



Subtasks 4.2 and 4.3: Flood Resiliency Blueprint Tool Storyboards, Wireframes, and Mockups North Carolina Flood Resiliency Blueprint

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Definitions

A comprehensive list of definitions applicable to multiple Flood Resiliency Blueprint documents is provided in a separate document.

- https://ncfloodblueprint.com/documents/DraftBlueprint_DefinitionsGlossary.pdf (PDF)

Common Acronyms

GeoJSON Geographic JavaScript Object
Notation

NCID North Carolina Identity
Management

GIS Geographic Information Systems

NCDEQ North Carolina Department of
Environmental Quality

1 Introduction

This section outlines recommendations for the following subtasks:

- **Subtask 4.2 - Storyboards** identifying specific functions users will want to perform in online tools and a description of how the user interfaces with the tool.
- **Subtask 4.3 - Wireframes and mockups** depicting the look and feel of an online interactive decision support tool, including integration if multiple tools are needed.

The Flood Resiliency Blueprint Tool will be developed to include a wide variety of functionality for several user roles within state and local government, as well as the general public. The Blueprint Tool application will consist of several modules to meet those needs. This document presents a series of storyboards to show how users will interact with the application modules, along with wireframes and mockups to represent the application visually.

The requirements for developing the Blueprint Tool are documented in the *North Carolina Flood Resiliency Blueprint Tool Requirements* (Subtask 4.1). The requirements from Subtask 4.1 were applied to the storyboards, wireframes, and mockups throughout this document.

- https://ncfloodblueprint.com/documents/Subtask4_1_BlueprintToolRequirements.pdf

Also mentioned throughout this document, Phase II of the NC Flood Resiliency Blueprint Project will focus more on the exact look, user experience, and functionality of the Blueprint Tool. It will be built from the research, gap analysis, and recommendations that are products of Phase I of the project. Using the Agile process (a dynamic approach to software development), the Blueprint Team and a select user group will be extensively engaged in creating and refining the Blueprint Tool. The storyboards shown below should not be considered final.

1.1 Storyboards

Website storyboards serve as visual renderings, outlining the structure and flow of a website. They depict the arrangement of elements on each page, illustrating the user journey and interactions. Storyboards help designers and developers conceptualize and communicate the user experience, ensuring a cohesive process and intuitive design before the software development phase begins.

Each page in the storyboard includes either a wireframe or a mockup of an application screen, along with a table listing the user roles that would interact with that screen and how that user would interact. Each storyboard page is presented in the order in which users interact within that application module.

1.1.1 Wireframes

A wireframe is a skeletal, low-fidelity representation of a web application's layout and structure. It outlines the basic design elements and their placement in black and white without detailing visual

**All content and functionality will be subject to further refinement as part of Phase II*

aesthetics. Wireframes are a crucial step in web development, providing a clear content, navigation, and functionality framework. Designers use wireframes to map out the user interface, ensuring a logical and user-friendly arrangement of elements before moving on to more detailed design phases.

1.1.2 Mockups

A mockup is a high-fidelity, static representation of a web application's design that includes visual details like colors, typography, and images. Unlike wireframes, mockups provide a more realistic preview of the final website's appearance (i.e., high-fidelity). Designers use mockups to showcase the user interface's aesthetic aspects and finer details. These visual prototypes help stakeholders and clients visualize the final product, facilitating feedback and refinement during the first phase of product development.

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2 Application Modules and User Access

2.1 Application Modules

The Blueprint Tool will contain several modules, including help and video tutorials throughout the application. The Blueprint Tool will consist of the following Modules:

2.1.1 Introductory Module

The introductory module includes the functionality a user would need to enter the web application and get started, such as login, the home page, and profiles. The user would enter the information on the location and action profiles. Information would be offered in the system based on role and user capabilities. Additional training would be provided to the more advanced users.

2.1.2 Flood Risk Management Module

The Flood Risk Management Module allows local governments, the North Carolina Department of Environmental Quality (NCDEQ), and their designees (such as Delegated Authorities or contractors) to, first and foremost, provide the ability to review flood risk areas to ascertain the potential for flood losses, especially for future conditions modeling. The Flood Risk Management Module also allows the user to review existing resiliency actions in effect or planned, to create and submit new resiliency actions, and to visualize and compare all resiliency actions being considered.

2.1.3 Resiliency Action Evaluation Module

The Resiliency Action Evaluation Module allows NCDEQ officials and users with the capability to add actions, including local governments, to visualize and compare alternative resiliency actions and then select actions to include in the River Basin Action Strategy (from now on called Basin Action Strategy).

2.1.4 Action Management Module











































The Action Management Dashboard is a query-based status, project management, and performance tracking interface for all actions to be viewed by all agencies and the public.

2.1.5 Data Repository








The Data Repository Module is the central hub for searching, accessing, and downloading publicly available data from the Blueprint Tool. This hub will contain modeling outputs, spatial data resources, technical reports, and other relevant data to the Blueprint Tool. It will allow administrators to upload and modify existing data in the repository and add and edit metadata for more efficient searching.

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2.2 Application Module Access by Role

Role		(1) Introductory Module	(2) Flood Risk Management Module	(3) Resiliency Action Evaluation Module	(4) Action Management Module	(5) Data Repository
NCDEQ Blueprint Team						
	NCDEQ Application Administrator	 INPUT & EDIT	 INPUT & EDIT	 INPUT & EDIT	 INPUT & EDIT	 UPLOAD
	NCDEQ Blueprint Program Supervisor	 INPUT & EDIT	 INPUT & EDIT	 INPUT & EDIT	 INPUT & EDIT	 UPLOAD
	NCDEQ Blueprint Program Analyst	 INPUT & EDIT	 INPUT & EDIT	 INPUT & EDIT	 INPUT & EDIT	 UPLOAD
Local Government		(1) Introductory Module	(2) Flood Risk Management Module	(3) Resiliency Action Evaluation Module	(4) Action Management Module	(5) Data Repository
	Local Government Administrator	 INPUT & EDIT	 INPUT & EDIT	 NONE	 INPUT & EDIT	 DOWNLOAD
	Local Action Submitter	 VIEW	 INPUT & EDIT	 NONE	 INPUT & EDIT	 DOWNLOAD
Delegated Authority*		(1) Introductory Module	(2) Flood Risk Management Module	(3) Resiliency Action Evaluation Module	(4) Action Management Module	(5) Data Repository
	Delegated Authority Administrator	 INPUT & EDIT	 INPUT & EDIT	 NONE	 INPUT & EDIT	 DOWNLOAD
	Delegated Authority Submitter	 VIEW	 INPUT & EDIT	 NONE	 INPUT & EDIT	 DOWNLOAD







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Role		(1) Introductory Module	(2) Flood Risk Management Module	(3) Resiliency Action Evaluation Module	(4) Action Management Module	(5) Data Repository
Other Roles		(1) Introductory Module	(2) Flood Risk Management Module	(3) Resiliency Action Evaluation Module	(4) Action Management Module	(5) Data Repository
	General Public (Community Stakeholder, etc.)	 LIMITED VIEW	 LIMITED VIEW	 NONE	 LIMITED VIEW	 DOWNLOAD
	Contractor/ Subconsultant**	BASED ON DELEGATED ROLE*	BASED ON DELEGATED ROLE*	BASED ON DELEGATED ROLE*	BASED ON DELEGATED ROLE*	BASED ON DELEGATED ROLE*

*A **Delegated Authority** can be another state agency, regional group (Council of Government), etc., delegated to input actions on behalf of NCDEQ, a community, or a group of communities.

A **Contractor or Subconsultant is delegated by NCDEQ or a local or state government to represent a role for that agency. This person’s access will be based on which role they are delegated.

Application module access levels are defined as follows:

 INPUT & EDIT	This user is able to input and edit information in this module.
 VIEW	This user is able to view the information in this module but cannot input or edit the information.
 LIMITED VIEW	This user is able to view information in this module, but there may be limits to how much they can view. This user cannot input or edit information in this module.
 NONE	This user has no access to this module.
 UPLOAD	This user can upload and download data and documents to the Data Repository.
 DOWNLOAD	This user can only download from the Data Repository but cannot upload.

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3 Flood Resiliency Blueprint Storyboards

The Blueprint Tool Storyboards are presented on the following pages and further broken down by application modules as follows:

- Introductory Module
- Flood Risk Management Module
- Resiliency Action Evaluation Module
- Action Management Module
- Data Repository

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3.1 Introductory Module



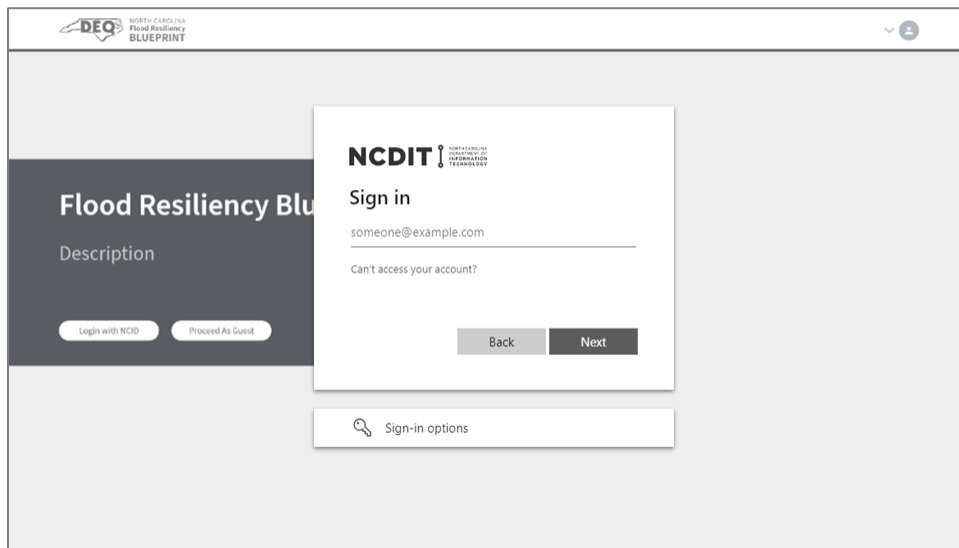
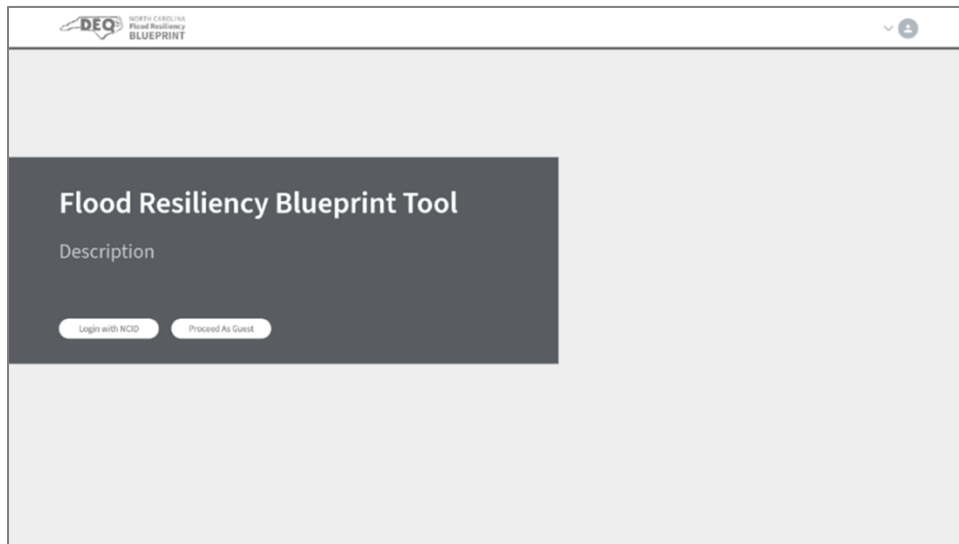
INTRODUCTORY MODULE

3.1.1 Credentialed User Login and Home Page

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INTRODUCTORY MODULE

3.1.1.1 Login Screen – Credentialed Users

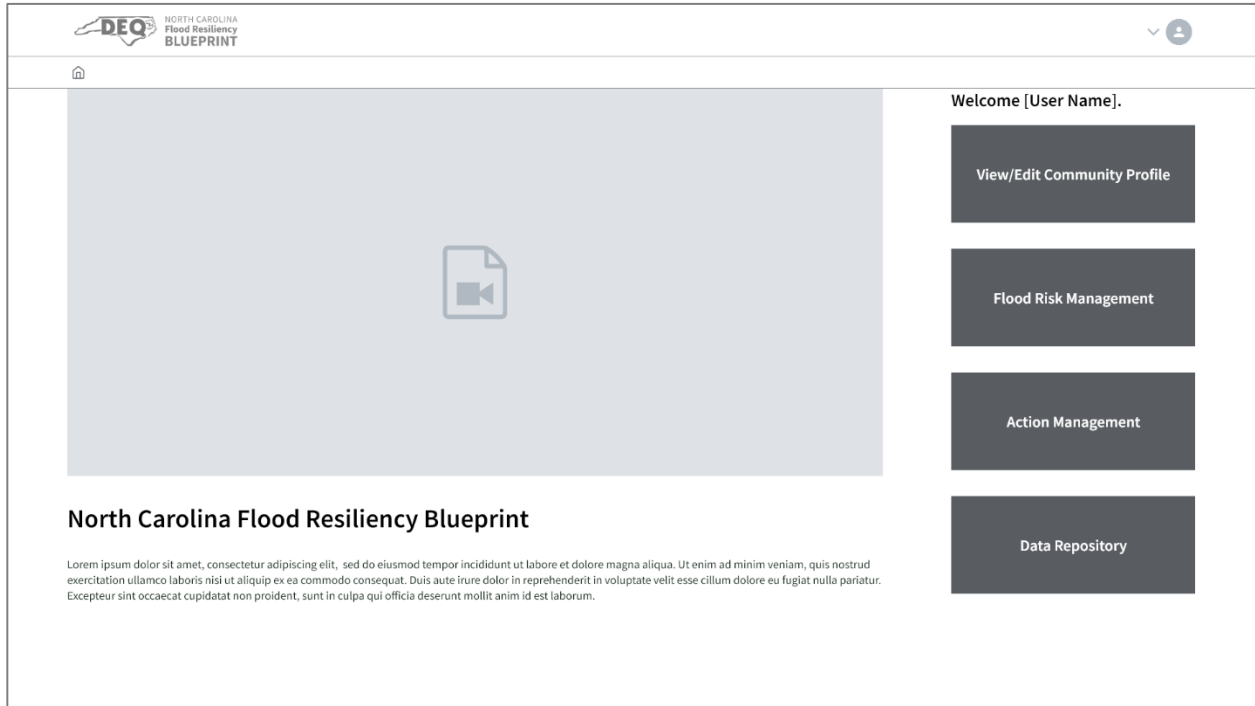


Roles	Description
	<ul style="list-style-type: none"> Credentialed users will click the Login with NC Identity Management (NCID) button, and the Microsoft 365 login will appear. Training will be provided on NCID so all will have this ability. User logs into the NC Department of Information Technology system with Microsoft 365

INTRODUCTORY MODULE

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3.1.1.2 Home Page – Credentialed Users



Roles	Description
<p>NCDEQ Application Administrator</p> <p>NCDEQ Blueprint Prog. Supervisor</p> <p>NCDEQ Blueprint Program Analyst</p> <p>Local Government Administrator</p> <p>Local Action Submitter</p> <p>Designated Auth. Administrator</p> <p>Designated Auth. Submitter</p> <p>Contractor/ Subconsultant</p>	<ul style="list-style-type: none"> • Logged-in users will land on a home page upon login. • The home page’s contents will depend on the user’s role. For example, a local government user would see brief information about their community. • The buttons on the right (e.g., Flood Risk Management) will link users to the modules they can access.

