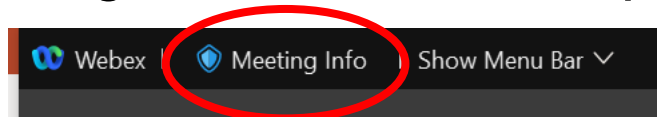




Hazard Mitigation Grant Program State-Wide Applicant Briefing

Call-in Number available through Webex.
Click “Meeting info” tab in the top left corner



General Webinar Info

- Audio
 - Available through Webex
- **All lines will be muted for the duration of the webinar.**
- If you have a question or issue during the presentation, please submit it through the webinar chat.
- Any questions not answered during the presentation will be answered in the meeting minutes and made available to the public.
- This webinar is being recorded and will be made available on the State's HMGP site.



Welcome and Introductions



THE FLORIDA DIVISION OF EMERGENCY MANAGEMENT



What does Mitigation do?

Mitigation breaks the cycle of disaster, damage, reconstruction and repeated damage



\$6 is saved in future disaster costs for every \$1 of hazard mitigation spent

Natural Hazard Mitigation Saves: 2019 Interim Report
(<https://www.nibs.org/projects/natural-hazard-mitigation-saves-2019-report>)



Where Does Mitigation Fit?

Mitigation

Reducing the loss of life and property by lessening the impact of disasters



Recovery

Putting a community back together after a disaster



Preparedness

Getting people and equipment ready to quickly and effectively respond to a disaster before it happens

Response

Saving life and property during and immediately after a disaster



Rule 27P-22, F.A.C

Hazard Mitigation Grant Program (HMGP)

■ ■ ■

Outlines a project selection process *implemented at the local level*

■ ■ ■

Requires brief annual updates from each LMS working group regarding local risk & effort

■ ■ ■

Unique funding allocation process maximizes post-disaster federal funding use



Funding

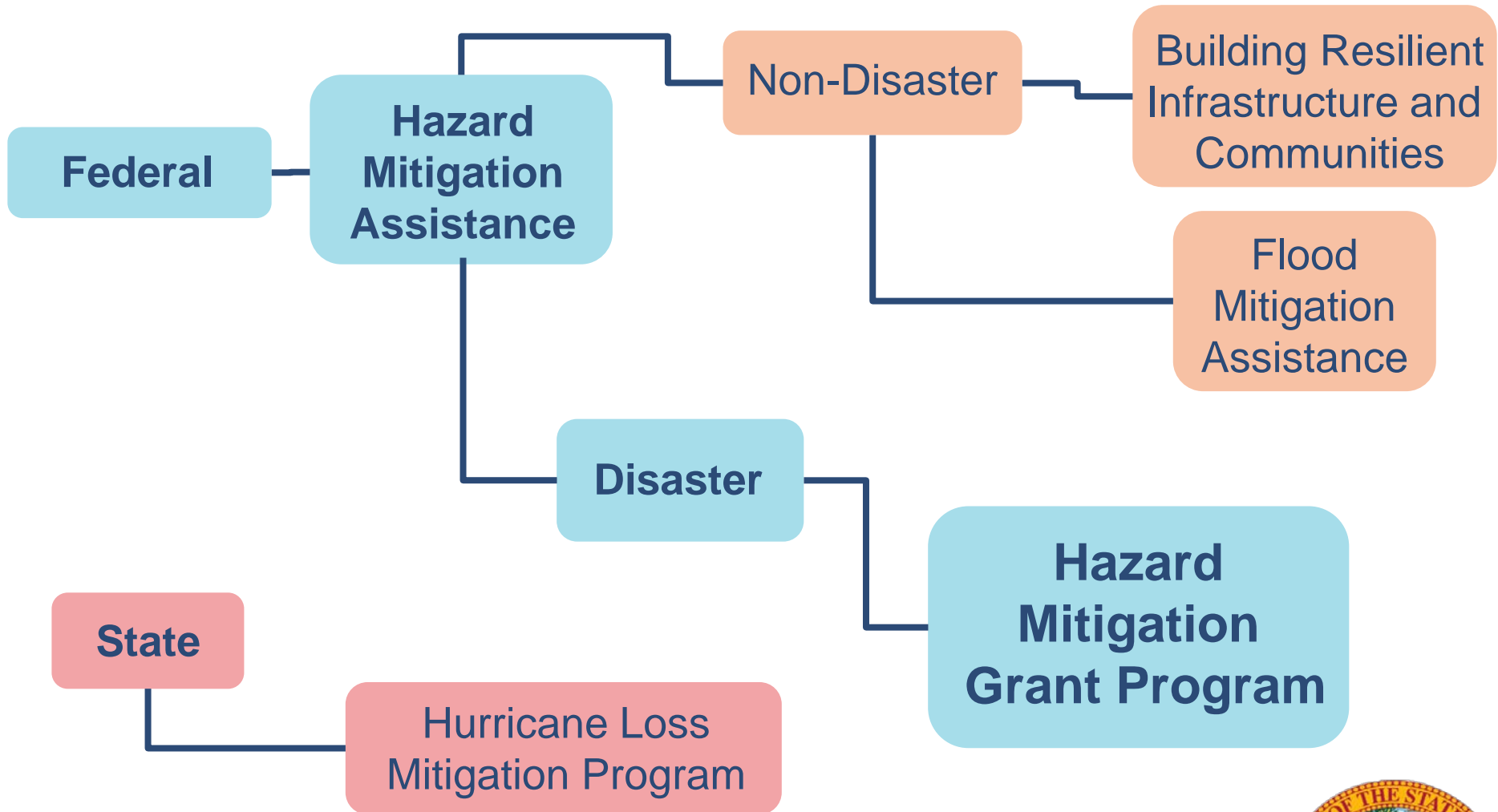
Who can
apply?

What are the
different
funding options
available?

Am I
eligible?



Mitigation Funding Programs



Who Can Apply?

Private Non-Profit Organizations*

Examples: Medical, Residential Health Care Facilities, Educational, Emergency Utility, Houses of Worship

**As defined in 44 CFR § 206.221(e)*

Government Entities

- State Agencies
- Local Governments and Agencies
- Special and Regional Districts

All must go through the Local Mitigation Strategy Working Group of the county where the project will take place.

Tribal Nations



Disaster Funding Programs

404/406
Mitigation

Tier
Funding
Process

Eligibility

Process



Post-Disaster Mitigation Funding

Hazard Mitigation Grant Program (404)

- Vulnerable to any natural event, not just declared event
- **Can be** used on private property
- Project can not be eligible under any other federal program
- Must be cost effective and meet other performance criteria

Public Assistance (406)

- Damaged by the event-site specific mitigation
- Located within defined declaration area
- **Can not be** used for private property
- Project can not be eligible under any other federal program
- Facility must be in active use at time of the disaster



Program Funding

- HMGP is a cost-reimbursement grant program
 - All approved eligible project costs are financed by the subgrantee with reimbursement requested from the State
- FEMA may fund up to 75% of the eligible costs of each project
- Sub-Recipient Management Costs Available
- Project Cost-Share
 - The applicant must provide a 25% match, which can be fashioned from a combination of cash and in-kind sources (44CFR 206.432(c)), and project (global) match



Three-Tiered Funding System (cont'd)

Tier One

Initial allocation of submitted and eligible projects will be funded in order of priority as endorsed by the LMS Working Group

Tier Two

Any allocation remaining after all eligible projects in any designated county are funded will go to another designated county Working Group with a partially funded project contained in original submission.

Tier Three

If funds remain after the Tier Two funding process, the un-obligated funds will be provided to any applicant statewide with a project application submitted within the application period, on a first-come-first-serve basis until all available funds are obligated.

Not applicable for DR-4486



Eligible Types of Projects

Acquisition

Acquiring and relocating, or demolishing, structures from hazard-prone areas

Retrofit

Retrofitting structures to protect them from floods, high winds, earthquakes, or other natural hazards

Elevation

Elevating existing structures to avoid flooding damages

Drainage

Constructing certain types of minor and localized flood control projects

Wildfire

Defensible space/vegetation barriers; retrofitting with fire-resistant materials and vegetation management



Eligible Types of Projects

New Construction

Safe Rooms

Mitigation Reconstruction

Code Plus

Wastewater Treatment Plant - Relocation (new)



Previously Funded HMGP Projects

- Acquisition/relocation
- Elevation of structures
- Elevation of critical infrastructure
- Catch basins/water retention projects
- Wetland restoration
- Flood proofing of non-residential structures
- Drainage improvements
- Flood control gates
- Sewer backup protection

- Erosion and sediment control projects
- Lift/pump stations retrofits
- Structural hazard control or protective actions
- Retrofitting wastewater treatment plant
- Water diversion
- Shuttering/wind protection measures



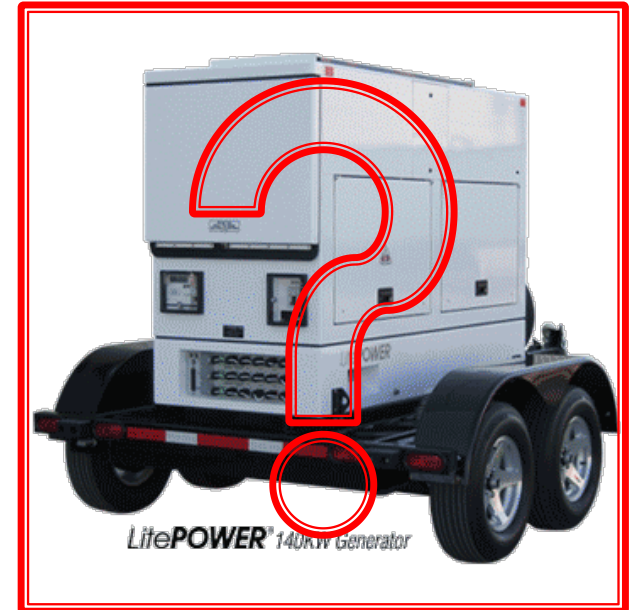
What Makes An Eligible HMGP Project?

- **Planning Requirements**
 - Approved and adopted LMS
 - 27P-22 F.A.C. requirements
 - Include updated LMS Project Priority List
- **Eligible Project Type**
 - HMA Guidance
 - Notice of Funding Availability
- **Cost-Effective, Technically Feasible, and Effective Mitigation**
- **Conform to Environmental and Historic Preservation Requirements**
- **Nation Flood Insurance and Special Flood Hazard Area Requirements**
- **Meets all applicable state and local codes**



Ineligible Activities

- Generators (unless...)*
- Communications equipment
- Warning systems
- New construction (unless...)*
- Potable water supply
- Studies only
- Sewage extensions in undeveloped areas
- Project for which work commences prior to awarding of grant
- Emergency pumps

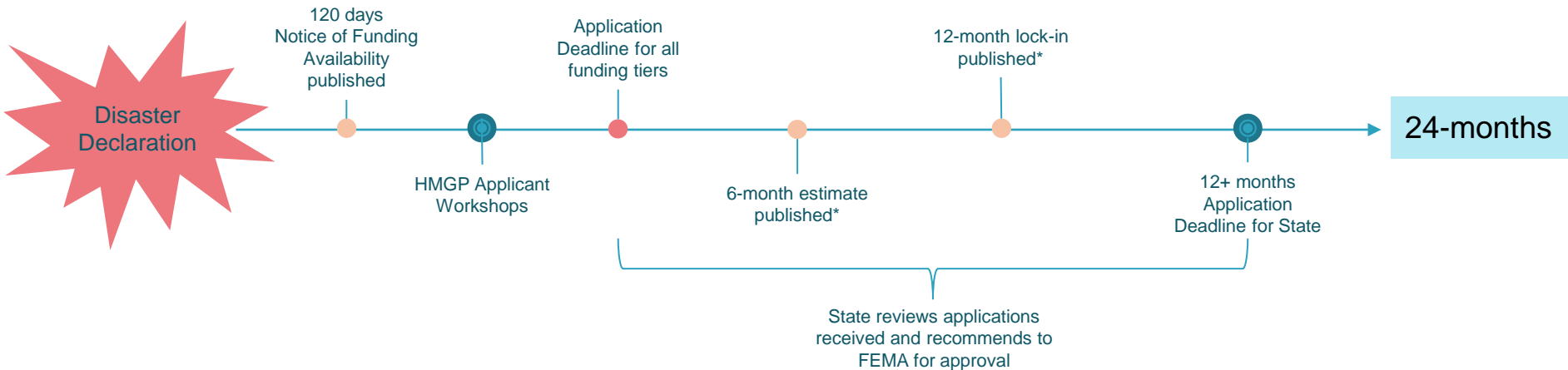


HMGP Process

- Notice of Funding Availability
- Applicant development workshops
- LMS Working Group submits priority list to state
- Applications submitted to state for eligibility review
- State conducts project reviews
- State submits eligible projects to FEMA for final approval and potential funding consideration
- Upon FEMA approval, State begins the project/grant management process



Time Frame and Expectations



*Lock-in already provided for DR-4486. No additional adjustments expected.

- ▶ State submits local applications to FEMA up to 12 months after the disaster declaration (w/o PAS)
- FEMA's goal is to obligate all funds within 24 months of disaster declaration
- Program Administration by States
 - More responsibility on state during review process/project management.
 - Overall quicker state and FEMA approvals.



Role of the Applicant

Develop/submit eligible and **complete** project applications by the deadline outlined in the appropriate Notice of Funding Availability:

•**DR-4486: December 21, 2021**

- Complete State contracting process as timely as possible
- Perform project in accordance with approved scope of work and milestone schedule
- Manage project and funds received
- Submit quarterly reports to State (due no later than the **15th** of the month after quarter end)
- Audit projects in accordance with 44 CFR Part 14



HMGP Application Process

- Use the HMGP Application Checklist as a guide for completing the application
- Make sure the disaster is identified
 - (FEMA-####-DR-FL)
- The descriptive project title (i.e., Volusia County, City of DeBary, West Side Emergency Flood Management System, Drainage)



General Applicant Information

- Name of Applicant Organization
- Applicant type
- County/Counties
- State Legislative/Congressional District(s)
- Federal Tax Identification Number
- FIPS Code
- DUNS number
- FFATA

- Point of Contact
- National Flood Insurance Program (NFIP) Community Identification Number
- Application Preparer Information
- Duly Authorized Representative
- LMS Letter



LMS Endorsement Letter

- Must have priority number and budget (federal share)
- Must identify how project meets LMS goals and objectives
- Signed by LMS Chairperson/Vice Chairperson
- Applications without a LMS endorsement letter will NOT be processed.

See NOFA for letter template



Pre-Award Costs

- Pre-construction soft costs
 - Activities such as engineering, modeling, permitting, environmental study, etc.
- Only eligible costs incurred after Presidential Declaration Date
- Must be approved by State and FEMA
- A request form must be submitted with application
- Cannot include construction
- If the project is not approved, pre-award costs will be the sole responsibility of the applicant



Project (Global) Match

- Any eligible project type under HMGP
- Funded 100% by non-federal funds
- Project must meet HMGP criteria

- Match project must **NOT** begin prior to approval from FEMA.
- Requires separate project application
- Cannot be Phased



Budget Development

Provide detailed costs of the project. This information will be used for the Benefit-Cost Analysis
(Do not include contingency costs or maintenance costs in the budget)

- Materials costs (include all in-kind matches)
- Labor costs (include all in-kind matches)
- Other costs/fees (permitting, engineering, etc.)
- **DO NOT** include Sub-Recipient Management Costs here

For more information see 44 CFR §13.24



Budget Development (cont'd)

Detail all anticipated project costs

- Lump sum is not acceptable
 - Whenever possible, quantify or provide additional breakdown of large lump sum cost items

- Provide the source of the estimate
 - i.e., documented local costs
 - vendor quotes



Budget Development (cont'd)

- Funding Sources

- Estimated FEMA Share (maximum federal share is 75%)
- Non-Federal Share
 - 25% (Cash, In-Kind, Project Global Match)

I. Funding Sources (round figures to the nearest dollar)

The maximum FEMA share for HMGP projects is 75%. The other 25% can be made up of State and Local funds as well as in-kind services. HMGP funds may be packaged with other Federal funds, but other Federal funds (except for Federal funds that lose their Federal identity at the State level, such as CDBG, and certain tribal funds) may not be used for the Non-Federal share of the costs.

1.	Estimated Federal Share	<input type="checkbox"/>	<input type="checkbox"/>	% of Total (Maximum 75%)
2.	Non-Federal Shares			
3.	Estimated Local Shares	<input type="checkbox"/>	<input type="checkbox"/>	% of Total (Cash)
4.		<input type="checkbox"/>	<input type="checkbox"/>	% of Total (In-Kind**)
5.		<input type="checkbox"/>	<input type="checkbox"/>	% of Total (In-House****)
6.		<input type="checkbox"/>	<input type="checkbox"/>	% of Total (Global Match****)
7.	Other Agency Share <i>(Identify Non-Federal Agency and availability date)</i>	<input type="checkbox"/>	<input type="checkbox"/>	% of Total
		<input type="checkbox"/>		
8.	Total Funding sources from above	<input type="checkbox"/>	<input type="checkbox"/>	\$0.00 0.00% Total (Equals 100%)

- **Identify proposed eligible activities directly related to project to be considered for In-Kind services in Section IV.C. Fees
- ***Identify proposed eligible activities directly related to project to be considered for In-House services in Section IV.C. Fees
- ****Separate project applications must be submitted for each Global Match project.

Global Match Project Number and Title:

Example -
page 8 of
HMGP
application



Sub-Recipient Management Costs

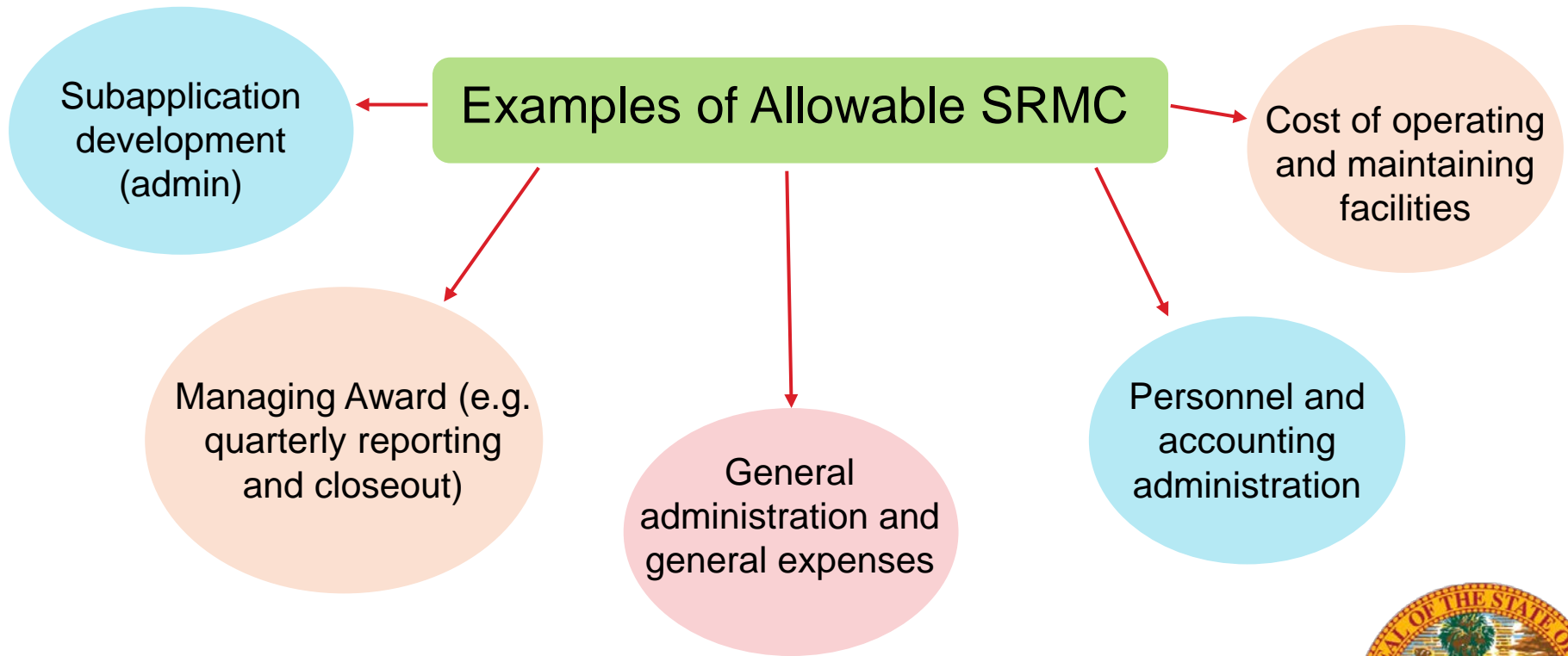
- SRMC is now available upon request
 - 5 percent of the HMGP award set-aside for subrecipients for every disaster
 - Keeps management funds and project funds separate.
 - Requested at the time of application and must be specific
 - Can only be used for indirect costs and/or administrative expenses associated with the project.
 - Per project SRMC cannot exceed 5% of the total project costs (75/25) or 5% of the proportional federal share if cost-share falls below 75%.*

*Application assumes 75/25 cost-share in calculation, but if Fed cost-share ends up <75%, SRMC will be lower based on new proportion.



Sub-Recipient Management Costs

Management costs are any indirect costs and administrative expenses that are reasonably incurred by a Recipient or subrecipient in administering an award or subaward



*These activities are not an exhaustive list and are subject to State/FEMA approval



SRMC (Cont.)

