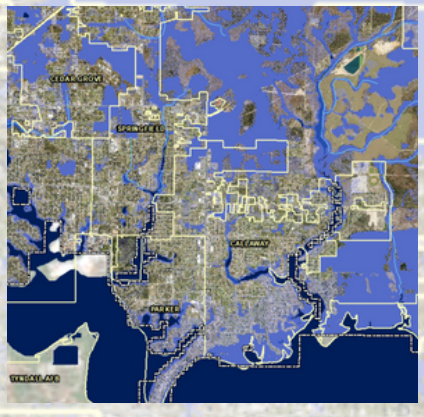
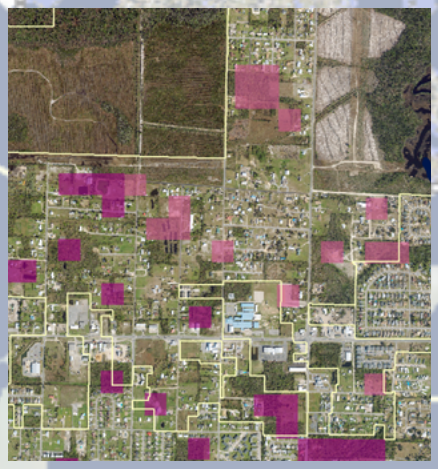
Identifying Locations for Building Resilient Affordable Housing

A GUIDE FOR LOCAL GOVERNMENTS, PLANNERS AND HOUSING STAFF





FLORIDA HOUSING COALITION

EMERALD COAST REGIONAL COUNCIL 2.0

TEXAS A&M AGRILIFE EXTENSION
DISASTER ASSESSMENT AND RECOVERY

GULF of AMERICA ALLIANCE

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About the Guide

This guide is the culmination of a project implemented by the Florida Housing Coalition, Emerald Coast Regional Council and Texas Community Watershed Partners in 2023-2024 with funding from the Gulf of America Alliance.

The project had two primary objectives:

- Develop and pilot test a resilience-based planning strategy and exercises to guide affordable housing development; and
- Create a Guide, which can be used by any community in Florida, and on the U.S. Gulf Coast.

This guide defines an integrated process for assessing land risks and suitability, housing types and social factors to develop plans that support housing mitigation or development.

ACKNOWLEDGEMENTS

The project team is grateful to Tammy Harris, Housing Program Manager for Bay County Housing Division, planners at the Tyndall Air Force Base and the stakeholders of Bay County who served as the pilot community and provided their invaluable knowledge and insights. Finally, the team also acknowledges the Gulf of America Alliance for selecting this project to be awarded funding.

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DISCLAIMER

The contents of this document do not necessarily reflect the views and policies of the Gulf of America Alliance or its partners.

Executive Summary

This guide presents a comprehensive framework for integrating resilient and affordable housing considerations into local government planning. While tailored to Florida communities, its principles and techniques are adaptable and relevant to any local jurisdiction.

The Florida Housing Coalition, Emerald Coast Regional Council and the Texas Community Watershed Partners combined their knowledge and expertise to design an engagement process which builds on best practices. Developed by a multidisciplinary team with funding from the Gulf of America Alliance, the guide outlines a step-by-step approach to facilitate informed decision-making.

The guide is designed for use by regional planning councils, local governments, and consultants with advanced planning capabilities, but many of its components can be used by all levels of local governments. It is firmly rooted in Florida's statutory requirements, making it a practical tool for aligning local planning efforts with state mandates.

The process considers multiple factors that influence the selection of suitable locations for development of resilient and affordable housing. It defines housing resilience scenario planning strategies that communities across Florida and the Gulf Coast can use to reduce housing vulnerability and promote long-term affordability.

By incorporating resilient practices, communities can identify ways to reduce development in hazard-prone areas and build safer housing that addresses risks. This guide aligns seamlessly with Florida's comprehensive planning and vulnerability assessment statutes, which mandate data-driven analyses and resilience considerations.

By integrating Geographic Information Systems (GIS) data, resilience planning and land-use planning, communities can efficiently analyze potential risks, visualize outcomes, and make well-informed decisions that align with community needs and priorities.

This process accelerates the identification of suitable sites for affordable housing and updates to future land use elements and provides a practical method for embedding resilience into broader planning activities. These include housing needs assessments, developing Community Redevelopment Agency (CRA) plans, and implementing housing incentive programs like the Live Local Act (LLA) and State Housing Initiatives Partnership (SHIP).

Engaging with data in this structured and visual manner allows local governments and community stakeholders to derive quicker and deeper insights, enhancing the effectiveness of their planning decisions. By visualizing the risks, suitable areas and density needs and opportunities, stakeholders can compare different priorities, goals, policy options, and shape strategies to reduce impacts and increase housing.

Stakeholder engagement is a crucial component of this guide, with a detailed approach encouraging the involvement of diverse community members, including local officials, housing developers, and nonprofit organizations.

The project team collaborated with the Bay County Housing Department and planning staff from Tyndall Air Force Base to ground the work in the local reality. Multiple meetings were held to review existing housing needs assessments for the county and the base; surveys and polls were implemented to identify local preferences for proximity and to define flood risks and environmental concerns. Putting it all together in the workshop, stakeholders engaged the data visually through the Community Health and Resource Management (CHARM) tool to identify locations that were suitable and consider needs for increased density to achieve the goals. Lastly, the team evaluated stakeholder knowledge and attitude changes, as a result of the workshop.

Through structured engagement activities—such as pre-meeting surveys, workshops, and post-workshop follow-ups—the process ensures that community input is incorporated throughout.

Local governments can use this to integrate resilience effectively into planning activities. Following these processes, elected officials and administrators can meet statutory requirements while optimizing the development of safe, affordable, and resilient housing. This approach helps communities understand the implications of different policy choices more clearly and quickly, enabling better, data-informed decision-making that enhances the long-term sustainability of their housing strategies.

Planning Process

Phase **01**

Conduct Assessments and Compile Information

Identify Planning Context & Goals

Determine Existing Capacity & Supplemental Needs

Conduct or Review Housing Needs Assessment

Identify Stakeholders & Develop Engagement Plan

Develop Planning Exercises & Goals for Workshop
Acquire and Visualize Data for Planning Exercises

Phase **02**

Implement Engagement Activites

Conduct Pre-Workshop Stakeholder Survey

Conduct Stakeholder Workshop to Implement Planning Exercises

Phase **03**

Analysis and Recommendations

Analyze Community Input

Prepare Recommendations for Action

Introduction to the Guide

Natural disasters and climate hazards are impacting our communities. Housing in areas that are highly vulnerable to disasters experience severe impacts that displace people, cause billions of dollars of damage and require years-long recovery. By building housing in hazard-prone areas, communities are exacerbating unaffordability.

Integrating resilience and proximity factors support affordability. Resilient development promotes long-term affordability by creating properties that are better equipped to withstand disasters and changing conditions. By choosing safer sites, housing professionals and developers can mitigate risks to life and property. Housing on lower-risk sites also reduces the cost of property insurance. Resilient homes are less likely to sustain significant damage, so repairs may be less frequent or less expensive. Homes that are built to last in lower-risk locations can save lives and money in the short term and for decades to come.

