A Community Self-Assessment

Understanding How Prepared Your Community is For a Disaster

"On the road to coastal resilience"

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Supplemental information and additional resources are available at *laseagrant.org* and *masgc.org/ri*

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TRIBAL COASTAL RESILIENCE TEAM

Community Name: ____

Date Completed: ____

Name	Title

Date proposed for next Index Assessment: ______________________________

INTRODUCTION

The purpose of this self-assessment is to provide Tribal leaders and community members with a simple and inexpensive method of assessing community disaster preparedness and response plans. Tribal leaders can complete this self-assessment using existing sources of information from their community. The goal is for every community to become highly resilient. The assessment may identify problems your community should address before the next disaster and where resources should be allocated.

Results of the assessment are presented as a Resilience Index that estimates the adaptability of your community to return to a level of functioning after a disaster. While scores can fluctuate over time, lower scores may be used to identify areas in which your community can focus resources when considering options for increasing resiliency. Your community's unique Resilience Index is an internal evaluation tool and should not be used to compare your community with others. Additionally, the Resilience Index does not replace a detailed study. The results, however, may encourage your community to seek further consultation.

RESILIENCE is defined as "the ability of a system, community, or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management."

United Nations Office for Disaster Risk Reduction (UNDRR). 2017. *The Sendai Framework Terminology on Disaster Risk Reduction.* "Resilience".

NOTE: This Tribal community self-assessment is date-specific and should be periodically applied as the community grows or the landscape changes, such as when shoreline erosion accelerates. Community leaders should conduct new assessments on a regular basis (such as annually or biannually) to account for this change.

RESULTS OVERVIEW

After completing this self-assessment, you should complete the charts on pages 12 and 13, which will help you calculate your Resilience Index (see page 12).

The Resilience Index used in this self-assessment will be defined as **LOW, MEDIUM** or **HIGH**. The rating will give you an idea of how long it may take your community to provide basic services and reoccupy homes and businesses after a disaster.

For more details about interpreting Resilience Index results, go to page 14.

BUILD YOUR SCENARIOS

Use the definitions of Bad and Future Storm below to complete the table. Decide as a group what the best benchmarks would be based upon your experience, historical records, and prior knowledge. You will then refer to these benchmark storms to complete the rest of the Index.

Bad Storm (benchmark): Select a benchmark storm you will use to answer questions on the Index. Look back at historical events to help you determine as a group which storm would be the best to use. Remember, this is a self-assessment, so select a benchmark that you believe will provide the most information about potential community vulnerabilities.

Future Storm (greater intensity): Select a storm that would be 50 percent worse than the "Bad Storm" you selected. For example, what if the storm surge was higher? Or if the rainfall were greater? This is to assist you in preparing for a future event that has not been witnessed in the historical records.

Variables	**Bad Storm** (benchmark) **Scenario 1**	**Future Storm** (greater intensity) **Scenario 2**
Name		
Wind speed at landfall (mph)		
Rain (total/24 hours)		
Storm surge (height in feet)		
Direction		
Speed of movement		
Duration		
Tidal influence (high or low)		
Landfall location		

I. CRITICAL INFRASTRUCTURE AND FACILITIES

This section looks at critical infrastructure and facilities for your community. You may know the answers, but if you don't that is okay. If you are not a federally recognized tribe, the local government that provides the services may be a partner you want to reach out to after you complete this assessment, as they will have more details about the resiliency of these systems.

Place a check mark in the first column if your community's critical infrastructure and facilities are in a special flood hazard area. You may need to use flood maps to determine where the boundaries would be.

Place a check mark under "Bad Storm Scenario 1" and "Future Storm Scenario 2" if the infrastructure or facility would be impacted. Then put a check mark in the last column if the infrastructure or facility is functional after a disaster (assuming Scenario 1). Use the total check marks in the last column for Sections A and B to complete the scoring at the end of the Index.