- SRMC is calculated to show available and requested amounts based on full 75/25 cost-share.

9.	<i>Total Estimated Management Costs</i>	<i>Requested Available</i>		5% of Total (Max Allowed)
----	---	----------------------------	--	---------------------------

Example from pg. 8 of HMGP application

- An SRMC calculator will be available on the state HMGP website to help applicants determine the available SRMC for projects with a Fed cost-share below 75%.



Project Milestones

- **Project Schedule of Work** (cannot exceed a 3 year period)
 - Identify project milestones, include all phases of the project
 - Milestone example: project design
 - Number of days to complete example: 6 months
 - Keep in mind **Strategic Funds Management**



Strategic Funds Management

- **Strategic Fund Management (SFM)**
 - Intended to help FEMA reduce the amount of unexpended obligations through incremental obligations.
 - Eligible projects will need to have their budgets broken down per year for the expected life of the project.
 - Federal funding will be available in increments according to the above schedule.
 - State will assist subrecipients with their projects, as needed.
 - SRMC is subject to SFM for obligations >\$25,000.00.



Strategic Funds Management

- Not all projects are appropriate candidates, such as:
 - Projects with federal share less than \$1 million
 - Projects that require an approved source of funding (full obligation) by the State procurement process in order for the subapplicant to enter procurement and contracting.
 - Projects for which most of the funds will be disbursed within 6 months.



Application Process Changes

- A fully digital option is available for the following HMGP grants.
 - DR-4486 (Open)
- Signed applications must be submitted through FDEM Portal as an attachment.
- Hard copies are still accepted but will still require a digital submission through the FDEM Portal.



Application Process Changes

Request Access ASAP

See NOFA for access request instructions

Deadline to request access to the FDEM Portal closes @5:00PM (EST) on the application deadline date

All applications are due by 11:59PM (EST) on the application deadline date.



Important Dates

Disaster	Sharepoint Access Request Deadline	Hard-Copy Submittal Deadline	Sharepoint Submittal Deadline
DR-4486	Tuesday December 21, 2021 5:00PM (EST)	Tuesday December 21, 2021 5:00PM (EST)	Tuesday December 21, 2021 11:59PM (EST)



Questions?



FDEM Portal

Go to
www.fdemportal.com/grants



Log in

[Forgot your password?](#)

[Register](#)

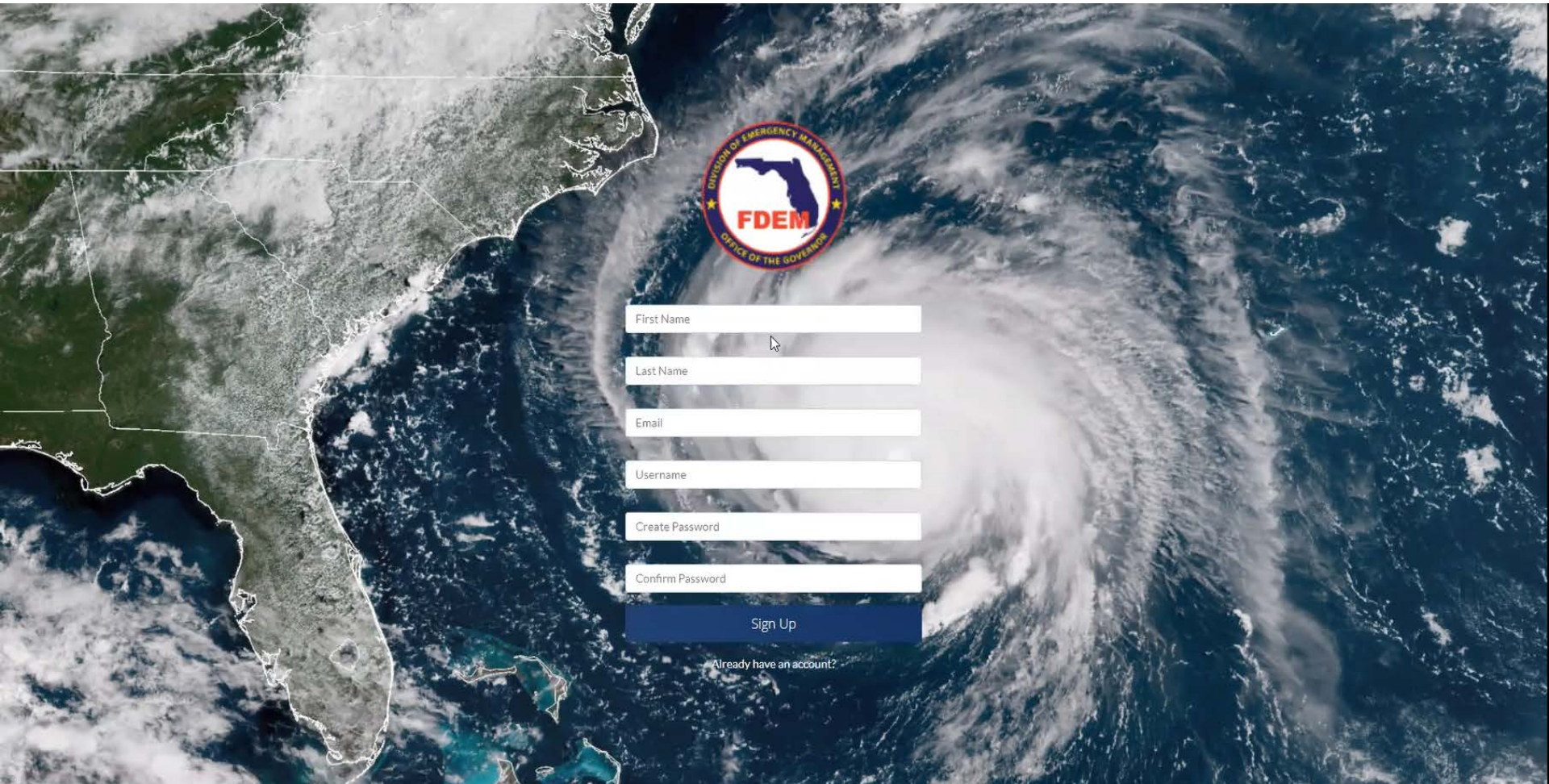
If you do not
have an
account, click
“Register”

Community Guide Video for the FDEM
Portal available on State HMGP site.



THE FLORIDA DIVISION OF EMERGENCY MANAGEMENT

FDEM Portal



Community Guide Video for the FDEM Portal available on State HMGP site.



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FDEM Portal



Home

Be sure you register for the correct account. If you're unsure, contact FDEM.

Account Access Search

Enter Account Name

Bay County

Request Access

Can't find your account?

Name	Billing Address	Phone
<input type="radio"/> Anchorage Children's Home of Bay County, Inc.	2121 Lisenby Avenue, Panama City, Florida	
<input checked="" type="radio"/> Bay County	840 W. 11th St., Panama City, Florida	850-784-6167
<input type="radio"/> Bay County Chamber of Commerce	PO Box 1850, Panama City, Florida	
<input type="radio"/> Bay County Conservancy, Inc	po box 1182, panama city, Florida	
<input type="radio"/> Bay County Department of Health	597 W 11th Street, Panama City, FL	850-872-4455
<input type="radio"/> Bay County Emergency Management	700 Highway 2300, Panama City, FL	
<input type="radio"/> Bay County Health System, LLC	615 North Bonita Avenue, Panama City, Florida	
<input type="radio"/> Bay County Sheriff's Office	3421 North Highway 77, Panama City, Florida	850-747-4700 ext. 2202
<input type="radio"/> Bay County Transportation Planning Organization	840 WEST 11TH STREET, PANAMA CITY, Florida	
<input type="radio"/> Boys & Girls Clubs of Bay County	PO BOX 914, PANAMA CITY, Florida	
<input type="radio"/> Callaway Community & Arts Center/Bay County Health Department	500 Callaway Pkwy, Callaway, FL	(850) 819-8678
<input type="radio"/> Central Panhandle Fair in Bay County, Inc	P.O. Box 35007, Panama City, FL	
<input type="radio"/> Girls Incorporated of Bay County	1100 Fountain Avenue, Panama City, Florida	
<input type="radio"/> Panama City-Bay County Airport and Industrial District	6300 West Bay Parkway Box A, Panama City, Florida	
<input type="radio"/> School Board of Bay County Florida	1311 Balboa Avenue, Panama City, Florida	
<input type="radio"/> Shelter In Place Bay County	Private Residence,	

Community Guide Video for the FDEM Portal available on State HMGP site.



THE FLORIDA DIVISION OF EMERGENCY MANAGEMENT

FDEM Portal



Home

Register for Access

Name

First Name

Bob

Last Name

Test

* Email

bobtest@invalid.com

* Business Phone

9042009001

Phone extension

Mobile Phone

* Please Select Your User Type:

Representative for an Applicant Organization

Representative for an Applicant Organization

Sub-Applicant or Sub-Recipient

Contractor for Sub-Applicant or Contractor for Sub-Recipient

Next

Select the correct User Type

Community Guide Video for the FDEM Portal available on State HMGP site.

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FDEM Portal



Home

Register for Access

Name

First Name

Bob

Last Name

Test

* Email

bobtest@invalid.com

* Business Phone

9042009001

Phone extension

Mobile Phone

* Please Select Your User Type:

Representative for an Applicant Organization

* Please Select the Bureau You Intend to Work With:

Recovery

Recovery

Response

Preparedness

Mitigation

Select the correct Bureau, as that is where the access request will go.



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THE FLORIDA DIVISION OF EMERGENCY MANAGEMENT



FDEM Portal



Home

Applications

Subrecipient Agreements

Project



CARES Act Grant

To view your CARES Act Agreement, please click the Subrecipient Agreements Tab in the header and select the CARES Act Agreement from the list.

For more information on the CARES Act, you can visit the [US Department of the Treasury Guidance for local governments](#), email FLCares@em.myflorida.com, or visit the [FAQ Community](#).



Preparedness Grants

- Emergency Management Performance Grant (EMPG)
 - Volunteer Florida
- Emergency Management Preparedness and Assistance (EMPA) Grant
 - Volunteer Florida
 - Civil Air Patrol
- State Homeland Security Grant Program (HSGP)
 - Operation Stonegarden (OPSG)
 - Urban Area Security Initiative (UASI)
 - Nonprofit Security Grant Program (NSGP)



Recovery Grants

- [Public Assistance Grant Program](#)
- [Fire Management Assistance Grant Program](#)
- Hurricane Michael State Recovery Grant
- Florida Citrus Recovery Block Grant (CRBG)
- Timber
- [CARES Act](#)



Response Grants

- Local Emergency Planning Committee (LEPC) Grant
- Hazard Analysis Contract
- Technological Hazards Federal HMEP (Hazardous Materials Emergency Preparedness)



Mitigation Grants

- [Hazard Mitigation Grant Program](#)
- Hurricane Loss Mitigation Program
- Building Resilient Infrastructure and Communities
- Pre-Disaster Mitigation
- Flood Mitigation Assistance



For new applications



Quick links:
[MyFlorida.com](#) [Contact Us](#) [Open Government](#) [FDEM Long Range Program Plan](#) [Employment](#)
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Home

Applications

Subrecipient Agreements

Project



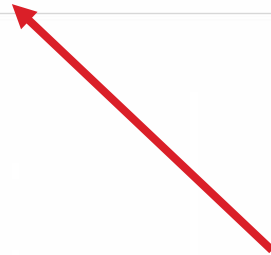
Hazard Mitigation Grant Program

*Which grant will CC Test Account be applying for?

4486 COVID-19

4486 COVID-19

Next



Select the correct disaster

Community Guide Video for the FDEM Portal available on State HMGP site.



FDEM Portal



Home

Applications

Subrecipient Agreements

Project

For submitted applications or applications in-progress

CARES Act Grant

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For more information on the CARES Act, you can visit the [US Department of the Treasury Guidance for local governments](#), email FLCares@em.myflorida.com, or visit the [FAQ Community](#)



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- Hurricane Loss Mitigation Program
- Building Resilient Infrastructure and Communities
- Pre-Disaster Mitigation
- Flood Mitigation Assistance



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FDEM Portal



Home

Applications

Subrecipient Agreements

Projects

Projects My Projects ▾

50+ Items • Sorted by Project Name • Filtered by All projects • Updated a few seconds ago

Search this list... [Settings] [List View] [Refresh]

	Project Name ▾	Status ▾	Project N... ▾	Project A... ▾	Project Title ▾	Project St... ▾	End Date ▾	
1	PID-164573	Inactive		\$0.00	Jared's Test Application for Fun			▾
2	PID-164572	New		\$0.00				▾
3	PID-164571	New		\$0.00	Jared's Test Application for Fun Part 2			▾
4	PID-164568	Active		\$0.00	test1015			▾
5	PID-164539	Active	317	\$0.00	Bulk Food Procurement			▾
6	PID-164500	Active		\$0.00	Damaged Vehicles Final Disposal			▾
7	PID-164499	Active		\$0.00	Debris Staging, Hauling, Monitoring and Final Disposal			▾
8	PID-164496	Active		\$0.00	Emergency Work Donated Resources			▾
9	PID-164465	Active		\$0.00	Miami-Dade County - Fire Rescue Department Force Accounts after first 30 days of operations			▾
10	PID-164464	Active		\$0.00	Miami-Dade County Medical Examiner Department - Force Accounts after first 30 days of operations			▾
11	PID-164463	Active		\$0.00	Miami-Dade County Police Department - Force Accounts after first 30 days of operations			▾
12	PID-164458	Active		\$0.00	Mutual Aid			▾
13	PID-164435	Active		\$0.00	Restoration of Incidental Damages at the Temporary Staging Site (ESA-2)			▾
14	PID-164327	Withdrawn		\$0.00	AC1-Animal Services Debris Removal			▾
15	PID-164323	Withdrawn		\$0.00	Central Support Facility			▾
16	PID-164322	Withdrawn		\$0.00	Cooperative Extension Building			▾
17	PID-164320	Withdrawn		\$0.00	Cultural Affairs - Cat E - 1			▾



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FDEM Portal



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Applications

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Projects



IMPORTANT NOTE: Documents attached within the application will not be visible within the application document for signature. Please be sure prior to uploading the required documents into the application that they are valid and approved.

For questions or assistance concerning the HMGP application, state HMGP staff can be reached through the following methods.

Phone: (850) 815-4524
Email: DEM.Hazard.Mitigation



You may also refer to the [HMGP Application Checklist](#) for additional guidance.

Contact information for assistance

HMGP APPLICATION

Application Number	Application Status	Application Created Date	Application Due Date
PID-164571	Submitted	10/29/2021, 11:11 AM	12/31/2021

- I. Application Information
- II. Project Description
- III. Project Location
- IV. Budget/Costs
- V. Environmental Review and Historic Preservation Compliance
- VI. Attachments
- Submit

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FDEM Portal

I. Application Information

Delete Jurisdiction

Point of Contact:

*First Name: *Last Name:

*Title:

*Street Address:

*City: *State:

*Zip Code:

*Telephone: *Email:

Cancel

All communication will primarily be with this contact

Double-check everything

Community Guide Video for the FDEM Portal available on State HMGP site.



FDEM Portal

I. Application Information

Authorized Applicant Agent (proof of authorization authority required):

An authorized agent is the chief elected official of a local government who has signature authority

I am the Authorized Agent:

*First Name:

Jared

*Last Name:

Jaworski

*Title:

*Street Address:

111 Northwest 1st Street

*City:

Miami

*State:

FL

*Zip Code:

33132

*Telephone:

9045292200

*Email:

jared.jaworski@em.myflorida.com

This person will receive the application to sign

Double-check everything

Local Mitigation Strategy (LMS) Compliance

*All proposed projects must be included in the county's Local Mitigation Strategy (LMS) Project List, and on file with FDEM's Mitigation Bureau Planning Unit. Does your jurisdiction have a current FEMA Approved Mitigation Plan and this project is listed?

Yes

Community Guide Video for the FDEM Portal available on State HMGP site.

Cancel



FDEM Portal

Name	Budget	Amount
Material	<input type="text" value="\$100.00"/>	
Labor	<input type="text" value="\$100.00"/>	
Fees	<input type="text" value="\$100.00"/>	
Pre-Award Costs	<input type="text" value="\$0.00"/>	
Subtotal-Estimated Project Costs		\$300.00
Contingency	<input type="text" value="\$0.00"/>	
SubTotal		\$300.00
Sub-Recipient Management Costs	<input type="text" value="\$20.00"/>	
Total		\$320.00

Budget section has a small bug being fixed

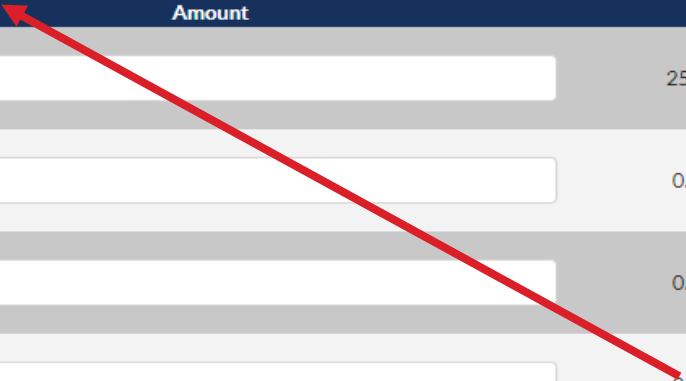
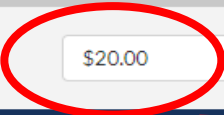
SRMC should not be calculated into total project cost

Community Guide Video for the FDEM Portal available on State HMGP site.



FDEM Portal

Funding Sources			
Federal	Amount	Percent	
Estimated Federal Share	\$240.00	75.000000000%	
Sub-Recipient Management Costs	\$20.00	100%	
Non-Federal Funding Share			
	Amount	Percent	
Cash	\$80.00	25.000000000%	
In-Kind		0.000000000%	
In-House		0.000000000%	
Global Match		0.000000000%	
Other Agency Share			
	Amount		
State			
	Amount		
Estimated State Share			
Total	\$320.00	100%	



Currently doesn't include SRMC in total. Make sure budget is correct in application attachment.

Community Guide Video for the FDEM Portal available on State HMGP site.



FDEM Portal

VI. Attachments

Budget Workbook [Budget Workbook](#)

Scope of Work

- *Letter of endorsement for this project from the county's LMS Coordinator Ensure the LMS endorsement letter contains both the Total Estimated Projects Cost (Section IV. D.), along with the Estimated Federal Share (Section IV. I.1.) allocated to this project.
- *FIRM Map
- *City or County Scale Map (large enough to show the entire project area with the project site and structures marked on the map).
- *Attach a USGS 1:24,000 TOPO map with project site clearly marked on the map.
- *Attach photographs (at a minimum 4 photographs) for each project site per application. The photographs should be representative of the project area, including any relevant streams, creeks, rivers, etc. and drainage areas that affect the project site or will be affected by the project, and labeled. For each structure, include the following angles: front, back and both sides.
- *Budget Workbook
- *Project Worksheet
- *Scope of Work
- *Proof of Authorization Authority
- *Original Signed Application

File
Select File

Make sure everything is correct on this attachment as it will help us correct any system errors

Community Guide Video for the FDEM Portal available on State HMGP site.



FDEM Portal

VI. Attachments

Generator	Generator Worksheet
Mitigation Reconstruction	Mitigation Reconstruction Worksheet
Protective Measures	Protective Measures Worksheet
Safe Room-Hurricane	Hurricane Safe Rooms
Safe Room-Tornado	Tornado Safe Rooms
Utility Mitigation	Utility Mitigation Worksheet

A copy of the Panel Information from the FIRM

- Acquisition-On-going Federal Activities
- Acquisition-Pre-event Value
- Acquisition-Property Owner documentation
- Acquisition-Statement of Assurances
- Acquisition-Voluntary interest
- Alternative Site Map
- Authorizing Agent
- Budget Workbook
- City or County Scale Map
- Concurrence from Natural Resource Conservation Service

Select File

Files

Upload Files

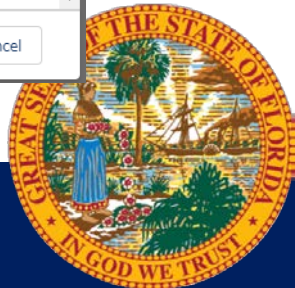
Previously Uploaded

Budget Workbook-TEST.pdf

Cancel

Drop-down menu shows list of attachments.

Community Guide Video for the FDEM Portal available on State HMGP site.



FDEM Portal



Home

Applications

Subrecipient Agreements

Projects



IMPORTANT NOTE: Documents attached within the application will not be visible within the application document for signature. Please be sure prior to uploading the required documents into the application that they are valid and approved.

For questions or assistance concerning the HMGP application, state HMGP staff can be reached through the following methods.

Phone: (850) 815-4524
Email: [DEM Hazard Mitigation](mailto:DEM.Hazard.Mitigation)

You may also refer to the [HMGP Application Checklist](#) for additional guidance.