This guide was developed to provide local governments and planning practitioners with an integrated framework and process that supports the development of resilient, affordable housing. This guide complements local planning processes and was informed by frameworks including the Federal Emergency Management Agency's (FEMA) guidance on developing a disaster housing plan;[1] Smart Home America's Resilient Housing Planning Guide;[2] and the Urban Institute's framework for Preserving, Protecting, and Building Climate-Resilient Affordable Housing.[3]

The Florida Policy and Planning Context

The incorporation of GIS exercises to identify resilient locations for affordable housing aligns with the mandates set forth in Florida's planning statutes. Section 163.3177 of the Florida Statutes describes the requirements for local governments to include in their comprehensive plans. Florida's comprehensive planning laws provide a host of planning best practices when designing safe, sustainable, and resilient communities.

The goal of the comprehensive plan is to "provide the principles, guidelines, standards, and strategies for the orderly and balanced future economic, social, physical, environmental, and fiscal development of the area that reflects community commitments" and to "guide future decisions in a consistent manner." (F.S. 163.3177(1)).

This section of Florida law requires a local government's comprehensive plan elements to be grounded in data-driven analyses (F.S. 163.3177(1)(f)).

The future land element, as an example, must be written to "[promote] walkable and connected communities and [provide] for compact development and a mix of uses at densities and intensities that will support a range of housing choices [...]." (F.S. 163.3177(6)(a)(9)b.iii). Florida Statutes also explicitly require all comprehensive plans to include "A housing element consisting of principles, guidelines, standards, and strategies to be followed in [... t]he provision of adequate sites for future housing, including affordable workforce housing [....] (F.S. 163.3177(6)(f)). The results of this process should be used to inform any update to any of the relevant elements of the comprehensive plan.

For local governments outside Florida, state and local laws may differ in the level of stringency for resilience requirements; even if requirements are less strict, planners should still strive to integrate the basic requirements listed above.

Integrating Housing Stock Into Community Vulnerability Assessments

The Florida Legislature recognizes that the state is vulnerable to adverse impacts from flooding resulting from increases in frequency and duration of rainfall events, storm surge from more frequent and severe weather systems, and sea level rise. The Resilient Florida Grant Program under Section 380.093 of the Florida Statutes is a key initiative supporting resilience planning.

The statute, signed in 2021, provides guidance and resources for local governments to develop assessments of the vulnerability to current and future flood inundation of critical assets scenarios. These vulnerability assessments must include at least two sea level rise scenarios, include the National Oceanic and Atmospheric Administration intermediate-low and intermediate-high sea level rise projections, and use at least two planning horizons that include the years 2040 and 2070.

While the statutory definition of critical community and emergency facilities includes "affordable public housing," the term is undefined in state law or rule. In practice, local assessments have typically included publicly assisted housing owned or controlled by a local government among critical assets. Some jurisdictions have taken a more comprehensive look at housing risks and included older multi-family properties, mobile homes and older homes in low-income neighborhoods. The Coalition considers the latter a best practice as it can provide data and define projected losses to be considered as a part of the housing needs assessment.

Local data and maps developed for vulnerability assessments should be incorporated into interactive planning exercises for

[1]https://www.fema.gov/sites/default/files/2020-07/planning-considerations-disaster-housing.pdf
[2]https://www.smarthomeamerica.org/assets/uploads/RHPG_digital_final_draft.pdf
[3]https://www.urban.org/sites/default/files/2024-01/Preserving_Protecting_and_Building_Climate-Resilient_Affordable_Housing.pdf

affordable housing. Flood maps are effective tools for supporting the discussions about current risks and projected changes that will impact the suitability of land. The community's vulnerability assessment also provides important insights into the potential vulnerabilities of surrounding infrastructure. This is crucial for the overall resilience of housing developments. Understanding the risks to adjacent critical infrastructure, such as roadways, bridges, wastewater treatment facilities, and storm water management systems, ensures that affordable housing benefits from resilient supporting infrastructure.

FEMA Data for Housing Impact

Using information which shows housing impacts from past disasters and discussing lived experiences is important for community engagement. Local governments can access the OpenFEMA portal to download data and prepare local maps with FEMA Individual and Household Program for federally declared disasters. The FEMA data can provide stakeholders with an understanding of impacted homeowners and renters - by household income, age, and housing type - down to the zip code level. It is a helpful resource to facilitate discussions about housing re/development, equity and social vulnerability factors. The Florida Housing Coalition partnered with Texas Appleseed to create a new disaster housing portal with dashboards for hurricanes in Florida. https://flhousing.org/.

Defining Your Housing Needs Assessment and Goals

Nearly all communities have housing deficits, and especially units that are affordable to the workforce, elderly and others. Understanding your local housing needs is a critical first step to set the community goals and direction for the activities. The housing needs assessment takes into account your demographics and existing housing stock and defines the type, level of affordability and quantity of units that are needed. Also considering project housing impacts caused by disasters helps to create a more holistic understanding of housing needs. This is critical to understanding the number of units and projects that are needed and optimizing density.

Counties and local governments with resources can conduct the assessment or outsource the housing needs assessment. Jurisdictions which lack staff or funding can develop basic assessments using public tools and resources. For example, Local Housing Solutions, a housing policy platform, has created a Housing Needs Assessment Tool[4], which uses American Community Survey (ACS) and Census data. Local governments can create a report for every city, county, and metropolitan statistical area in the United States. Data may be incomplete for smaller areas, but the tool provides valuable information in easy-to-interpret visualizations.

For communities in Florida, the University of Florida's Shimberg Center for Affordable Housing has a housing needs assessment methodology[5] and a comprehensive planning data clearinghouse. With this data clearinghouse[6], planners can access data for cities and counties in Florida.

Once a housing needs assessment has been completed, communities can establish their housing goals or unit targets and action plans. Goals can go beyond unit counts and types; they can reflect community values.

More communities are including sustainability and resilience values in housing goals, which can reflect metrics – such as reducing driving times and reducing energy consumption, or being on higher ground to avoid flood impacts.. These values then can be achieved through decisions about location, construction design, solar-readiness, community green spaces and other aspects of future development.

For example, the 2024 Resilient Jacksonville plan outlines the city's commitment to "growing resiliently by guiding safe and connected new development to areas of low risk to flooding and other hazards, but also well-connected to infrastructure and services."

As such, housing goals can start with basic unit goals ("support the construction of over 2,000 affordable rental units within 5 years") to expand and address resilience and specific population goals ("support the construction of 2,000 affordable rental units in low-risk areas, with at least 15% of units accessible to residents with young children, 15% for military personnel and 15% to support residents with mobility needs within 5 years").

Public Lands Program Optimization

A local government should make a concerted effort to identify the best use for its publicly owned land. This best use may be housing; the easiest way to know is to systematically evaluate parcels using the process outlined in this guide.

A portion of this process is mandatory for Florida local governments, but highly encouraged for entities outside the state, as well. Florida law at s. 125.379 and s. 166.0451 of the Florida Statutes requires counties and municipalities to identify parcels they (and their dependent special districts) own in fee simple that are "appropriate for use as affordable housing." This list must be updated at least once every three years.

For housing administrators in Florida, the Florida Housing Coalition's Public Land for Affordable Housing publication provides an in-depth overview of the legal intricacies of public land acquisition and disposition. Public entities outside the state may also find this guidebook useful for its more generalized resilience principles.

[4] https://localhousingsolutions.org/housing-needs-assessment/
[5] http://shimberg.ufl.edu/publications/PopHousingProjMeth0906.pdf
[6] http://flhousingdata.shimberg.ufl.edu/comprehensive-plan-data

Creating the Team

Implementing this project requires skills and expertise like other community planning processes and requires more data preparation and analysis. This section provides a brief overview for local governments to consider which functions and activities can be implemented internally, and those that may need to be handled by consultants.

The project will require the support of staff from several departments including community development and housing planning, resilience, floodplain managers and GIS analysts. Other staff with community engagement and facilitation skills will be needed as well.

