

A QUALITATIVE CONTENT ANALYSIS OF HAZARD
MITIGATION PLANS IN TEXAS

DIRECTED RESEARCH

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1. Introduction

Disasters caused by natural hazards affect the United States every year, causing billions of dollars in damages annually (FEMA 2019). In recent history, the state of Texas has experienced more natural disasters than any other in the U.S. (FEMA 2019), and most climate scientists believe that climate change will increase the occurrence and magnitude of weather-related disasters (Harvey 2018). While it is impossible to completely eliminate risk to natural disasters, the losses experienced can be lessened by mitigation. The Federal Emergency Management Agency (FEMA) defines mitigation as “sustained actions taken to reduce or eliminate long-term risk to people and property from hazards and their effects” (FEMA 2019). More than ever, it is important for local communities to mitigate against natural hazards, and to focus on achieving disaster resilience.

One way that communities engage in mitigation is by developing a Hazard Mitigation Plan (HMP). Hazard mitigation planning is a collaborative approach in which communities identify natural hazards affecting their area, develop a vulnerability and risk assessment of their community, and determine how to manage and mitigate the risks presented by those hazards. Having an HMP is a federal requirement if state, local, and federally recognized tribal governments wish to be eligible to receive federal funding through FEMA to implement hazard mitigation projects. Hazard Mitigation Plans serve as a long-term strategy for local communities to become resilient to natural hazard losses by breaking the cycle of disaster damage in providing a blueprint for recovery and rebuilding. They also help to provide communities with a clear direction towards resiliency, by providing a framework for mitigation implementation. The quality of the plan is, therefore, very important to prevent haphazard approaches to hazard mitigation. However, research into plan quality in the state of Texas, the hardest disaster-hit

state, is limited. This study aims to focus on plan quality in the state of Texas, and to answer two research questions:

1. What quality indicators are most frequently missed in HMPs?
2. How does plan quality vary across the state?

The HMPs assessed in this study are all FEMA approved, multi-jurisdictional county-level plans from across Texas. This report is structured in the following manner: Section 2 will discuss the background and history of FEMA, and the several sources of mitigation grant funding. Section 3 will cover the prevailing literature on hazard vulnerability and planning. Section 4 will cover methodology, including the plans sampled, the evaluation matrix and why indicators were selected, and the study limitations. Section 5 will present the analysis of the plans beginning with how the plans performed in general and following with a detailed examination of the planning elements and their scores. The final section, Section 6, will provide a summary of findings and a discussion of the implications of these findings for future mitigation planning efforts.

2. Background

The Federal Emergency Management Agency can trace its roots back to the Congressional Act of 1803, which was enacted following a massive fire that wiped out large areas of Portsmouth, New Hampshire. Prior to this act, disasters were managed with local resources. The Portsmouth fire exceeded local capabilities and highlighted the need for federal assistance. The next development in emergency management came with the Disaster Relief Act of 1950, which gave the President the authority to issue disaster declarations and allow Federal agencies to provide direct assistance to state and local governments. However, this act was primarily focused on civil defense following World War II. It was not until numerous devastating natural disasters affected the country in the 1960s and 1970s that focus was drawn away from civil defense, and toward the need for well-coordinated response and recovery following a natural disaster. The Disaster Relief Act of 1974 established the process for Presidential Disaster Declarations. Finally, to ensure coordination of federal response, President Carter's 1979 Executive Order merged the many separate disaster-related responsibilities into the Federal Emergency Management Agency (FEMA 2019).

Communities with a FEMA approved Hazard Mitigation Plan are eligible to apply for federal funding to help with the costs of implementing hazard mitigation projects, including the costs of developing the HMP itself. Federal funding for mitigation is issued through two main grant programs: the Pre-Disaster Mitigation (PDM) grant program, and the Hazard Mitigation Grant Program (HMGP). The Robert T. Stafford Disaster Relief and Emergency Assistance Act authorizes both of these programs. The Robert T. Stafford Disaster Relief and Emergency Assistance Act was signed into law on November 23, 1988, amending the Disaster Relief Act of

1974. The Stafford Act holds the authority for most Federal disaster response activities (FEMA 2018), including the funding of the PDM and HMGP programs for mitigation activities.