	Special Flood Hazard Area (SFHA)	**Bad Storm Scenario 1**	**Future Storm Scenario 2**	**Infrastructure or facility functions after disaster**
Example: Power grid		✔		✔
Section A: Critical Infrastructure				
Wastewater treatment system				
Power grid				
Water purification system				
Transportation/ evacuation routes				
Total check marks for Section A:				
Section B: Critical Facilities				
Tribal hall or other Tribal buildings				
Fire station(s) that service Tribal area				
Critical record storage for Tribe (hardcopy or digital backup)				
Schools and childcare facilities				
Total check marks for Section B:				

Are there any other critical infrastructure or facilities for the Tribe that are not captured here? How would these facilities function during the storms in Scenarios 1 and 2? Would the facility function after a disaster equivalent to Scenario 1?

2. COMMUNITY SUFFICIENCY

Community sufficiency is something that many coastal communities, tribal or otherwise, pride themselves on, especially during and after disaster. This narrative section seeks to capture the ways in which your Tribe is self-sufficient. While space is provided in this narrative section for two highlights, it can be duplicated for as many as the Tribe would like to capture. Then, answer the questions in the chart regarding selected resilience-building practices.

What is a way in which the Tribe is self-sufficient after a storm?

How does this strength benefit and support the Tribe as a whole?

Are there ways to build upon this strength?

What is another way in which the Tribe is self-sufficient after a storm?

How does this strength benefit and support the Tribe as a whole?

Are there ways to build upon this strength?

Community Sufficiency / Contingency Planning Does the Tribe have:	YES	NO
Generators to meet needs (either at Tribal facilities or at individual households)		
Backup options for basic needs (water, sewer, food, and communications)		
Plans to bring in help to meet Tribal governance needs (considering impacts to staff)		
Plans for pre-stocking, restocking, and distributing critical recovery supplies and ice to Tribe members in the event of a disaster		
Plans for encouraging Tribal members to have necessary medications in place before a disaster		
Plans in place for reopening or alternative options for childcare and elderly care following a disaster		
Training opportunities on a range of disaster-related skills, such as CPR, basic first aid, safe generator and chainsaw usage, and local government permitting and rebuilding.		
Total number of YES and NO answers:		

3. PLACES OF IMPORTANCE

Many Tribal communities have historic and cultural places of importance, such as landmarks and sacred sites. These places may warrant additional consideration when thinking about the resiliency of the community. While space is provided in this narrative section for two places of importance, it can be duplicated for as many places as the Tribe would like to capture. The specific location of the place does not need to be stated. Use the final sliding scale to capture the current resiliency of the place under Storm Scenario 1.

Place of importance:

Has the location been impacted during prior storms? If yes, how was it impacted?

Are there actions that the Tribe could take, or actions that another group could take with support of the Tribe, to increase the resiliency and long-term sustainability of this place? These actions can range in size and scope.

What impediments are there to taking these actions? (examples: land ownership issues, funding availability)

On a scale of 1-10, how would the Tribe rate the resiliency of this place today should a Scenario 1 storm impact the community?

1	2	3	4	5	6	7	8	9	10

Place of importance:

Has the location been impacted during prior storms? If yes, how was it impacted?

Are there actions that the Tribe could take, or actions that another group could take with support of the Tribe, to increase the resiliency and long-term sustainability of this place? These actions can range in size and scope.

What impediments are there to taking these actions? (examples: land ownership issues, funding availability)

On a scale of 1-10, how would the Tribe rate the resiliency of this place today should a Scenario 1 storm impact the community?

1	2	3	4	5	6	7	8	9	10

4. SOCIAL AND SOCIO-ECONOMIC SYSTEMS

Are there social and socio-economic systems that define your community or serve as the core of your community? Consider both formalized or written systems and plans, as well as more informal systems and plans.

Check Yes or No, then provide details if applicable.