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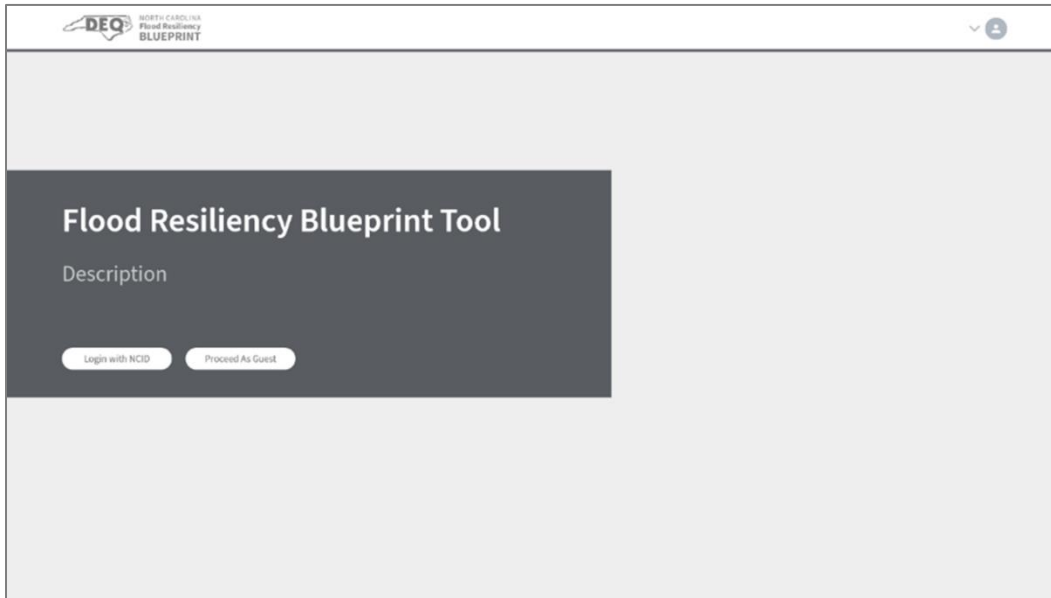
INTRODUCTORY MODULE


3.1.2 Public Login and Home Page

**All content and functionality will be subject to further refinement as part of Phase II*

INTRODUCTORY MODULE

3.1.2.1 Login Screen – General Public

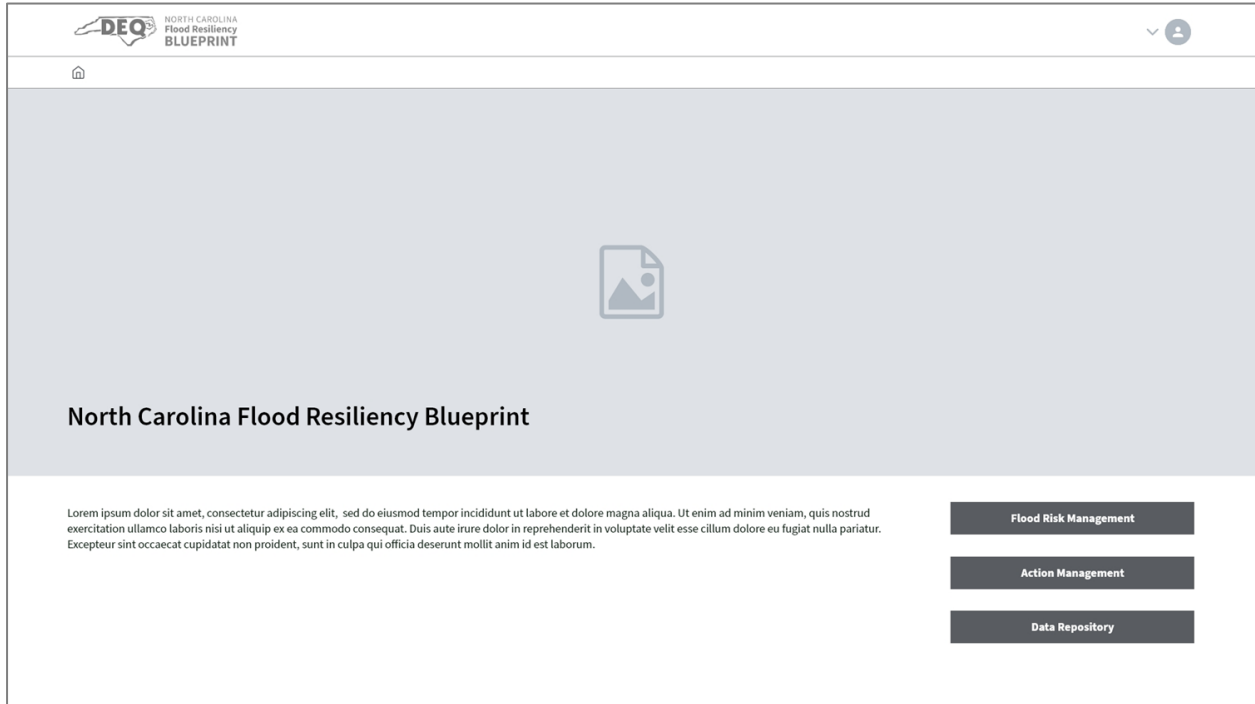



Roles	Description
 <p>General Public</p>	<ul style="list-style-type: none"> • The General Public will click the Proceed as Guest button. • User will land on the Public Homepage on the Blueprint Tool.

**All content and functionality will be subject to further refinement as part of Phase II*

INTRODUCTORY MODULE

3.1.2.2 Public Home Page



Roles	Description
 <p>General Public</p>	<ul style="list-style-type: none"> • A Link to the Blueprint Tool will be on the NC Flood Resiliency Blueprint website. • The General Public will land on a public home page upon login. • The home page will contain a brief description of the NC Flood Resiliency Blueprint Program, and the user can link back to the Blueprint website (in a new window). • The buttons on the right (e.g., Flood Risk Management) will link users to the modules they can access.

**All content and functionality will be subject to further refinement as part of Phase II*

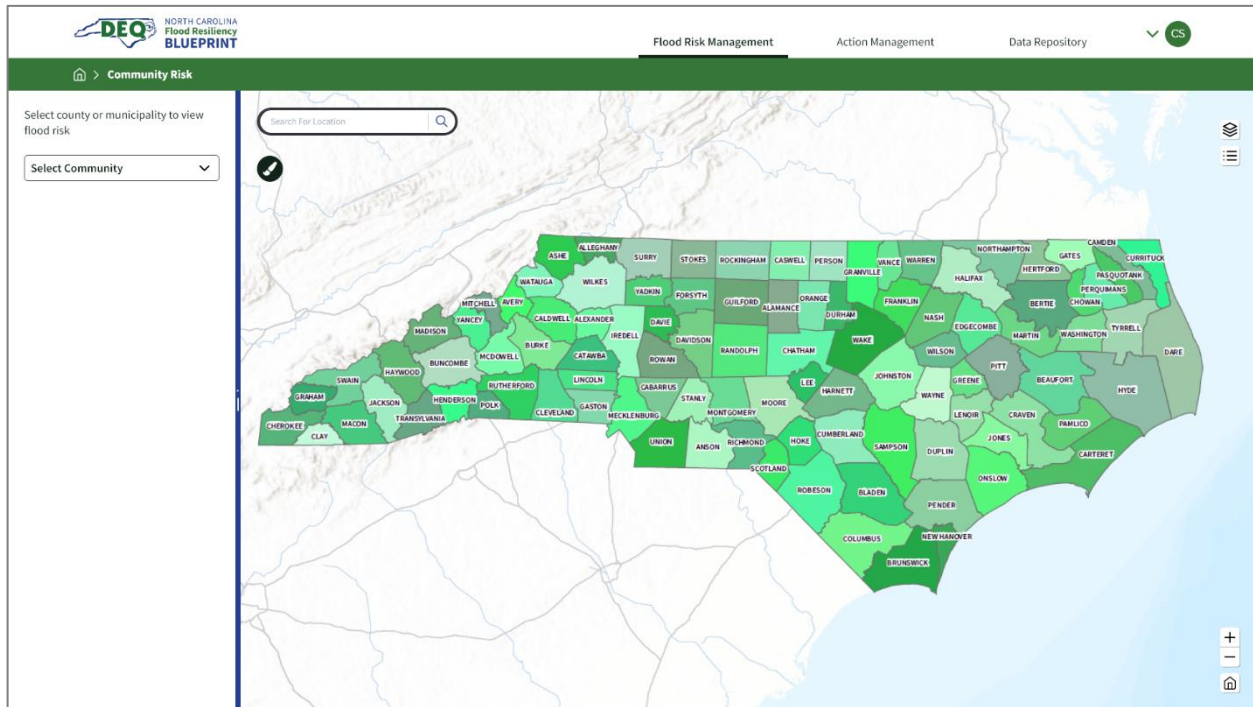
INTRODUCTORY MODULE










3.1.3 Community Flood Risk

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INTRODUCTORY MODULE

3.1.3.1 Community Flood Risk

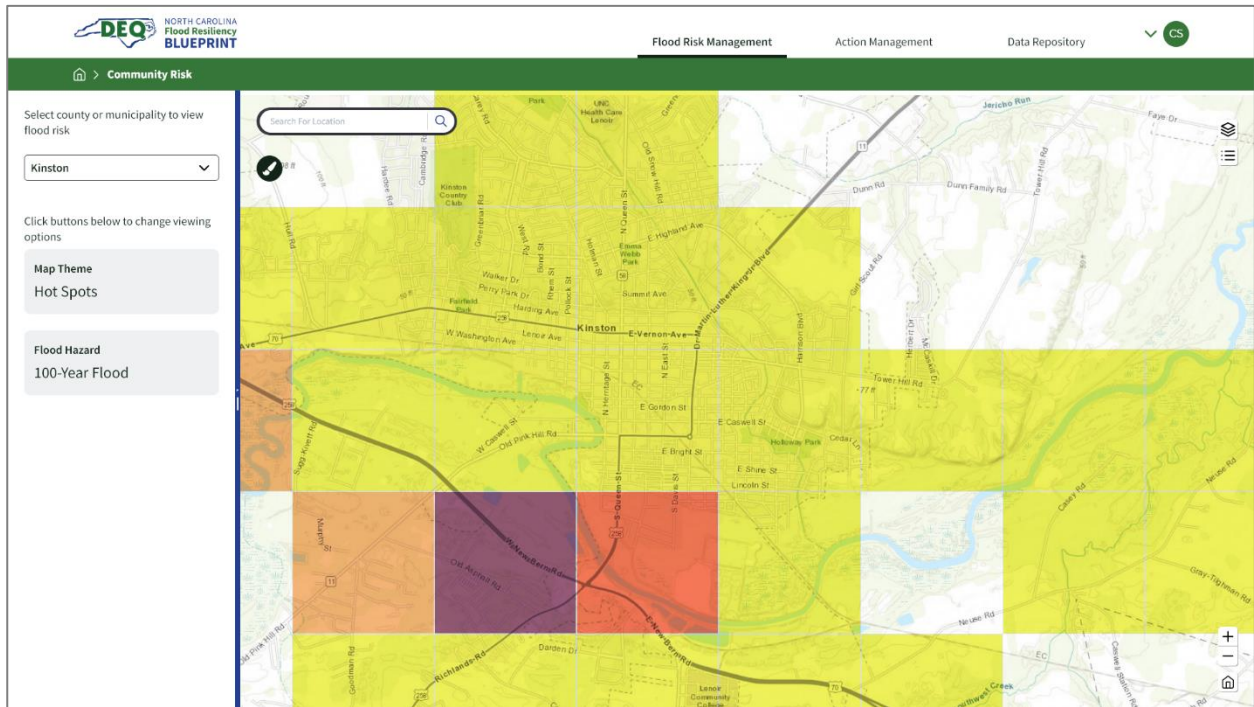











Roles	Description
 NCDEQ Application Administrator  NCDEQ Blueprint Prog. Supervisor  NCDEQ Blueprint Program Analyst  Local Government Administrator  Local Action Submitter  Designated Auth. Administrator  Designated Auth. Submitter  Contractor/ Subconsultant  General Public	<ul style="list-style-type: none"> • All users have access to view Community Flood Risk. • The user selects a county, municipality, or address, and the map zooms to that area. • The user may also draw an area for the map to zoom into. • The intent is for a community or community member to better understand their flood risk (including future conditions). Applies to 3.1.3.1, 3.1.3.2 and 3.1.3.3.

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INTRODUCTORY MODULE

3.1.3.2 Community Flood Risk: Community Selected

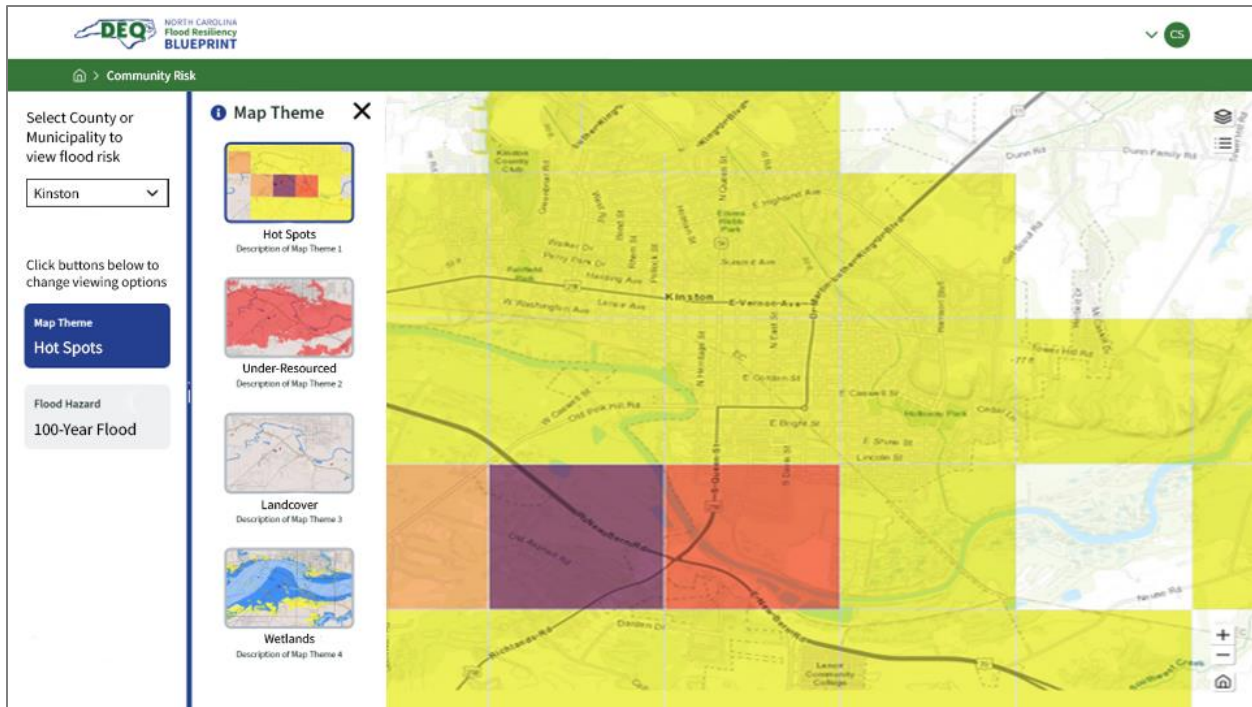


Roles	Description
<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center; margin: 5px;">  <small>NCDEQ Application Administrator</small> </div> <div style="text-align: center; margin: 5px;">  <small>NCDEQ Blueprint Prog. Supervisor</small> </div> <div style="text-align: center; margin: 5px;">  <small>NCDEQ Blueprint Program Analyst</small> </div> <div style="text-align: center; margin: 5px;">  <small>Local Government Administrator</small> </div> <div style="text-align: center; margin: 5px;">  <small>Local Action Submitter</small> </div> <div style="text-align: center; margin: 5px;">  <small>Designated Auth. Administrator</small> </div> <div style="text-align: center; margin: 5px;">  <small>Designated Auth. Submitter</small> </div> <div style="text-align: center; margin: 5px;">  <small>Contractor/ Subconsultant</small> </div> <div style="text-align: center; margin: 5px;">  <small>General Public</small> </div> </div>	<ul style="list-style-type: none"> ● Once a county or municipality is selected, the map will: <ul style="list-style-type: none"> ○ Zoom to their selected area. ○ Load the default Map Theme and Flood Hazard.

**All content and functionality will be subject to further refinement as part of Phase II*

INTRODUCTORY MODULE

3.1.3.3 Community Flood Risk: Changing Viewing Options



Roles	Description
<p>NCDEQ Application Administrator</p> <p>NCDEQ Blueprint Prog. Supervisor</p> <p>NCDEQ Blueprint Program Analyst</p> <p>Local Government Administrator</p> <p>Local Action Submitter</p> <p>Designated Auth. Administrator</p> <p>Designated Auth. Submitter</p> <p>Contractor/Subconsultant</p> <p>General Public</p>	<ul style="list-style-type: none"> • Users can select a new Map Theme or Flood Hazard by clicking on the buttons in the left sidebar. This allows the user to evaluate flood risk based on their specific community goals (e.g., protecting critical infrastructure) and interests (e.g., addressing under-resourced neighborhoods within the community). • Experienced Geographic Information System (GIS) users can override the map theme by directly selecting map layers from the map’s layer controls.