The PDM program is designed to help states, local, and tribal governments in implementing mitigation strategies and actions. Each year has a PDM cycle, and communities with approved HMPs are eligible to apply for funding. Unlike PDM, which is issued each year and is not tied to a specific disaster, HMGP funding is activated only if there is a Presidential Disaster Declaration. After a disaster, if it is apparent that federal assistance may be required to manage recovery efforts, state governors and tribal leaders may ask for a Presidential Disaster Declaration, which is at the discretion of the president to issue (FEMA 2018). Once a disaster is declared, funding will open for the HMGP, and applicants can apply for mitigation funding. In the last decade, Texas has received fifteen Presidential Disaster Declarations (FEMA 2018).

As previously stated, in order for a community to get their HMP approved by FEMA, they must first structure the plan to meet the requirements of the Stafford Act and Title 44 Code of Federal Regulations (CFR) §201.6.1 (FEMA 2011). Plan requirements are broken into five categories: the planning process, risk assessment, mitigation strategy, update requirements, and plan adoption.

The planning process serves as an outline of how the plan was prepared, and how decisions were made. It starts the process of determining what goals the community wishes to achieve by creating a plan and identifying what hazards the community are most vulnerable to and wish to mitigate. It is one of the most important aspects of the plan, as it involves collaboration between public officials, stakeholders, and members of the public to make the decisions that will guide the plan's mitigation strategy. It also serves as a record of planning

actions, so that future leadership and staff may maintain and update the plan when necessary (FEMA 2011).

The risk assessment serves as the bulk of the plan. The risk assessment will analyze each hazard's location of impact on the community, its history of occurrences, its probability of future occurrences, the magnitude that can occur, the community's specific assets that are vulnerable, and the impacts that can be expected. It provides the factual basis and justification for mitigation by outlining the community's vulnerabilities to natural hazards. By identifying these risks, the community may then begin to identify specific mitigation actions they wish to implement in order to reduce their vulnerability to the hazard (FEMA 2011).

The mitigation strategy serves as the long-term framework for reducing losses caused by the hazards profiled in the risk assessment. The section begins by establishing mitigation goals and objectives for the community to follow over the course of the plan's life. The community then uses the risk assessment in tandem with the goals and objectives to guide them in selecting specific mitigation projects they wish to implement, such as land acquisition or building community shelters, to reduce risk. Applying for federal grant funding will then help to implement these agreed upon projects (FEMA 2011).

Mitigation plans must be updated every 5 years if they wish to remain active. Update requirements maintain that the community must evaluate the effectiveness of their previous plan in several ways. First, they must discuss what community development has occurred since the last plan, and how that has affected their vulnerability to natural hazards. Second, they must discuss the mitigation actions from the last plan and whether or not they were implemented. If they were not implemented, they must discuss why. Finally, they must discuss whether any of their goals have changed, or if their method for prioritizing mitigation actions has changed. This

helps the community to see where their strengths and weaknesses are so they may adjust for the new planning cycle (FEMA 2011).

Plan adoption is the final stage of plan requirements. Once FEMA has reviewed and approved all other requirements in the plan, the community becomes free to adopt the plan. This must be done as an official action, and federal funding will not be available to the community until the plan is formally adopted (FEMA 2011).

Several factors in each of these plan requirement categories can be used as indicators of plan quality. In the planning process, stakeholder and public involvement is an indicator of quality, as it leads to a better understanding of the community's risks, and the goals the community wishes to achieve. One of the most important aspects of the risk assessment is the community's catalog of specific assets that are vulnerable to each hazard. A comprehensive view of what critical facilities, infrastructure, and populations are most at risk to hazards is necessary to develop appropriate mitigation actions to limit future losses. In the mitigation strategy, having clear and concise mitigation goals and objectives, with actions that correspond with those goals, will provide the community with a blueprint for implementation.