The project has three main planning activities.

Data Preparation, Integration and Analysis

- Obtaining local or state data for the defined flood hazards, environmental considerations, and land-use exercises
- Creating maps or graphics exports via GIS software
- Identifying parcels or other units at risk

Stakeholder Engagement

- Creating/fielding the survey to stakeholders to define priorities
- Analyzing and preparing survey results to share with stakeholders
- Facilitating virtual meetings
- Coordinating the workshops
- Facilitating discussions about the data and exercises at the workshops

Policy and Planning

- Knowledge of zoning and building code
- Knowledge of high and low flood risk areas, future land-use plans
- Writing the report on the combined findings and recommendations – from specific comprehensive plan updates,
  zoning changes and affordable housing development goals
- Presentations to elected officials

Activities to Define Suitable Resilient Locations

This guide primarily focuses on new construction to support multi-family properties but could support single-family developments. The primary factor of resilient housing is selecting sites that can reduce risk by minimizing exposure. High hazard exposure contributes to increased housing costs – from operating costs, insurance and to potential repairs and recovery.

Hazards: In the context of resilient affordable housing planning, this is either an acute natural disaster, like a hurricane or extreme flooding, or long-term changes, such as sea level rise and heat. The division of hazards by duration labels them as either shocks or stressors:

- Shocks: Short-duration, rapid-onset or acute events that disrupt normal life.
- Stressors: Chronic, slow-onset or longer-term conditions that weaken a community over time, worsen the impacts of shocks, and negatively affect community functions and well-being.

Exposure: This defines the number of people, housing units, and critical lifelines that may experience a hazard. This could include specific sets of housing units, or even an entire historic neighborhood.

Vulnerability: Your community's susceptibility to harm, whether to people or property. Older structures, populations with substantial socioeconomic disadvantages, and other factors can make a community more vulnerable.

The process includes four core exercises to support the development of housing development strategies and actions. Essentially, the remaining areas are where a community

would want to prioritize new development and support the relocation of residents in housing likely to be damaged or destroyed in high-risk areas. Communities may consider strategies that will accommodate multi-family development in higher-risk areas by setting higher construction standards, stormwater management and robust emergency preparedness plans. Other communities consider incentivizing mixed use that includes needed services and amenities in areas that are distant from established community centers.

1 Define the Risk Areas

Apply the community-defined risk parameters to identify and map all areas that are at higher flood risk. This will include coastal surge, riverine flooding, compound effects and future sea level rise. Hazard exposure datasets with visualization capability are critical to consider both in terms of risk avoidance and affordability (e.g. avoiding areas with a higher modeled flood risk will equate to lower insurance costs).

Flood zones, geographic areas that FEMA has categorized according to their varying levels of estimated flood risk, should especially be noted. Areas with the greatest risk of flooding are designated as Special Flood Hazard Areas (SFHAs) on FEMA's Flood Insurance Rate Maps (FIRMs).

2 Environmental Considerations

Identify and map land near wetlands prioritized for conservation including critical habitat or culturally sensitive areas. The community will identify other factors that indicate whether an area should be preserved, protected and generally "off limits" for new development. This would include wetlands, critical habitats and historical or culturally sensitive areas. Other environmental considerations include addressing and understanding air quality near industrial zones and flight paths.

Projecting maps and including multiple layers enables productive discussions among stakeholders.

Stakeholders use the CHARM tool to review maps which visualize their community planning priorities.

3 Development Prioritization

Identify and prioritize areas where the community would like to see development to promote quality of life and long-term affordability. Determining factors may be proximity to existing infrastructure and price of land that may keep development costs down. It should also include proximity to job centers, important services and amenities that can reduce transportation expenses, while also improving overall quality of life.

As such, the following data sets and mapping activities are implemented:

Job Concentration Centers: Because of frequency of travel for work, proximity to job concentration centers generally should be weighted more heavily than other desirable criteria, unless otherwise specified by community stakeholders. The first housing scenario involves identifying job concentration centers and travel boundaries. The Bay County project stakeholder identified the value of considering length of drive time, not just distance. This can be especially important for certain "time sensitive" employers, such as military bases, medical centers and others.

Public Land: The second housing scenario will involve the identification and assessment of land that is currently owned by the County for potential formation of a community land trust. Community Land Trusts (CLTs) can be formed by local governments and nonprofits to support the development of single-family housing that is affordable for 99 years and housing that supports homeownership. Private developers outside the CLT model may also be willing to participate in projects involving public land. The project team will request the public land data from the County.

Commercially Zoned Areas: Identify and assess areas with parcels zoned for commercial use that can be reconsidered for affordable housing purposes. The Live Local Act requires certain allowances for housing to be constructed on parcels initially zoned for commercial use. Under this scenario, only commercially zoned parcels would be eligible, but other weighting factors still aid in decision making. A potential funding source could be the Florida Housing Finance Corporation's State Apartment Incentive Loan (SAIL) program.

Discussing Local Risk and Value Tradeoffs

Some communities may need workforce housing in higher risk coastal areas to support tourism economies. As such, the discussion should consider additional construction and zoning requirements to reduce risks to renters and owners. Several communities have defined higher elevation requirements, use of FORTIFIED standards and robust onsite stormwater management and flood reduction strategies.

When the low-risk areas lack amenities, communities are developing requirements and incentivizing mixed use development to provide the missing services. The key is to understand the needs of the future residents. For example, apartments designed for young families would benefit from onsite daycare, walk-in clinics, recreational and fitness centers and mini-markets that provide basic groceries.

4 Integrate the Suitable Areas

Once you have completed the first 3 activities, the next step is to review the remaining suitable areas with the stakeholders. Once these are identified, the facilitator will explore discussions about specific areas, new development density and housing types.

Stakeholder Engagement Process

Stakeholder engagement is crucial. A collaborative approach improves the quality of the analysis and fosters community support for proposed strategies. Participants should include local government officials, community leaders, housing developers, representatives of major employers, utility providers, and non-profit organizations. Effective stakeholder engagement ensures that planning processes are inclusive, based on local knowledge, and reflect the community's needs and priorities. To effectively engage stakeholders, the process includes a structured approach with multiple touchpoints.

Providing summaries and other resources prior to the workshops allows participants to review and reflect on the content, equipping them with the knowledge to participate fully in discussions.

Engaging Your Stakeholders

When implementing this process, it's ideal to engage decision makers, stakeholders, and residents with diverse perspectives, levels of authority, expertise, and insights. Many counties and local governments have standing committees, boards and/or task forces that are focused on single issues, such as affordable housing and sustainability. Assessing your existing networks to identify potential participants is a good first step. These networks provide valuable connections and insights into the stakeholders most relevant to the project. Bringing everyone together can support more productive discussions, develop creative and practical strategies and build consensus for future actions.

Identify key influencers who can help drive support for the planning process. These might include elected officials, influential community leaders, or representatives from organizations that play a significant role in local housing or resilience efforts. Engaging these individuals early and often can help build momentum and encourage broader community buy-in.

It is essential to ensure that the invited stakeholders represent the community's demographics. Involving a wide range of voices helps to create a more comprehensive and equitable planning process. Working with local neighborhood groups who have relationships with residents, renters, and the housing non-profits who support individuals with disabilities are best practices. Through these efforts, local governments can develop an inclusive stakeholder engagement process that reflects the community's diverse needs and priorities. This approach lays the foundation for developing resilient, affordable housing strategies supported by and beneficial to the community.