Social System Category	YES	NO	DETAILS
Internal plan for community-based support based on known skills and needs of Tribal members (plan that makes the most of the self-sufficient nature of many Tribal communities)			
Priority list for donation needs			
Pre-disaster plans or agreements with volunteer organizations that may play a role post-disaster			
Tribal member(s) who serve as the point of contact for all volunteer and donation requests			
Procedure for checking in and accommodating volunteers from outside the tribe			
Formal procedure for working with external partners or subject matter experts on grants or other opportunities			
Tribal member(s) who serves as the point person for all media requests			
Plans for social support networks and assistance for elderly and house-bound individuals			
Relationships with individuals (within or outside the Tribe) **that provide workforce training and support for residents for natural disaster recovery** (grief counseling, advisory network for economic support)			
Tribe policy to allocate a certain funding level to recovery/reserve fund (rainy day fund, etc.)			
Relationships with individuals (within or outside of the Tribe) **to provide information on insurance options at both the individual and community level**			
Adequate insurance covering a range of hazards (including flood) **on tribal-owned buildings**			
Total number of YES and NO answers:			

5. COMMUNITY PLANS AND AGREEMENTS

Does your tribe have the following plans, personnel or agreements in place? Check Yes or No.

Does your tribe:	YES	NO
Have a comprehensive plan or strategic plan that addresses natural disasters? This may include a priority list of restoration needs.		
Participate in exercises or drills related to hazard impacts? These can be either wholly conducted at the Tribal level or in coordination with other local government exercises or drills.		
Have a way to communicate with other local governments and neighboring communities or tribes before, during, and after a disaster? (Example: having a local government issued emergency phone for disaster events.)		
Have a robust public communication plan and early warning system, including alerts and messaging to residents, or participate in a similar program at the local government level? (At the tribal level, this may be a phone tree, email listserv, private Facebook group, or text messaging capabilities.)		
If the above answer is yes, does the tribe regularly share information to members about how to sign up for communications related to disasters? (Consider the Tribal, local, and state level notification systems.)		
Have plans in place for how to shelter and preserve the health and welfare of animals?		
Total number of YES and NO answers:		

ADDITIONAL NOTES

6. NATURAL RESOURCES

Many Tribes rely on natural resources for a variety of purposes, including sustenance and Tribal heritage. This narrative section seeks to capture what natural resources are important to the Tribe and how these resources will fare in a disaster. While space is provided in this narrative section for two natural resources, it can be duplicated for as many resources as the Tribe would like to capture. Use the final sliding scale to capture the current resiliency level of the resource under Storm Scenario 1.

Natural resource that is important to the Tribe:

What is the current status of access to that resource?

How could access be improved?

Would a storm, such as the one discussed under Scenario 1, impact access to the resource?

On a scale of 1-10, how would the Tribe rate the resiliency of this resource today, should a Scenario 1 storm impact the community (where 1 is the least resilient and 10 is the most resilient)?

1	2	3	4	5	6	7	8	9	10

Natural resource that is important to the Tribe:

What is the current status of access to that resource?

How could access be improved?

Would a storm, such as the one discussed under Scenario 1, impact access to the resource?

On a scale of 1-10, how would the Tribe rate the resiliency of this resource today, should a Scenario 1 storm impact the community (where 1 is the least resilient and 10 is the most resilient)?

1	2	3	4	5	6	7	8	9	10

7. MITIGATION AND ADAPTATION MEASURES

Has the Tribe implemented the following ongoing mitigation and adaptation measures or projects?

Check Yes or No.

Mitigation and Adaptation Measures	YES	NO
Elevation, relocation, or flood-proofing of residential, nonresidential buildings, or infrastructure as appropriate to National Flood Insurance Program standards or higher.		
Education programs about mitigation options for your community. This can be programs presented by Tribal leaders, or partnerships with others to provide such training.		
Completed or planned natural or nature-based mitigation projects for critically eroding areas, such as shoreline restoration projects or dune revegetation.		
Organizations (including the Tribe itself) **assist in implementing nature-based features.**		
Encourage the protection and maintenance of sensitive coastal habitats, ecosystems, and natural features (dunes, barrier islands, salt marshes, mangroves).		
Have undeveloped lands, such as parks, forests or preserves, in the coastal high hazard areas (V-zone on FIRM map)**.**		
Critical infrastructure assets are supplemented with or protected by hardened structures (sea walls, floodproofing) **or natural or nature-based features,** such as living shorelines.		
Have adequate drainage capacity, including ditches, culverts, pumps, or other natural drainage features as appropriate.		
Total number of YES and NO answers:		

ADDITIONAL NOTES

DETERMINING YOUR RESILIENCE INDEX

To determine your Resilience Index for each section, use the following tables, which are based on the totals you entered for each section of the Index. Find out what your Resilience Index means on page 14.