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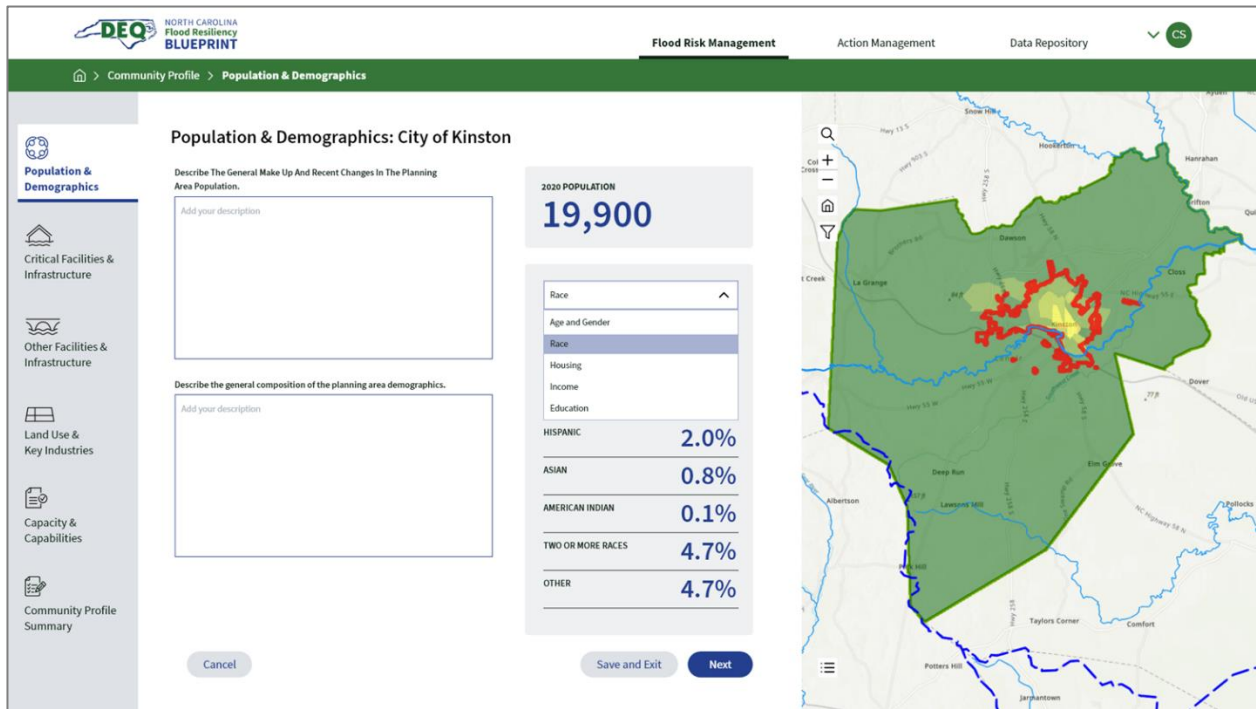
INTRODUCTORY MODULE

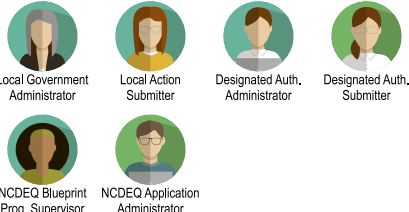

3.1.4 Community Profile

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INTRODUCTORY MODULE

3.1.4.1 Community Profile: Demographics

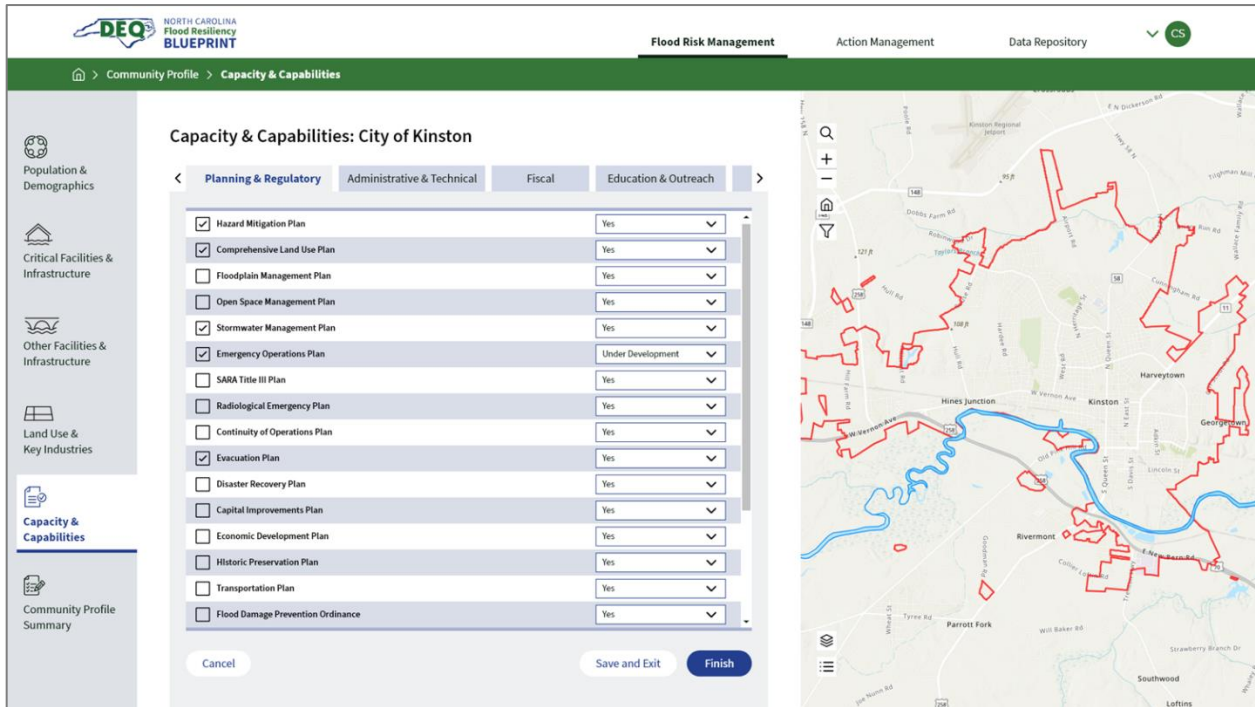




Roles	Description
	<ul style="list-style-type: none"> Community Profile includes sections on demographics, housing, commerce, facilities and infrastructure, economics, land use and key initiatives, and adaptive capacity and capabilities. Community demographics will auto-populate from existing data. Local and Designated Authority Administrators and Submitters will review, edit, and add key information about their community. These roles will have view-only access to other Community Profiles.
	<ul style="list-style-type: none"> All other roles listed will have view-only access to Community Profiles.

**All content and functionality will be subject to further refinement as part of Phase II*

INTRODUCTORY MODULE

3.1.4.2 Community Profile: Capacity & Capabilities

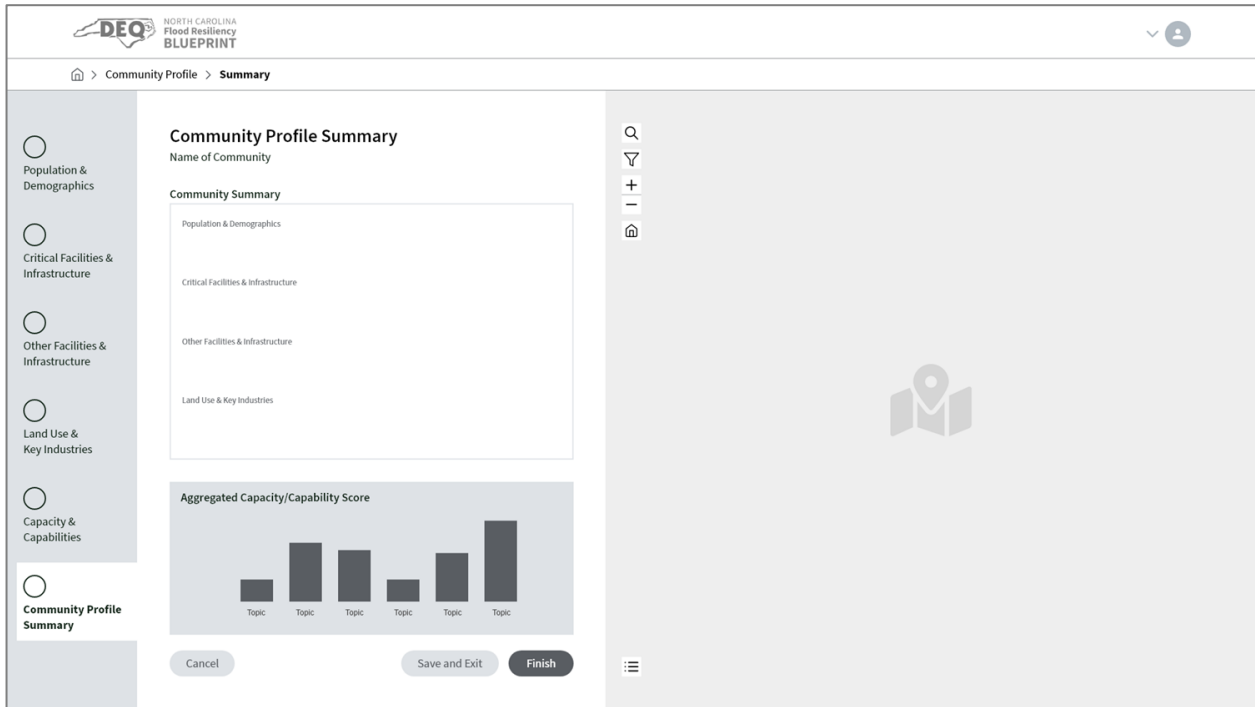











Roles	Description
	<ul style="list-style-type: none"> Local and Designated Authority Administrators and Submitters will enter Capacity and Capabilities details into their agency's Community Profile. This will be used to help identify under-resourced communities and other purposes.
	<ul style="list-style-type: none"> All other roles will have view-only access to Community Capacity and Capabilities.

**All content and functionality will be subject to further refinement as part of Phase II*

INTRODUCTORY MODULE

3.1.4.3 Community Profile: Summary



Roles	Description
 Local Government Administrator  Local Action Submitter  Designated Auth. Administrator  Designated Auth. Submitter  NCDEQ Blueprint Prog. Supervisor  NCDEQ Application Administrator	<ul style="list-style-type: none"> ● Local and Designated Authority Administrators and Submitters, as well as NCDEQ Program Managers, will be able to: <ul style="list-style-type: none"> ○ View a Summary of their agency’s Community Profile. ○ Save their completed Community Profile.
 NCDEQ Blueprint Program Analyst  Contractor/Subconsultant  General Public	<ul style="list-style-type: none"> ● All other roles will have view-only access to the Community Profile Summary.

**All content and functionality will be subject to further refinement as part of Phase II*

3.2 Flood Risk Management Module

The Flood Risk Management Module provides the ability for Local and Designated Authority Submitters and their delegates (such as contractors or Council of Government) to, first and foremost, provide the ability to review flood risk areas to ascertain the potential for flood losses, especially for future conditions modeling. The Flood Risk Management Module also allows users to examine existing or planned resiliency actions, create and submit new ones, and evaluate and compare all resiliency actions under consideration.



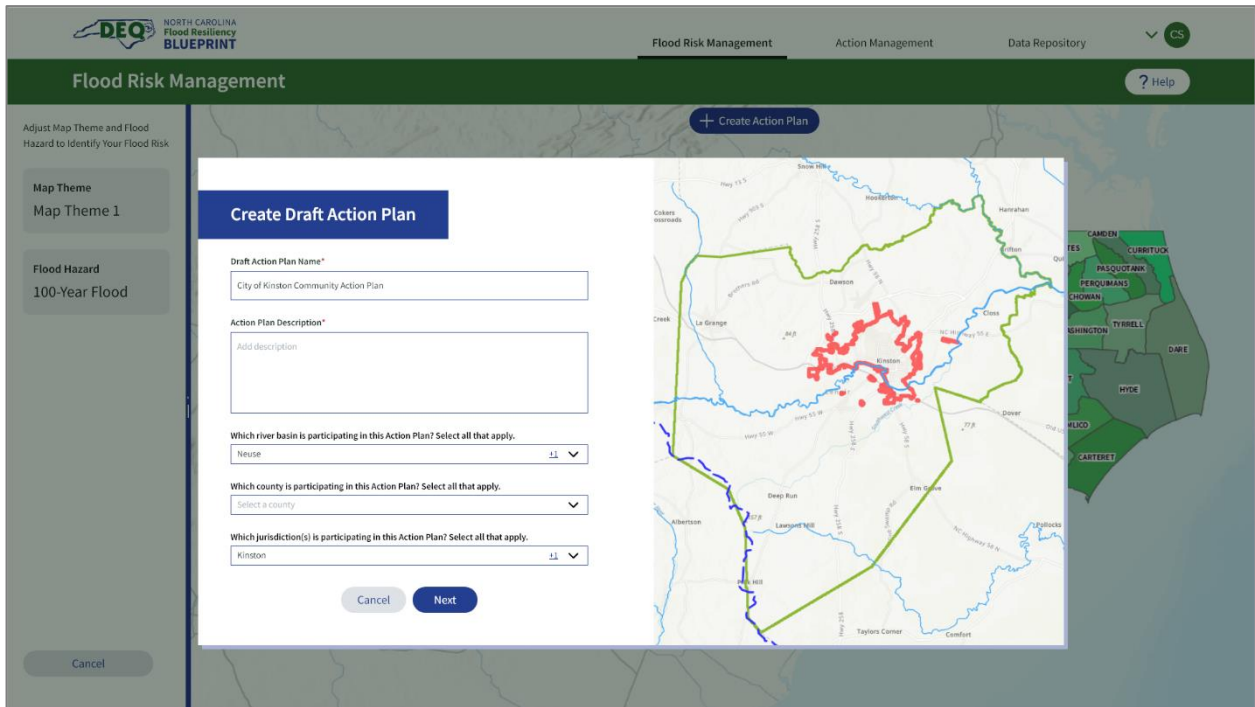
FLOOD RISK MANAGEMENT MODULE



3.2.1 Create Draft Action Profile

**All content and functionality will be subject to further refinement as part of Phase II*

FLOOD RISK MANAGEMENT MODULE

3.2.1.1 Create Draft Action Profile: Plan Details

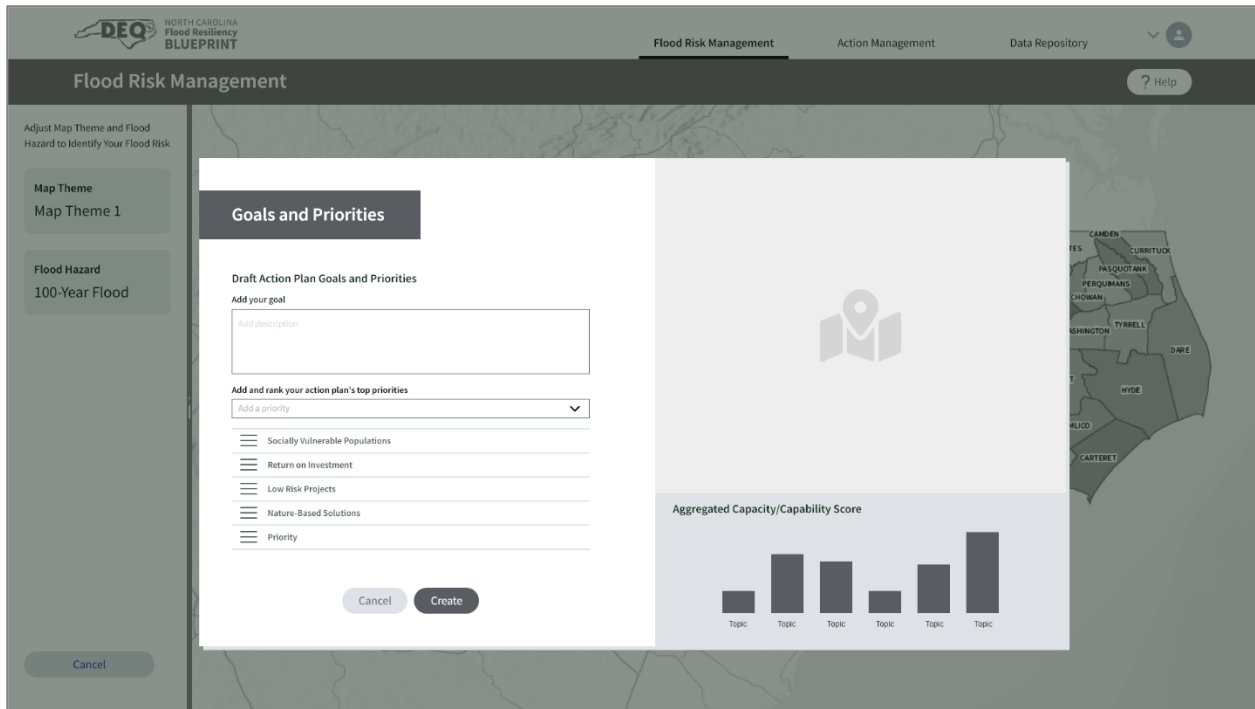




Roles	Description
 <p>Local Action Submitter</p>  <p>Designated Auth. Submitter</p>	<ul style="list-style-type: none"> Local and Delegated Authority Action Submitters can enter the plan details for a new Draft Action Profile and click the Next button to finish creating the new plan.