List of Stakeholders

- ✔ **Local Government Staff:** City planners, housing directors, economic development, floodplain administrators, zoning, infrastructure, emergency management directors.
- ✔ **Elected Officials:** Mayors, City Council and County Commissions – these should be engaged through standing committee or commission meetings, or through individual meetings to obtain input on specific community areas. If they are invited to attend workshops, Sunshine protocols will be needed.
- ✔ **Housing Developers, Public Housing Authorities:** These stakeholders bring practical insights into the feasibility and challenges of constructing resilient, affordable housing, including costs, timelines, and regulatory hurdles.
- ✔ **Major Employers:** In areas where housing needs are influenced by local employment patterns, representatives from major employers can provide valuable perspectives on workforce housing needs.

✔ **Utility Providers and Infrastructure Experts:** Utility companies and infrastructure experts are critical for discussions about the capacities and limitations of existing systems, which are vital for planning new developments.

✔ **Community Leaders and Non-Profit Organizations:** Leaders from community groups and non-profits who directly connect to vulnerable populations can speak to the needs and priorities of those often underrepresented in planning processes.

✔ **Residents and Community Members:** Directly engaging with residents, especially those from vulnerable or marginalized groups, ensure that the voices of those most impacted by housing decisions are heard.

Conducting Pre-Workshop Surveys

After identifying the stakeholders and areas, it is important to implement a pre-meeting survey to gather initial input on critical issues and priorities and identify common themes. By allowing stakeholders to provide feedback anonymously, the survey can reveal candid insights that might not surface in a public setting, helping to address potential conflicts or alignments early in the process.

Implementing a pre-workshop survey that identifies community priorities for locating new affordable housing will enhance the overall effectiveness of the workshops. A well-written survey sets the stage for focused, data-driven discussions and promotes transparency. This approach lets participants consider the issues early and react to concrete data during the initial meeting. It also helps workshop facilitators to identify stakeholder priorities and challenges early and prepare for the workshop.

The core goal of the survey is to compile input on priorities that will drive the scenarios and mapping. The questions address the two primary categories of planning issues: 1) What level of flood or environmental risk is acceptable, and 2) which services/amenities are most important? Because participants may score all potential characteristics highly, the survey is designed to rank potential competing characteristics. The survey also includes open-ended questions to identify insights or concerns that the structured questions may not have directly addressed.

Ultimately, the pre-workshop survey lays the groundwork for a more informed and productive stakeholder engagement process. The GOMA Resilient Affordable Housing Pilot Project survey is included in the Appendix.

Meetings to Discuss Survey Findings and Clarify Community Priorities

After the survey is implemented, the project team should plan to host several virtual meetings to discuss the project's goals and review the survey results with stakeholders. The facilitator presents the survey questions and responses and asks clarifying questions to obtain context on the rankings and scores. After reviewing the criteria, the facilitator also reviews the in-person workshop agenda, clarifies expectations, and familiarizes stakeholders with the data that will be used.

For example, in the Bay County pilot project, the survey findings prioritized proximity to the military installation. In the discussion of results, the stakeholders indicated that "proximity" could be defined by metrics other than miles traveled. Another discussion about amenities identified that child-care services should be included in new developments to reduce travel and traffic congestion.

Convening stakeholder groups to discuss their survey findings and priorities that are visualized will enhance collaborative decision making about resilient housing development.

Workshop Overview

The workshop can be held in three to four hours, or longer. In general, it's optimal to allocate 30-45 minutes per housing scenario exercise to support deep discussions of the issues, needs, and recommendations for action. The activity time should also be developed with consideration of the participants' level of knowledge.

The workshops use an iterative process, which draws on the preferences/priorities defined by stakeholders in the pre-workshop surveys, seeks to validate or reconfirm their priorities and then facilitates discussion to create recommendations for action. It is important to explain that participants will have the opportunity to clarify priorities, and see their preferences visualized, all of which may result in revisions to the priorities.

Physical Set Up: The process is best implemented with multiple tables for small group discussions and includes large maps and one facilitator and notetaker per table. If the project team is using a dynamic mapping platform such as the CHARM tool and weTable, projectors will be needed for each table. If there is a desire for one large group discussion, a projector can be aimed at the wall.

Agenda Flow: The project lead will kick off the meeting with introductions, including the participants and provide an overview of the activities and goals. The local housing or community planning lead would then present information on the area's housing needs assessment, community development areas, housing construction goals and any specific regulations or programs that those goals support. Ideally, the local floodplain administrator or resilience officer will present information on recent disaster impacts, areas of repetitive flood loss, the vulnerability assessment findings. and the community priorities for risk avoidance and any areas with new public works/ infrastructure.

The project lead will then describe the first activity, and review the community defined flood risk tolerance and explain how that will define areas to avoid. The participants will then move to the tables and take a few minutes to look at the map data layers before the facilitated discussions with the visualizations begin. For example, comparing the boundaries of the 1 % and 0.2 % storm and discussing awareness of areas that are prone to flooding.

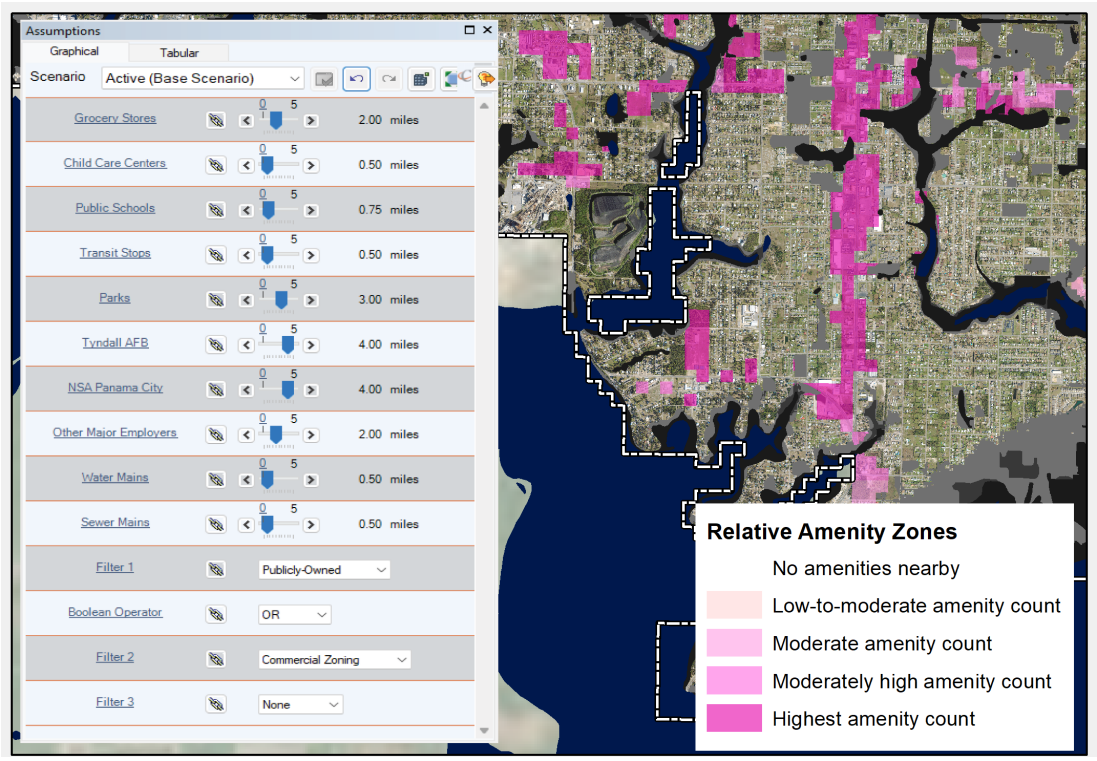
Priority Ranking for Each Exercise: The participants will be asked to recommit to the ranking or make changes as they see fit. Each participant will use their worksheet to document their ranking score. The table notetaker will use the information to calculate the table's average score. The averages can then be used to determine the strength of the preference as an initial benchmark.