SECTION 1A: CRITICAL INFRASTRUCTURE

Total number of infrastructure functioning after a disaster:

Number of check marks	Resilience Index
0 - 1	Low
2 - 3	Medium
4	High

Your Critical Infrastructure Resilience Index is: ___________

SECTION 1B: CRITICAL FACILITIES

Total number of critical facilities functioning after a disaster:

Number of check marks	Resilience Index
0 - 1	Low
2 - 3	Medium
4	High

Your Critical Facilities Resilience Index is: ________________

ADDITIONAL NOTES

DETERMINING YOUR RESILIENCE INDEX

SECTIONS 2, 4, 5, and 7

Use the box labeled "Total number of Yes answers" from sections 2, 4, 5, and 7 to complete the following chart.

Section	Number of Yes Answers	Formula	Resilience Index	Comments
Section 2: Community Sufficiency		**Low** – 2 or fewer **Medium** – 3-5 **High** – 6 or more		
Section 4: Social and Socio-Economic Systems		**Low** – 5 or fewer **Medium** – 6-8 **High** – 9 or more		
Section 5: Community Plans and Agreements		**Low** – 2 or fewer **Medium** – 3-4 **High** – 5 or more		
Section 7: Mitigation and Adaptation Measures		**Low** – 3 or fewer **Medium** – 4-5 **High** – 6 or more		

SECTIONS 3 and 6

Use the 1-10 scale from Sections 3 and 6 to complete the following chart.

Section	Number of Yes Answers	Formula	Resilience Index	Comments
Section 3: Places of Importance: Place 1		**Low** – 1-3 **Medium** – 4-7 **High** – 8-10		
Section 3: Places of Importance: Place 2		**Low** – 1-3 **Medium** – 4-7 **High** – 8-10		
Section 6: Natural Resources: Resource 1		**Low** – 1-3 **Medium** – 4-7 **High** – 8-10		
Section 6: Natural Resources: Resource 2		**Low** – 1-3 **Medium** – 4-7 **High** – 8-10		

INTERPRETING RESILIENCE INDEX RESULTS

RESILIENCE INDEX: A Resilience Index is an indicator of your community's ability to reach and maintain an acceptable level of functioning and structure after a disaster.

After completing the Summary section of this self-assessment, your Resilience Index was identified as **LOW, MEDIUM,** or **HIGH** in different categories.

LOW Resilience Index. A low Resilience Index indicates that your community should pay specific attention to this category and should make efforts to address the areas of low rating. If the critical infrastructure category received this rating, then reoccupation of your community may take more than 18 months before basic services are restored.

MEDIUM Resilience Index. A medium Resilience Index indicates that more work could be done to improve your resilience in this category. If the critical infrastructure category received this rating, reoccupation of your community may take less than 2 months before basic services are restored.

HIGH Resilience Index. A high Resilience Index indicates that your community is well prepared for a storm event. If the critical infrastructure category received this rating, then the community probably will not suffer or will have minimal damage to basic services.

NEXT STEPS

Regardless of if your community has a HIGH, MEDIUM or LOW Resilience Index, you should learn about and investigate the weaknesses you have identified during this process. Using this to develop a list of action items is a great next step and helps focus limited resources when making decisions about increasing resilience. Refer to the reference page for additional information on resources, training, and support.

For more information, contact Melissa Daigle with Louisiana Sea Grant
at 225-578-6668 or mtrosc2@lsu.edu.