**All content and functionality will be subject to further refinement as part of Phase II*

FLOOD RISK MANAGEMENT MODULE

3.2.1.2 Create Draft Action Profile: Goals and Priorities



Roles	Description
  <p>Local Action Submitter</p> <p>State Action Submitter</p>	<ul style="list-style-type: none"> Local and Delegated Authority Action Submitters enter details about the Goals and Priorities for the new Draft Action Profile. Once complete, submitters click the Create button to save the new Plan. Once the Plan is created, submitters can add actions to the Plan. The methodology for calculating the Capacity/Capability Score will be developed during Phase II.

**All content and functionality will be subject to further refinement as part of Phase II*

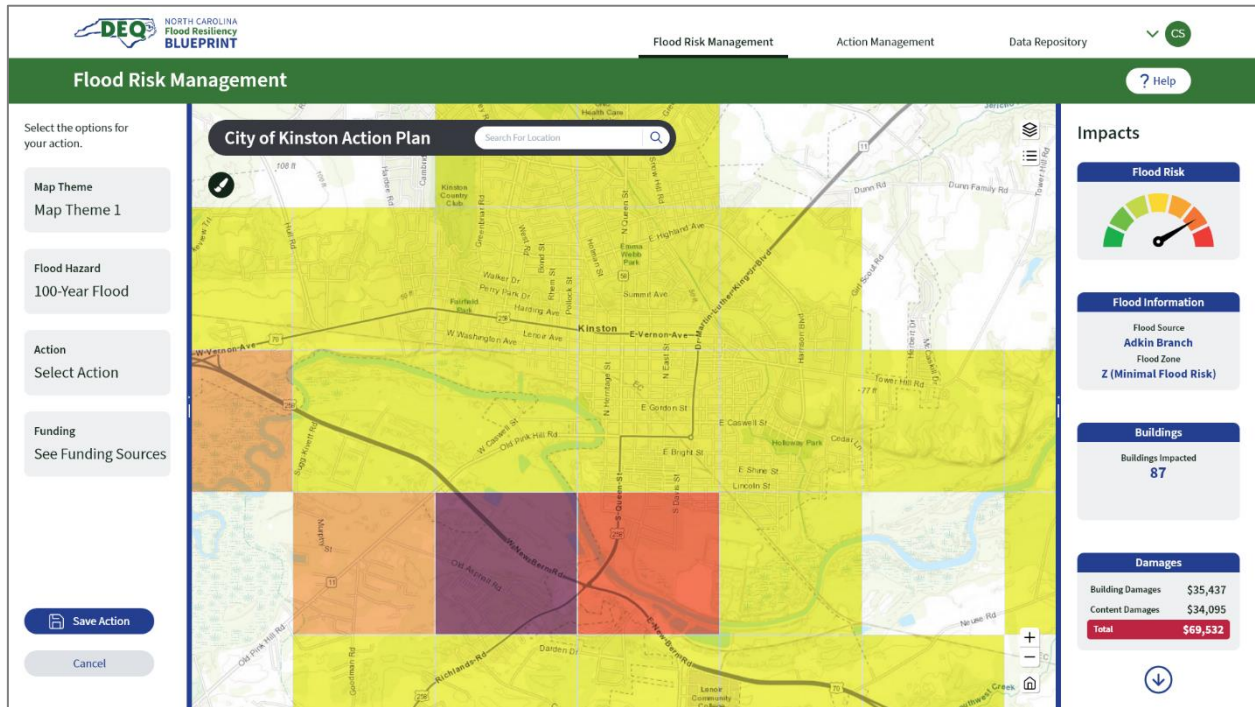
FLOOD RISK MANAGEMENT MODULE








3.2.2 Identify Flood Risk Areas

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FLOOD RISK MANAGEMENT MODULE

3.2.2.1 Identify Flood Risk Areas

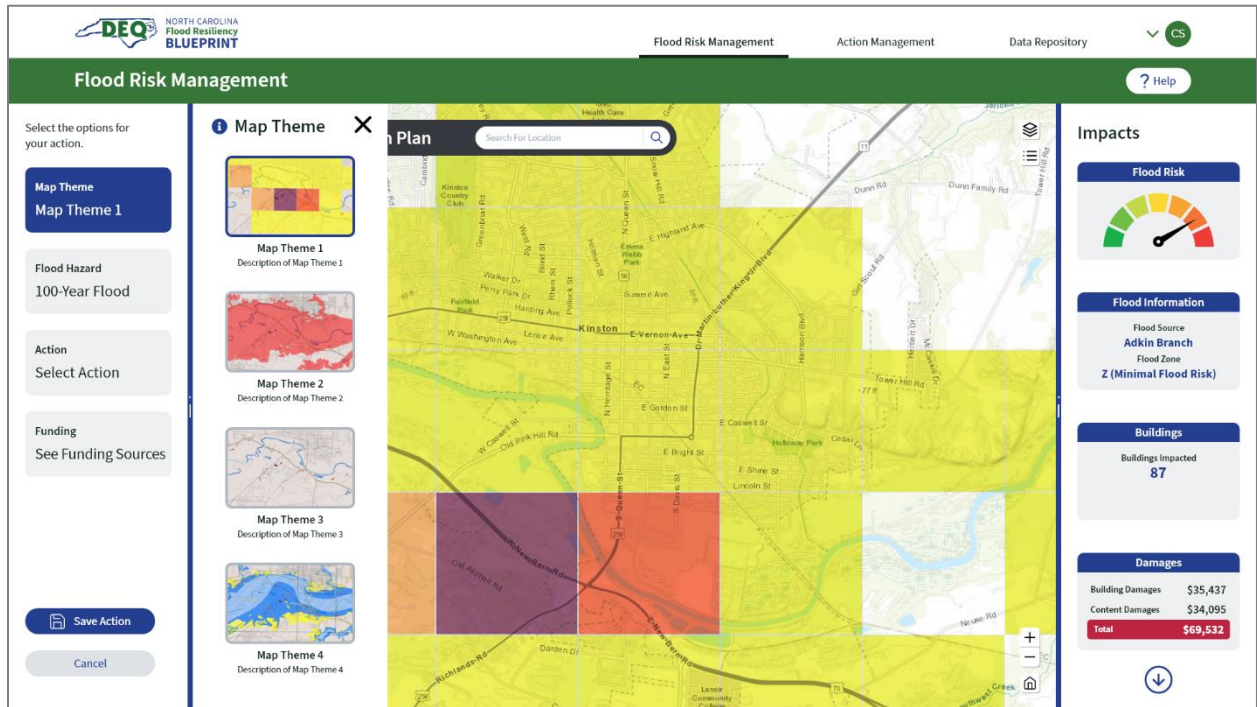









Roles	Description
 <p>Local Action Submitter</p>  <p>Designated Auth. Submitter</p>	<ul style="list-style-type: none"> Local and Designated Authority Submitters will identify flood risk areas by viewing various Map Themes, Flood Hazards, and Impacts. Impacts shown on the right sidebar are based on the map extent or a user selection. This mockup above shows one example of how a user would change the Map Theme to view layers relevant to what that user hopes to accomplish. Examples of Map Themes are Structural Damages, Land Cover, Social Vulnerability, Infrastructure Affected, and others.
 <p>NCDEQ Application Administrator</p>  <p>NCDEQ Blueprint Prog. Supervisor</p>  <p>NCDEQ Blueprint Program Analyst</p>  <p>Local Government Administrator</p>  <p>Designated Auth. Administrator</p>	<ul style="list-style-type: none"> Although these users are not responsible for creating and editing action profiles, they have edit access to the functionality listed above.

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FLOOD RISK MANAGEMENT MODULE

3.2.2.2 Identify Flood Risk Areas: Select Map Theme

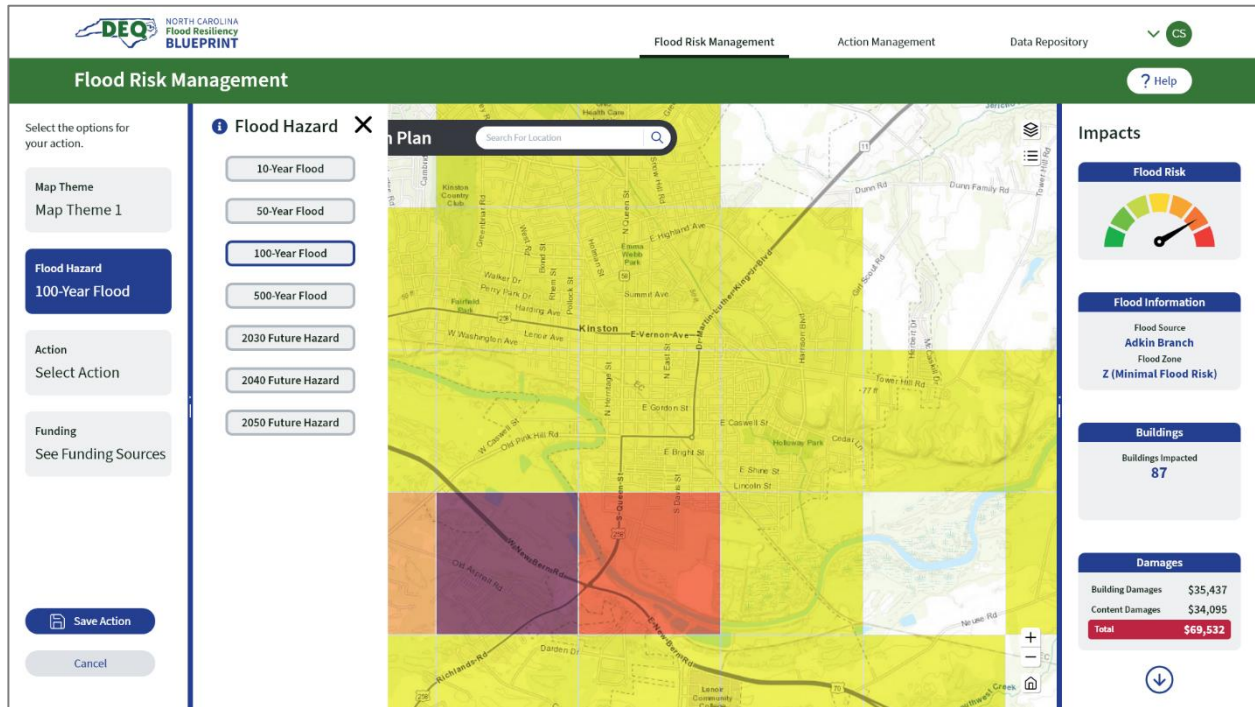









Roles	Description
 <p>Local Action Submitter</p>  <p>Designated Auth. Submitter</p>	<ul style="list-style-type: none"> Local and Designated Authority Submitters click the Map Themes button to expand the Map Themes panel, where they can view and select other themes. Once a new map theme is selected, the user closes the panel. The mockup above shows one example of how a user would change the Map Theme to view layers relevant to what that user hopes to accomplish. Examples of Map Themes are Structural Damages, Land Cover, Social Vulnerability, Infrastructure Affected, and others. Experienced GIS users can override the map theme by directly selecting map layers from the map's layer controls.
 <p>NCDEQ Application Administrator</p>  <p>NCDEQ Blueprint Prog. Supervisor</p>  <p>NCDEQ Blueprint Program Analyst</p>  <p>Local Government Administrator</p>  <p>Designated Auth. Administrator</p>	<ul style="list-style-type: none"> Although these users are not responsible for creating and editing action profiles, they have edit access to the functionality listed above.

**All content and functionality will be subject to further refinement as part of Phase II*

FLOOD RISK MANAGEMENT MODULE

3.2.2.3 Identify Flood Risk Areas: Select Flood Hazard



Roles	Description
 <p>Local Action Submitter</p>  <p>Designated Auth. Submitter</p>	<ul style="list-style-type: none"> Local and Designated Authority Submitters click on the Flood Hazard button to expand the Flood Hazard panel, where they can view and select other flood hazards. Once a new Flood Hazard is selected, the user closes the panel. This mockup above shows one example of a user changing the selected Flood Hazard. Hazards include current return periods, future conditions, and specific storm scenarios. During Phase II, requirements will be refined to include multiple hazard options. After the pluvial system is mapped, the user will have a similar experience in identifying the risks and impacts of pluvial flooding.
 <p>NCDEQ Application Administrator</p>  <p>NCDEQ Blueprint Prog. Supervisor</p>  <p>NCDEQ Blueprint Program Analyst</p>  <p>Local Government Administrator</p>  <p>Designated Auth. Administrator</p>	<ul style="list-style-type: none"> Although these users are not responsible for creating and editing action profiles, they have edit access to the functionality listed above.

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FLOOD RISK MANAGEMENT MODULE

3.2.3 View Impacts

**All content and functionality will be subject to further refinement as part of Phase II*

FLOOD RISK MANAGEMENT MODULE

3.2.3.1 View Impacts: Flood Information

Flood Information

Building ID	FFE	BFE	Flood Probability	1-Year Probability	30-Year Probability
###	34.2 ft	35.4 ft	High	5%	80%
###	34.5 ft	35.4 ft	High	4%	73%
###	34.9 ft	35.4 ft	High	3%	54%
###	36.1 ft	35.4 ft	High	N/A	N/A
###	N/A	N/A	N/A	11%	N/A
###	N/A	N/A	Medium	N/A	N/A

Impacts

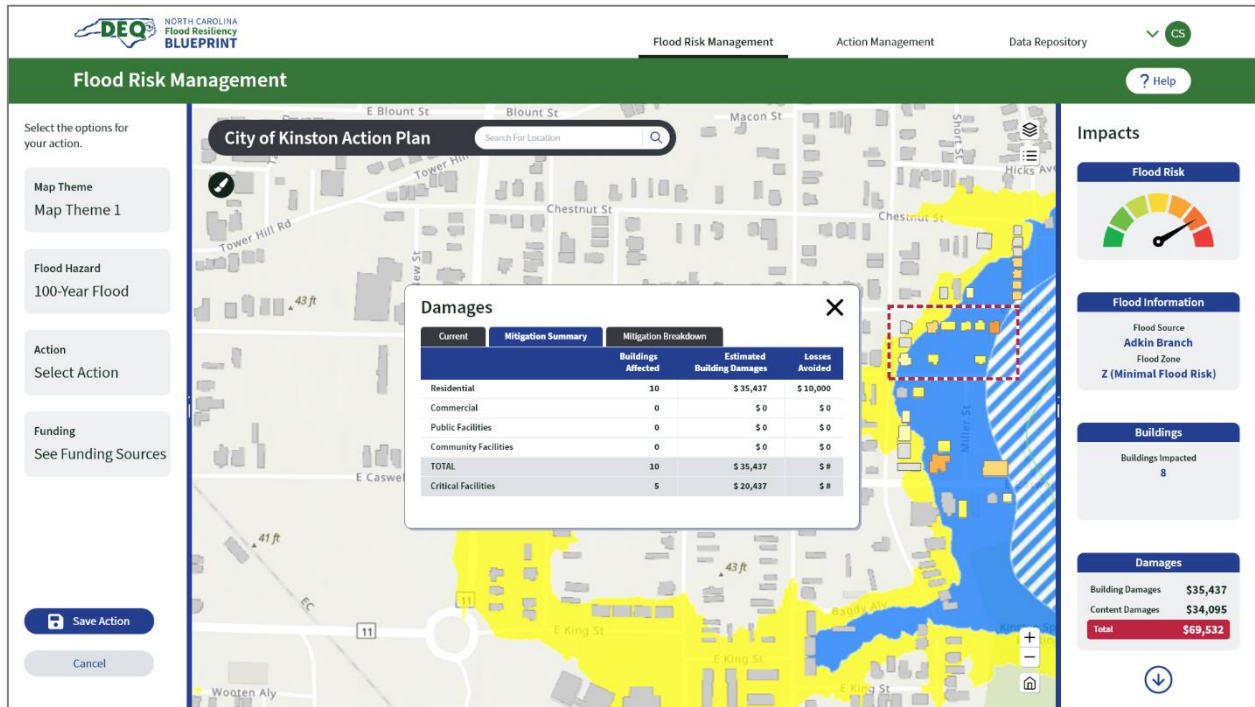
- Flood Risk**: Gauge showing risk level.
- Flood Information**: Flood Source: Adkin Branch; Flood Zone: Z (Minimal Flood Risk).
- Buildings**: Buildings Impacted: 8.
- Damages**: Building Damages: \$35,437; Content Damages: \$34,095; Total: \$69,532.