3. Literature Review

The prevailing literature on hazard vulnerability and planning can be grouped into four themes: hazard vulnerability, plan quality, methods for evaluating plans, and comparing mitigation plans.

Hazard Vulnerability

Susan Cutter has been a leading researcher on social vulnerability to natural hazards. Her 1996 study, “Vulnerability to environmental hazards,” introduced a new conceptual model of vulnerability known as “the hazards of place.” Cutter identified that there are three distinct themes in vulnerability research: vulnerability as risk/hazard exposure, vulnerability as social response, and vulnerability of places. The theme of risk/hazard exposure focuses on the source of biophysical or technological hazards, while the theme of social response focuses on coping responses including societal resistance and resilience to hazards. The third theme, the hazard of place, combines the elements of the former two themes. Cutter argued that the hazard of place theme is more geographically centered, because it defines vulnerability as both a biophysical risk and social response within a specific areal or geographic domain. Due to the variations in theoretical constructs of vulnerability, and the desire to understand the various elements that contribute to hazard vulnerability, Cutter developed a new model of “hazards of place,” as seen in Figure 1.

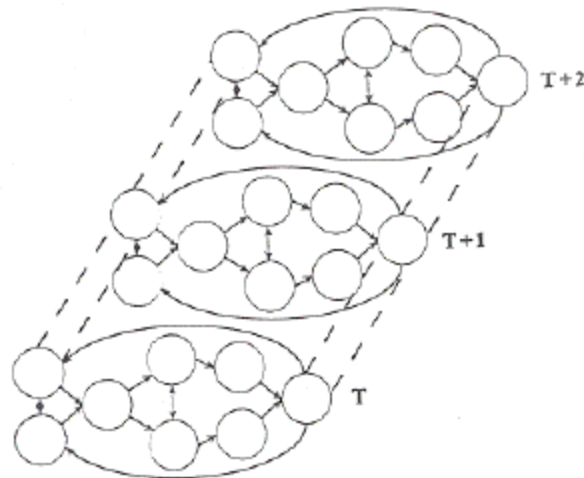
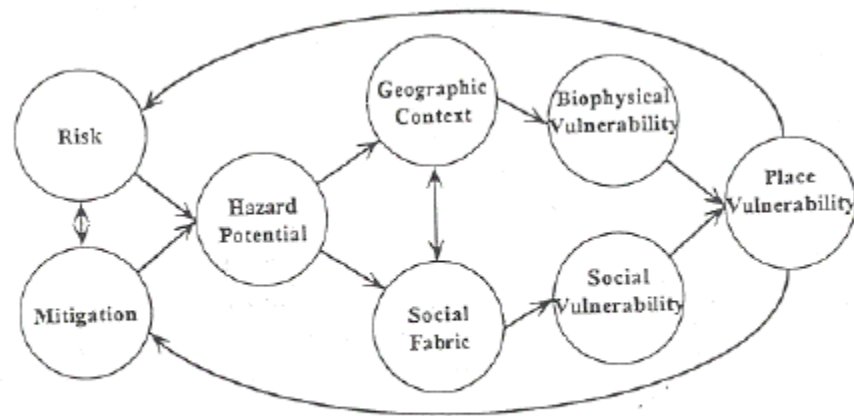


Figure 1. Hazards-of-Place Model
(Cutter 1996)

Cutter’s hazards-of-place model expresses the “various elements that create vulnerability and how they interact to produce the vulnerability of specific places and the people who live there (top). Vulnerability can change over time (bottom) based on changes in the risk, mitigation, and contexts within which environmental hazards occur” (Cutter 1996).