Density Exercise: After completing the risk avoidance and development priorities exercises, one of the most important activities is identifying each of the new potential development areas and their current zoning. Participants should be led through an exercise to consider current zoning density and any benefits that an increase in zoning density would provide the community.

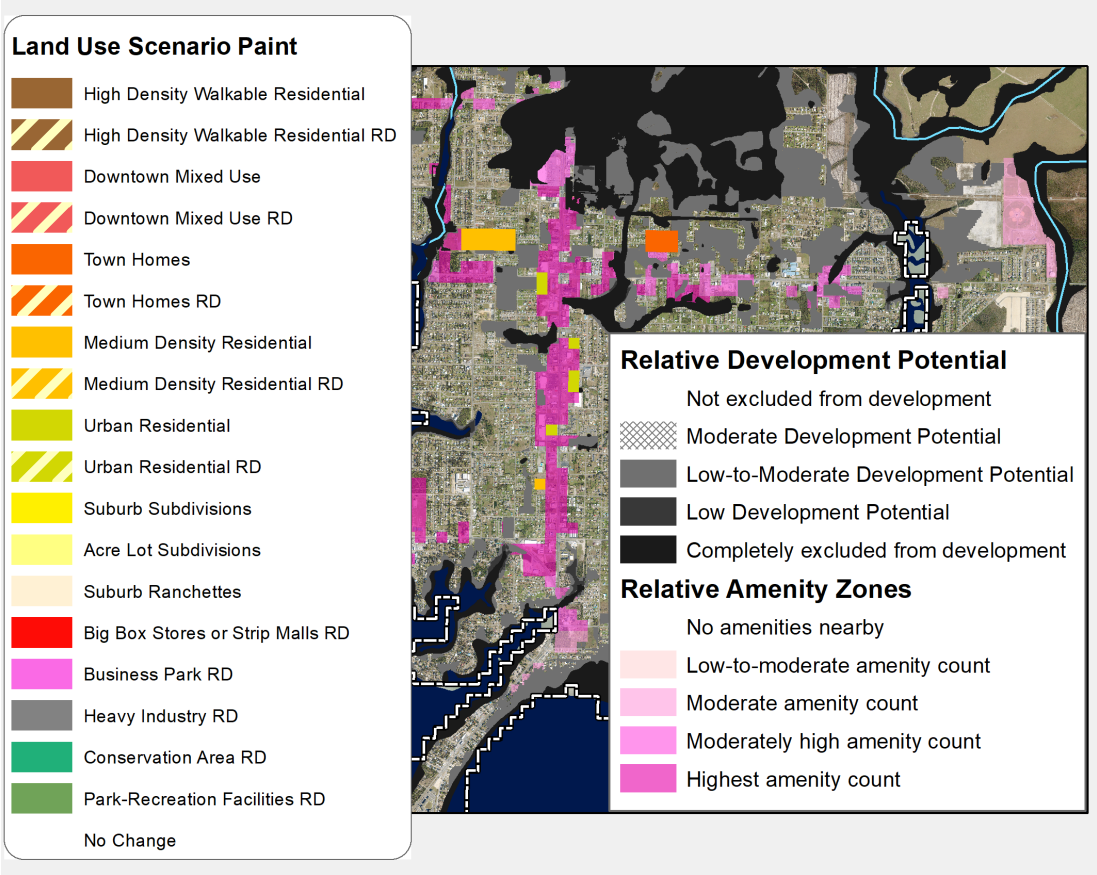
The CHARM tool enables easy analysis and instant calculation of potential units and can visualize different levels of density: for example, changing single family to allow townhouses and rowhomes for a neighborhood that borders a mixed-use area that will be developed with 4 story multi-family. Handouts with information on the community zoning density allowances should be provided for the participants.

Integration Discussion: The facilitator at each table will review and recap the total potential – define each of the areas prioritized for affordable housing development and range of units and types. Define the new housing ideas and strategies i.e. upzoning or specific audiences and notes regarding how these areas will support the housing needs assessment totals/ goals.

Wrap Up: At the end, participants should be brought back to one group and asked to share their experiences and recommendations. Did the workshop clarify areas of high and low risk? Did they get a sense of new feasible strategies for the community? Did they identify policy or zoning changes or funding which might be needed to achieve the realization of these results?



Allowing participants to record their collective prioritization rankings for risk avoidance and proximity to amenities enables identification of potential areas for affordable housing development.



Participants can "paint" land uses to assess future scenarios, with real-time feedback on population and housing counts.

Data Preparation to Support the Workshop

Once the planning exercises have been defined, the project lead can work with the data team to identify the datasets that are needed to support the analysis and inform the exercises.

Accessing the data may require engaging your flood plain administrator, university researchers, and other dataset owners. If locally customized hazard, risk, and vulnerability data is not available, local government staff can use free mapping tools developed by national and state agencies to prepare the local multi-level analysis of risk and proximity.

Data is central to planning processes that enable stakeholders to have productive, informed conversations, and to draw meaningful conclusions. The data used in the exercises will inform outputs and action items that can support the identified goals.

Data selected for any planning process should:

- *Have a suitably high spatial resolution:* While there are many national-, state-, county-, or city-level datasets, these may not provide enough spatial variability to be useful or beneficial to local stakeholders and decision-makers. Datasets with higher spatial resolutions provide more localized insights and richer dialogue in an interactive planning process. .

- *Be accessible:* Depending on the institution employing these processes of data-driven community engagement, what is accessible may differ. Factors to consider include cost, public vs proprietary sources, shareability and other terms of use, or even the amount of data validation or processing required for a high-potential dataset to be usable.

- *Be Appropriately Sourced:* Pulling in data from sources that are respected by the community is also important to carrying out a successful planning process. All data sources and collection processes for new data should be documented and disclosed as part of the planning process so credibility and any limitations can be established early on. This will be critical to project teams and community stakeholders to support conversations around what the data shows.

- Depending on the goals of the project, preferred datasets may be difficult to obtain at a higher resolution; however, there may be adequate proxies within a range of acceptable limitations. For example, a dataset that might be difficult to obtain and/or share might be the percentage of homes without homeowner's or flood insurance in a block group, but a possible proxy for such information may be the estimated percentage of homes without mortgages

Tools for Interpreting, Visualizing, and Sharing

Most datasets can be visually and spatially enabled through navigable maps, dashboards, and widgets, elements which can help facilitate and guide constructive discussions for both a technical and non-technical audience. The GIS analyst or an external planning consultant may need to be hired to use the advanced data tools and combine the data layers and prepare visuals to collect input from the stakeholders.

At the most basic level, large paper maps can be plotted and used as backdrops for specific discussion points, using markers and sticky notes to indicate preferences.

At the other end of the spectrum, interactive modeling and scenario planning tools such as CHARM can be used which can dynamically integrate multiple data sets and outputs based on changing parameters defined by the community. The CHARM models utilize Esri ArcGIS and the CommunityViz (CViz) software extension combined with a weTable setup. This enables a group of stakeholders to interact with the local data in a tabletop setting.

The benefit of the CHARM platform is that much of the data (or similar) contained in these separate viewers, in addition to a curated collection of other data, are housed "all in one place", and participants can make references to different layers using slider bars, radio buttons, and drop-down menus to toggle assumptions and preferences. Outputs enable participants to quickly understand spatial contexts and real-time impacts.