Roles	Description
Local Action Submitter Designated Auth. Submitter	<ul style="list-style-type: none"> Impacts displayed in the dashboard are based on user selections. Each pane can be clicked to show detailed impact and analysis in a modal window. Data is separated into fixed information (e.g., Building Information) and varying Impacts information.
NCDEQ Application Administrator NCDEQ Blueprint Prog. Supervisor NCDEQ Blueprint Program Analyst Local Government Administrator Designated Auth. Administrator	<ul style="list-style-type: none"> Although these users are not responsible for creating and editing action profiles, they have edit access to the functionality listed above.

**All content and functionality will be subject to further refinement as part of Phase II*

FLOOD RISK MANAGEMENT MODULE

3.2.3.2 View Impacts: Damages



Roles	Description
 Local Action Submitter  Designated Auth. Submitter	<ul style="list-style-type: none"> Local and Designated Authority Submitters can use the Mitigation button to select from a flood risk reduction resiliency option list. The Impacts Profile has been updated so submitters can assess and select the most effective mitigation strategy.
 NCDEQ Application Administrator  NCDEQ Blueprint Prog. Supervisor  NCDEQ Blueprint Program Analyst  Local Government Administrator  Designated Auth. Administrator	<ul style="list-style-type: none"> Although these users are not responsible for creating and editing action profiles, they have edit access to the functionality listed above.

**All content and functionality will be subject to further refinement as part of Phase II*

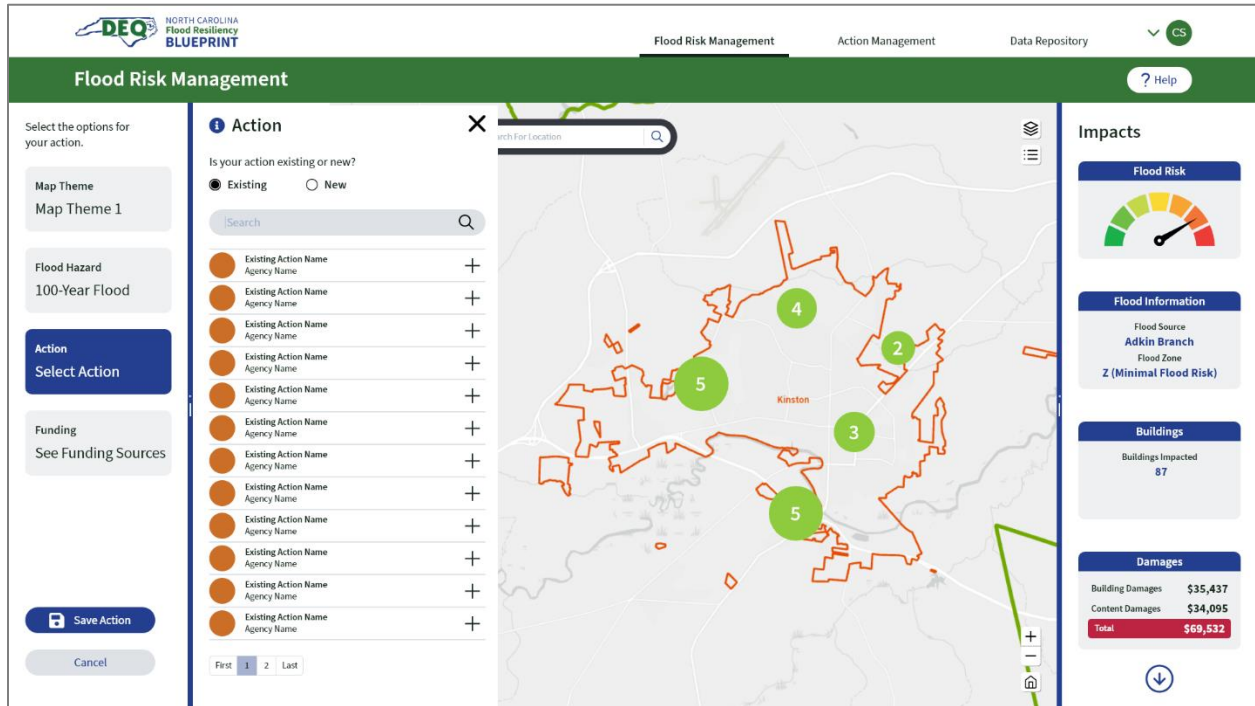
FLOOD RISK MANAGEMENT MODULE








3.2.4 Add Existing Resiliency Actions

**All content and functionality will be subject to further refinement as part of Phase II*

FLOOD RISK MANAGEMENT MODULE

3.2.4.1 Add Existing Resiliency Actions



Roles	Description
  Local Action Submitter Designated Auth. Submitter	<ul style="list-style-type: none"> • The user can click an Existing Action, and the Action details modal opens. • Users can add existing actions to their plan.
   NCDEQ Application Administrator NCDEQ Blueprint Prog. Supervisor NCDEQ Blueprint Program Analyst   Local Government Administrator Designated Auth. Administrator	<ul style="list-style-type: none"> • Although these users are not responsible for creating and editing action profiles, they have edit access to the functionality listed above.

**All content and functionality will be subject to further refinement as part of Phase II*

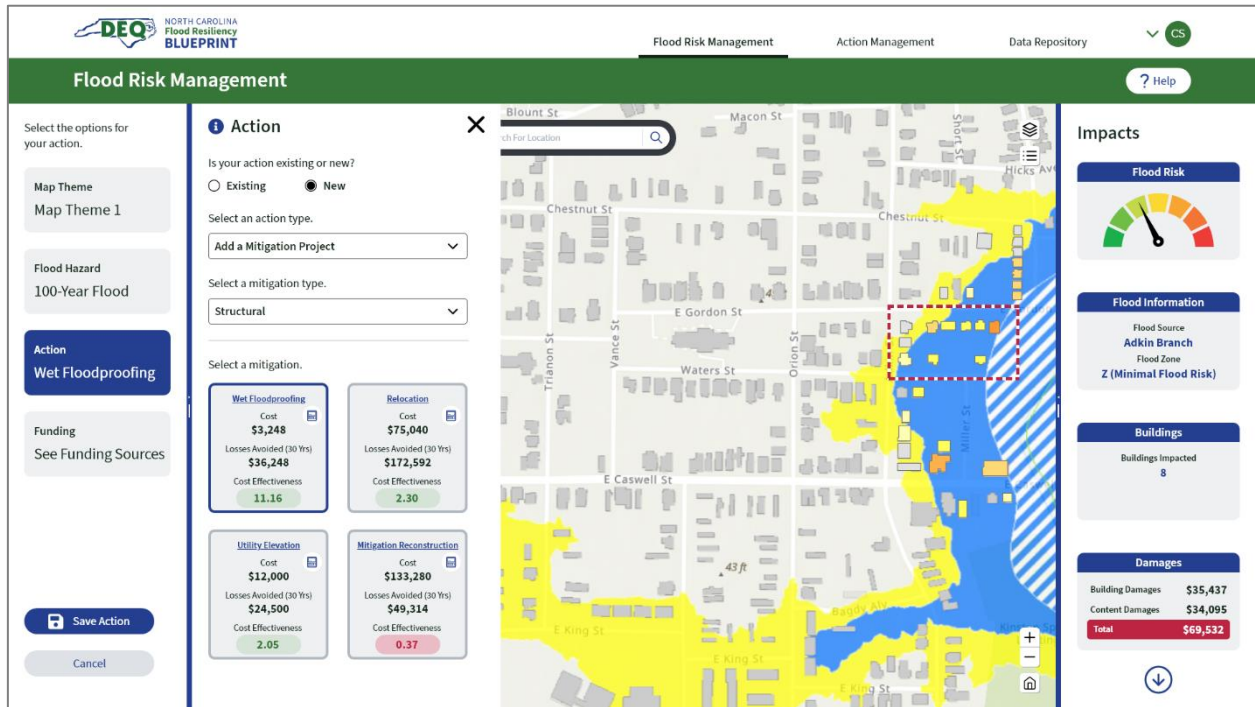
FLOOD RISK MANAGEMENT MODULE








3.2.5 Define New Resiliency Actions

**All content and functionality will be subject to further refinement as part of Phase II*

FLOOD RISK MANAGEMENT MODULE

3.2.5.1 Define New Mitigation Action: Structural

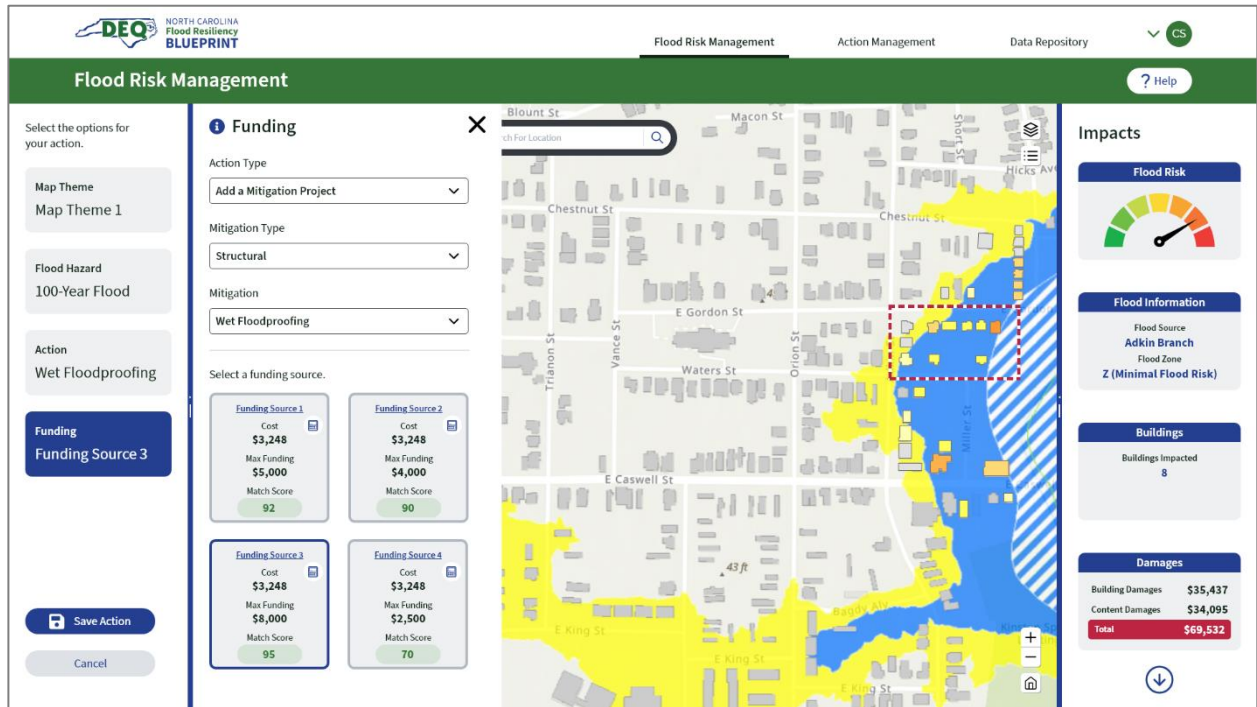









Roles	Description
 Local Action Submitter  Designated Auth. Submitter	<ul style="list-style-type: none"> Community and Delegated Authority Submitters can use the Mitigation button to select from a flood risk reduction resiliency option list. The Impacts Profile has been updated so submitters can assess and select the most effective mitigation strategy.
 NCDEQ Application Administrator  NCDEQ Blueprint Prog. Supervisor  NCDEQ Blueprint Program Analyst  Local Government Administrator  Designated Auth. Administrator	<ul style="list-style-type: none"> Although these users are not responsible for creating and editing action profiles, they have edit access to the functionality listed above.

**All content and functionality will be subject to further refinement as part of Phase II*

FLOOD RISK MANAGEMENT MODULE

3.2.5.2 Define New Mitigation Action: Funding Sources



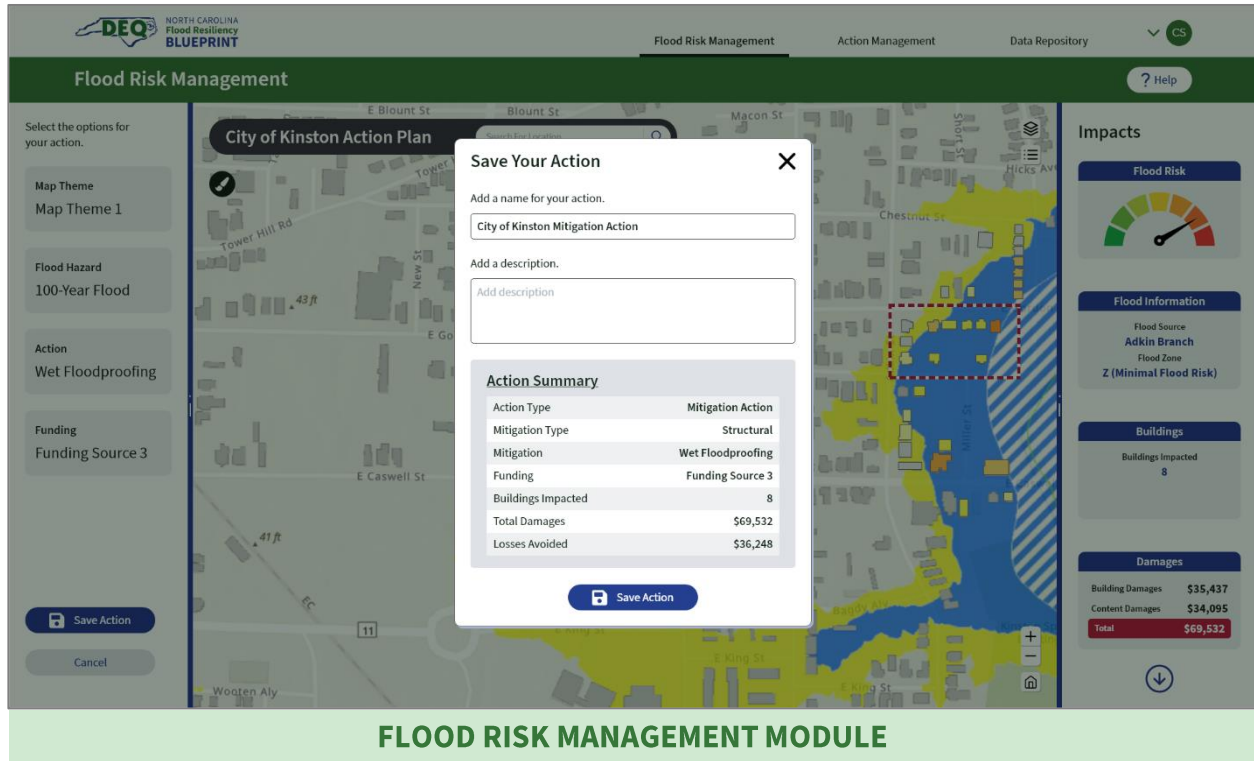
Roles	Description
  <p>Local Action Submitter Designated Auth. Submitter</p>	<ul style="list-style-type: none"> • These users review the mitigation action considering the potential funding source that has been identified. • The user can view further details on each potential funding source and then select the preferred funding option to pursue.
     <p>NCDEQ Application Administrator NCDEQ Blueprint Prog. Supervisor NCDEQ Blueprint Program Analyst Local Government Administrator Designated Auth. Administrator</p>	<ul style="list-style-type: none"> • Although these users are not responsible for creating and editing action profiles, they have edit access to the functionality listed above.