HMGP APPLICATION

Application Number PID-164571	Application Status Submitted	Application Created Date 10/29/2021, 11:11 AM	Application Due Date 12/31/2021
----------------------------------	---------------------------------	--	------------------------------------

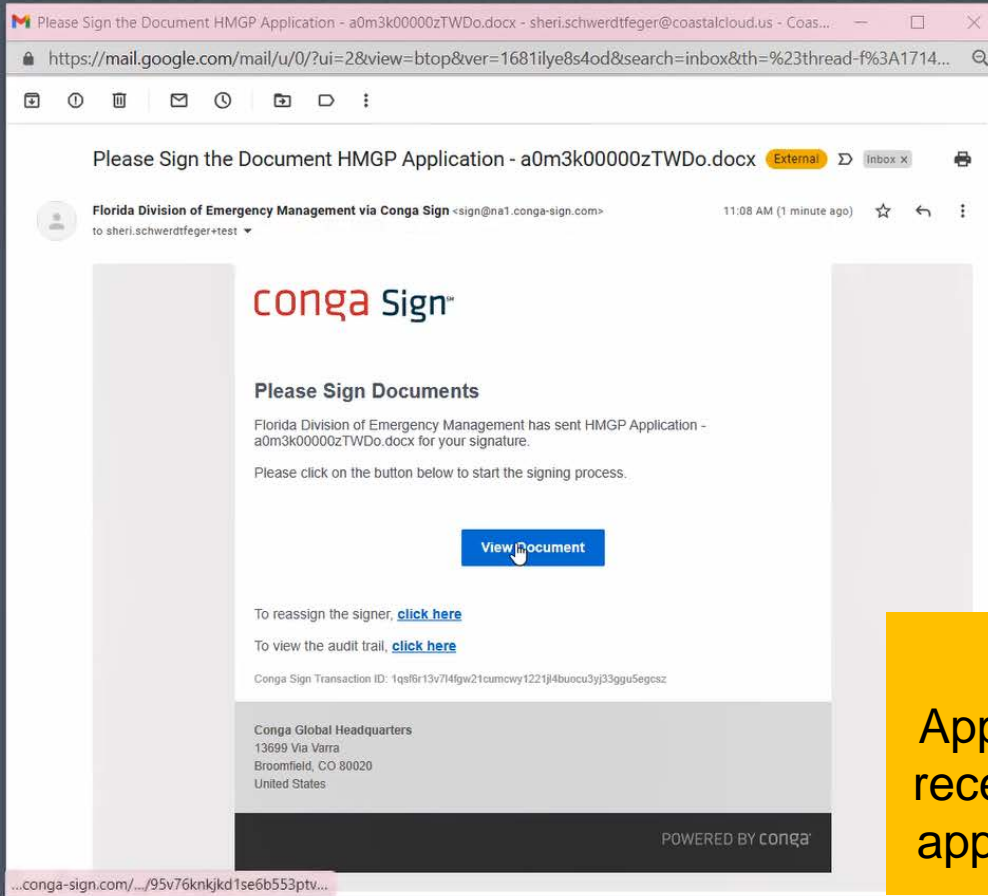
- I. Application Information
- II. Project Description
- III. Project Location
- IV. Budget/Costs
- V. Environmental Review and Historic Preservation Compliance
- VI. Attachments
- Submit

Submit button will turn blue when all fields are complete

Community Guide Video for the FDEM Portal available on State HMGP site.



FDEM Portal



Authorized
Applicant Agent will
receive this email to
approve application

Community Guide Video for the FDEM
Portal available on State HMGP site.

11:10 AM
10/20/2021



FDEM Portal

CONGA SIGN
Sign Document

Cancel Transaction Complete Signing

Page 3 of 10 HMGP Application - a0m3k0000zTWD0.docx English

First Name: Test Last Name: Test1018
Title: _____
Address: 1 Hammock Beach Parkway
City: Palm Coast State: FL Zip Code: 32137
Telephone: 9042009001 Email: sheri.schwerdtfeger+test@coastalcloud.us
Organization: CC Test Account

11. Authorized Applicant Agent (proof of authorization authority required)
First Name: Test Last Name: Test1018
Title: _____
Address: 1 Hammock Beach Parkway
City: Palm Coast State: FL City: Palm Coast
Telephone: 9042009001 Email: sheri.schwerdtfeger+test@coastalcloud.us

Signature: Test Test1018
Date: 10/20/2021

12. Local Mitigation Strategy (LMS) Compliance

- All proposed projects must be included in the county's Local Mitigation Strategy (LMS) Project List with FDEM's Mitigation Bureau Planning Unit. Does your jurisdiction have a current FEMA Approved Mitigation Plan and this project is listed? Yes No
- Attached is a letter of endorsement for this project from the county's LMS Coordinator. Yes No
- The LMS project list and endorsement letter both have an estimated cost column and Federal Share that is within \$500.00 between the two. Yes No

2

Back **C** Next
2 of 5

Sign all fields and the "Complete Signing" button will activate.

Community Guide Video for the FDEM Portal available on State HMGP site.

11:11 AM
10/20/2021



Contacts

Program Eligibility

Kathleen Marshall
(850)815-4503

Kathleen.Marshall@em.myflorida.com

Jared Jaworski
(850)815-4537

Jared.Jaworski@em.myflorida.com

Technical

Luz Bossanyi
(850)815-4573

Luz.Bossanyi@em.myflorida.com

Environmental

Kristen Hall
(850)815-4511

Kristen.Hall@em.myflorida.com

Engineering

Claudia Purser
(850)815-4576

Claudia.Purser@em.myflorida.com



State Application review



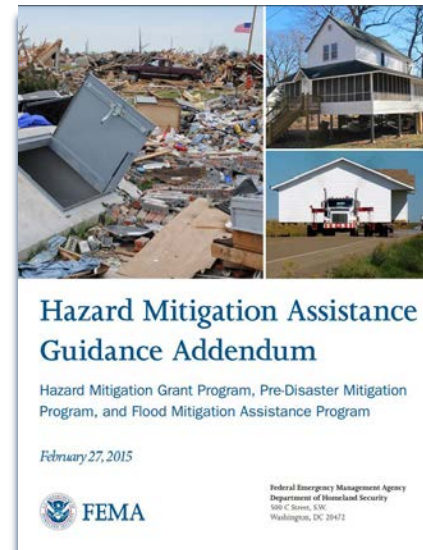
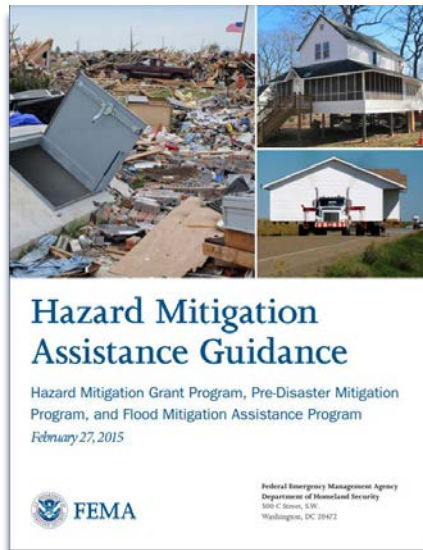
PLEASE STAY TUNED

We have included updates and new Key Points to this presentation to help you succeed with your application



Key Points

- ▶ Read FEMA's Hazard Mitigation Assistance Guidance and identify the eligibility of your project under this funding source.
- ▶ Ask your consultant to confirm the eligibility of your project based on FEMA's guidance before completing the application.
- ▶ Consult with the State before submittal.



Application Review

PROJECT MANAGEMENT



ENGINEERING



ENVIRONMENTAL

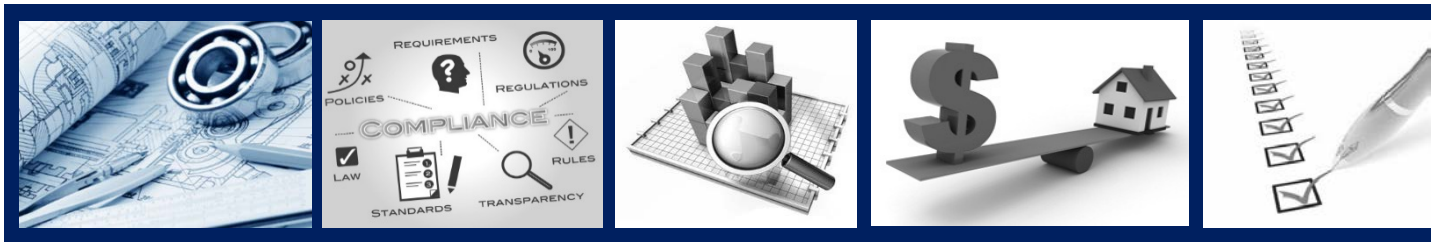


State Mitigation
TECHNICAL UNIT



Engineering Review - TechUnit

- ▶ **PAS / TechUnit is responsible for ensuring that projects are:**
 - ▶ Eligible
 - ▶ Good MITIGATION stand-alone projects
 - ▶ In compliance with all requirements
 - ▶ SOW represents best alternative to solve the problem
 - ▶ Feasible
 - ▶ Reasonable
 - ▶ Cost effective – State always runs a Benefit Cost Analysis (BCA) to recommend a project to FEMA.



Key Points

- ▶ Spend time on providing a good description and answers when filling out the application and the project worksheet.
- ▶ The completeness of your application is what expedites the process.



Cost-Effective Projects

“The Grantee must demonstrate (that the project is cost effective) by documenting that the project...will not cost more than the anticipated value of the reduction in both direct damages and subsequent negative impacts to the area if future disasters were to occur”

44 CFR Part 206, Section 206.434 Eligibility (c) (5) (ii)



Cost Effectiveness - BCA

The analysis is done utilizing FEMA's Benefit Cost Analysis (BCA) tool (version 6.0)

$$\frac{\text{Benefits}}{\text{Project Cost}} = 1.0 \text{ or greater (Ratio)}$$



Key Points

- ▶ Do not implement the formula of dividing the benefits over the project cost to determine your ratio, the tool has a background where multiple aspects are considered that you may not be aware of.



Cost Effectiveness- BCA

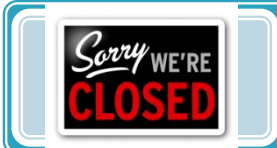
▶ TYPICAL BENEFITS



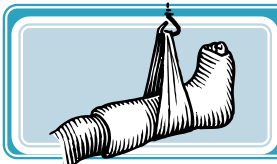
Avoided Physical Damages



Avoided Emergency Response Costs



Avoided Loss-of-Function Impacts



Avoided Injuries and Casualties



Non-Traditional Benefits



Key Points

- ▶ Get help from the State
 - ▶ Get help from experienced professionals with HMA funding and Benefit Cost Analysis.
 - ▶ A high ratio does not mean a better project.
 - ▶ High ratios may be a red flag.
- * Please be aware the State TechUnit will run a BCA regardless if you submit one with your application or not.*



FEMA



BCA Exemptions

U.S. Department of Homeland Security
Washington, DC 20472



9/29/2021

INFORMATION

MEMORANDUM FOR: Regional Administrators
Regions I - X

ATTENTION: Regional Mitigation Division Directors
Hazard Mitigation Assistance Branch Chiefs

FROM: Kayed I. Lakhia, AIA, NCARB, LEED AP, CFM
Deputy Director, Hazard Mitigation Assistance/
Mitigation Directorate
Federal Insurance and Mitigation Administration

SUBJECT: Update to "Cost-Effectiveness Determinations for Acquisitions
and Elevations in Special Flood Hazard Areas Using Pre-
Calculated Benefits" Memorandum

KAYED I
LAKHIA
Digitally signed by
KAYED I LAKHIA
Date: 2021.09.29
14:21:59 -0400

I. Background and Purpose of this Memorandum

In 2013, FEMA's Hazard Mitigation Assistance (HMA) Division analyzed over 11,000 structures acquired or elevated and found that the average benefits for each project type were \$276,000 and \$175,000 respectively. FEMA is now adjusting these values for inflation.¹

This memorandum supersedes the October 2013 memorandum titled "Cost-Effectiveness Determinations for Acquisitions and Elevations in Special Flood Hazard Areas Using Pre-Calculated Benefits" and updates any values outlined in the 2015 Hazard Mitigation Assistance Guidance, Part IV, I.7, Pre-calculated Benefits for Acquisitions and Elevations in Special Flood Hazard Areas.

II. Scope and Applicability

This memorandum is effective on September 30, 2021.

This methodology is available for all HMA grant programs² and can be applied to new applications as well as pending or selected for further review projects. Additionally, pre-calculated benefits can be used to evaluate cost overruns for approved projects, if a new cost-effectiveness review is being performed.

¹ The Bureau of Labor Statistics' Consumer Price Index (CPI) Inflation Calculator (<https://data.bls.gov/cgi-bin/cpiicale.pl>) was used to inflate the values.

² HMA grant programs currently includes Hazard Mitigation Grant Program (HMGP); HMGP Post Fire; Flood Mitigation Assistance (FMA) and Building Resilient Infrastructure and Communities (BRIC).

Acquisitions under
\$323,000

Elevations under
\$205,000 (Includes
Mitigation Reconstruction)

Requirement: to be located
in the **Special Flood
Hazard Area** or to
demonstrate the structure
is **below BFE.**

(September 29 2021)



BCA Exemptions (Con't)

U.S. Department of Homeland Security
500 C Street, SW
Washington, DC 20472




FEMA

March 1, 2018

MEMORANDUM FOR: Regional Administrators
Regions I-X

ATTENTION: Regional Mitigation Division Directors
Hazard Mitigation Assistance Branch Chiefs

FROM: Michael Grimm 
Assistant Administrator, Mitigation
Federal Insurance and Mitigation Administration

SUBJECT: Cost Effectiveness Determination for Non-Residential Hurricane Wind
Retrofit Measures Funded by FEMA

This memorandum establishes the use of pre-determined benefits for wind retrofit projects on non-residential buildings in wind borne debris regions.

Two mitigation packages, Option 1 and Option 2, are considered eligible for the pre-determined benefits:

- Option 1 consists of (1) opening protection for doors, windows, and louvers against wind borne debris, wind driven rain, and high wind pressure, and (2) roof retrofit, which consists of securing roof top equipment, replacing roof decking and covering
- Option 2 consists of (1) opening protection, (2) roof retrofit, and (3) improvement to or creating a continuous load path from the roof to the foundation

Eligible structures must have primary structural framing that consists of steel, concrete, or reinforced masonry; structures composed of other building materials, such as wood, steel stud, and unreinforced masonry are not eligible for this pre-determined benefit. When retrofitted, structures will comply with the loading requirements of latest edition of the International Building Code (IBC), International Existing Building Code (IEBC), American Society of Civil Engineers, Minimum Design Loads for Buildings and Other Structures (ASCE 7), FEMA P-577, and the requirements of the locally enforced building code.

Applicants must provide maps with structures clearly indicated as being in a wind borne debris region to be eligible to use the pre-determined benefits. Additionally, the project must have a useful life of at least 25 years.

Mitigation projects meeting the above criteria are considered cost effective if the *mitigation project costs less than 10% of the building replacement value*. This eliminates the requirement for applicants to conduct a separate benefit cost analysis for eligible projects. The benefits are based on FEMA's existing methodology

www.fema.gov

Wind Retrofit for Non-Residential Buildings with mitigation cost under **10%** of the Building Replacement Value.

Requirement: Must have structural framing that consists on **steel, concrete or reinforced masonry.**
Building must be located in the wind debris area

(March 1, 2018)



BCA Exemptions (Con't)



Job Aid

Federal Insurance and Mitigation Administration

Cost Effectiveness Determination for Residential Hurricane Wind Retrofit Measures Funded by FEMA

This Job Aid establishes the use of pre-determined benefits to demonstrate the cost-effectiveness of wind retrofit projects that comply with FEMA P-804, *Wind Retrofit Guide for Residential Buildings*, December 2010 (available at <https://www.fema.gov/media-library/assets/documents/21082>). This eliminates the requirement for

Applicants/subapplicants to conduct a separate benefit-cost analysis for a hurricane wind retrofit project that meets the criteria identified in the table below. The benefits are based on FEMA's existing methodology for evaluating the cost-effectiveness of residential wind retrofit projects and use updated 2014 construction costs for the measures outlined in FEMA P-804.

To qualify for these pre-determined benefits, residential structures as identified in FEMA P-804 (does not include manufactured homes) must be located in the 120-mile-per-hour (mph) basic wind speed zone for Occupancy Category II Buildings per the American Society of Civil Engineers (ASCE) / Structural Engineering Institute (SEI) standard ASCE 7-10, *Minimum Design Loads for Buildings and Other Structures*.

Grant applications must include maps that clearly indicate the structures to be retrofitted as being in this wind zone to be eligible to use the pre-determined benefits. A list of States, boroughs, counties, parishes, and territories that meet the 120 mph requirement is attached:

- **States, Boroughs, Counties, Parishes, and Territories That Meet the Qualification Requirements for Pre-Determined Benefits** This includes areas that are completely located within the 120 mph wind zone. These areas are automatically eligible to use the pre-determined benefit costs as long as the application includes a map with the structures clearly indicated on it (see **List 1**).
- **States, Boroughs, Counties, Parishes, and Territories That Are Partially Located in the 120 mph Wind Zone** For structures located in these areas FEMA will need to make the determination on a case by case basis if the pre-determined benefits can be used. Applicants/subapplicants will need to submit a map with the structures clearly indicated on it to FEMA, who will then determine if the structure is located in the wind zone and can use the pre-determined benefits (see **List 2**).

The residential wind retrofit projects for the intermediate and advanced package, as discussed in FEMA P-804, are cost effective as long as the total project costs are less than the maximum costs listed in the table below.

Mitigation Package Type	Roof Replacement Project	Maximum Costs
Intermediate Protection	No	\$13,153.00
Intermediate Protection	Yes	\$24,920.00
Advanced Protection	No	\$40,252.00
Advanced Protection	Yes	\$52,018.00

Cost estimates submitted for a hurricane wind retrofit project that use the pre-determined benefits must be developed using industry-accepted cost-estimation standards, vendor estimates, or other sources. The costs identified in this Job Aid cannot be used to estimate or develop application project costs. Only documented, eligible costs for completed work will be reimbursed. The estimated costs above may be adjusted by the Applicant or subapplicant using the most current

"FEMA's mission is to support our citizens and first responders to ensure that as a nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards."

Wind Retrofit for Residential Buildings

under the cost of specific packages listed on FEMA's job aid.

Requirement: Must comply with all activities under each package.

(December 2010)



BCA Exemptions



FEMA

Job Aid

Federal Insurance and Mitigation Administration

Safe Room Project Application Using Pre-Calculated Benefits

For safe room construction projects an expedited cost-effectiveness methodology is available that identifies the benefits associated with certain types of safe rooms. This Job Aid outlines the circumstances in which this methodology can be used and lists the data required in the grant application.

Applicants must use the Expedited Hazard Mitigation Grant Program (HMGP) Application for Residential Safe Rooms to apply pre-calculated benefits under HMGP. The pre-calculated benefit provides standardized Benefit-Cost Analysis (BCA) benefit values associated with residential safe rooms so that individual BCAs are not required, as long as the project costs do not exceed the benefits (shown in table below). A safe room that costs less than the value indicated for the State it is located in is automatically considered cost effective.

Aggregate Benefits By State (Abridged List)			
Alabama	\$13,336.96	Nebraska	\$9,921.78
Arkansas	\$16,717.85	North Carolina	\$5,723.26
Georgia	\$5,290.98	Ohio	\$11,469.38
Illinois	\$13,685.72	Oklahoma	\$18,366.36
Iowa	\$14,962.87	Pennsylvania	\$4,065.90
Indiana	\$18,126.34	South Carolina	\$6,139.38
Kansas	\$14,005.75	South Dakota	\$5,230.17
Kentucky	\$13,554.96	Tennessee	\$13,579.58
Louisiana	\$9,921.94	Texas	\$5,421.32
Michigan	\$6,522.49	Virginia	\$3,936.05
Missouri	\$15,654.96	West Virginia	\$4,973.50
Mississippi	\$20,067.64	Wisconsin	\$9,025.48
Minnesota	\$7,092.39		

Expedited HMGP Application for Residential Safe Rooms

In order to use the Expedited HMGP Application for Residential Safe Rooms and apply the pre-calculated safe room benefits, all of the following conditions must be met:

- The State must have a FEMA-approved State Administrative Plan and State Hazard Mitigation Plan prior to grant award
- If a local jurisdiction is the subapplicant, they must have an approved local mitigation plan in place (or receive an Extraordinary Circumstances exception) prior to grant award

"FEMA's mission is to support our citizens and first responders to ensure that as a nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards."

Residential Safe Rooms

- Safe room must be placed outside floodways, coastal A, storm surge, etc.
- Must be in compliance with FEMA P-320 or FEMA P-361.
- Structure must be insured if located in SFHA.
- Must meet HMGP criteria.



BCA Exemptions

Generators for Hospitals

- Hospitals with Emergency Departments.
- Must be a stand-alone solution.
- Project cost must be below \$6.95 per SF for hospitals in urban areas and \$12.62 per SF for hospitals in rural areas.

U.S. Department of Homeland Security
Washington, DC 20472



9/29/2021

INFORMATION

MEMORANDUM FOR: Regional Administrators
Regions I - X

ATTENTION: Regional Mitigation Division Directors
Hazard Mitigation Assistance Branch Chiefs

FROM: Kayed I. Lakhia, AIA, NCARB, LEED AP, CFM
Deputy Director, Hazard Mitigation Assistance/Mitigation
Directorate KAYED I
Federal Insurance and Mitigation Administration LAKHIA

SUBJECT: Pre-Calculated Benefits for Certain Hospital Generators to
Demonstrate Cost-Effectiveness

Digitally signed by
KAYED I LAKHIA
Date: 2021.09.29
14:25:11 -0400

I. Background and Purpose of this Memorandum

This memorandum establishes the use of a pre-calculated benefit to demonstrate cost-effectiveness for hospital generator projects.