The weTable setup can be used with any data platform and enables the maps to be projected onto a table. It supports easier viewing and more comfortable and engaged interaction with a group of stakeholders.

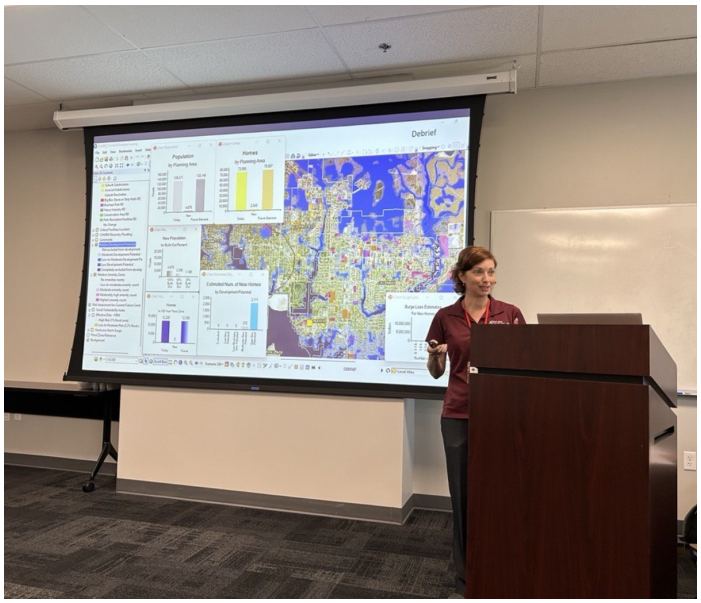
Regardless of the platform, with thoughtful planning of the desired scenarios and the flow of the engagement exercises, simple worksheets and other hard copy visual guides, and thoughtful facilitation of the group discussion, a project team can comfortably maneuver an affordable housing planning engagement process with community stakeholders and decision-makers.

The data tools listed below can be used in conjunction with worksheet-based activities to create an engagement platform for affordable housing planning exercises. In Florida, housing data can be obtained from the University of Florida GeoPlan Center's Florida Geographic Data Library map viewer[7] and other community vulnerability assessment databases of public affordable housing collected by the Florida Department of Environmental Protection (FDEP).

[7]Florida Geographic Data Library. (n.d.). https://fgdl.org/

Public Mapping Resources

Development Factors	Source	Link/Description
Flood Zones	Federal Emergency Management Agency	FEMA's Flood Map Service Center allows searches of specific addresses to find an individual property's flood zone.
All Hazards	Federal Emergency Management Agency	FEMA's Hazus Program provides tools and data for estimating risk from earthquakes, floods, tsunamis, and hurricanes.
Evacuation Zones	Florida Division of Emergency Management	FDEM's Know Your Zone tool displays evacuation zones.
Storm Surge	National Hurricane Center	Storm Surge Risk Map Viewer https://www.nhc.noaa.gov/nationalsurge/
Current and Future Sea Level Rise	National Oceanic and Atmospheric Administration	NOAA's Sea Level Rise Viewer provides projections for future risk; specific addresses can be searched.
Chronic Flood Events	Federal Emergency Management Agency	FEMA's Historical Flood Risks and Cost tool provides county-level assessment of previous flood loss.
Wetlands	Fish and Wildlife Service	FWS Wetlands Mapper shows ecologically sensitive areas where development is either prohibited or should be avoided.
Brownfields	Environmental Protection Agency	The EPA's EnviroAtlas and Brownfields mapping tool locates EPA-designated brownfields.
Sinkholes	Florida Department of Environmental Protection	The Florida Subsidence Incidents Report Map displays reports of "subsidence incidents," including sinkhole collapses.
Food Deserts	United States Department of Agriculture	The Food Access Research Atlas is a map displaying low-access and/or low-income census tracts across the U.S..
Schools and Childcare	Florida Department of Education Administration	The Florida DOE Schools Map identifies local school zones; the Childcare.gov mapping tool provides resources to find local daycares.
Medical and Dental Services	Florida Department of Health	Florida Health's Dental Providers Mapping Tool and Community Health Program can help locate medical services.
Transit	Florida Department of Transportation	FDOT's statewide transportation maps provide a large-scale overview of transportation systems. Local maps are more suitable for public transit, bike lanes, and more refined analysis.
Green Spaces	National Park Service, Florida State Parks System	The Find Your Park tool identifies NPS-run sites around the state; the Florida State Parks Map displays state parks.



CHARM visualization at community meeting shows locations and potential number of housing units at different densities after integrating multiple planning priorities.

Post-Workshop Follow-up

Finally, post-workshop follow-up is critical for maintaining momentum and capturing feedback on the engagement process itself. These steps will help make the engagement process more inclusive, informed, and aligned with the community's specific needs and priorities.

To ensure that the insights and outcomes of the workshop translate into policy changes at the local level, it is important to define specific follow up actions and assignments that integrate with updates to local plans. The peam can check in with regional councils, housing nonprofits and other housing leaders for further insight and to identify successful stories from other communities.

The project team can combine the maps and findings into PPTs and prepare executive summaries for committee and commission meetings to continue stakeholder engagement and discussions on the processes for integrating resilient and affordable housing development.

Integrating results into a city or county's comprehensive plan, housing action plan, disaster recovery plan and ordinances are key to creating tangible change. By ensuring that the follow-up materials are closely related to the local government or county's planning activities, the team can help the community transform insights from workshops into practical and meaningful policy changes.

Even without a comprehensive plan or ordinance update, the workshop results can still serve as a valuable resource. For instance, cities and counties can use the data and feedback to inform targeted policy initiatives such as small-scale comprehensive plan amendments, zoning amendments, development incentives, or hazard mitigation strategies. These incremental changes can cumulatively advance resilience and housing goals without a full-scale plan update.

Additionally, local governments can utilize the workshop outcomes to prioritize grant applications, guide community engagement efforts, or influence budget allocations for resilience and affordable housing projects.

Conclusion

The framework and methodologies presented in this guide are a solid starting point for incorporating resilience into affordable housing planning. As communities face increasing challenges from natural hazards, it is crucial for housing and land-use planning to take a proactive approach to addressing immediate needs while considering long-term risks. This guide equips planners, local governments, and stakeholders with the tools and strategies to navigate these complex issues, ensuring that housing developments are resilient and accessible.

Resilience and affordability go hand in hand. Communities can help keep housing affordable in the long run by reducing exposure to hazards, damage and costly recovery efforts. Integrating resilience into housing planning is an opportunity to strengthen communities, create healthier environments and economies and optimize public investment.

The strategic use of Geographic Information Systems and other data-driven scenario planning tools enables decision-makers to visualize risk, evaluate different development scenarios, and choose the most appropriate locations for resilient housing. This method ensures that communities can make well-informed decisions considering competing priorities, such as land availability, hazard exposure, and infrastructure costs.

Involving stakeholders throughout the planning process is indispensable. Local governments must do this work in collaboration. Planning requires input and cooperation from local officials, developers, non-profit organizations, and community members. Structured engagement strategies ensure that the voices of those most affected by housing decisions are heard and considered.

Whether this work is performed by local government staff, regional planning councils, or private consultants, the methodologies outlined here support affordable and safe housing development. The approach detailed in this guide ensures that new housing offers both safety and opportunity for all residents. By engaging in thoughtful planning, making data-informed decisions, and involving stakeholders meaningfully, this guide can assist communities in laying the foundation for a more resilient and fair future.