**All content and functionality will be subject to further refinement as part of Phase II*

FLOOD RISK MANAGEMENT MODULE








3.2.6 Save Action

**All content and functionality will be subject to further refinement as part of Phase II*



FLOOD RISK MANAGEMENT MODULE

3.2.6.1 Save Mitigation Action

Roles	Description
 Local Action Submitter  Designated Auth. Submitter	<ul style="list-style-type: none"> Local and Designated Authority Submitters save a newly created action to their plan.
 NCDEQ Application Administrator  NCDEQ Blueprint Prog. Supervisor  NCDEQ Blueprint Program Analyst  Local Government Administrator  Designated Auth. Administrator	<ul style="list-style-type: none"> Although these users are not responsible for creating and editing action profiles, they have edit access to the functionality listed above.

**All content and functionality will be subject to further refinement as part of Phase II*

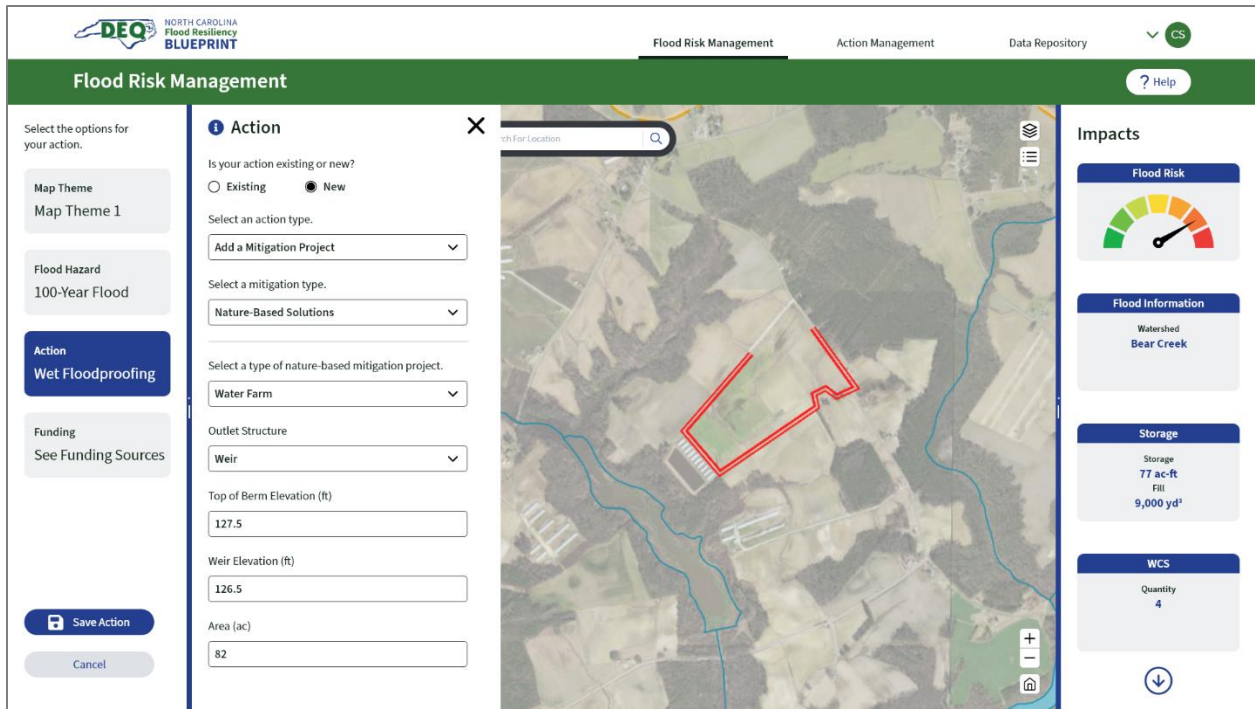
FLOOD RISK MANAGEMENT MODULE








3.2.7 New Nature-Based Resiliency Action

**All content and functionality will be subject to further refinement as part of Phase II*

FLOOD RISK MANAGEMENT MODULE

3.2.7.1 Define New Mitigation Actions: Nature-Based Solutions



Roles	Description
  <p>Local Action Submitter</p> <p>Designated Auth. Submitter</p>	<ul style="list-style-type: none"> Local and Designated Authority Submitters can add nature-based solutions to their Action Profile. Methodologies for adding nature-based solutions will be developed in Phase II of the Flood Resiliency Blueprint.
   <p>NCDEQ Application Administrator</p> <p>NCDEQ Blueprint Prog. Supervisor</p> <p>NCDEQ Blueprint Program Analyst</p>   <p>Local Government Administrator</p> <p>Designated Auth. Administrator</p>	<ul style="list-style-type: none"> Although these users are not responsible for creating and editing action profiles, they have edit access to the functionality listed above.

**All content and functionality will be subject to further refinement as part of Phase II*

FLOOD RISK MANAGEMENT MODULE








3.2.8 Action Profile Summary

**All content and functionality will be subject to further refinement as part of Phase II*

FLOOD RISK MANAGEMENT MODULE

3.2.8.1 Action Profile Summary

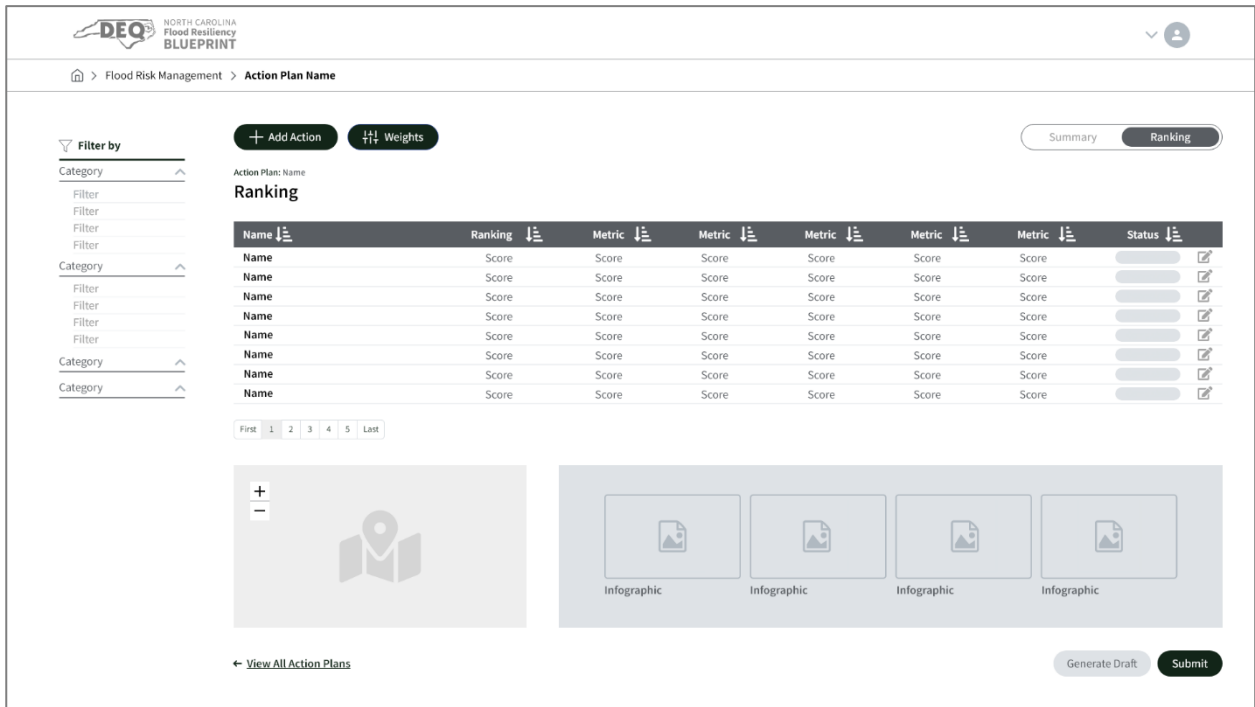
Action ID	Action Type	Project Type	Ranking	Status
Action 1	Study	Infrastructure	80	Incomplete
Action 2	Mitigation Action	Structural	76	Incomplete
Action 3	Study	Nature-Based Solution	50	Completed
Action 4	Mitigation Action	Infrastructure	67	Incomplete
Action 5	Mitigation Action	Nature-Based Solution	89	Completed
Action 6	Mitigation Action	Structural	78	Completed
Action 7	Policy Change	Structural	90	Completed
Action 8	Policy Change	Infrastructure	88	Completed
Action 9	Policy Change	Structural	88	Completed
Action 10	Policy Change	Infrastructure	88	Completed








Roles	Description
 Local Action Submitter  Designated Auth. Submitter	<ul style="list-style-type: none"> Local and Designated Authority Submitters view a summary of actions in their plan. Local and Designated Authority Submitters click the Add Action button to add an existing action or create a new action.
 NCDEQ Application Administrator  NCDEQ Blueprint Prog. Supervisor  NCDEQ Blueprint Program Analyst  Local Government Administrator  Designated Auth. Administrator	<ul style="list-style-type: none"> Although these users are not responsible for creating and editing action profiles, they have edit access to the functionality listed above.

**All content and functionality will be subject to further refinement as part of Phase II*

FLOOD RISK MANAGEMENT MODULE

3.2.8.2 Action Profile Ranking

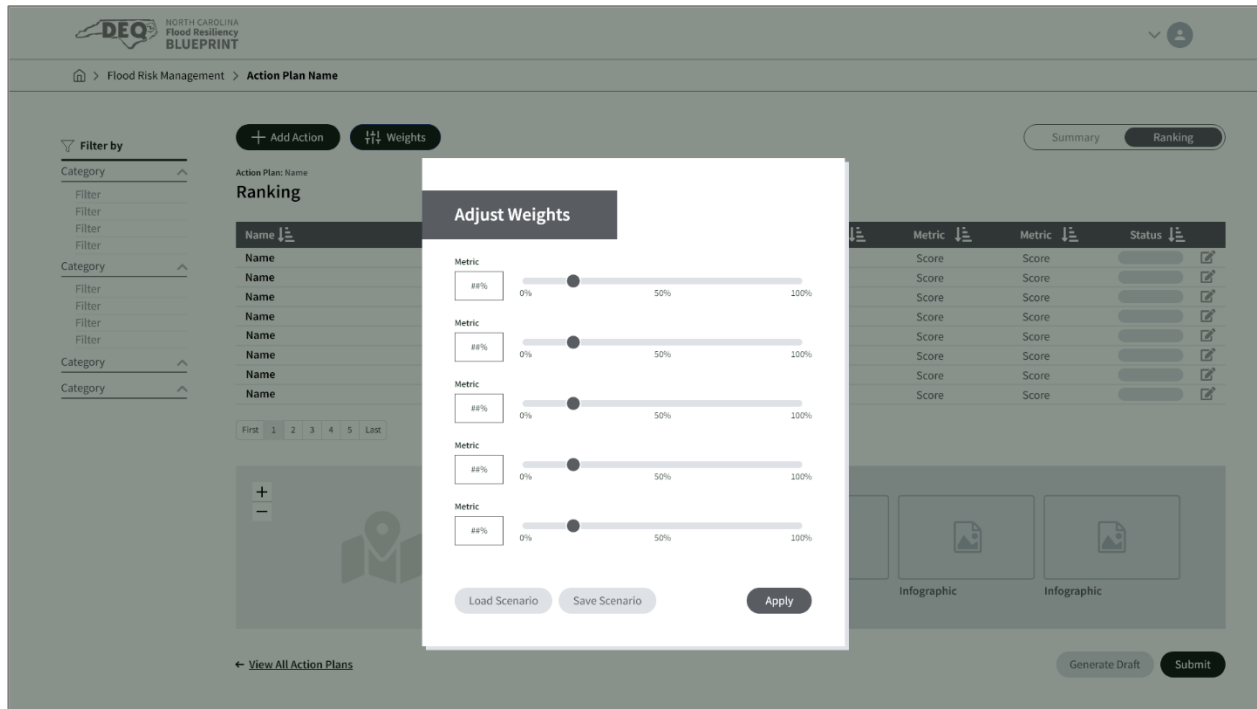









Roles	Description
  Local Action Submitter Designated Auth. Submitter	<ul style="list-style-type: none"> Local and Designated Authority Submitters view a detailed Ranking list showing the ranking scores for each metric of each action in their plan.
   NCDEQ Application Administrator NCDEQ Blueprint Prog. Supervisor NCDEQ Blueprint Program Analyst   Local Government Administrator Designated Auth. Administrator	<ul style="list-style-type: none"> Although these users are not responsible for creating and editing action profiles, they have edit access to the functionality listed above.

**All content and functionality will be subject to further refinement as part of Phase II*

FLOOD RISK MANAGEMENT MODULE

3.2.8.3 Adjusting Weights for Ranking



Roles	Description
  <p>Local Action Submitter</p> <p>Designated Auth. Submitter</p>	<ul style="list-style-type: none"> Local and Designated Authority Action Submitters can adjust weights that will affect the score based on their goals and priorities. The Local and Designated Authority Action Submitter can save scenarios that can potentially be used to implement local actions using local funding (i.e., creating a community-funded capital improvement program). Weighting changes will be available to users within the overall Flood Resiliency Blueprint goals and priorities.
   <p>NCDEQ Application Administrator</p> <p>NCDEQ Blueprint Prog. Supervisor</p> <p>NCDEQ Blueprint Program Analyst</p>   <p>Local Government Administrator</p> <p>Designated Auth. Administrator</p>	<ul style="list-style-type: none"> Although these users are not responsible for creating and editing action profiles, they have edit access to the functionality listed above.

**All content and functionality will be subject to further refinement as part of Phase II*

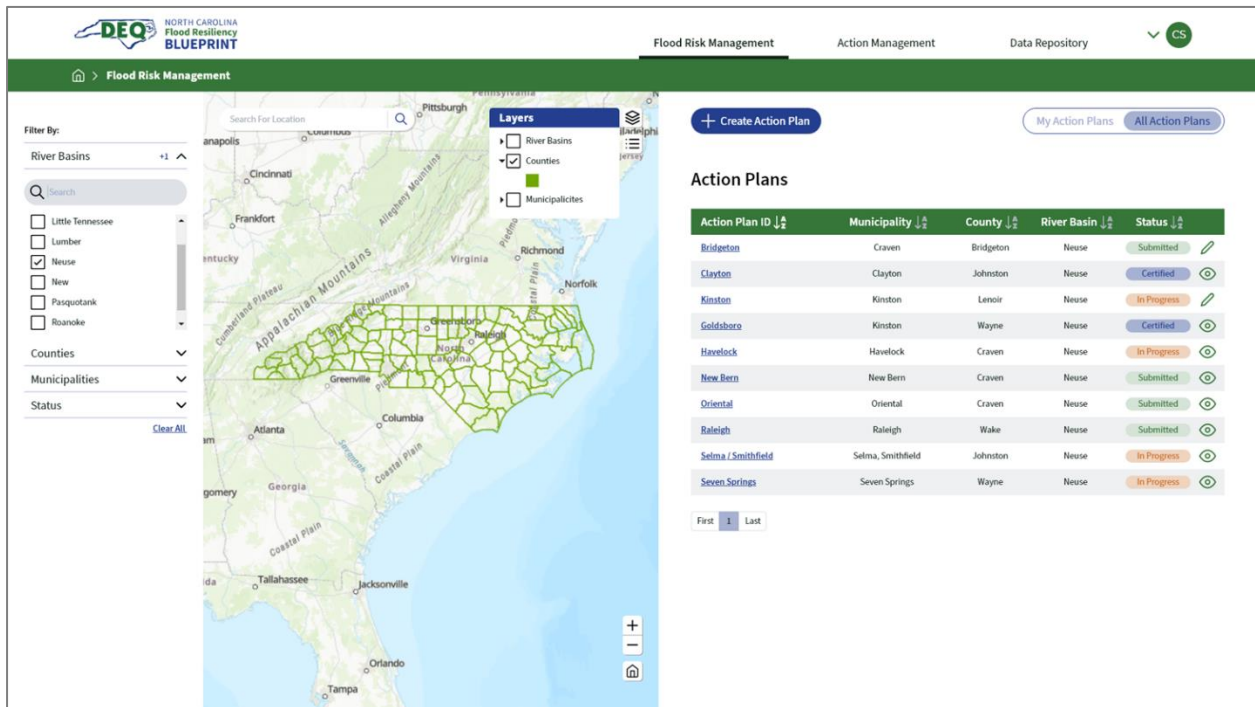
FLOOD RISK MANAGEMENT MODULE





3.2.9 View All Action Profiles

**All content and functionality will be subject to further refinement as part of Phase II*

FLOOD RISK MANAGEMENT MODULE

3.2.9.1 View All Action Profiles



Roles	Description
	<ul style="list-style-type: none"> • An Action Profile can be a single resiliency action or a combination of actions. • All credentialed users will see a list of all Action Profiles. • All credentialed users can view Action Profiles in the system.
	<ul style="list-style-type: none"> • Local and Designated Authority Action Submitters can create a new Action Profile or edit their existing Action Profile.
	<ul style="list-style-type: none"> • Although these users are not responsible for creating and editing action profiles, they have edit access.
	<ul style="list-style-type: none"> • The General Public will see a list of submitted Action Profiles (including actions contained therein) and can view those plans only.