Projects that are eligible for funding under FEMA's Hazard Mitigation Assistance (HMA) programs must demonstrate cost-effectiveness.¹ FEMA has developed several methodologies that applicants and subapplicants may use to demonstrate cost-effectiveness.² Generally, applicants and subapplicants demonstrate cost-effectiveness by conducting a benefit-cost analysis (BCA) that establishes that mitigation projects have a benefit-cost ratio (BCR) equal to or greater than 1.0.³ Additionally, FEMA provides several streamlined methodologies that applicants and subapplicants may use to demonstrate cost-effectiveness. One of these streamlined methodologies is pre-calculated benefits, in which FEMA calculates pre-determined cost-effectiveness values. Using these pre-calculated benefits eliminates the requirement for applicants to conduct a separate BCA for eligible projects.

¹ See, for example, for Building Resilient Infrastructure and Communities (BRIC), see Stafford Act Section 203(b); for Hazard Mitigation Grant Program (HMGP) and HMGP Post Fire, see Stafford Act Section 404 and 44 Code of Federal Regulation (CFR) 206.434(c)(5).

² In accordance with Office of Management and Budget (OMB) Circular A-94: Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs.

³ A benefit-cost analysis is a quantitative analysis used to assess the cost-effectiveness of a hazard mitigation measure by comparing the project's avoided future damages to the costs over the project lifetime. The result is a Benefit-Cost Ratio (BCR), which is the numerical expression of the cost-effectiveness of a project calculated as the net present value of total project benefits divided by the net present value of total project costs. A project is generally considered to be cost-effective when the BCR is 1.0 or greater, indicating the benefits of a prospective hazard mitigation project are sufficient to justify the costs. For more information on cost-effectiveness and the BCA Toolkit, see the FEMA BCA webpage at <https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis>.



Key Points

- ▶ Be aware that “some” responses related to BCA analysis from the BChelpline and FEMA HQ, will always be review by the State, but they could still be subject to Region IV approval.



FEMA



Project Review - BCA

What do we look for on your application?

- ▶ Clear explanation of the purpose of the project, identifying the problem.
- ▶ Detailed Scope of Work identifying the best solution.



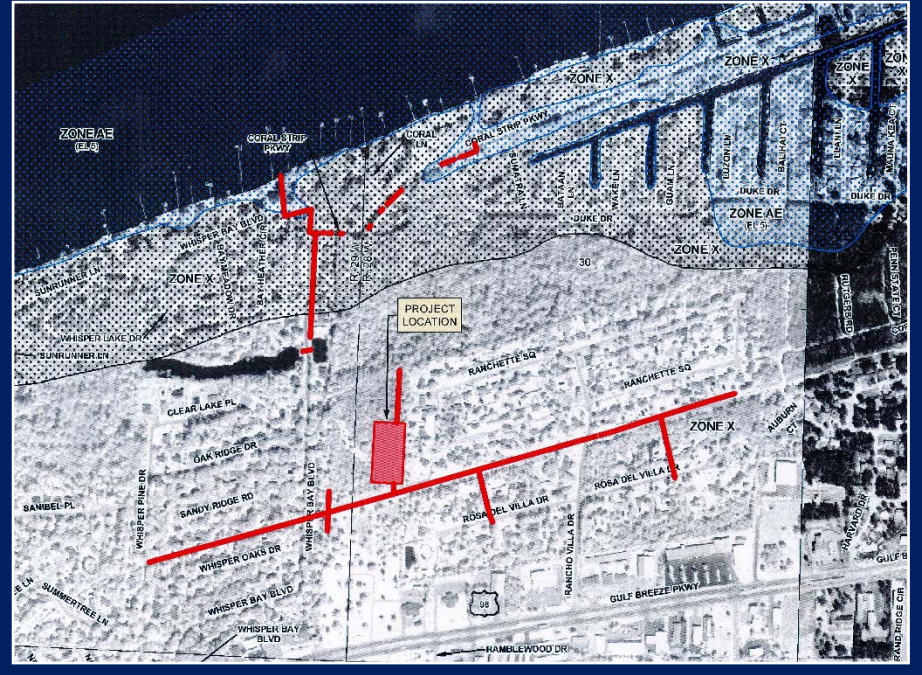
Key Points

- ▶ **Make sure you elaborate a complete and detailed SOW in your application identifying (but not limited to):**
 - ▶ Who will be doing the work
 - ▶ Where the project is going to be located
 - ▶ The existing problem
 - ▶ Population affected
 - ▶ Description of the work to be completed
 - ▶ How the project will be implemented – Phase projects
 - ▶ The level of protection the project will provide



Project Review - BCA (Con't)

- ▶ Project maps identifying the area (location Map, FIRM Map and topographic Maps)



Project Review - BCA (Con't)

- ▶ Design drawings, if available.



Key Points

- ▶ **Do not include irrelevant information with your application. An application with more pages does not represent a better project.**
- ▶ **Ensure the quality of the information you are providing, or that your consultant is providing.**



Project Review – BCA (Con't)

- ▶ Project's Budget with a break down of every item that is included on the final project cost.
- ▶ Project's Milestone Schedule clearly identifying the stages of the project until completion.
- ▶ Complete **Project Worksheet** according to the type of project.



Project Worksheet - BCA



- ▶ **Worksheet is a fundamental part of the application.**
- ▶ Your answers should reflect the benefits of your project.
- ▶ Answers are used to run a **preliminary BCA**.
- ▶ It is **VERY** important to answer **ALL** questions.



Key Points



- ▶ **Make sure your application contains consistent information.**
 - ▶ Damages, road closures, population affected, etc.
 - ▶ Budget attachments matching what has been entered on the application and project worksheet.
 - ▶ Timelines/schedules must match application.
 - ▶ Information from your consultant should match your statements.



Key Points

- ▶ **Avoid submitting applications without a Project Worksheet or with Project Worksheets that do not provide any information.**
- ▶ **The purpose of the Project Worksheet is to EXPEDITE your review.**
- ▶ **The Project Worksheet allows the State TechUnit to run a preliminary BCA and minimize RFI's.**



Complete
Documentation



Project Worksheets - BCA

WIND RETROFIT WORKSHEET

For preliminary Benefit Cost Analysis conducted by the State Mitigation Technical Unit

Applies for the following mitigation activities: **WIND RETROFIT** which includes Opening Protection, Load Path, Roof, Code Plus activities. For assistance, contact the State of Florida Mitigation Technical Unit.

IMPORTANT: This worksheet is required as part of your application. The State of Florida Mitigation Technical Unit will conduct a Benefit Cost Analysis (BCA) for your project.

Project Name _____
 Applicant _____
 Point of Contact _____

FLOOD CONTROL - DRAINAGE IMPROVEMENT WORKSHEET

Applies for the following mitigation activities: **ACQUISITION, ELEVATION, DRY FLOOD PROOFING, DRAINAGE IMPROVEMENTS, FLOOD CONTROL, REPAIRS, FLOODPLAIN AND STREAM RESTORATION AND FLOOD DIVERSION**. For assistance, contact the State of Florida Mitigation Technical Unit.

IMPORTANT: This worksheet is required as part of your application. The State of Florida Mitigation Technical Unit will conduct a Benefit Cost Analysis (BCA) for your project.

Project Name _____
 Applicant _____
 Point of Contact _____

GENERATOR WORKSHEET

Applies for the following mitigation activities: **PERMANENT, PORTABLE GENERATORS, and PERMANENT EMERGENCY STANDBY PUMPS**. For assistance, contact the State of Florida Mitigation Technical Unit.

IMPORTANT: This worksheet is required as part of your application. The State of Florida Mitigation Technical Unit will conduct a Benefit Cost Analysis (BCA) for your project and the following information is needed to evaluate cost effectiveness. Once a preliminary BCA is completed, the results will indicate your project's expected performance.

SECTION I - PROJECT GENERAL INFORMATION

Project Name _____
 Applicant _____
 Point of Contact _____
 Name _____
 Address (Please include City, State and Zip code) _____
 Phone number _____
 Email _____

HMA Program (HMA, FEMA, FIRM, etc.) _____

SECTION II - STRUCTURE GENERAL INFORMATION

Select the type of critical facility to mitigate: Critical Facility Building Utility Infrastructure Other _____

Address _____
 In case of multiple units, please provide a list of buildings being retrofitted with pumps.

City, State and Zip Code _____
 County _____
 Is this a historical building? Yes No

Year Built: _____
 In the case of utility infrastructure, provide the year of construction of the oldest structure on the average size of the structure. If no records have been kept, provide your best estimate.

SECTION III - HAZARD / MITIGATION INFORMATION

Please select the hazard that will be mitigated with this project:

Accident Elevation Dry Flood Proofing Drainage
 Leak/Control Measure Flood and Flood Resistor Flood Diversion
 Other Flood Resistor

HURRICANE SAFE ROOM WORKSHEET

For preliminary Benefit Cost Analysis conducted by the State Mitigation Technical Unit

Applies for the following mitigation activities: **NEW SAFE ROOMS AND RETROFIT OF EXISTING STRUCTURE**. For assistance, contact the State of Florida Mitigation Technical Unit.

IMPORTANT: This worksheet is required as part of your application. The State of Florida Mitigation Technical Unit will conduct a Benefit Cost Analysis (BCA) for your project and the following information is needed to evaluate cost effectiveness. Once a preliminary BCA is completed, the results will indicate your project's expected performance.

Project Name _____
 Applicant _____
 Point of Contact _____

WILDFIRE WORKSHEET

Applies for the following mitigation activities: **DEFENSIBLE SPACE, HAZARDOUS FUELS REDUCTION, IGNITION RESISTANT CONSTRUCTION, OTHER ACTIVITIES RELATED**. For assistance, contact the State of Florida Mitigation Technical Unit.

IMPORTANT: This worksheet is required as part of your application. The State of Florida Mitigation Technical Unit will conduct a Benefit Cost Analysis (BCA) for your project and the following information is needed to evaluate cost effectiveness. Once a preliminary BCA is completed, the results will indicate your project's expected performance.

Project Name _____
 Applicant _____
 Point of Contact _____

DROUGHT WORKSHEET

Applies for the following mitigation activities: **AQUIFER AND STORAGE RESTORATION, OTHER ACTIVITY RELATED**. For assistance, contact the State of Florida Mitigation Technical Unit.

IMPORTANT: This worksheet is required as part of your application. The State of Florida Mitigation Technical Unit will conduct a Benefit Cost Analysis (BCA) for your project and the following information is needed to evaluate cost effectiveness. Once a preliminary BCA is completed, the results will indicate your project's expected performance.

SECTION I - PROJECT GENERAL INFORMATION

Project Name _____
 Applicant _____
 Point of Contact _____
 Name _____
 Address (Please include City, State and Zip Code) _____
 Phone number _____
 Email _____

HMA Program (HMA, FEMA, FIRM, etc.) _____

SECTION II - STRUCTURE GENERAL INFORMATION

Address _____
 In case of multiple units, please provide a list of buildings being retrofitted with pumps.

City, State and Zip Code _____
 County _____

SECTION IV - PROJECT COST INFORMATION

Mitigation Project Cost \$ _____
 Annual Maintenance Cost \$ _____
 In the case of a structure, a complete preliminary BCA has a detailed breakdown of the project's expected performance.

HMA Program (HMA, FEMA, FIRM, etc.) _____

Provide the following info:

Address _____
 In case of multiple units, please provide a list of buildings being retrofitted with pumps.

City, State and Zip Code _____
 County _____
 Is this a historical building? Yes No

Year Built: _____
 In the case of utility infrastructure, provide the year of construction of the oldest structure on the average size of the structure. If no records have been kept, provide your best estimate.

Annual Maintenance Cost \$ _____
 In the case of a structure, a complete preliminary BCA has a detailed breakdown of the project's expected performance.

Mitigation Project Cost \$ _____
 A lump sum cost for the project.

Annual Maintenance Cost \$ _____
 In the case of a structure, a complete preliminary BCA has a detailed breakdown of the project's expected performance.



Project Worksheets - BCA

FLORIDA DIVISION OF EMERGENCY MANAGEMENT
Mitigation Bureau - Technical Unit
October 2017

FLOOD CONTROL - DRAINAGE IMPROVEMENT WORKSHEET

for preliminary Benefit Cost Analysis conducted by the State Mitigation Technical Unit

Applies for the following mitigation activities: **ACQUISITION, ELEVATION, DRY FLOOD PROOFING, DRAINAGE IMPROVEMENTS, FLOOD CONTROL MEASURES, FLOODPLAIN AND STREAM RESTORATION AND FLOOD DIVERSION.** For assistance, contact the State of Florida Mitigation Technical Unit.

IMPORTANT: This worksheet is required as part of your application. The State of Florida Mitigation Technical Unit will conduct a Benefit Cost Analysis (BCA) for your project and the following information is needed to evaluate cost effectiveness. Once a preliminary BCA is completed, the reviewer will contact you to collect support documentation.

SECTION I - PROJECT GENERAL INFORMATION

Project Name	
Applicant	
Point of Contact	Name:
	Address (Please include City, State and zip Code):

HMA Program (FMA, PDM, HMGP, ...)

SECTION I - PROJECT GENERAL INFORMATION

Select the type of critical facility to be protected:

Address

In case of multiple sites, attach separate worksheets for each site.

City, State and Zip Code

County

Is this a historical building?

Year Built: _____ Source (EX: Property Appraiser): _____

In the case of utility infrastructure, provide the year of construction of the oldest structure or the average age of the structure, if improvements have been completed over the years, due to land development.

Page 1 of 5

WORKSHEET I

for preliminary Benefit Cost Analysis conducted by the State Mitigation Technical Unit

Applies for the following mitigation activities: **ACQUISITION, ELEVATION, DRY FLOOD PROOFING, DRAINAGE IMPROVEMENTS, FLOOD CONTROL MEASURES, FLOODPLAIN AND STREAM RESTORATION AND FLOOD DIVERSION.** For assistance, contact the State of Florida Mitigation Technical Unit.

IMPORTANT: This worksheet is required as part of your application. The State of Florida Mitigation Technical Unit will conduct a Benefit Cost Analysis (BCA) for your project and the following information is needed to evaluate cost effectiveness. Once a preliminary BCA is completed, the reviewer will contact you to collect support documentation.

SECTION I - PROJECT GENERAL INFORMATION

Project Name	
---------------------	--



Worksheet- General Info

GENERAL INFORMATION

▶ PROJECT COST

- ▶ Estimate from Engineering Department
- ▶ Public Works Data
- ▶ Vendor's Estimate
- ▶ Similar projects

IMPORTANT NOTE: It cannot be a lump sum.

Construction Cost Estimate Worksheet				
Applicant Name		Project Name		
125 Fountain Avenue, L.P.		Liberty Apartments		
Trade/Item	Unit	Quantity	Unit Cost	Total
Division 1: General Requirements				
1 Mobilization	LS		\$20,000.00	\$20,000.00
2 Temporary facilities	LS		\$30,000.00	\$30,000.00
3 Sidewalk Bridge/Safety	LS	1	\$90,000.00	\$90,000.00
4 Dumpsters	EA	85	\$1,100.00	\$93,500.00
5 Engineering and Testing	LS	1	\$75,000.00	\$75,000.00
6 Plans and Specs	LS	1	\$15,000.00	\$15,000.00
7 General Labor	LS		\$80,500.00	\$80,500.00
8				\$0.00
9				\$0.00
10				\$0.00
Division 1 Total				\$404,000.00
Division 2: Sitework				
1 Surveying	LS	1	\$15,000.00	\$15,000.00
2 Clear and grub/drainage	LS	2	\$15,000.00	\$30,000.00
3 Excavation/obstructions	CY	3964	\$50.00	\$198,200.00
4 Shoring/ shoring engineer	LS	775	\$40.00	\$31,000.00
5 Backfilling/Misc Machine days	Days	25	\$1,500.00	\$37,500.00
6 Plantings	EA	90	\$383.00	\$34,470.00
7 Paving/Pavers/fencing/curbs			\$110,678.00	\$110,678.00
8 Sidewalk with removal			88,652	\$88,652.00
9 Site furnishings/play equipment/safety surface			\$54,500.00	\$54,500.00
10				\$0.00
Division 2 Total				\$600,000.00
Division 3: Concrete				
1 Perimeter walls	CY	145	\$550.00	\$79,750.00
2 Interior Walls	CY	85	\$550.00	\$46,750.00
3 Perimeter and interior footings/stairs/misc. footings	CY	414	\$450.00	\$186,300.00
4 Misc. Concrete/rat slab	CY	56	\$400.00	\$22,400.00
5 Precast Concrete Plank	SF	49118	\$15.00	\$736,770.00
6 Precast stairs	FLT	7	\$5,000.00	\$35,000.00
7 Edge stops	LF	5112	\$4.50	\$23,004.00
8 Rebar	LBS	36953	\$1.50	\$55,429.50
9 Pump days	EA	10	\$1,575.00	\$15,750.00
10				\$0.00
Division 3 Total				\$1,201,153.50
Division 4: Masonry				
1 Interior CMU Block	SF	9482	\$14.00	\$132,748.00
2 Exterior Block and Brick	SF	17420	\$31.00	\$540,020.00
3 Precast lintels, sills and bands	LF	2488	\$35.00	\$87,080.00
4 Grouting	SF	7073	\$3.00	\$21,219.00
5 Parapets	LF	575	\$130.00	\$74,750.00
6 Flashing/Scaffold Installation	LS	1	\$24,500.20	\$24,500.20
7 Washdown	LS	21613	\$1.50	\$32,419.50
8				\$0.00
9				\$0.00
10				\$0.00
Division 4 Total				\$912,736.70



BCA – Methodology

BENEFIT COST ANALYSIS METHODOLOGY

Three ways to run a BCA:

- ▶ **Historical Damages**, applying available historical data
 - ▶ **Modeled damages**, on which the tool calculates losses using technical available data (FIS, H&H, etc)
 - ▶ **Professional Expected Damages**, using completed technical data (final designs, H&H, etc.).
- *Expected methodology for project ready for construction.

The screenshot shows the FEMA Benefit-Cost Calculator web application. The browser address bar indicates the URL is `lbcofficeaddin-prod.azurewebsites.net/projects?_host_info=excelweb16.00$en-us$9a996404-092c-47d5-ba00-819db106c849$inDialog$`. The page header features the FEMA logo and the text "Benefit-Cost Calculator V.6.0 (Build 20210310.1724)". Below the header is a navigation bar with "Home" and "Project Summary" links. The main content area displays the project configuration for "Shutters, Load Path, Roof @ 220 Spring Leap Cir, Winter Garden, Florida, 34787". The configuration form includes fields for Project Title ("My house"), Property Location ("720 Spring Leap Cir, Winter Garden, Florida, 34787"), and options for "Use Property Location?" (Yes) and "Use Decimal Degrees?" (Yes). There are also fields for Latitude (28.541775) and Longitude (-81.58129), and dropdown menus for Property Structure Type (Residential Building), Hazard Type (Hurricane Wind), and Mitigation Action Type (Shutters, Load Path, Roof).

*In some specific cases historical and expected could be combined.

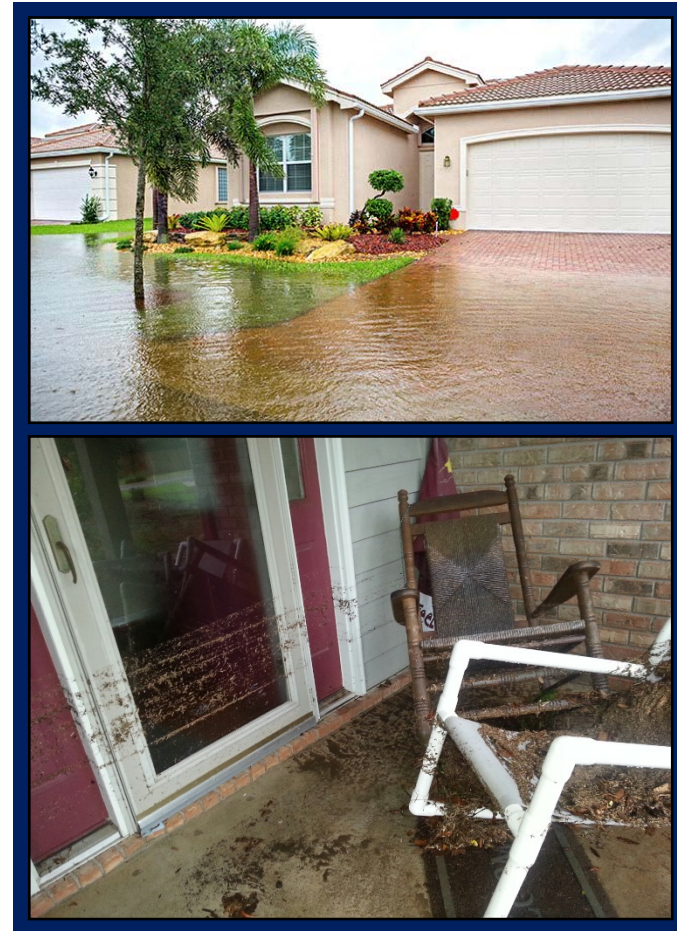
THE FLORIDA DIVISION OF EMERGENCY MANAGEMENT



BCA – Historical Damages

HISTORICAL DAMAGES

- ▶ Description of what happened
- ▶ Photographs
 - ▶ Flooded streets, neighborhood pictures.
 - ▶ Pictures of home damages.
- ▶ Insurance Claims
- ▶ Receipts from past repairs.
- ▶ Homeowners affidavits
 - ▶ Specific date
 - ▶ Specific flood depth

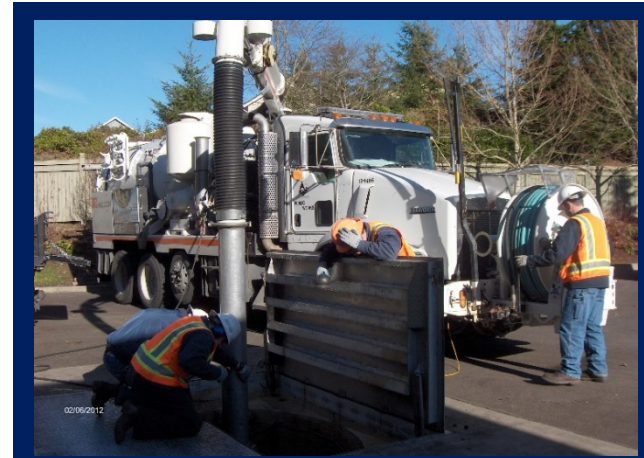


BCA - Historical Damages

HISTORICAL DAMAGES con't

- ▶ Road closures
 - ▶ Duration of flooding
 - ▶ Traffic count in the affected area
- ▶ 911 phone call records.
- ▶ Any expenses while attending the emergency.