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COASTAL RESILIENCE RESOURCES

Additional Resources

Coastal Flood Exposure Mapper: *www.coast.noaa.gov/digitalcoast/tools/flood-exposure.html*
Community Rating System: *www.fema.gov/floodplain-management/community-rating-system*
StormSmart Coasts Network: *www.gom.stormsmart.org*
Gulf of America Alliance Coastal Community Resilience Team: *www.gulfofamericaalliance.org/priority-issues/coastal-community-resilience*

Training

Gulf of America Sea Grant College Programs: *www.gulfseagrant.org*
- **Florida Sea Grant:** *www.flseagrant.org*
- **Louisiana Sea Grant:** *www.laseagrant.org*
- **Mississippi-Alabama Sea Grant:** *www.masgc.org*
- **Texas Sea Grant:** *www.texasseagrant.org*

NOAA Office for Coastal Management Training: *www.coast.noaa.gov/digitalcoast/training/home.html*
National Estuarine Research Reserves Coastal Training Program: *coast.noaa.gov/nerrs/training*
Federal Emergency Management Agency: *training.fema.gov*
- **AL Emergency Management Agency Training:** *www.portal.ema.alabama.gov/training*
- **FL Division of Emergency Management Training:** *www.floridadisaster.org/events*
- **LA Homeland Security & Emergency Preparedness Training:** *gohsep.la.gov/divisions/emergency-management/training-plus-events-overview/training-plus-events-schedule*
- **MS Emergency Management:** *www.msema.org*
- **TX Division of Emergency Management Training:** *tdem.texas.gov/preparedness/training*

Networking

Gulf Resilience Community of Practice: *masgc.org/resilience-community-of-practice*

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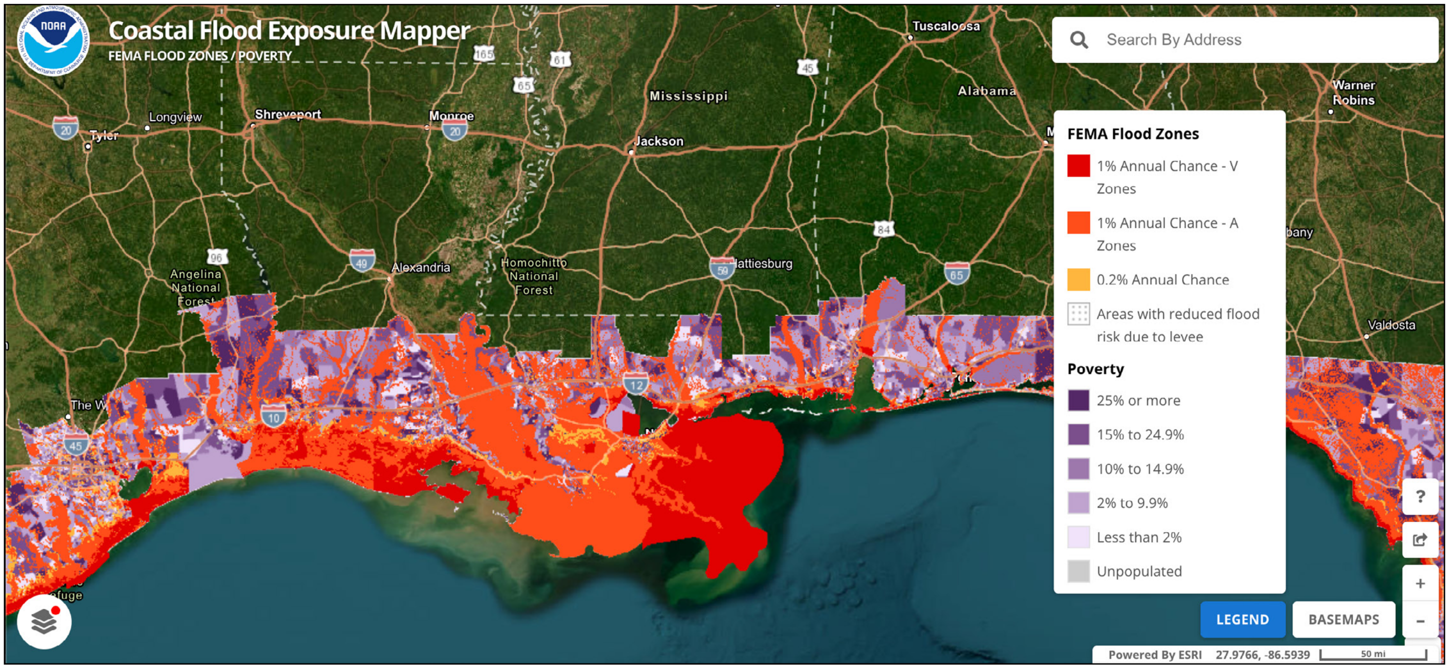
ADDITIONAL NOTES