**All content and functionality will be subject to further refinement as part of Phase II*

3.3 Resiliency Action Evaluation Module

The Resiliency Action Evaluation Module allows NCDEQ officials and members of selected representative organizations to visualize and compare alternative resiliency actions and then select actions to include in the Basin Action Strategy.



RESILIENCY ACTION EVALUATION MODULE

3.3.1 Actions Summary and Ranking

**All content and functionality will be subject to further refinement as part of Phase II*

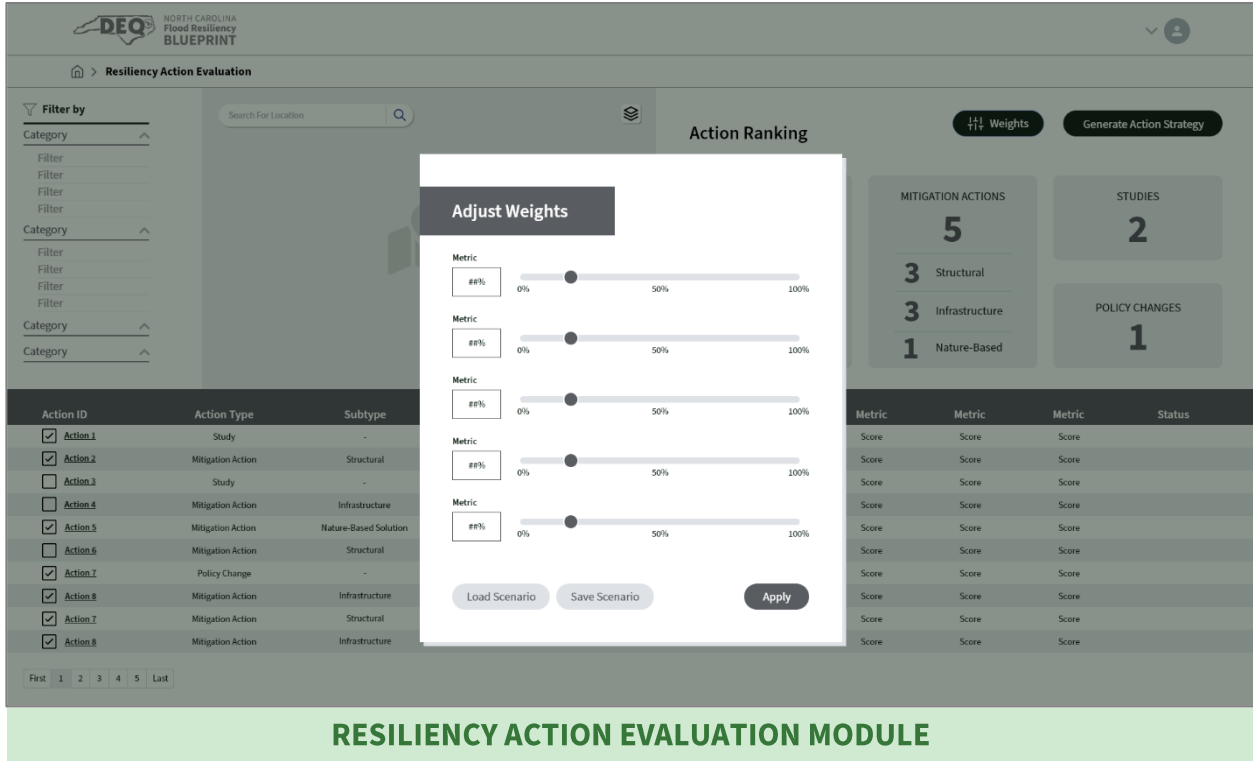
RESILIENCY ACTION EVALUATION MODULE

3.3.1.1 Actions Ranking

Action ID	Action Type	Subtype	Ranking	Metric	Metric	Metric	Metric	Metric	Status
<input checked="" type="checkbox"/> Action 1	Study	-	1	Score	Score	Score	Score	Score	Status
<input checked="" type="checkbox"/> Action 2	Mitigation Action	Structural	2	Score	Score	Score	Score	Score	Status
<input type="checkbox"/> Action 3	Study	-	3	Score	Score	Score	Score	Score	Status
<input type="checkbox"/> Action 4	Mitigation Action	Infrastructure	4	Score	Score	Score	Score	Score	Status
<input checked="" type="checkbox"/> Action 5	Mitigation Action	Nature-Based Solution	5	Score	Score	Score	Score	Score	Status
<input type="checkbox"/> Action 6	Mitigation Action	Structural	6	Score	Score	Score	Score	Score	Status
<input checked="" type="checkbox"/> Action 7	Policy Change	-	7	Score	Score	Score	Score	Score	Status
<input checked="" type="checkbox"/> Action 8	Mitigation Action	Infrastructure	8	Score	Score	Score	Score	Score	Status
<input checked="" type="checkbox"/> Action 9	Mitigation Action	Structural	9	Score	Score	Score	Score	Score	Status
<input checked="" type="checkbox"/> Action 10	Mitigation Action	Infrastructure	10	Score	Score	Score	Score	Score	Status




Roles	Description
<p>NCDEQ Blueprint Prog. Supervisor NCDEQ Blueprint Program Analyst</p>	<ul style="list-style-type: none"> NCDEQ Program Analysts will: <ul style="list-style-type: none"> Evaluate and compare all resiliency actions through the Ranking screen. Check the checkbox on resiliency actions to approve and include them in the River Basin Action Strategy. Generate a draft report. Save for use in the Basin Action Strategy.
<p>NCDEQ Application Administrator</p>	<ul style="list-style-type: none"> The NCDEQ Application Administrator has edit access to the functionality listed above.

**All content and functionality will be subject to further refinement as part of Phase II*



RESILIENCY ACTION EVALUATION MODULE

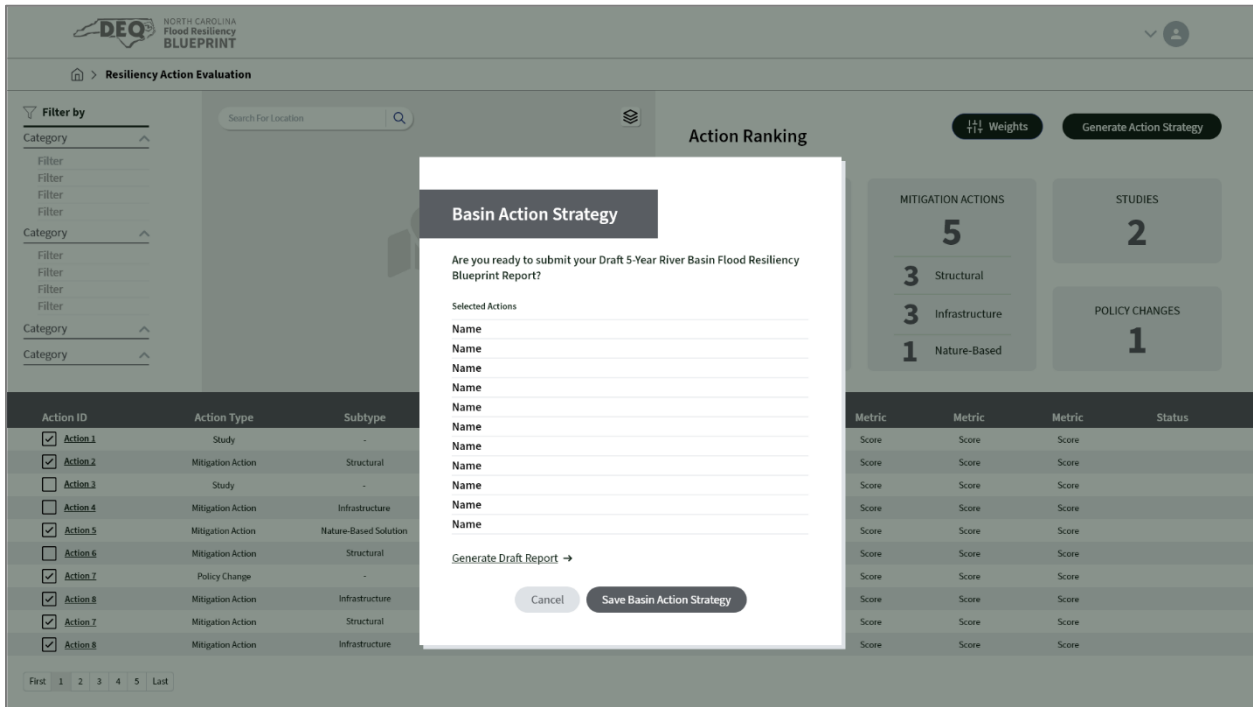
3.3.1.2 Adjust Weights for Ranking

Roles	Description
 NCDEQ Blueprint Prog. Supervisor  NCDEQ Blueprint Program Analyst	<ul style="list-style-type: none"> To rank the actions selected, NCDEQ can adjust weights and see the associated ranking iteratively.
 NCDEQ Application Administrator	<ul style="list-style-type: none"> The NCDEQ Application Administrator has edit access to the functionality listed above.




**All content and functionality will be subject to further refinement as part of Phase II*

RESILIENCY ACTION EVALUATION MODULE

3.3.1.3 Generate River Basin Flood Resiliency Blueprint Action Strategy Report



f

Roles	Description
 NCDEQ Blueprint Prog. Supervisor  NCDEQ Blueprint Program Analyst	<ul style="list-style-type: none"> NCDEQ Program Analysts can evaluate and compare all resiliency actions of a submitted blueprint through the Action Summary or Ranking screen. They can use the checkboxes to select the resiliency actions to include. Click the Generate Report button to generate a River Basin Flood Resiliency Blueprint Action Strategy.
 NCDEQ Application Administrator	<ul style="list-style-type: none"> The NCDEQ Application Administrator has edit access to the functionality listed above.

**All content and functionality will be subject to further refinement as part of Phase II*

3.4 Action Management Module

The Resiliency Action Management Dashboard is a query-based status, project management, and performance interface for all actions.



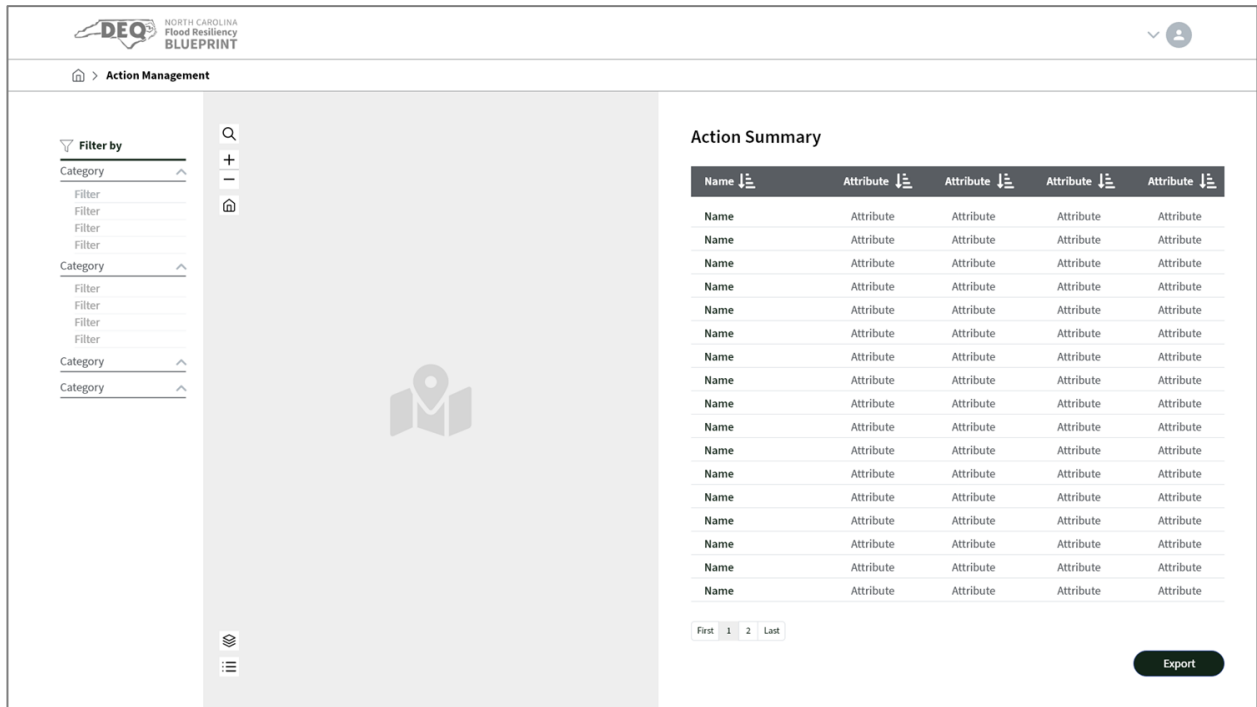
ACTION MANAGEMENT MODULE

3.4.1 Actions Overview

**All content and functionality will be subject to further refinement as part of Phase II*

ACTION MANAGEMENT MODULE

3.4.1.1 Actions Overview



Roles	Description
<p>NCDEQ Application Administrator</p> <p>NCDEQ Blueprint Prog. Supervisor</p> <p>NCDEQ Blueprint Program Analyst</p> <p>Local Government Administrator</p> <p>Local Action Submitter</p> <p>Designated Auth. Administrator</p> <p>Designated Auth. Submitter</p> <p>Contractor/Subconsultant</p> <p>General Public</p>	<ul style="list-style-type: none"> All users will see a list of all Actions that have been implemented and planned. Users can filter actions by criteria such as geographical area, jurisdiction, and mitigation type. Users select actions from the map or the table to open the Action Management Dashboard for that action.

**All content and functionality will be subject to further refinement as part of Phase II*

ACTION MANAGEMENT MODULE

3.4.2 Actions Details Dashboard

**All content and functionality will be subject to further refinement as part of Phase II*

City of Kinston Mitigation Action
Kinston, NC

Action Plan: City of Kinston Action Plan
Action ID: #####
This is a description of the City of Kinston Mitigation Action.