- ▶ Utility Infrastructure
 - ▶ Outages
 - ▶ Protective measures to avoid outages
 - ▶ Affected customers



Key Points

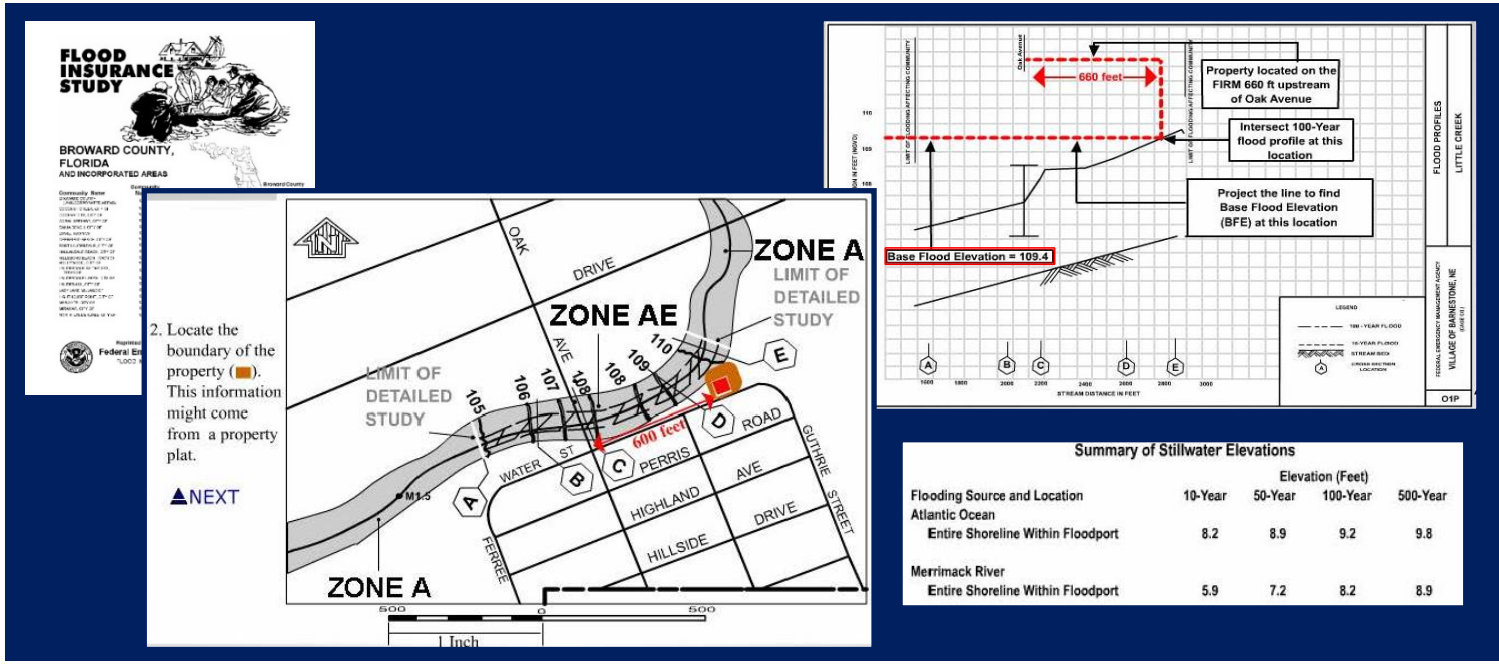
- ▶ **Work with the State TechUnit Team and provide valuable information that can lead to the best BCA approach.**
- ▶ **Being available to reply to Requests For Information emails is the most important.**
- ▶ **Keep in mind key personnel in your office that could provide additional information to complete the review**
 - ▶ Maintenance staff
 - ▶ Public Works Office
 - ▶ Engineering staff
 - ▶ GIS staff



BCA – Modeled Damages

▶ MODELED DAMAGES

Using available technical data like FIS STUDY to demonstrate that property is at risk



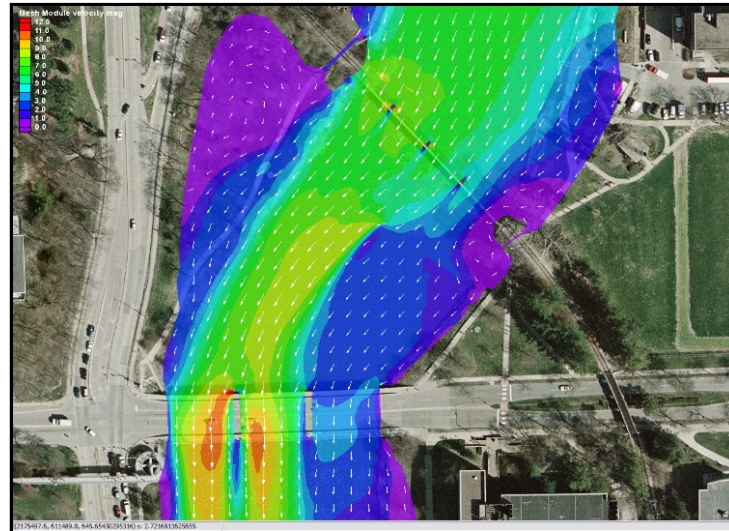
*to be used for specific structures in Coastal or Riverine areas



BCA – Professional Expected Damages

Using H&H Study:

- ▶ Maps identifying the studied area.
- ▶ Preliminary designs
- ▶ H&H results
 - ▶ Existing Conditions
 - ▶ After Mitigation conditions (level of protection)



BCA – Professional Expected Damages

Using H&H Study (con't):

- ▶ List of structures that could be affected indicating:
 - ▶ Building Replacement Value BRV
 - ▶ Finished Floor Elevation
 - ▶ Survey
 - ▶ Lidar
 - ▶ GIS information
 - ▶ Others

RANCHETTES SUBDIVISION - MAXIMUM STAGES (feet)
- Proposed Conditions -

Address	FFE	Critical Duration Storm Frequency Elevations						
		2-Year	3-Year	5-Year	10-Year	25-Year	50-Year	100-Year
2998 Ranchette Square	17.73	14.87	15.13	15.29	15.44	15.73	15.91	16.01
3011 Ranchette Square	18.52	15.45	15.92	16.38	17.13	17.62	18.10	18.32
3012 Ranchette Square	18.16	15.45	15.92	16.38	17.13	17.62	18.10	18.32
3013 Ranchette Square	18.57	15.45	15.92	16.38	17.13	17.62	18.10	18.32
3014 Ranchette Square	18.41	15.45	15.92	16.38	17.13	17.62	18.10	18.32
3053 Rosa Del Villa Drive	18.58	15.45	15.92	16.38	17.13	17.62	18.10	18.32
3061 Rosa Del Villa Drive	18.65	15.45	15.92	16.38	17.13	17.62	18.10	18.32
2822 Whisper Oaks Drive	19.02	17.13	17.64	18.05	18.28	18.56	18.86	19.06

RANCHETTES SUBDIVISION - MAXIMUM STAGES (feet)
- Existing Conditions -

Address	FFE	Critical Duration Storm Frequency Elevations						
		2-Year	3-Year	5-Year	10-Year	25-Year	50-Year	100-Year
2998 Ranchette Square	17.73	15.98	16.30	16.57	16.87	17.19	17.55	17.76
3011 Ranchette Square	18.52	18.51	18.53	18.56	18.59	18.65	18.72	18.76
3012 Ranchette Square	18.16	18.51	18.53	18.56	18.59	18.65	18.72	18.76
3013 Ranchette Square	18.57	18.51	18.53	18.56	18.59	18.65	18.72	18.76
3014 Ranchette Square	18.41	18.51	18.53	18.56	18.59	18.65	18.72	18.76
3053 Rosa Del Villa Drive	18.58	18.51	18.53	18.56	18.59	18.65	18.72	18.76
3061 Rosa Del Villa Drive	18.65	18.51	18.53	18.56	18.59	18.65	18.72	18.76
2822 Whisper Oaks Drive	19.02	19.31	19.35	19.36	19.38	19.41	19.46	19.48

RANCHETTES SUBDIVISION - FLOOD DEPTH (feet)
- Existing Conditions -

Address	FFE	Critical Duration Storm Frequency Elevations						
		2-Year	3-Year	5-Year	10-Year	25-Year	50-Year	100-Year
2998 Ranchette Square	17.73	1.75	1.43	1.16	0.86	0.54	0.18	-0.03
3011 Ranchette Square	18.52	0.01	-0.01	-0.04	-0.07	-0.13	-0.20	-0.24
3012 Ranchette Square	18.16	-0.35	-0.37	-0.40	-0.43	-0.49	-0.56	-0.60
3013 Ranchette Square	18.57	0.06	0.04	0.01	-0.02	-0.08	-0.15	-0.19
3014 Ranchette Square	18.41	-0.10	-0.12	-0.15	-0.18	-0.24	-0.31	-0.35
3053 Rosa Del Villa Drive	18.58	0.07	0.05	0.02	-0.01	-0.07	-0.14	-0.18
3061 Rosa Del Villa Drive	18.65	0.14	0.12	0.09	0.05	0.00	-0.07	-0.11
2822 Whisper Oaks Drive	19.02	-0.28	-0.33	-0.34	-0.37	-0.39	-0.44	-0.46

RANCHETTES SUBDIVISION - FLOOD DEPTH (feet)
- Existing Conditions -

Address	FFE	Critical Duration Storm Frequency Elevations						
		2-Year	3-Year	5-Year	10-Year	25-Year	50-Year	100-Year
2998 Ranchette Square	17.73	1.75	1.43	1.16	0.86	0.54	0.18	-0.03
3011 Ranchette Square	18.52	0.01	-0.01	-0.04	-0.07	-0.13	-0.20	-0.24
3012 Ranchette Square	18.16	-0.35	-0.37	-0.40	-0.43	-0.49	-0.56	-0.60
3013 Ranchette Square	18.57	0.06	0.04	0.01	-0.02	-0.08	-0.15	-0.19
3014 Ranchette Square	18.41	-0.10	-0.12	-0.15	-0.18	-0.24	-0.31	-0.35
3053 Rosa Del Villa Drive	18.58	0.07	0.05	0.02	-0.01	-0.07	-0.14	-0.18
3061 Rosa Del Villa Drive	18.65	0.14	0.12	0.09	0.05	0.00	-0.07	-0.11
2822 Whisper Oaks Drive	19.02	-0.28	-0.33	-0.34	-0.37	-0.39	-0.44	-0.46



BCA – Professional Expected Damages

Using H&H Study (cont.):

▶ DAMAGE CALCULATION

- ▶ Calculations over affected properties before and after mitigation, using Replacement Value and the depth of estimated flooding :

- ▶ Building Damage
- ▶ Content Damage
- ▶ Displacement Cost

RANCHETTES SUBDIVISION – STRUCTURE DAMAGES BEFORE MITIGATION

FIA Tables		Building Damages Before Mitigation							
Interpolation	Building	H1	H2	H3	H4	H5	H6	H7	H8
Depth	Building	\$157,066	\$158,013	\$166,163	\$171,948	\$169,664	\$176,890	\$272,838	\$192,126
x	y								
-1	-0.00%								
-0.86	1.26%	\$1,070.03							
-0.54	4.14%	\$6,602.63							
-0.18	7.38%	\$11,691.47							
-0.14	7.74%								\$21,137.66
-0.12	7.92%								\$21,603.77
-0.09	8.19%								\$22,843.43
-0.07	8.37%							\$14,721.93	
-0.06	8.48%				\$16,546.80			\$15,038.60	\$23,081.09
-0.05	8.56%							\$15,513.50	
0.35	10.75%			\$17,779.44	\$18,288.88				\$20,845.27
0.37	10.85%			\$17,862.62					\$21,037.90
0.39	10.95%								\$21,855.42
0.4	11.00%			\$18,154.85					\$15,018.09
0.43	11.15%			\$18,277.08					
0.44	11.20%								\$21,518.11
0.46	11.30%								\$21,730.24
0.49	11.45%			\$18,770.92					
0.56	11.80%			\$19,025.66				\$16,445.02	\$25,510.35
0.6	12.00%			\$19,607.23					
1	14.00%								
08								\$28,058.03	
74								\$17,063.33	
21								\$17,413.11	
74									
23									\$20,077.17
55									\$20,461.42
									\$20,557.48

RANCHETTES SUBDIVISION – TOTAL STRUCTURE DAMAGES BEFORE MITIGATION

BUILDING DAMAGES TOTALS BEFORE MITIGATION						
2 yrs	3 yrs	5 yrs	10 yrs	25 yrs	50 yrs	100 yrs
\$116,351	\$120,391	\$122,987	\$127,139	\$136,014	\$145,153	\$150,289



BCA – Professional Expected Damages

State ENG team is available to provide guidance to Sub-Applicants on expected methodology for Non-Phase projects (ready for construction)

- ▶ Excel spreadsheet sample for damage calculations.
- ▶ Excel file with Depth Damage Function Interpolation, as applicable.
- ▶ PDF Guidance to complete damage calculations.

Florida Division of Emergency Management – Mitigation Technical Unit / Engineering



Non-phased project and Phase I Deliverables - Guidance for Sub-Applicants and Sub-Recipients submitting drainage projects

The intent and purpose of this document is to clarify and assist the Sub-applicants/Sub-recipients about understanding the details, components, and process required for Non-phased projects ready for construction or "phased" projects submitting Phase I deliverables for technical review.

The "phasing" aspects of this guidance are only related to phasing a project under FEMA HMA programs, at no point, it refers to the phases or segments of a project, labeled by designers or construction managers.

This guidance is specific to FDEM Mitigation personnel involved with application and project reviews as Project Managers and TechUnit reviewers, for them to share with Sub-applicants/Sub-recipients.

OVERVIEW

Projects applying for funding under FEMA's Hazard Mitigation Assistance (HMA) programs could be submitted as a complete project ready for construction or could be phased during the application review. For project's fully designed and being recommended as Non-phased, the following guidance is applicable.

If the project is not fully designed, permitted and ready for construction, the State makes the determination to phase the project and submits a recommendation to FEMA for phase I funding. If approved and funded, Phase I is the preparation, design and study needed to complete the project - for it to be ready for Phase II, which shall be the actual construction of the project, no construction activities are approved under a Phase I approval. Phase I activities could include but are not limited to: surveying, geotechnical analysis, engineering, design, plans preparation, permitting and bidding for the proposed project, for Phase II approval.

DAMAGES BEFORE MITIGATION																																							
H&M water elevation																																							
DIFFERENCE																																							
NODE	PROPERTY ADDRESS	BUILDING REPLACEMENT VALUE (BRV)	FFE	25-YR			50-YR			100-YEAR			25-YEAR			50-YEAR			100-YEAR			25-YEAR			50-YEAR			100-YEAR											
				25-YR	50-YR	100-YEAR	25-YR	50-YR	100-YEAR	25-YR	50-YR	100-YEAR	25-YR	50-YR	100-YEAR	25-YR	50-YR	100-YEAR	25-YR	50-YR	100-YEAR	25-YR	50-YR	100-YEAR	25-YR	50-YR	100-YEAR	25-YR	50-YR	100-YEAR									
Node Name=example - 2007 Choctaw	S	98,740	12.50	22.21	12.21	13.39	-0.27	0.71	1.09	6.39	12.35	14.72	9.59	18.81	22.09	\$6,309	\$12,392	\$24,535	\$9,409	\$18,593	\$21,802	0.00	31.95	49.05	50	\$7,325	\$10,938												
Node Name=example - 487 Spring H S	S	99,992	11.90	15.90	11.60	13.11	-0.40	0.90	1.81	9.40	10.45	20.48	8.10	15.79	30.72	\$5,400	\$10,449	\$20,478	\$8,099	\$15,749	\$30,718	0.00	13.56	41.45	50	\$8,011	\$18,163												
TOTALS FOR BCA PURPOSES																																							
<table border="1"> <tr> <td>\$31,709</td> <td>\$22,841</td> <td>\$35,051</td> <td>\$17,360</td> <td>\$38,341</td> <td>\$52,518</td> <td>0.00</td> <td>45.45</td> <td>130.50</td> <td>50</td> <td>\$30,195</td> <td>\$20,102</td> </tr> </table>																												\$31,709	\$22,841	\$35,051	\$17,360	\$38,341	\$52,518	0.00	45.45	130.50	50	\$30,195	\$20,102
\$31,709	\$22,841	\$35,051	\$17,360	\$38,341	\$52,518	0.00	45.45	130.50	50	\$30,195	\$20,102																												

DAMAGES AFTER MITIGATION																																							
H&M water elevation																																							
DIFFERENCE																																							
NODE	PROPERTY ADDRESS	BUILDING REPLACEMENT VALUE (BRV)	FFE	25-YR			50-YR			100-YEAR			25-YEAR			50-YEAR			100-YEAR			25-YEAR			50-YEAR			100-YEAR											
				25-YR	50-YR	100-YEAR	25-YR	50-YR	100-YEAR	25-YR	50-YR	100-YEAR	25-YR	50-YR	100-YEAR	25-YR	50-YR	100-YEAR	25-YR	50-YR	100-YEAR	25-YR	50-YR	100-YEAR	25-YR	50-YR	100-YEAR	25-YR	50-YR	100-YEAR									
Node Name=example - 2007 Choctaw	S	98,740	12.50	11.60	13.40	-0.10	-0.10	0.90	0.90	8.10	13.90	1.95	12.15	30.85	6889	\$7,698	\$13,735	\$1,333	\$11,607	\$20,587	0.00	4.50	44.10	50	\$1,004	\$6,834													
Node Name=example - 487 Spring H S	S	99,992	11.90	10.62	10.84	12.70	-0.09	-0.08	1.40	1.08	4.88	17.20	1.62	7.28	28.80	\$3,080	\$4,890	\$37,199	\$3,820	\$7,293	\$29,788	0.00	0.00	65.00	50	\$0	\$34,049												
TOTALS FOR BCA PURPOSES																																							
<table border="1"> <tr> <td>\$1,969</td> <td>\$12,858</td> <td>\$20,923</td> <td>\$2,953</td> <td>\$19,288</td> <td>\$46,385</td> <td>0.00</td> <td>4.50</td> <td>107.50</td> <td>50</td> <td>\$1,004</td> <td>\$23,883</td> </tr> </table>																												\$1,969	\$12,858	\$20,923	\$2,953	\$19,288	\$46,385	0.00	4.50	107.50	50	\$1,004	\$23,883
\$1,969	\$12,858	\$20,923	\$2,953	\$19,288	\$46,385	0.00	4.50	107.50	50	\$1,004	\$23,883																												

REFERENCE INFO	
21 NODE	Refers to the node on your H&M that provides the information for the specific property that will benefit from the project.
22 PROPERTY ADDRESS	Include all addresses for properties that will benefit from the project.
23 BUILDING REPLACEMENT VALUE	Building replacement value (BRV) can be obtain from property appraiser, 85 Means or building construction calculator.
24 FINISH FLOOR ELEVATION	Finish floor elevation for finished areas (not garage elevations). If quality of elevation certificate is not available, it can be an estimating number (by observation).
25 H&M BEFORE MITIGATION RESULTS	Using your H&M, please enter the water elevation under each scenario before mitigation (existing conditions). The amount of scenarios and the recurrence intervals are determine by the engineer running the H&M, it is not match this sample.
26 H&M AFTER MITIGATION RESULTS	Using your H&M, please enter the water elevation under each scenario after mitigation (proposed conditions). The amount of scenarios and the recurrence intervals are determine by the engineer running the H&M, it is not match this sample.
27 DIFFERENCE	Result from subtracting the peak stage elevation from the Finish Floor elevation, it refers to the amount of water affecting the structure under each scenario, (this value is auto calculated).
28 DDF	Depth Damage Function.
29 DDF BUILDING DAMAGE %	Percentage of damage obtain from DDF table. Each value under difference should be match with a percentage on the table.
30 DDF BUILDING DAMAGE \$	BRV * DDF Percentage = Damage \$ (this value is auto calculated).
31 DDF CONTENT DAMAGE %	Percentage of damage obtain from DDF table. Each value under difference should be match with a percentage on the table.
32 DDF CONTENT DAMAGE \$	BRV * DDF Percentage = Damage \$ (this value is auto calculated).
33 DISPLACEMENT (DAYS)	Days of displacement based on DDF using "Difference" value.
34 DISPLACEMENT \$	Displacement cost is the Per Diem and Lodging cost (per federal rate for project location) for each structure multiplied by the number of individuals in the structure (household size per census data). Websites to look up project location are: http://www.fsa.fda.gov/inspection/food/inspection-rates
35 DISPLACEMENT \$	Displacement \$ = Displacement (Days) * (Per Diem + Lodging) * (household size)
36	https://www.fsa.fda.gov/inspection/food/inspection-rates
37	https://www.fsa.fda.gov/inspection/food/inspection-rates

USACE Generic Residential 1 Story						
Depth	Building	Content	Displacement			
-2.00	0.00%	0.00%				
-1.99	0.03%	0.02%				
-1.98	0.05%	0.05%				
-1.97	0.08%	0.07%				
-1.96	0.10%	0.10%				
-1.95	0.13%	0.12%				
-1.94	0.15%	0.14%				
-1.93	0.18%	0.17%				
-1.92	0.20%	0.19%				
-1.91	0.23%	0.22%				
-1.90	0.25%	0.24%				
-1.89	0.28%	0.26%				
-1.88	0.30%	0.29%				
-1.87	0.33%	0.31%				



Key Points



REVIEW YOUR APPLICATION

Double check all the information and make sure to have a copy from your consultant or the person who completed the application.