Using the hazards-of-place model, Cutter et al. (2003) developed the now well-known Social Vulnerability Index (SoVI). Using 1990 data comprised of dimensions of social vulnerability, such as personal wealth, age, and the built environment, the study identified areas of the U.S. with the highest density of vulnerable populations. The SoVI could then be used for predicting disaster impacts on vulnerable populations. The SoVI has been adapted and updated over time to reflect changes in social vulnerability across time and space, with continuous examples showing south Texas as a hotspot for social vulnerability to natural hazards (Cutter et al. 2007).

Plan Quality

Mandates from federal and state emergency planning agencies have a significant effect on the level of quality in community mitigation plans. In “The Influence of State Planning Mandates on Local Plan Quality,” Berke and French (1994) examined the influence of state mandates on quality of comprehensive plans from 139 local governments. Applying the Chapin and Kaiser method (1979), Berke and French found that:

- 1) the selected plans employed a factual basis for observing the existing conditions of the community and identifying planning needs;
- 2) the goals of the plans represented general aspirations for alleviating problems; and
- 3) the policies (or actions) of the plans ensured that stated goals could be achieved (Berke and French 1994).

Thus, the researchers concluded that state planning mandates did have a measurable effect in enhancing plan quality, and led to stronger fact basis, goals, and policies. Planning mandates can also help limit land-use development in hazardous areas. Burby (1994) also found that state planning mandates had a strong impact on policy adoption.

However, Bunnell and Jepson (2011) argue that state mandates can sometimes hinder plan quality. In “The Effect of Mandated Planning on Plan Quality,” the researchers (2011) found that when it comes to persuasive and communicative quality of plans, mandated planning did not result in better plans. In states that mandated comprehensive planning, plans tended to be more rigid and less persuasive. However, the involvement of private consultants helped to strengthen the persuasive and communicative features of plans (Bunnell and Jepson 2011).

Community engagement may be one of the most important aspects of the planning process. In “Making Plans that Matter,” Burby (2003) argued the characteristics of good comprehensive plans. His argument states that planners must make an effort to involve a wider array of stakeholders in the planning process. “Evidence from 60 plan-making processes in the states of Florida and Washington indicated that with greater stakeholder involvement, comprehensive plans are stronger, and proposals made in plans are more likely to be implemented” (p. 33). However, in order to garner stakeholder and public involvement, Burby also found that the methods planners use to reach out to stakeholders and the public makes a huge difference in participation. Choice of technique is important: “Use a number of techniques to give and receive information from citizens and, in particular, provide opportunities for dialogue” (p. 33). Additionally, choice of information plays a role: “Provide more information in a clearly understood form, free of distortion and technical jargon” (p. 37). Planners who practice these methods are more likely to receive input from stakeholders and the public.

Citizen participation is also frequently a mandate for many types of plans, including Hazard Mitigation Plans. In “Mandating Citizen Participation in Plan Making,” Brody et al. (2003) evaluated the strengths and weaknesses of citizen involvement mandates. They were able to show that citizen involvement mandates do affect the government's attention to public

participation, but more so, the techniques planners use to solicit participation is more effective, as seen with Burby's 2003 article.

Another study by Brody in 2003, "Are We Learning to Make Better Plans?" compared plans from Florida and Washington to see if hazard mitigation planning had improved in the time from 1991 to 1999. Using the common plan quality components of *factual basis*, *goals*, and *policies or actions*, he found that plans of local jurisdictions improved and that legal reform, repetitive damage to property, and citizen participation can facilitate an adaptive learning process (Brody 2003).

Despite the wide call for as much participation as possible, Brody (2003) found evidence that it's not the number of stakeholders that participate in the planning process that affect quality, but rather it is the specific groups of stakeholders that will help to boost the quality of a plan. In his study 2003 study "Measuring the Effects of Stakeholder Participation on the Quality of Local Plans based on the Principals of Collaborative Ecosystem Management," he argued that rather than focusing on having a complete representation of the public, planners should focus on targeting the specific groups that have an invested interest and knowledge of the topic. Involving organizations and agencies with valuable knowledge of the plan topic will foster innovative ideas to problem solving and strengthen the ability of the final plan to produce its intended outcome (Brody 2003).