COASTAL FLOOD EXPOSURE MAPPER

coast.noaa.gov/digitalcoast/tools/flood-exposure.html

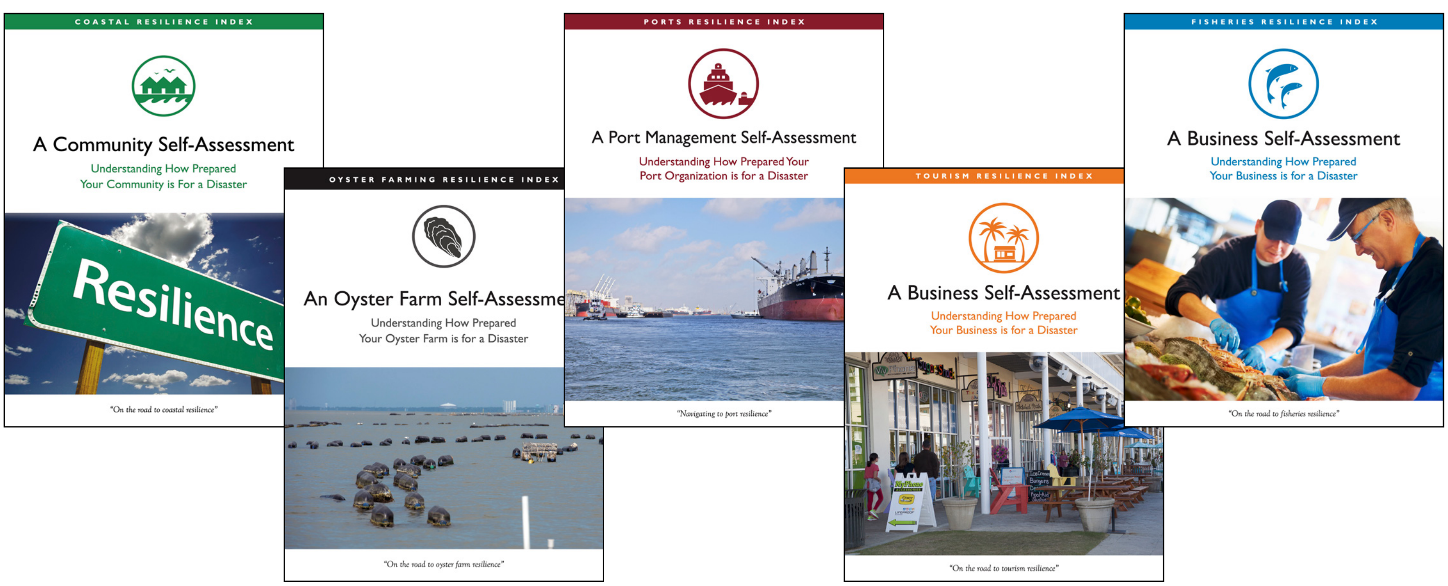
- Assists communities in completing sections of the Index
- Includes hazard layers for storm surge, sea level rise, and high tide flooding
- Share online maps that visualize people, places, and natural resources exposed to coastal flood hazards



OTHER RESILIENCE INDICES

https://masgc.org/coastal-storms-program/resilience-indices

- Understand how prepared your local government or business is for a disaster
- Sector-specific indices available for Tourism, Fisheries, Ports, and Oyster Farming



TRIBAL COASTAL RESILIENCE INDEX