Key Points

QUESTIONS



Environmental and Historic Preservation Review



THE FLORIDA DIVISION OF EMERGENCY MANAGEMENT



Environmental Review

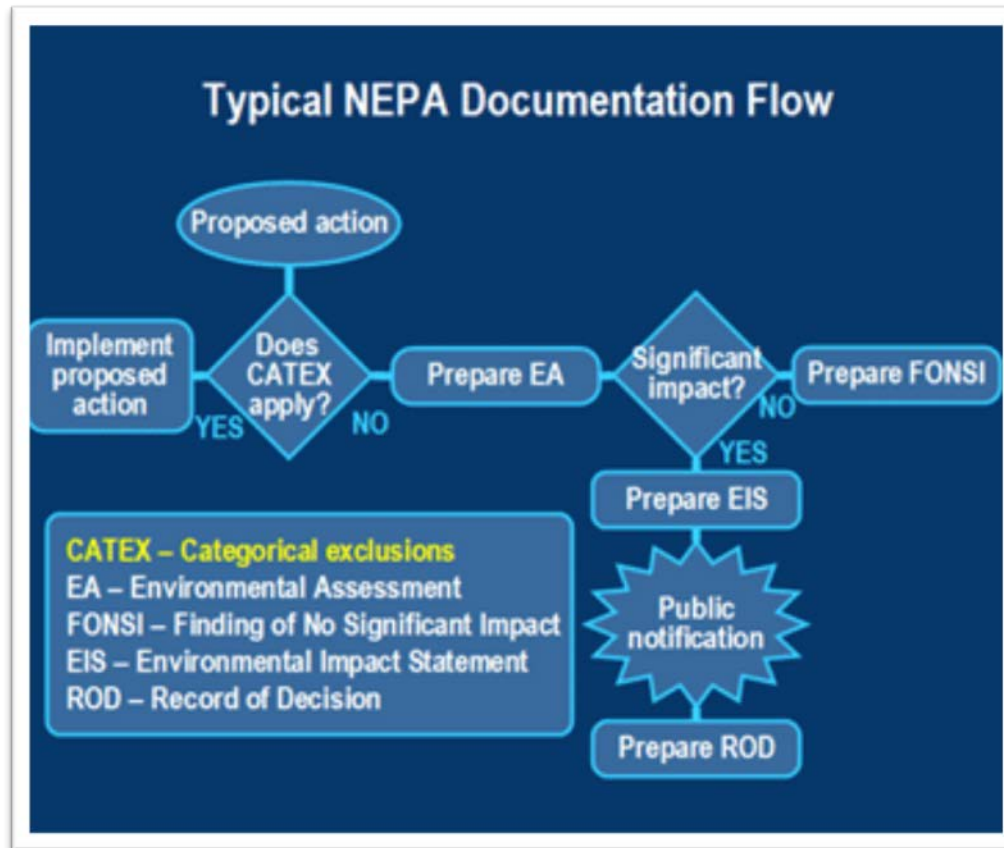
The Environmental and Historic Preservation (EHP) Review ensures that projects seeking federal funding are compliant with the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA)

NEPA stipulates that, prior to funding, ALL federal agencies must consider any effects the proposed action may have on the environment (11 Acts and 4 Executive orders are reviewed).

NHPA requires that ALL Federal Agencies consider the effect of an action on a property listed or eligible for listing on the National Register of Historic Places.



Environmental NEPA



Statutory Exclusion – Emergency Actions

Categorical Exclusion – No significant impact (previously determined)

Environmental Assessment – Brief review to determine effect

Environmental Impact Statement – Extensive review analyzing impact



Application –Walk Through

Acquisition/Demolition Example

THIS SECTION FOR STATE USE ONLY		
FEMA-___-DR-FL	<input type="checkbox"/> Standard HMGP	<input type="checkbox"/> 5% Initiative Application <input type="checkbox"/> Initial Submission or <input type="checkbox"/> Application Complete <input type="checkbox"/> Re-Submission
Support Documents	Eligible Applicant	Project Type(s)
<input type="checkbox"/> Conforms w/ State 405 Plan	<input type="checkbox"/> State or Local Government	<input type="checkbox"/> Wind
<input type="checkbox"/> In Declared Area	<input type="checkbox"/> Private Non-Profit (Tax ID Received)	<input type="checkbox"/> Flood
<input type="checkbox"/> Statewide	<input type="checkbox"/> Recognized Indian Tribe or Tribal Organization	<input type="checkbox"/> Other: _____
Community NFIP Status: (Check all that apply)		LMS Ranking: _____
<input type="checkbox"/> Participating Community ID#: _____		County: _____
<input type="checkbox"/> In Good Standing <input type="checkbox"/> Non-Participating <input type="checkbox"/> CR5		
State Application ID: _____		

(TIME-DATE STAMP HERE)

This application is for all Federal Emergency Management Agency (FEMA Region IV) Hazard Mitigation Grant Program (HMGP) proposals. Please complete ALL sections and provide the documents requested. If you require technical assistance, please contact the Florida Division of Emergency Management at DEM_HazardMitigationGrantProgram@em.myflorida.com.

Section I – Applicant

A. Applicant Instruction: Complete all sections that correspond with the type of proposed project

<u>Application Sections I-IV:</u>	All Applicants must complete these sections
<u>Environmental Review:</u>	All Applicants must complete these sections
<u>Maintenance Agreement:</u>	Any Applications involving public property, public ownership, or management of property
<u>Flood Control – Drainage Improvement Worksheet:</u>	Acquisition, Elevation, Dry Flood proofing, Drainage Improvements, Flood Control Measures, Floodplain and Stream Restoration, and Flood Diversion – one worksheet per structure
<u>Generator Worksheet:</u>	Permanent, portable generators, and permanent emergency standby pumps
<u>Tornado Safe Room Worksheet:</u>	New Safe Room, Retrofit of existing structure, Community Safe Room, Residential Safe Room
<u>Hurricane Safe Room Worksheet:</u>	New Safe Room, Retrofit of existing structure
<u>Wind Retrofit Worksheet:</u>	Wind Retrofit projects only – one worksheet per structure
<u>Wildfire Worksheet:</u>	Defensible Space, Hazardous Fuels Reduction, Ignition Resistant Construction, other
<u>Drought Worksheet:</u>	Aquifers, other
<u>Request for Public Assistance Form:</u>	FEMA Form 90-49 (Request for Public Assistance): All applicants must complete, if applicable.
<u>Acquisition Forms:</u>	If project type is Acquisition, these forms must be completed. (Only one of the two Notice of Voluntary Interest forms is necessary.) Model Statement of Assurances for Property Acquisition Projects Declaration and Release Notice of Voluntary Interest (Town Hall Version) Notice of Voluntary Interest (Single Site Version) Statement of Voluntary Participation FEMA Model Deed Restriction Language
<u>Application Completeness Guidance / Checklist :</u>	All applicants are recommended to complete this checklist and utilize the guidance for completing the application.



Application – Project Description

B. Project Description, Scope of Work, and Protection Provided (Must be Completed in Detail)

Describe, in detail, the existing problem, the proposed project, and the scope of work. Explain how the proposed project will **solve** the problem(s) and provide the level(s) of protection described in Part A. Also, if available, attach a vendor's estimate and/or a contractor's bid for the scope of work. ***Please ensure that each proposed project is mitigation and not maintenance.***

1. Describe the existing problems:

The structure at 123 Main St. Anytown, FL is a single family slab on grade structure subject to repetitive flood loss as defined by the National Flood Insurance Program. The NFIP claims data indicates that the house flooded in 2005, 2008, and 2011. The house flooded again during the 2014 flood event. Due to the road elevation the water runs onto the property and when the drainage retention area fills up it causes the water to run onto the surrounding properties and floods those homes creating a health and safety issue for the residence.

2. Describe the type(s) of protection that the proposed project will provide:

This acquisition will return the flood prone property to open space and will prevent the flooding of the houses on either side of the property. Acquiring this property will allow the water seep into the open ground which will help protect neighbors from flooding during high rain events.

3. Scope of Work (describe in detail what you are planning to do):

The scope of work for this project is to acquire the Smith residence located at 123 Main Street, Anytown, FL 32456, demolish the structure, remove debris, abandon the well, and septic tank, disconnect all utilities and conduct site restoration. The land will be converted to open space and deed restricted as set forth in FEMA program requirements as described in 44 CFR 206.434 (e) The completed work shall comply with all Federal, State, and Local Rules and Regulations.



Application – Location

Section III – Project Location *(Fully describe the location of the proposed project.)*

A. Site

1. Describe the physical location of this project, including street numbers (or neighborhoods) and project site zip code(s). Provide precise longitude and latitude coordinates for the site utilizing a hand-held global positioning system (GPS) unit or the equivalent:

Location:

Address(s):

GPS coordinates (decimal degree format):

Project Zip Code(s):

2. Title Holder:

Coordinates in degrees, minutes and seconds format are **NOT acceptable*



Application – Location Examples

▶ Multiple locations such as Lift Stations

Lift Station	Coordinates
LS 24-1	(28.345678, -82,234567)
LS 14-1	(28.345678, -82,234567)
PS 4-3	(28.345678, -82,234567)
PS 57-3	(28.345678, -82,234567)
PS 57-2	(28.345678, -82,234567)

▶ Multiple buildings

Fire Station	Address	Coordinates
1	000 Hawk Ridge, Sunny, Florida 32000	(28.345678, -82,234567)
2	000 Hawk Ridge, Sunny, Florida 32000	(28.345678, -82,234567)
3	0th Street NE, Sunny, Florida 32000	(28.345678, -82,234567)
4	000 Heron Road, Sunny, Florida 32000	(28.345678, -82,234567)
5	000 Sandpiper Road, Sunny, Florida 32000	(28.345678, -82,234567)

**If the project will take place outside the building the coordinates provided should correspond to the exact location of project activities.*



Application – Location Examples

▶ Linear Drainage Projects

Location	Coordinates	
State Road 30-E Somewhere in Florida, 32800	Begin	(28.345678, -82,234567)
	End	(28.345678, -82,234567)

▶ Drainage Projects with Boundaries

Location	Coordinates	
Sunny, Florida 32000	NE	(28.345678, -82,234567)
	NW	(28.345678, -82,234567)
	SE	(28.345678, -82,234567)
	SW	(28.345678, -82,234567)



Application – Location

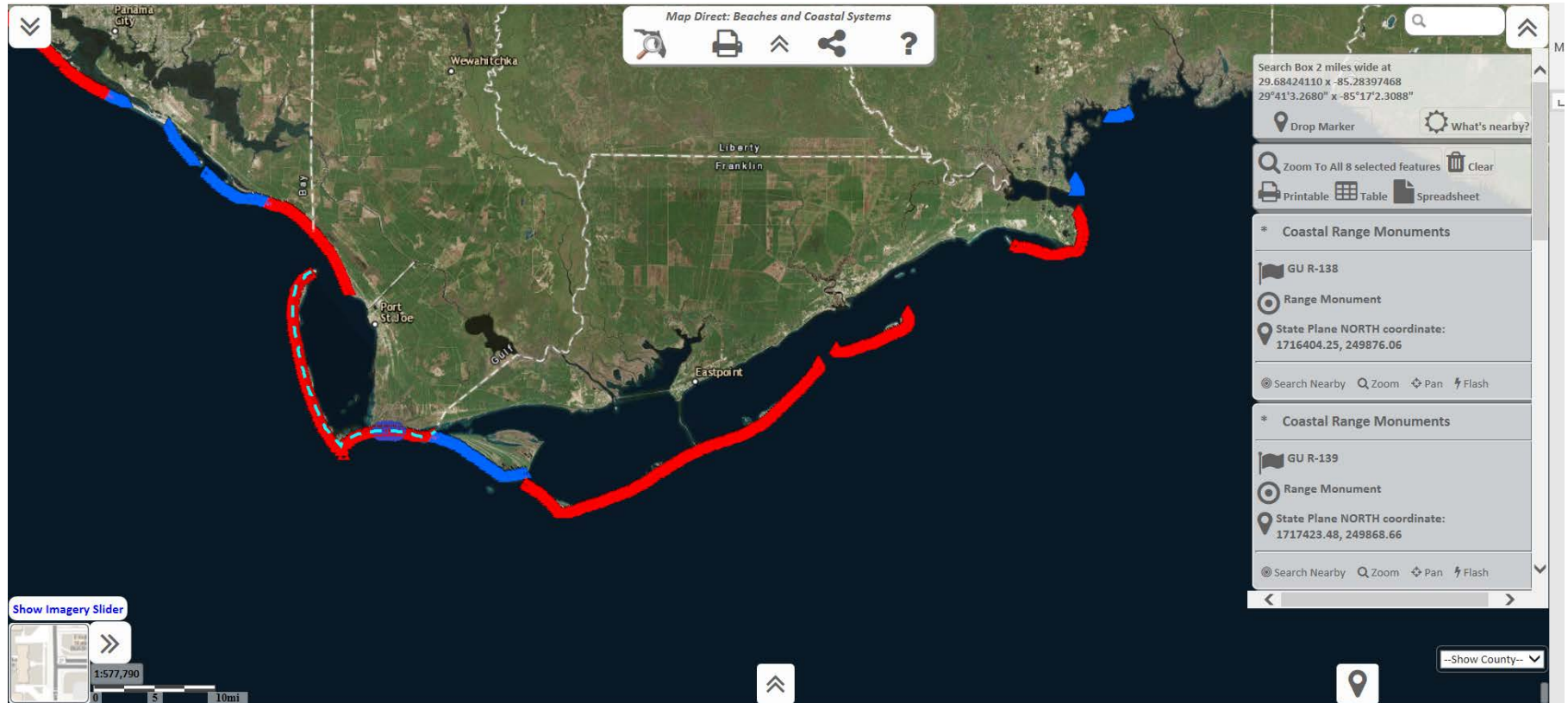
3. Is the project site seaward of the Coastal Construction Control Line (CCCL)? Yes No
4. Provide the number of each structure type (listed below) in the project area that will be affected by the project. Include *all* structures in project area.
- | | | | |
|---|----------------------|---|----------------------|
| <input checked="" type="checkbox"/> Residential property: | <input type="text"/> | <input type="checkbox"/> Public buildings: | <input type="text"/> |
| <input type="checkbox"/> Businesses/commercial property: | <input type="text"/> | <input type="checkbox"/> Schools/hospitals/houses of worship: | <input type="text"/> |
| <input type="checkbox"/> Other: | <input type="text"/> | | |

To determine if the project area is seaward of the CCCL go to:
<http://ca.dep.state.fl.us/mapdirect/?focus=beaches>



FDEP Beaches and Coastal Systems

<http://ca.dep.state.fl.us/mapdirect/?focus=beaches>



THE FLORIDA DIVISION OF EMERGENCY MANAGEMENT



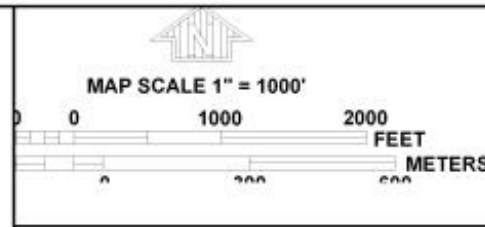
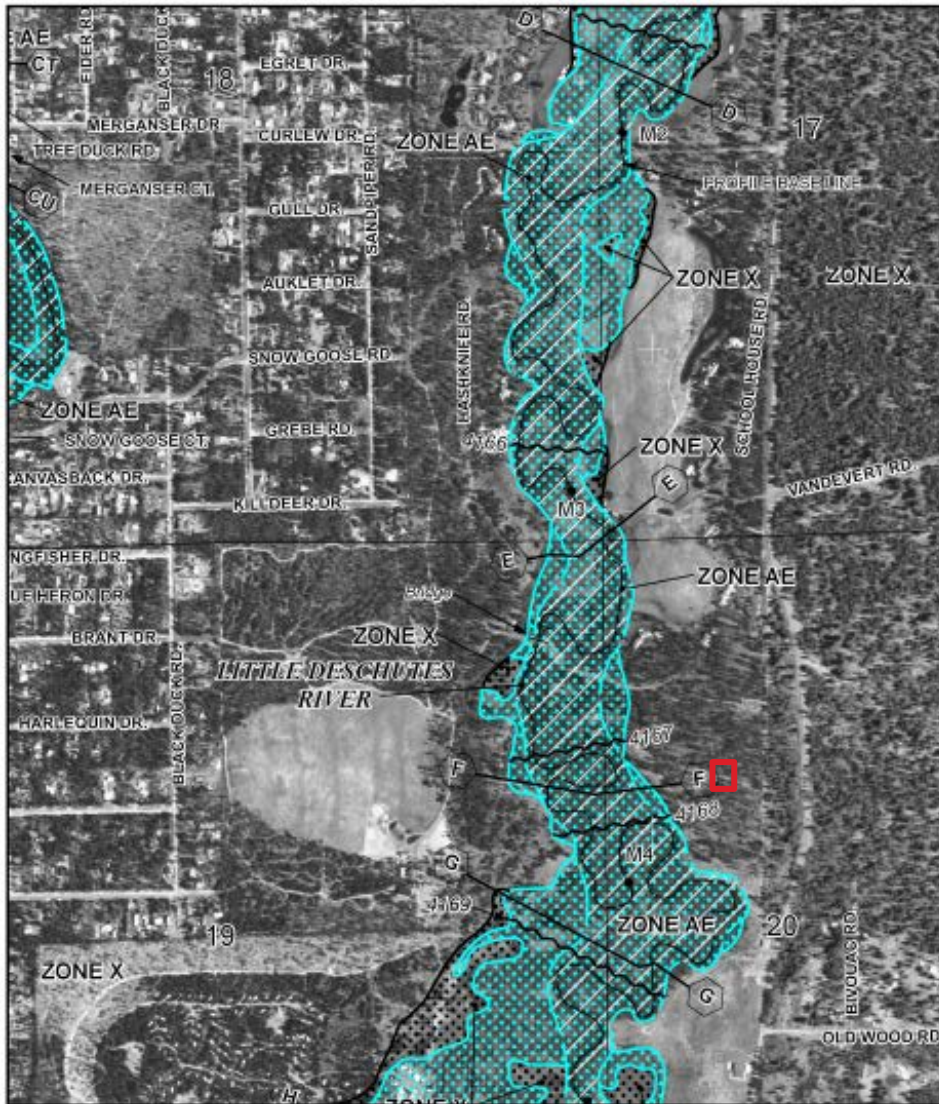
Application - FIRM

B. Flood Insurance Rate Map (FIRM) Showing Project Site

1. <input type="checkbox"/> Attach one (1) copy of the FIRM map, a copy of the panel information from the FIRM, and, if available, the Floodway Map. <i>FIRM maps are required for this application (if published for your area). Also, all attached maps must have the project site and structures clearly marked on the map.</i> FIRMs are typically available from your local floodplain administrator who may be located in a planning, zoning, or engineering office. Maps can also be ordered from the Map Service Center at 1-800-358-9616. For more information about FIRMs, contact your local agencies or visit the FIRM site on the FEMA Web-page at https://msc.fema.gov/portal .	
2. Using the FIRM, determine the flood zone(s) of the project site (Check all zones in the project area) <i>(See FIRM legend for flood zone explanations) (A Zone must be identified)</i>	
<input type="checkbox"/> VE or V 1-30	<input checked="" type="checkbox"/> AE or A 1-30
<input type="checkbox"/> AO or AH	<input type="checkbox"/> A (no base flood elevation given)
<input type="checkbox"/> B or X (shaded)	<input type="checkbox"/> C or X (unshaded)
<input type="checkbox"/> Floodway	<input type="checkbox"/> [Redacted]
<input type="checkbox"/> Coastal Barrier Resource Act (CBRA) Zone (Federal regulations strictly limit Federal funding for projects in this Zone; please coordinate with your state agency before submitting an application for a CBRA Zone project).	
3. <input type="checkbox"/> If the FIRM Map for your area is not published, please attach a copy of the Flood Hazard Boundary Map (FHBM) for your area, with the project site and structures clearly marked on the map.	
4. <input type="checkbox"/> Attach a copy of a Special Flood Hazard Area Flood Insurance Assurance(s).	