Finally, the quality of the plan is shown to be a key factor in the successful implementation of the plan. In "What Drives Plan Implementation?" (Laurian et al. 2004) analyzed 353 permits implementing local environmental plans in New Zealand. The key factors of implementation examined were: 1) the quality of the plan, 2) the capacity and commitment of land developers to implement plans, 3) the capacity and commitment of the staff and leadership

of planning agencies, and 4) the interactions between developers and the agency (Laurian et al. 2004). The analysis showed that the resources of the planning agency, and the overall plan quality influenced plan implementation. This highlights the need for quality in Hazard Mitigation Planning in Texas.

Methods for Evaluation

Plan quality analysis uses the methodology of content analysis, which involves “a systematic reading of a body of texts, images, and symbolic matter” (Krippendorff 2013). In “Measuring and Reporting Intercode Reliability in Plan Quality Evaluation Research,” Stevens et al. (2014) makes recommendations for researchers to improve the quality of their planning research. By focusing on procedures relating to reliability in plan quality evaluation, they hoped to provide procedures for researchers to follow that would allow the production of replicable data. They argued that Krippendorff’s (2013) “ α ” (alpha) formula, which uses the observed counts of 1 if a factor is present in the plan, and 0 if not, is the best method for plan evaluation. Then for reliability, multiple reviewers would review the same plans using the “ α ” count and determine how many mismatching pairs of codes there were, giving a “chance-corrected” agreement coefficient. Calculation and interpretation followed (Stevens et al. 2014).

In “Using Content Analysis to Evaluate Local Master Plans and Zoning Codes,” Norton (2007) analyzed the use of content analysis for evaluating plans. Although this study particularly focused on the evaluation of land-use development in community master plans, the methods of evaluation can be applied to any type of plan, including Hazard Mitigation Plans. In this study, Norton identified two main sources of bias or threat to assessment reliability: 1) that the use of items or plan factors that require subjective interpretation may be scored differently by various reviewers, and 2) the potential of human error by mis-scoring an item. These two reliability

threats are very important for any reviewer to keep in mind when scoring a plan for quality, particularly if the reviewer is doing a solo evaluation.

Comparing Mitigation Plans

To analyze plans for quality, the most common approach is content analysis. This method identifies components that indicate quality and scores the components on a binary or ordinal scale.

In a report prepared for the Texas General Land Office, Peacock et al. (2009) conducted “An Assessment of Coastal Zone Hazard Mitigation Plans in Texas.” They identified that while FEMA requirements are important to meet, they only represent the basic components a plan should have to be approved by FEMA, and do not alone represent the best factors of plan quality. They chose to not only use FEMA requirements as indicators of quality, but also to include Chaplin, Kaiser and Godschalk’s (1995) core components of: 1) factual basis, 2) goals, and 3) policies and actions. By merging the two, they identified seven components of plan quality: 1) vision statement, 2) planning process, 3) fact basis, 4) goals and objectives, 5) inter-organizational coordination, 6) policies and actions, and 7) implementation. They then further broke down those seven components into about 30 sub-components to identify key dimensions of each component. To analyze or score the plans components, they adopted an ordinal coding scheme ranging from 0 to 2 based on how well the plan discussed the component. Plans were scored across all quality elements, then scores were converted into percentages to give a “component quality score.” Since each of the seven components were also broken down into variable numbers of subcomponents, they also developed a “plan quality score,” which was the average of the component scores of a particular plan. They found that of the twelve coastal plans analyzed, averages over all seven components were around 50% or lower, “suggesting areas of

potential improvement that should be undertaken in future iterations of mitigation hazard action plans” (Peacock et al. 2009).