APPENDIX A:
BAY COUNTY RESILIENT AND AFFORDABLE HOUSING RECOVERY CASE STUDY

Bay County, Florida is located in the Florida Panhandle. In 2018, the community was impacted by Hurricane Michael, a Category 5 storm which caused widespread devastation. The high winds and storm surge damaged thousands of homes, leaving many more uninhabitable and displaced numerous residents. The loss of housing was further compounded by the need to rebuild much of the community's economic infrastructure, creating a bottleneck for residents, visitors, and workers.

The reopening of Tyndall Air Force Base was key to supporting the local economy. The base's growth plans have created additional demand for housing. To meet these challenges, Bay County used a comprehensive planning approach that combined the principles outlined in this guide and leveraged state housing finance programs.

The Live Local Act law established in 2022 and SAIL (another housing funding mechanism) which incentivizes the development of new workforce housing within a 10-mile radius of the entrance to military installations, made this a prime opportunity for Bay County to align its housing planning efforts with state funding priorities.

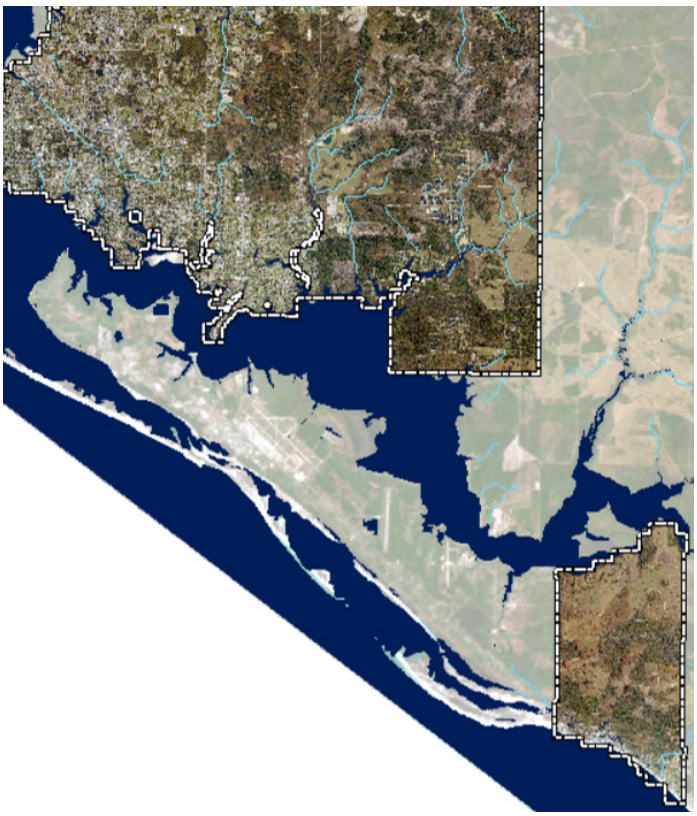
To evaluate potential locations, Bay County's housing team worked with the Texas A&M University Extension's CHARM platform, a GIS-based scenario planning tool, to analyze potential housing sites. Supported by the Florida Housing Coalition and the Emerald Coast Regional Council, they conducted interactive workshops with local stakeholders, including housing developers, county officials, and representatives from Tyndall AFB and Naval Support Activity Panama City.

The team utilized the CHARM platform to overlay risk data, such as flood hazards and storm surge zones, with ideal locations to build based on proximity to crucial infrastructure, transportation networks, and community services. They were then able to target available parcels of land suitable for housing. This process allowed participants to visualize different development scenarios and assess the resilience of potential sites.

As a result of these workshops, several high-priority areas for resilient workforce housing development were identified. A county-owned parcel approximately 8 miles from the base entrance was chosen as a prime location for a new affordable housing development. The site is outside major flood zones, accessible from Tyndall AFB, and close to other essential services. By prioritizing this site, Bay County positioned itself to apply for state funding under the military workforce housing program, strengthening the project's financial feasibility.

Bay County is just one example of how communities can use the strategies outlined in this guide to address local needs through a data-driven, participatory process. The resulting development is poised to provide stable, affordable homes for hundreds of residents while supporting the county's broader goals of building a more resilient community.

As Bay County continues to rebuild and grow, this project serves as a model for other communities facing similar challenges. Any community can integrate resilience and affordability in housing planning by using structured scenario planning tools and engaging key stakeholders throughout the process.



APPENDIX B:
WORKSHOP AGENDAS

CHARM

Resilient & Affordable Housing Workshop

Bay County, Florida

Agenda

TUESDAY
June 25, 2024

Bay County
Government Center
Training Room - 3rd Floor
840 W 11th Street
Panama City, FL 32401

Doors Open & Sign-in
8:30 AM CDT

Welcome and Workshop Overview
9:00 AM CDT

CHARM Orientation & Exercise 1
10:00 AM CDT

Break
10:45 AM CDT

CHARM Exercise 2 & Scenario Painting
11:00 AM CDT

Lunch
12:30 PM CDT

Group Discussion & Participant Feedback
1:00 PM CDT

Next Steps & Closing Remarks
1:55 PM CDT

Adjourn
2:00 PM CDT

Texas A&M AgriLife Extension · Texas Community Watershed Partners · Florida Housing Coalition · Emerald Coast Regional Council · Gulf of America Alliance

CHARM

Resilient & Affordable Housing Workshop

Walton County, Florida

Agenda

WEDNESDAY
June 26, 2024

Northwest Florida State College
Chautauqua Center
908 West Highway 90
DeFuniak Springs, FL 32433

Doors Open & Sign-in
10:00 AM CDT

Welcome and Workshop Overview
10:15 AM CDT

CHARM Process & Bay County Summary
10:30 AM CDT

Break & Interaction with CHARM Platform
11:15 AM CDT

Group Discussion & Participant Feedback
11:30 AM CDT

Next Steps & Closing Remarks
11:55 AM CDT

Adjourn
12:00 PM CDT

Texas A&M AgriLife Extension · Texas Community Watershed Partners · Florida Housing Coalition · Emerald Coast Regional Council · Gulf of America Alliance

APPENDIX C:
STAKEHOLDER PRE-WORKSHOP SURVEY

Workforce Housing Development Near Military Installations

As we've progressed with the Military Installation Resilience Review across the panhandle over the last year, the growing demand for additional workforce housing has emerged as a critical concern. In anticipation of our upcoming regional MIRR recommendations and the deployment of innovative planning tools, we seek your insights to guide the decision-making process for future housing development sites.

Please evaluate the significance of each listed factor in determining suitable locations for new housing projects. Rate each factor on a scale from 1 to 10, with 1 signifying no importance and 10 indicating maximum importance. We then ask you to identify and rank your top five priorities.

Your participation is invaluable, and we encourage you to submit your responses by April 10th.

The findings from this survey will be discussed in detail during our CHARM stakeholder sessions scheduled for April 12th and 17th. Please reach out with any questions to:

First Set of Questions:
For each of the following factors, please score the importance on a scale of 1 to 10, where 1 indicates the factor is totally unimportant to you, and 10 indicates it is of utmost importance. Your input will guide us in making informed decisions that best serve the needs of military personnel and their families.

It is important to locate future workforce housing…

...away from protected wetlands and other environmentally sensitive areas to protect the natural environment.

1 2 3 4 5 6 7 8 9 10

...where flood insurance costs remain affordable for residents.

1 2 3 4 5 6 7 8 9 10

...within 3 miles of job centers to reduce commute times and alleviate traffic congestion.

1 2 3 4 5 6 7 8 9 10

...on low-cost parcels to reduce the overall development costs.

1 2 3 4 5 6 7 8 9 10

...in areas of relatively high poverty to foster economic opportunity within those communities.