FIRM



NFIP PANEL 1130E

FIRM
FLOOD INSURANCE RATE MAP
DESCHUTES COUNTY,
OREGON
AND INCORPORATED AREAS

PANEL 1130 OF 2250
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
DESCHUTES COUNTY 41655 1130 E
UNINCORPORATED AREAS

Notice to User: The Map Number shown below should be used when placing map orders. Community Number shown above should be used on all correspondence.

MAP NUMBER
41017C1130E

MAP REVISED
SEPTEMBER 28, 2007

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



FIRM

National Flood Hazard Layer FIRMette



Legend

- Cross-Sections
- Base Flood Elevations
- Flood Hazard Zones**
 - 1% Annual Chance Flood
 - Regulatory Floodway
 - Special Floodway
 - Area of Undetermined Flood Hazard
 - 0.2% Annual Chance Flood
 - Future Conditions 1% Annual Chance Flood Hazard
 - Area with Reduced Risk Due to Levee



LOMRs

- Effective

Map Panels

- Digital Data
- Unmodernized Maps
- Unmapped

This map complies with FEMA's standards for the use of digital flood maps. The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. The base map shown complies with FEMA's base map accuracy standards.

The NFHL is a living database, updated daily, and this map represents a snapshot of information at a specific time.

Flood risks are dynamic and can change frequently due to a variety of factors, including weather patterns, erosion, and new development. FEMA flood maps are continually updated through a variety of processes. Users should always verify through the Map Service Center (<http://msc.fema.gov>) or the Community Map Repository that they have the current effective information.

NFHL maps should not be created for unmapped or unmodernized areas.



FEMA

Date: 1/23/2018 Time: 1:46:43 PM



FIRM

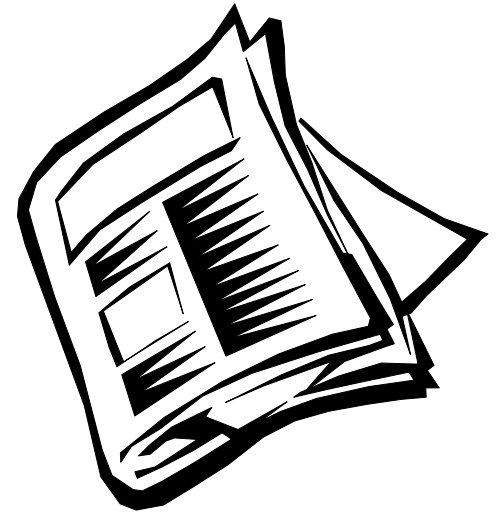
- ▶ Zones X-Shaded, A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, V1-30, VE, and V
 - Projects located in the floodplain that include new construction or substantial improvement of a structure or facility will require a letter of approval from the local floodplain administrator/manager.
 - Definitions included in 44 CFR § 9.4 FLOODPLAIN MANAGEMENT AND PROTECTION OF WETLANDS
 - Floodplain Administrator List can be found on floridadisaster.org
 - **Public Notice Required** (a draft may be provided with application)



Public Notice

- ▶ Required for projects:
 - With a significant impact to the community and/or environment
 - Impact or located in the floodplain
 - Impact or located in wetlands

- ▶ Use State/FEMA Format
 - Comment period from the public



Application –Maps and Photographs

C. City or County Map with Project Site and Photographs

1. Attach a copy of a city or county scale map (large enough to show the entire project area) with the project site and structures marked on the map.
2. Attach a USGS 1:24,000 TOPO map with project site *clearly* marked on the map.
3. For **acquisition** or **elevation** projects, include copy of Parcel Map (Tax Map, Property Identification Map, etc.) showing each property to be acquired or elevated. Include the Tax ID numbers for each parcel, and Parcel information – including year built and foundation.
4. Attach photographs (at a minimum 4 photographs) for each project site per application. The photographs should be representative of the project area, including any relevant streams, creeks, rivers, etc. and drainage areas that affect the project site or will be affected by the project, and labeled. For each structure, please include the following angles: front, back and both sides.



Maps and Photographs

- ▶ Attach a copy of a city or county scale map with project site and structures marked
 - Google Earth
 - Google Maps: <https://www.google.com/maps>
 - NEPA Assist
<http://nepassisttool.epa.gov/nepassist/entry.aspx>



Maps and Photographs



Drainage Location Map Example



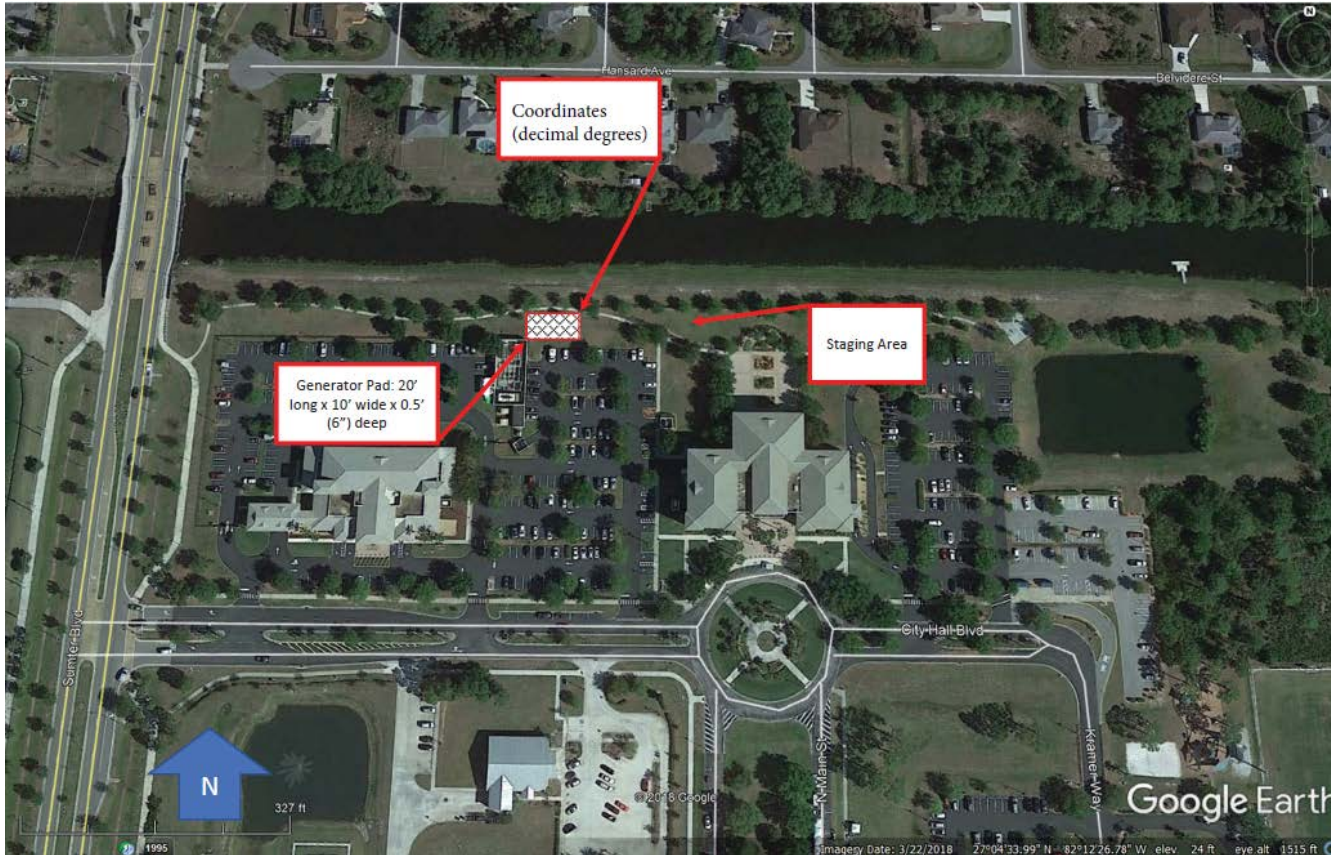
Maps and Photographs



Demolition
Location Map
Example



Maps and Photographs



Generator
Location Map
Example

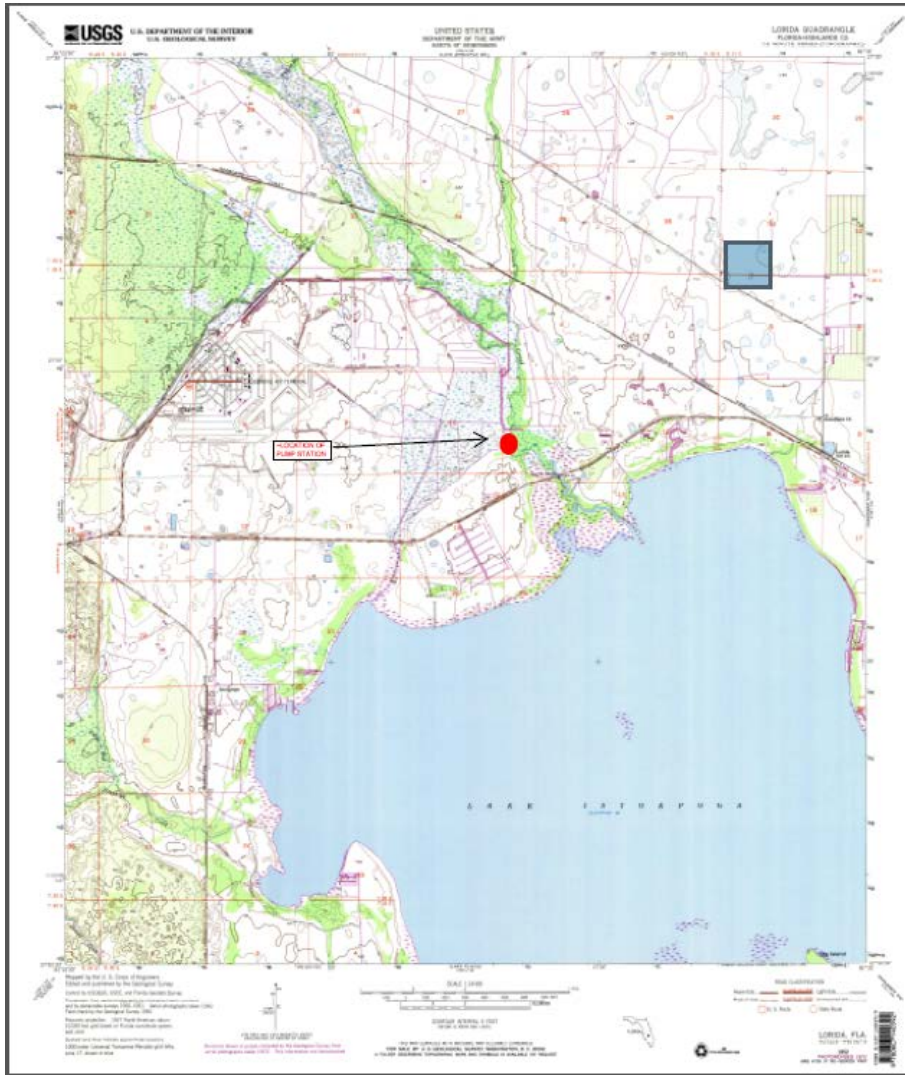


Maps and Photographs

- ▶ Attach USGS TOPO map with project site clearly marked
 - Google Earth
 - NEPA Assist
 - USGS The National Map Viewer:
<http://viewer.nationalmap.gov/viewer/>



Maps and Photographs

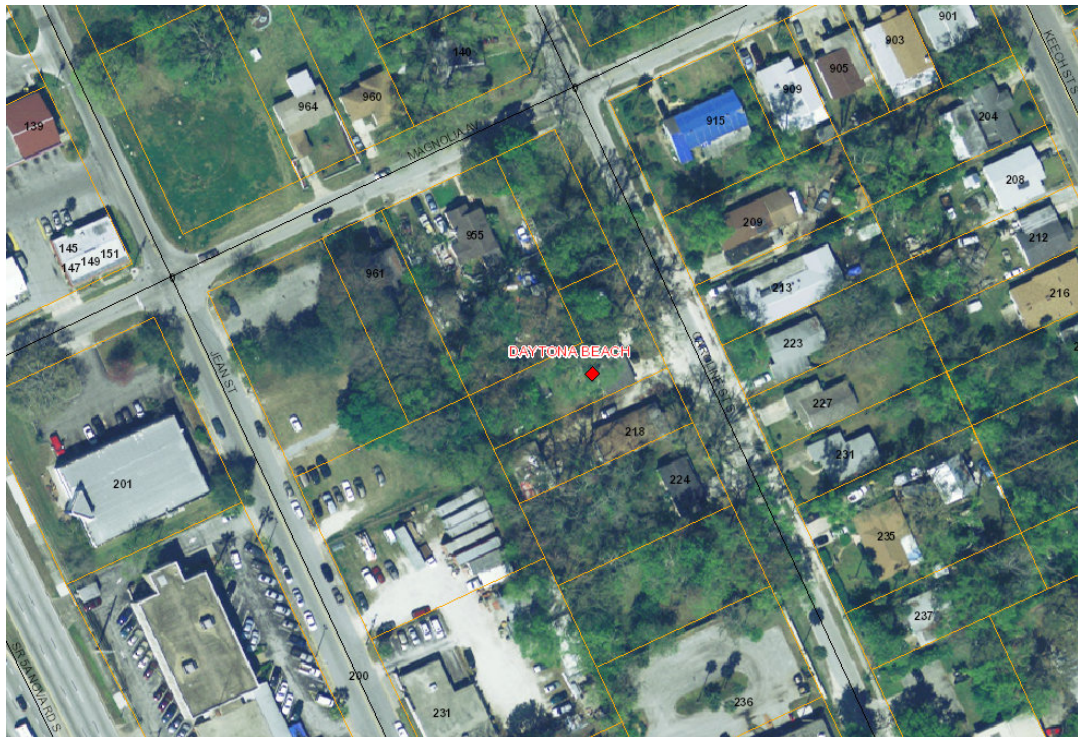


TOPO Map Example
Demolition



Maps and Photographs

- ▶ For acquisition or elevation projects, include copy of Parcel Map.
 - Local Property Appraiser's office



Maps and Photographs

- ▶ Attach photographs for each project site. Photographs should be representative of the project area, including any streams, creeks, rivers, etc. and drainage areas which affect the project site or will be affected by the project.
 - All four sides of structure
 - **All** areas of ground disturbance
 - Upstream/downstream (drainage)
 - **Dry Conditions**



Maps and Photographs

- ▶ **Photograph Requirements:**
 - Images should not be blurry or low resolution.
 - Photographs shall not be more than a year old.
 - Google street photos are not acceptable.
 - Scanned photos with low resolution are not acceptable.
 - Photographs should be labeled



Maps and Photographs



Photograph #1 – Existing [REDACTED] Subdivision control structure (upstream view).



Photograph #2 – Existing [REDACTED] Subdivision control structure (downstream view).

Examples of Good Photographs Demolition and Drainage

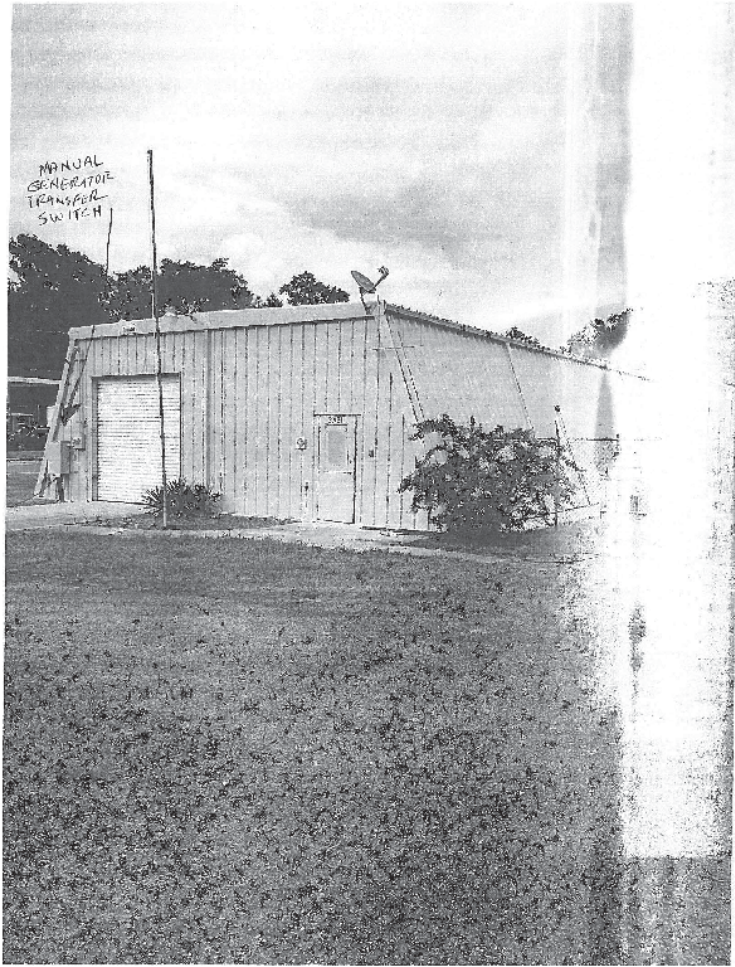


123 Main St facing North



Maps and Photographs

Examples of Bad Photographs



Maps and Photographs

- ▶ When including maps and photographs with the application make sure to:
 - Properly name documents
 - Ex: aerial map, topo map, photographs, etc...



Application – Section V

Section V. Environmental Review and Historic Preservation Compliance

(NOTE: This application cannot be processed if this section is not completed.)

Because the HMGP is a federally funded program, all projects are required to undergo an environmental and historic preservation review as part of the grant application process. Moreover, all projects must comply with the National Environmental Policy Act (NEPA) and associated Federal, State, Tribal, and Local statutes to obtain funding. **NO WORK can be done prior to the NEPA review process. If work is done on your proposed project before the NEPA review is completed, it will NOT be eligible for Federal funding.**

A. The following information is required for the Environmental and Historic Preservation review:

All projects must have adequate documentation to determine if the proposed project complies with NEPA and associated statutes. The State Environmental Staff provide comprehensive NEPA technical assistance for Applicants, with their consent, to complete the NEPA review. The type and quantity of NEPA documents required to make this determination varies depending upon the project's size, location, and complexity. However, at a minimum, please provide the applicable documentation from this section to facilitate the NEPA compliance process.

1. Detailed project description, scope of work, and budget/costs (Section II and Section IV of this application).
2. Project area maps (Section III, part B & C of this application)
3. Project area/structure photographs (Section III, part C of this application).
4. Preliminary project plans.
5. Project alternatives description and impacts (Section V of the application).
6. Please complete the applicable project worksheets.
Documentation showing dates of construction are required for all structures.
7. Environmental Justice – Attach documents regarding evaluation (required) and satisfactory resolution (if necessary) of Environmental Justice issues (Highly Disproportionate, Adverse Impact (effects) on Minority or Low Income Population). Documents can include public meeting records, media reports letters from interested persons and groups, studies on population, ethnic groups, quality of life, housing, economics, transportation, public services, schools, public health, recreation, voting, etc.
8. Provide any applicable information or documentation referenced on the *Information and Documentation Requirements by Project Type* below.



Application – E.O. 12898

B. Executive Order 12898; Environmental Justice for Low Income and Minority Population:

1. Are there low income or minority populations in the project area or adjacent to the project area?
 No Yes; please describe any disproportionate and adverse effects to these populations:

No minority population in area: Anytown FL, 23.5% Florida 21.9%

Low income population in project area: Anytown FL 20.3% Florida 15.6%

No disproportionately high and adverse impact on low income population

2. To help evaluate the impact of the project, please indicate below any other information you are providing.
 Description of the population affected and the portion of the population that would be disproportionately and adversely affected. Please include specific efforts to address the adverse impacts in your proposal narrative and budget.

3. Attached materials or additional comments: Please include pdf documentation from the US Census Quick Facts and American Factfinder's website of the project area (<http://www.census.gov/>).

Information accessed March 1, 2018 on American FactFinder



Application- Tribal Consultation

C. Tribal Consultation (Information Required)

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to take into account the effect of their undertakings on historic properties. The NHPA requires that agencies must complete this process prior to the expenditure of any Federal funds on the undertaking. A Tribal Consultation is required for any project disturbing ground or moving soil, including but not limited to: drainage projects; demolition; construction; elevation; communication towers; tree removal; utility improvements.

1. Describe the current and future use of the project location. A land use map may be provided in lieu of a written description.

The current land use of the project location is residential with low intensity. Future land use is residential with medium intensity. A future land use map has been provided.

