If documentation is not available, please respond to the “Insufficient Documentation” short answer question later in this document.*

Count	Date	Documentation Provided
<i>Example</i>	<i>July 4, 2022</i>	<i>Photo from resident</i>
1	Oct. 11, 2020	Photos 1-8 taken by Town of roadway and private property flood after major storm event
2	June 4, 2021	Photos 9-10 taken by drone of roadway and private property flooding and pumping efforts after major storm event
3	July 15, 2022	Photos 11-12 taken by Town of pumping efforts during a major flood event
4	Nov. 20, 2023	Photo 13 taken by Town of roadway flooding and pumping efforts after a major flood event
5	July 4, 2023	Photos 14-25 taken by consultant of impacts from frequent flooding
6	Nov. 6, 2023	Flooding Frequency and Pumping Cost Report by SW Administrator
7	Sept. 24, 2021	Crowell St Pumping Log for 2010-2021

8	Aug. 16, 2022	Flooding and Access Complaint Email from Resident at 1104 Ocean Dr.
9	May 26, 2023	NCDEQ Precautionary Swimming Advisory Press Release
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Effect of Flooding

Awards will be prioritized for projects that are able to document a clear benefit for residents, businesses, and other entities within a community with priority on those where flooding poses a risk for life, health, and safety. Fill in the table below with additional information regarding the current effects of flooding. If flooding causes road overtopping or damage to privately-owned property, reference the locations in the table and include the information in the short answer questions that follow.

Eligible documentation of flooding effect includes: Photos, videos, news reports, 911 or other emergency response reports, public works reports, minutes from council meetings, and emails or public comments documented by the local government. Other similar forms of documentation may also be provided, but clear and detailed evidence of flooding effect is necessary. *If documentation is not available, please respond to the “Insufficient Documentation” short answer question in this document.*

Effect	Current Effect of Flooding <i>Provide additional details regarding the effect and severity of flooding. Please be as specific as possible. Use additional pages if needed.</i>	Documentation Provided
<i>Priority Effects</i>		
Loss of public safety or health services because the building is damaged.		
Loss of public safety or health services because the building is inaccessible (no damage to the building, etc).		
Loss of basic government service (water, sewer).	Flooding along Ocean Dr poses a threat to critical public infrastructure including a sanitary sewer pump station located near the intersection of Ocean Dr and Sherrill St. The pump station vault is already experiencing erosion. Overtime flooding will undermine the functioning of the system and could lead to sewer overflows and ecological impacts. Additionally, several utility boxes along Ocean Dr have been impacted by flooding (see photos)	Photos of erosion around infrastructure
Loss of access to public or private property (other than public safety or health services).	Flooding prevents access to thirty-one (31) private residences located along Ocean Dr. Flooding extends from the roadway into driveways. Many streets in the area frequently flood thereby severely limiting safe access by residents and emergency personnel.	Photos of flooding in road and driveways; flooding and access complaint email
Damage to public or private property (other than public safety or health services).	Frequent flood waters extend under the houses of at least two properties. Likely the frequency of inundation has caused wear to the foundation piers and other fixtures located at ground level. The extent of damage is unknown and no documentation exists that the Town is aware of.	Photos 2 and 4 show flooding under two homes

<i>Secondary Effects</i>		
Increased operating costs for governmental services.	The Town has to operate multiple portable pumps 6/year in order to remove the persistent flooding on Ocean Dr. This effort is very costly and labor intensive.	Flood Frequency and Pumping Cost Report
Other	Pumping of floodwaters causes a Precautionary Swimming Advisory from NCDEQ because the floodwaters could contain pollutants harmful to human and environmental health	NCDEQ Press Release

Road Overtopping

For projects to mitigate flooding that results in overtopping of roads, provide additional detail including the names of the roads that are flooded, required emergency or public works response, how long it takes for the effects to dissipate following the flooding, and the challenges as a result of the road being impassable.

Road overtopping occurs along 257 linear ft of E Beach Dr, 154 linear ft of SE 79th St, and 1,010 linear ft of Ocean Dr. Additionally, flooding of cross-street intersections occurs at Crowell St and Sherrill St. Flooding prevents access to driveways and homes, damages private property, and poses a serious barrier to emergency personnel access to trapped in homes or in need of assistance. A resident living at 1104 Ocean Dr has reported being unable to leave their property to seek medical attention for an ongoing life-threatening condition. Flooding also occurs on adjacent and nearby roads, making access issues all the more significant. Flooding persists for up to 4 days following rain events 0.5 inches and greater.

Privately-Owned Property Damage

For projects to mitigate flooding that results in flooding of privately owned buildings or vehicles, provide additional detail including the addresses of the structures that are flooded, a description of the damage, and the scale of damage.

Thirty-one (31) residential properties are impacted by frequent flooding along Ocean Dr. Flooding collects in the roadway and blocks access to driveways. Properties at 1102 and 1100 Ocean Dr are especially at risk as flooding frequently extends underneath the primary structures and threatens the integrity of the foundations and/or pier footers. The extent of the damage to these properties is currently unknown.

Insufficient Documentation

If documentation is not available to document and confirm frequency and/or effect of flooding, please share why.

Availability of Local Funding

Awards will be prioritized for projects that leverage non-Golden LEAF funds or demonstrate that local funds

are unavailable and/or insufficient to complete the project. Non-Golden LEAF funds to be used with your project must be included on the Project Budget uploaded to Fluxx along with documentation of the availability of those funding sources. If your local government is not able to contribute to the project, or if a grant from Golden LEAF will leverage other stormwater projects, please share additional information below.

Describe the current sources of local government funds used for similar flood mitigation projects

(dedicated stormwater fund, general funds, etc)

The Town has a dedicated stormwater utility and a capital reserve fund that will be used to cover the planning and engineering costs associated with this project. The Town has the budget to cover construction of this project, however they are a small community with limited tax basis and many other major stormwater/flooding needs across the Town footprint. The Town is requesting funding from Golden Leaf to cover the construction portion of the project so that additional stormwater dollars can be freed up to cover additional projects, resolve flooding in other areas, and meet the comprehensive needs of the community.

If your local government has a dedicated stormwater fund, provide the current list of prioritized projects as an attachment in Fluxx. If the project for which you are requesting funding is not on that list, include an explanation of how this project was prioritized for this funding opportunity.

The Town does have a stormwater utility fund, however they do not have a prioritized list of CIP projects. The Crowell St project was identified, developed, and ranked as high priority based on set of criteria through the Ocean Drive Drainage Study, completed in August 2021 by WK Dickson. The 2023-2024 FY stormwater budget lists line item "6100 Contracted Services", which includes the cost of planning and design for the Crowell St Dune Infiltration System Project.