Action Type: Mitigation Action
Mitigation Type: Structural
Mitigation: Wet Floodproofing

Flood Information & Risk

Flood Source: Adkin Branch
Flood Zone: Z (Minimal Flood Risk)

Current: [Gauge] Mitigation: [Gauge]

Damages

Current	Mitigation Summary	Mitigation Breakdown	Buildings Affected	Estimated Building Damages	Losses Avoided
		Residential	10	\$ 35,437	\$ 10,000
		Commercial	0	\$ 0	\$ 0
		Public Facilities	0	\$ 0	\$ 0
		Community Facilities	0	\$ 0	\$ 0
		TOTAL	10	\$ 35,437	\$ #
		Critical Facilities	5	\$ 20,437	\$ #










STATUS
Last Updated:
Status Description
View

Schedule & Milestones
Milestone Description
Due Date:
View

Finance Tracking
Total Funding:
\$ 8,000
View

ACTION MANAGEMENT MODULE

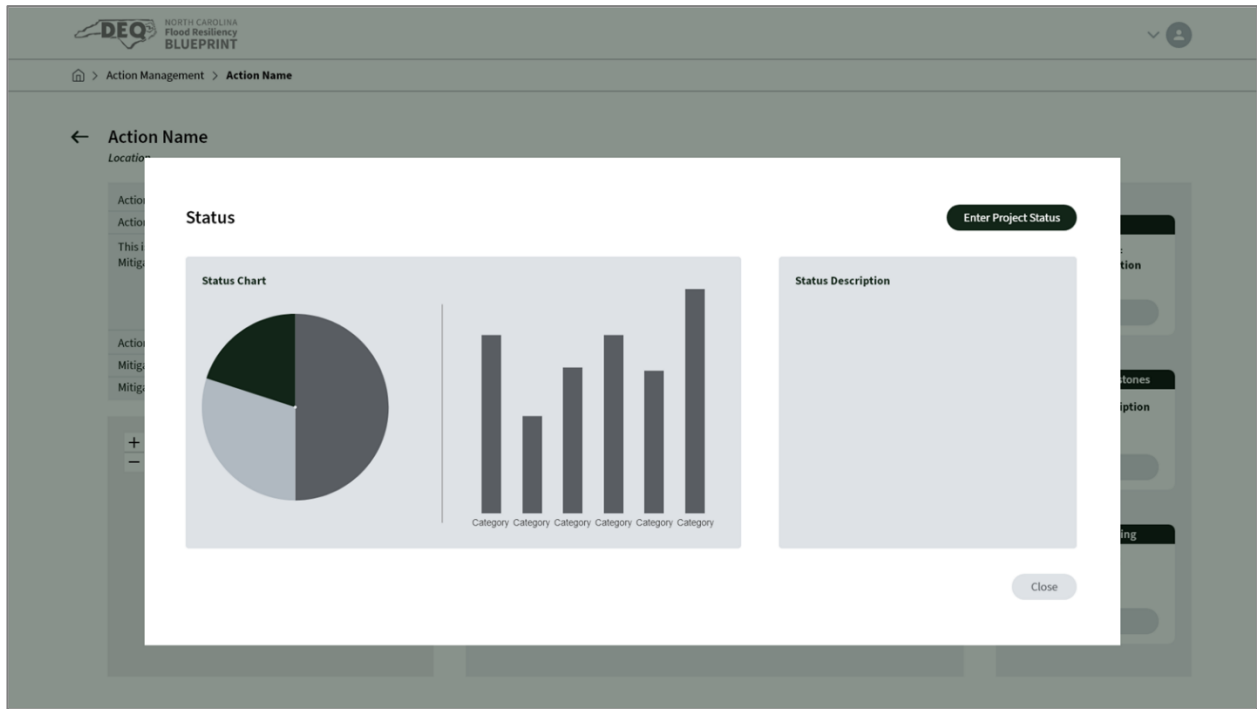
3.4.2.1 Action Management Dashboard

Roles	Description
 NCDEQ Application Administrator  NCDEQ Blueprint Prog. Supervisor  NCDEQ Blueprint Program Analyst	<ul style="list-style-type: none"> All users can view information about each action in the Action Management Dashboard. Factors, including mitigation action type and available data, will determine the metrics shown on this dashboard. Users can click on the individual panels to show more detailed data about that topic.
 Local Government Administrator  Local Action Submitter  Designated Auth. Administrator	
 Designated Auth. Submitter  Contractor/Subconsultant  General Public	

**All content and functionality will be subject to further refinement as part of Phase II*

ACTION MANAGEMENT MODULE

3.4.2.2 Action Details Dashboard: Status

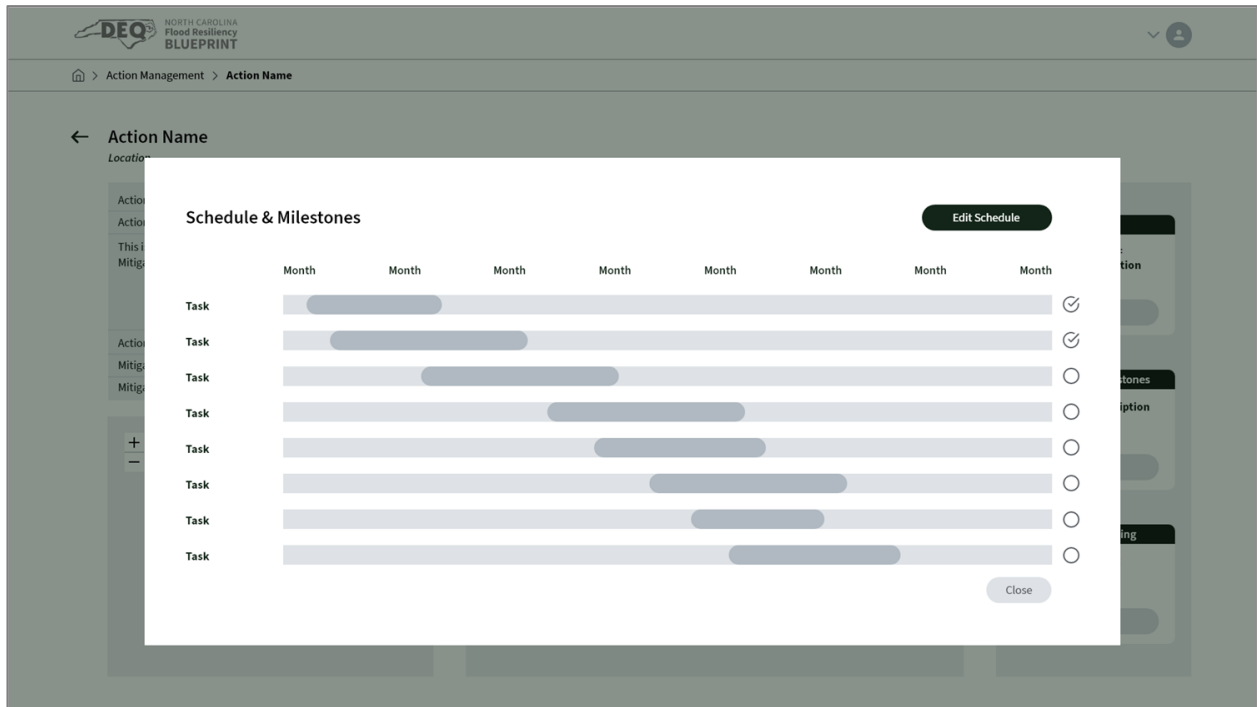


Roles	Description
	<ul style="list-style-type: none"> Users view details about the status of the action in a modal window.
	<ul style="list-style-type: none"> Local and Designated Authority Action Submitters click the Enter Status Update button and enter their latest status update.

**All content and functionality will be subject to further refinement as part of Phase II*

ACTION MANAGEMENT MODULE

3.4.2.3 Action Details Dashboard: Schedule & Milestones

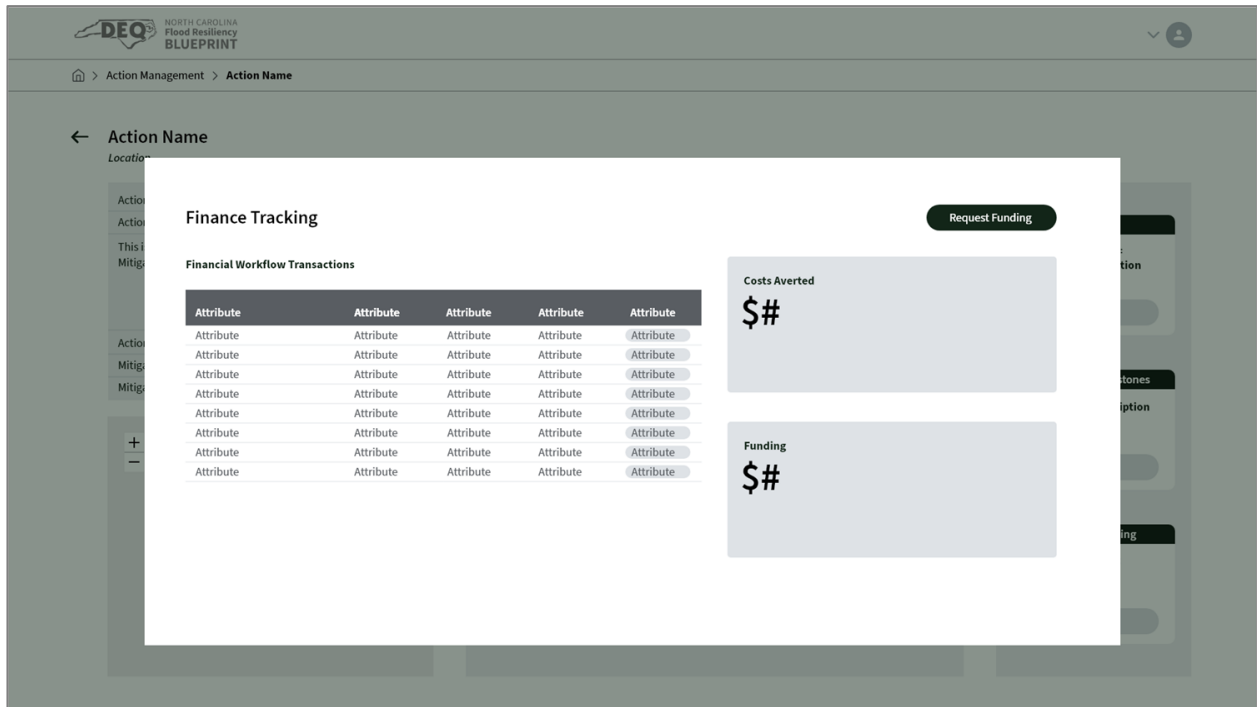


Roles	Description
	<ul style="list-style-type: none"> Users view details about the scheduled milestones for the action in a modal window.
	<ul style="list-style-type: none"> NCDEQ Program Managers and Program Analysts click on the Edit Schedule button to make updates to the schedule.

**All content and functionality will be subject to further refinement as part of Phase II*

ACTION MANAGEMENT MODULE

3.4.2.4 Action Details Dashboard: Finance Tracking



Roles	Description
	<ul style="list-style-type: none"> Users view detailed financial information associated with the action in a modal window. Local and Designated Authority Action Submitters click the Request Funding button to request that NCDEQ Program Managers and Analysts release funds.
	<ul style="list-style-type: none"> NCDEQ Program Managers and Program Analysts can approve and release funding from this screen.

**All content and functionality will be subject to further refinement as part of Phase II*

3.5 Data Repository

The Data Repository Module is the central hub for searching, accessing, and downloading publicly available data associated with the Flood Resiliency Blueprint. This hub will contain modeling outputs, spatial data resources, technical reports, and other relevant data to the Blueprint Tool. It will allow administrators to upload and modify existing data in the repository and add and edit metadata for more efficient searching.



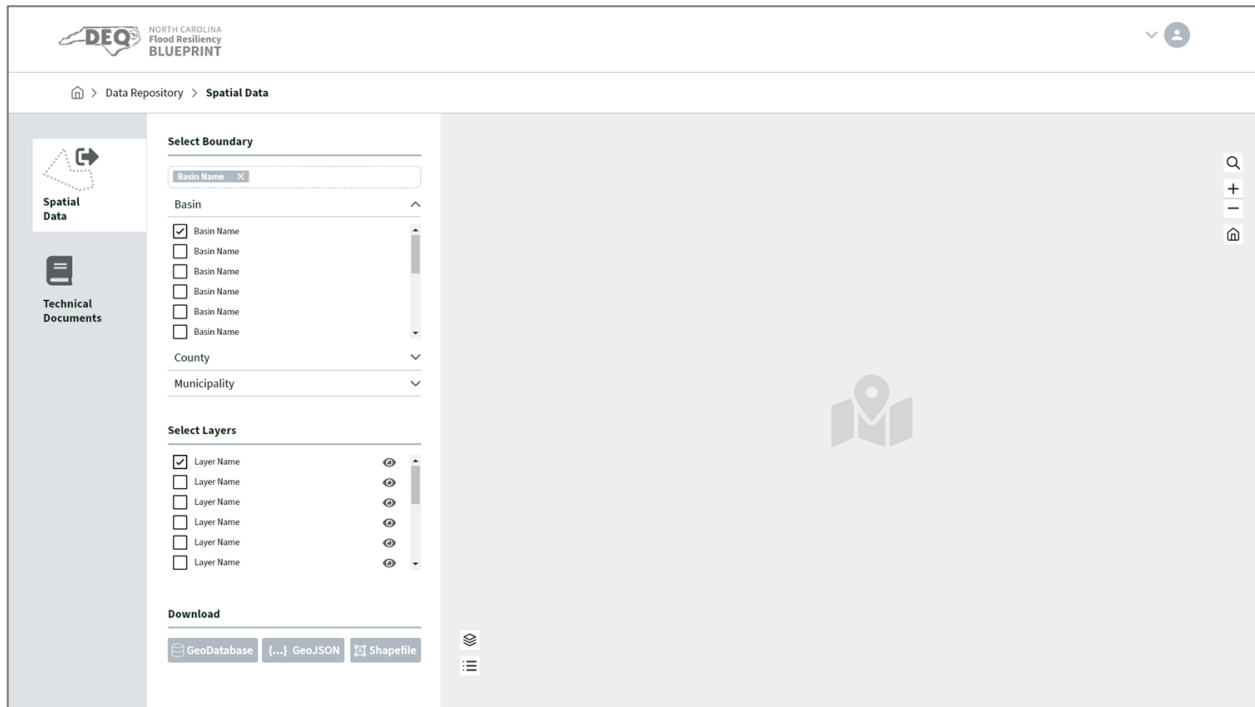
DATA REPOSITORY



3.5.1 Spatial Data

**All content and functionality will be subject to further refinement as part of Phase II*

DATA REPOSITORY

3.5.1.1 Spatial Data



Roles	Description
	<ul style="list-style-type: none"> All users can search spatial data associated with the Flood Resiliency Blueprint. Users can download spatial data in various formats, such as Geodatabase, Geographic JavaScript Object Notation (GeoJSON), or shapefiles.
	<ul style="list-style-type: none"> NCDEQ Application Administrator is responsible for maintaining all spatial data in the Data Repository, including adding, deleting, and updating.

**All content and functionality will be subject to further refinement as part of Phase II*

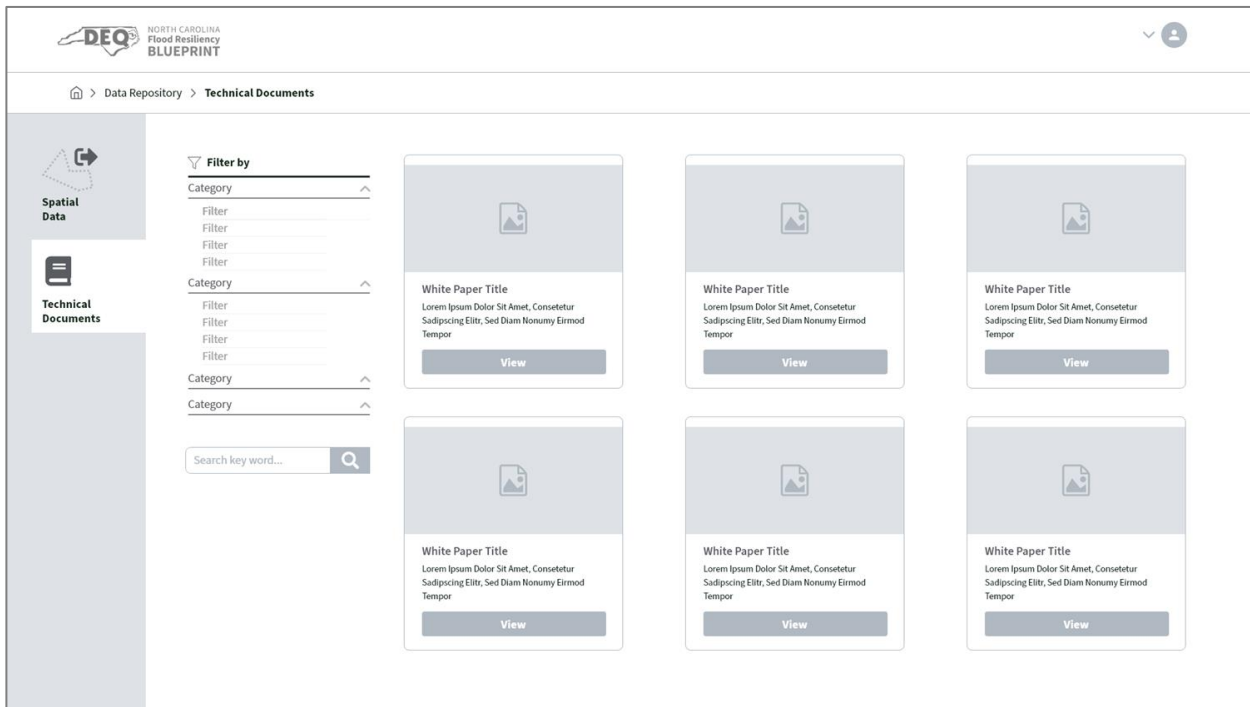
DATA REPOSITORY

3.5.2 Technical Documents

**All content and functionality will be subject to further refinement as part of Phase II*

DATA REPOSITORY

3.5.2.1 Technical Documents



Roles	Description
	<ul style="list-style-type: none"> All users can search technical documents associated with the Flood Resiliency Blueprint. Users can view or download the documents.
	<ul style="list-style-type: none"> NCDEQ Program Managers, Program Analysts, and Application Administrators manage the documents in the Data Repository, including adding, updating, and deleting.

**All content and functionality will be subject to further refinement as part of Phase II*