1 2 3 4 5 6 7 8 9 10

...within 0.5 mile of transit stops to decrease transportation costs and traffic congestion.

1 2 3 4 5 6 7 8 9 10

APPENDIX C:
STAKEHOLDER PRE-WORKSHOP SURVEY CONTINUED

...within 1 mile of a grocery store to ensure easy access to healthy food options.

1 2 3 4 5 6 7 8 9 10

...according to the Future Land Use Map of the Comprehensive Plan to reinforce preferred land uses and maximize the use of existing infrastructure.

1 2 3 4 5 6 7 8 9 10

...within 5 miles of a fire station to enhance emergency response capabilities and safety.

1 2 3 4 5 6 7 8 9 10

...within 3 miles of a medical facility to improve access to emergency and routine medical care.

1 2 3 4 5 6 7 8 9 10

...within 0.5 mile of existing water and sewer infrastructure to utilize available infrastructure efficiently and sustainably.

1 2 3 4 5 6 7 8 9 10

...in highly ranked school zones to provide quality educational opportunities for children.

1 2 3 4 5 6 7 8 9 10

...in school zones with the capacity for additional students to minimize the need for new school construction.

1 2 3 4 5 6 7 8 9 10

...within 10 miles of the entrance to a military installation.

1 2 3 4 5 6 7 8 9 10

...close to existing daycare centers to support families with young children.1

1 2 3 4 5 6 7 8 9 10

APPENDIX C:
STAKEHOLDER PRE-WORKSHOP SURVEY CONTINUED

Rank your top five most important factors

Please identify and prioritize your top five most important factors by dragging these to the top of the list below. Although the list will automatically number all factors, please note that only the first five factors - those you place at the very top will be considered your highest priorities.

- ◯ ...away from protected wetlands and other environmentally sensitive areas to protect the natural environment.
- ◯ ...within 0.5 mile of transit stops to decrease transportation costs and traffic congestion.
- ◯ ...in areas not prone to coastal and river flooding, enhancing residents' safety during extreme weather.
- ◯ ...close to veteran's services to support the specific needs of military veterans.
- ◯ ...within 10 miles of the entrance to a military installation.
- ◯ ...in areas of relatively high poverty to foster economic opportunity within those communities.
- ◯ ...on low-cost parcels to reduce the overall development
- ◯ ...in school zones with the capacity for additional students to minimize the need for new school construction.
- ◯ ...within 3 miles of a medical facility to improve access to emergency and routine medical care.
- ◯ ...in highly ranked school zones to provide quality educational opportunities for children.
- ◯ ...within 0.5 mile of existing water and sewer infrastructure to utilize available infrastructure efficiently and sustainably.
- ◯ ...within 1 mile of a grocery store to ensure easy access to healthy food options.
- ◯ ...within 5 miles of a fire station to enhance emergency response capabilities and safety.
- ◯ ...according to the Future Land Use Map of the Comprehensive Plan to reinforce preferred land uses and maximize the use of existing infrastructure.
- ◯ ...close to existing daycare centers to support families with young children.
- ◯ ...where flood insurance costs remain affordable for residents.
- ◯ ...within 3 miles of job centers to reduce commute times and alleviate traffic congestion.

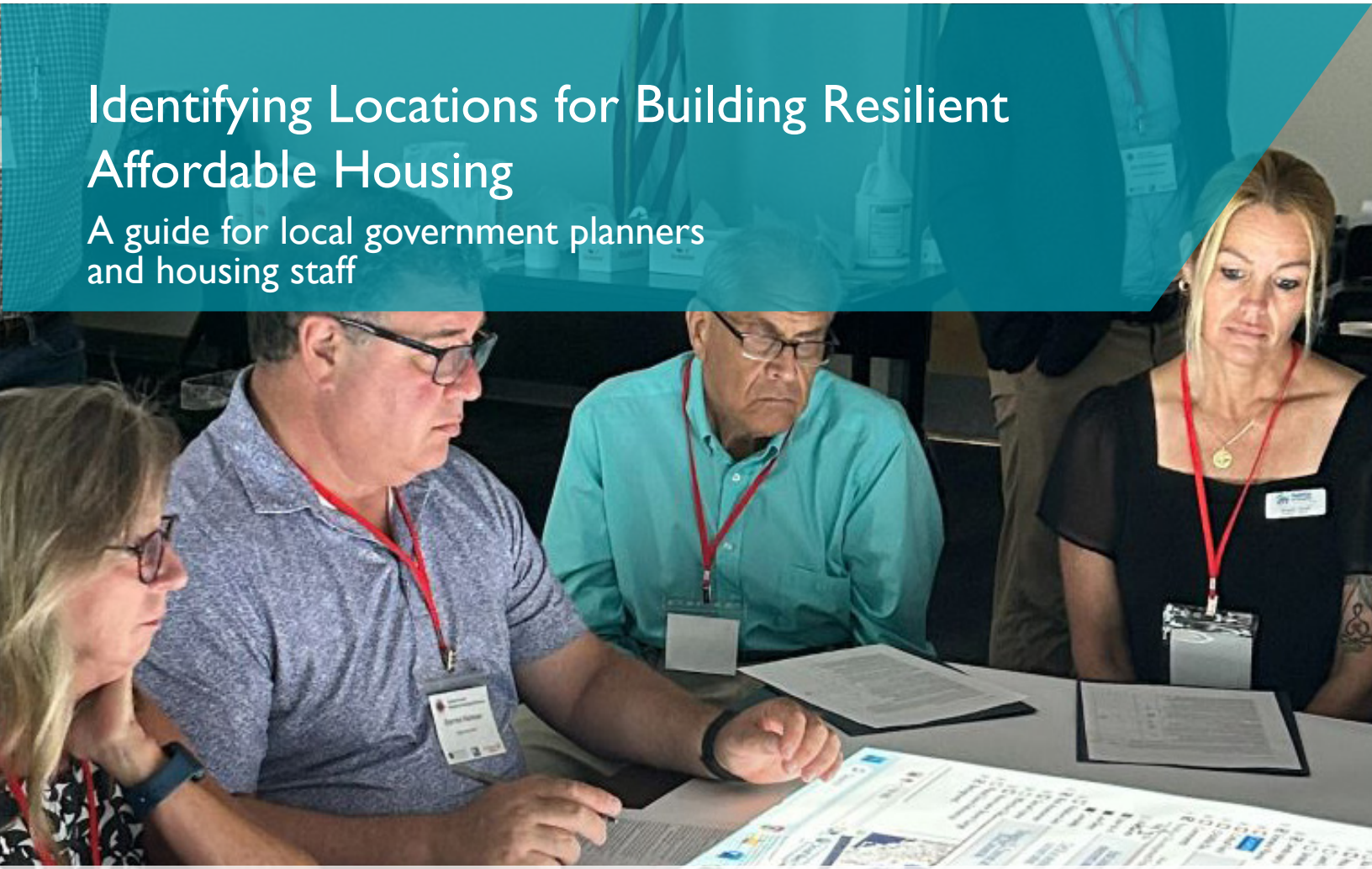
NOTES

FLORIDA HOUSING COALITION
1311 N. PAUL RUSSELL ROAD, B-201
TALLAHASSEE, FL 32301

ADDRESS SERVICE REQUESTED

Identifying Locations for Building Resilient Affordable Housing

A guide for local government planners and housing staff



FLORIDA HOUSING COALITION

EMERALD COAST REGIONAL COUNCIL 2.0

TEXAS A&M AGRILIFE EXTENSION
DISASTER ASSESSMENT AND RECOVERY

GULF of AMERICA ALLIANCE