2. Provide information on any known site work or historic uses for project location.

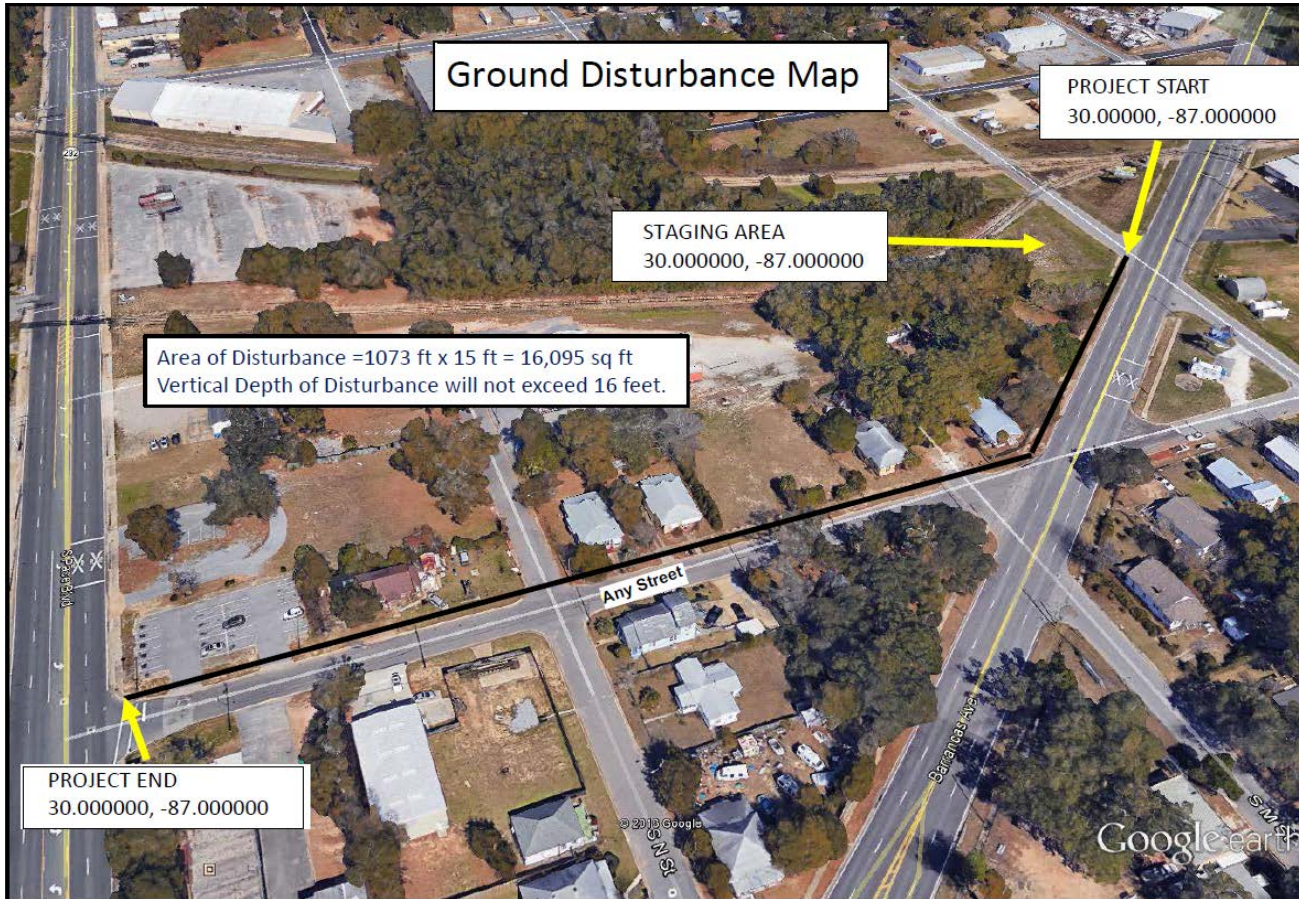
The single family residence was built in 1984 in a newly developed community. There are no previous known use of the project area. All previous site work includes the building and maintenance of a private, single family, residential home.

- Attach a copy of a city or county scale map (large enough to show the entire project area) with the horizontal limits (feet) and vertical depths (square feet) of all anticipated ground disturbance of 3 inches or more.

**If your project will not have 3 inches or more of ground disturbance please include a notation here.*



NHPA Consultation



Ground disturbance map should include:

Horizontal limits (ft.) and vertical depth of anticipated ground disturbance for all project activities

Street address and geographic latitude/longitude of the construction area.

geographic latitude/longitude of staging areas.

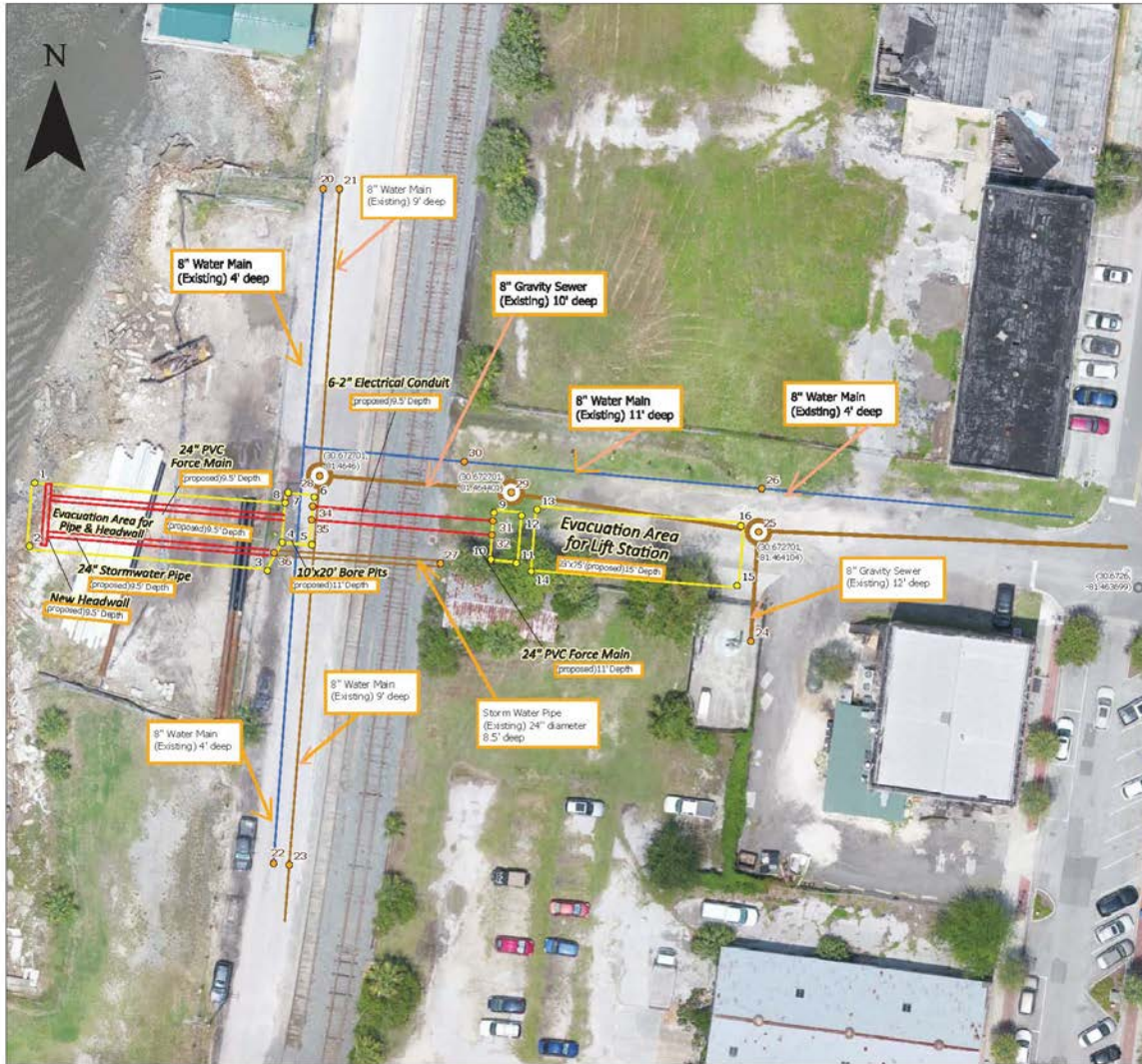


Activities That May Require NHPA Consultation

- ▶ Any project involving significant ground disturbing activities, including but not limited to:
 - Drainage projects
 - Demolition
 - Elevation
 - Construction
 - Utility improvements



NHPA Consultation (cont.)



Points	XCoordinate	Ycoordinate
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		

Points	Xcoordinate	Ycoordinate
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
34		
35		
36		

100 US Feet

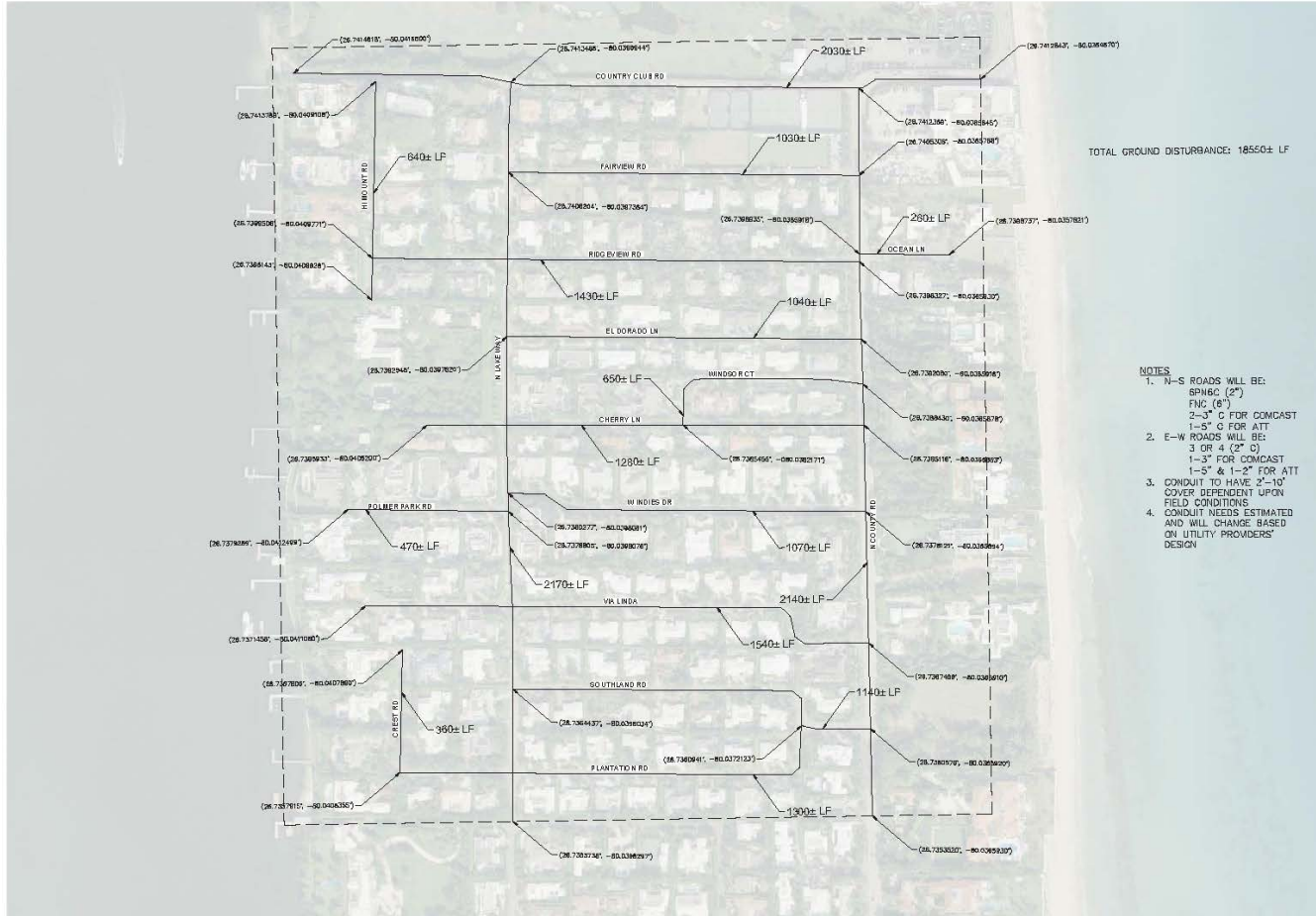
- Evacuation Corner Points
- Alachua & Front St Manholes
- Sewer Manholes
- Storm Improvement Areas
- Excavation Areas
- Existing Water Lines
- Existing Sewer Lines
- Junction_Points



NHPA Consultation (cont.)

Project Number and Title

Ground Disturbance Map



Application - Alternative Actions

D. Alternative Actions *(Information Required)*

The NEPA process requires that at least two alternative actions be considered that address the same problem/issue as the proposed project. In this section, list **two feasible** alternative projects to mitigate the hazards faced in the project area. One alternative is the “No Action Alternative”.

1. No Action Alternative

Discuss the impacts on the project area if no action is taken.

If no action is taken the structure at 123 Main St. Anytown, FL will continue to experience flooding from storm events. Also, other structures around the house will be affected since there will be no open space for flood waters to seep into.



Alternative Actions

2. Other Feasible Alternative

Describe a feasible alternative project that would be the next best solution if the primary alternative is not accomplished. This could be an entirely different mitigation method or a significant modification to the design of the current proposed project. Please include a Scope of Work, engineering details (if applicable), estimated budget and the impacts of this alternative. Complete *all* of parts **a-e** (below).

a. Project Description for the Alternative

Describe, in detail, the alternative project, and explain how the alternative project will solve the problem(s) and/or provide protection from the hazard(s). Also, provide pros and cons for this alternative and a reason for why it was not selected.

Another feasible alternative is to elevate the structure. This will keep the structure from flooding from rain events, however, this action will not allow the same amount of seepage and may not protect the neighbors as efficiently as the open space project will.

b. Project Location of the Alternative *(describe briefly, if different from proposed project)*

- Attach a map or diagram showing the alternative site in relation to the proposed project site *(if different from proposed project)*



Alternative Actions

c. Scope of Work for Alternative Project

The scope of work for this project is to elevate the existing residence located at 123 Main St. The structure was built in 1984 and is a single family residence located in the AE flood zone. The structure will be elevated three (3) feet above the established Base Flood Elevation of 10 feet. The elevated structure should comply with all applicable local, state, and federal code and permitting requirements. The areas below the lowest floor must be used solely for parking of vehicles, building access or storage.

d. Impacts of Alternative Project

Discuss the impact of this alternative on the project area. Include comments on these issues as appropriate: Environmental Justice, Endangered Species, Wetlands, Hydrology (Upstream and Downstream Surface Water Impacts), Floodplain/Floodway, Historic Preservation and Hazardous Materials.

No additional impacts will be created with the elevation of the structure. The structure will remain in the floodplain.



Alternative Actions

e. Estimated Budget/Costs for Alternative Project

In this section, provide details of all the estimated costs of the alternative project (round figures to the nearest dollar). **A lump sum budget is acceptable.**

Materials:		
Labor:		
Fees:		
Total Estimated Project Cost:		\$ 0.00



Other Documentation

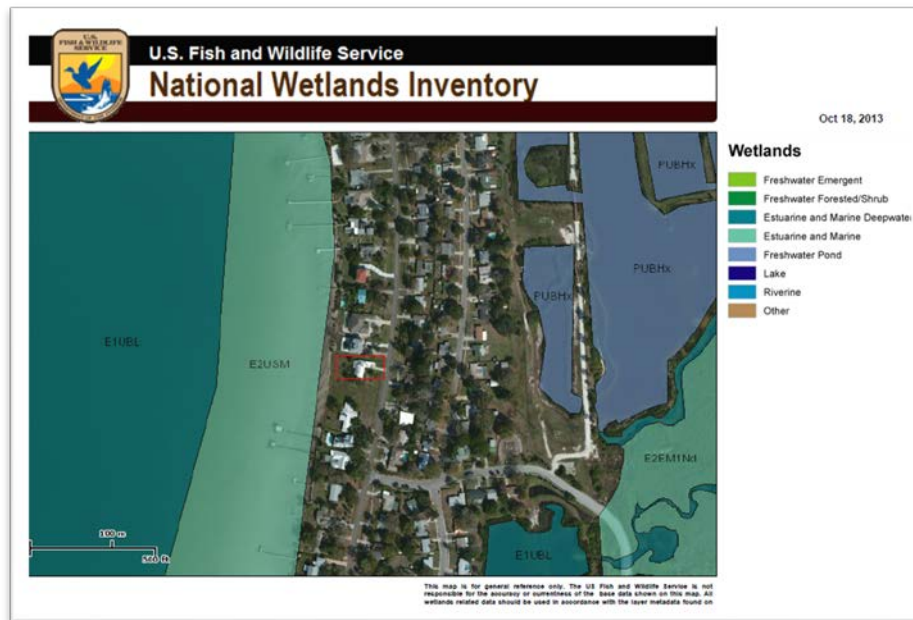
- ▶ **Permits / Concurrence Letters**
 - Most Common:
 - USACE Nationwide Permit/FDEP 404
 - Water Management District (WMD) Environmental Resource Permit (ERP)
 - FDEP NPDES – NOI, NOT, SWPPP (closeout)
 - FWC/USFWS if located near critical habitat
 - State Historic Preservation Officer* (SHPO)
- ▶ **Public Notice** (as applicable)
- ▶ **Age Verification Documents** (structures)



Water Management Districts

- ▶ If affecting or has potential to affect surface waters, including wetlands, a water management district environmental resource permit (ERP) or no permit required (NPR) must be provided.
 - NEPA Assist Tool
 - National Wetlands Inventory

<http://www.fws.gov/wetlands/Data/Mapper.html>



USACE/FDEP

- ▶ **If within 200' of waterbody and project has associated dredging, fill, or outfalls affecting wetlands or waters. (any waterbody including streams, creeks, rivers, ponds, lakes, gulf, etc.) you must have:**
 - USACE Permit or notification from the Regulatory Branch that no permit is required (NPR), or if located near state retained waters, a FDEP 404 permit or no permit required (NPR) (Link to U.S retained waters: <https://usace.contentdm.oclc.org/utis/getfile/collection/p16021coll7/id/17255>) (Link to map of state regulated waters: <https://fdep.maps.arcgis.com/apps/webappviewer/index.html?id=2cb8724cfd18408db80c8f2d7bb68a2e>)
 - Photographs of project in relation to the waterbody



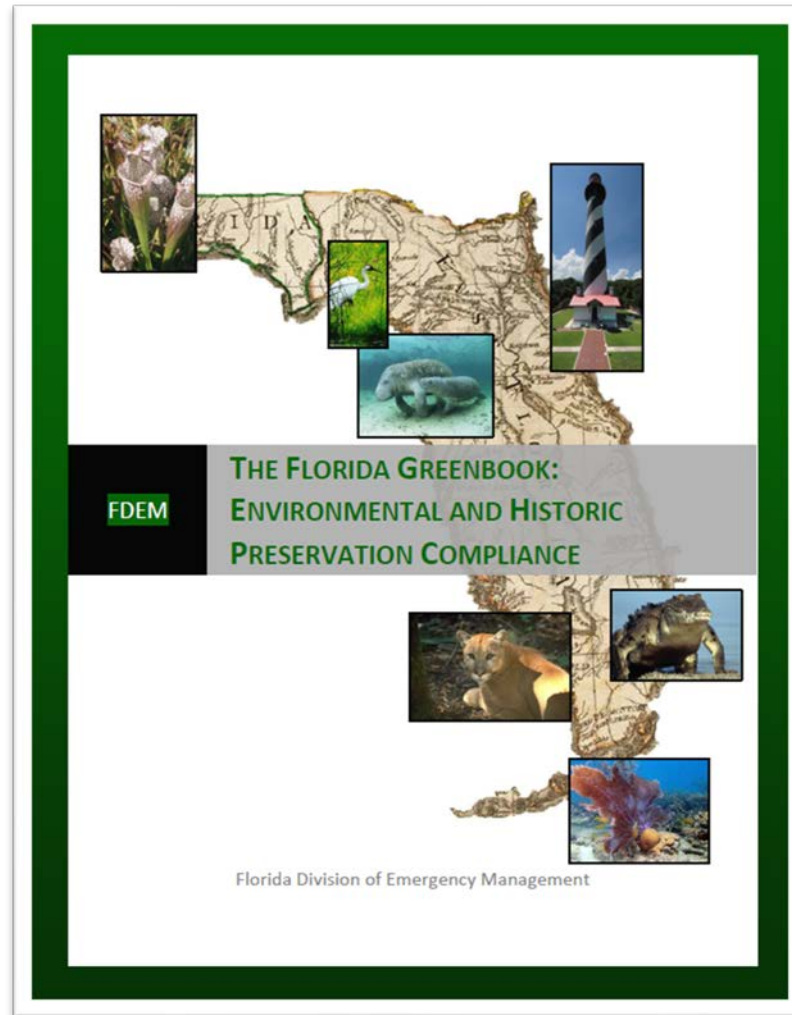
Things that can **TERMINATE** a Project

- Starting **BEFORE** Environmental and Historic Preservation Review is complete.
- Assuming it does not have to comply with environmental laws if statutorily excluded.
- Not providing a defined scope of work (SOW) and project location.
- **Changing SOW** and not informing the State/FEMA.



Other Resources

<https://www.floridadisaster.org/globalassets/importedpdfs/flgreenbook.pdf>



THE FLORIDA DIVISION OF EMERGENCY MANAGEMENT



QUESTIONS?