Using similar methods, Berke et al. (2012) did a study to compare State Hazard Mitigation Plans. To increase the reliability of their scores, they had two to four reviewers independently analyze each state plan and code based on quality. Rules were developed to ensure that all reviewers coded as consistently as possible. Index scores for each plan quality component were computed. Results indicated that state plan also have room for improvement. To name a few, the highest score on policies being only 0.97 out of 2, and 0.87 out of 2 for inter-organizational coordination (Berke et al. 2012).

4. Research Methods

The purpose of this study was to evaluate the quality of Hazard Mitigation Plans across the State of Texas. I approached this study using content analysis, by identifying key elements that are indicators of plan quality. This study is based in the field of emergency management, which can be considered a subfield of hazards research.

Data Collection

Data collection consisted of 24 county-level, multi-jurisdictional Hazard Mitigation Plans from across the state of Texas. This meant that the plans were county plans that covered the unincorporated areas of the county, as well as covering the jurisdictions within the county that elected to participate in the plan. The Texas Department of Public Safety - Division of Emergency Management organizes the state into six operational regions, as seen in Figure 2. Region 1 covers North East Texas; Region 2 covers South East Texas; Region 3 covers South Texas; Region 4 covers West Texas; Region 5 covers the Panhandle; and Region 6 covers Central Texas. From each region, four plans were selected for review. Plans were selected to represent a range of population as well as a range of who was responsible for the plan's development, be it the county itself or a paid consultant. For consultant developed plans, consideration was taken as to which consulting firm was hired, to provide a range of firms as well. The selected plans were as follows:

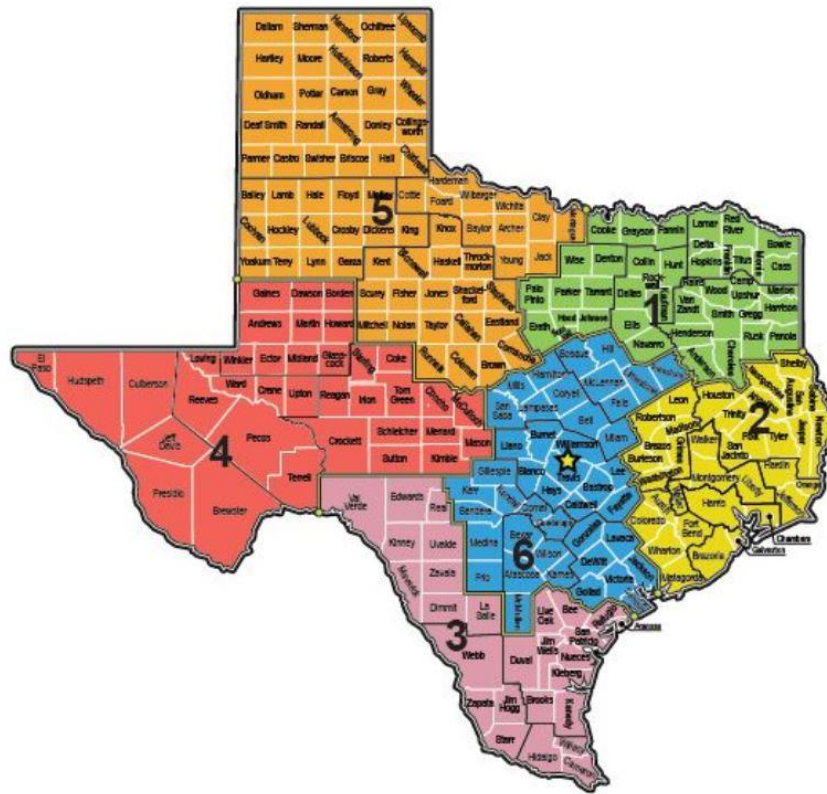


Figure 2. DPS Operational Regions
(DPS 2019)

Region 1: Johnson County, Marion County, Palo Pinto County, and Tarrant County.

Region 2: Brazoria County, Harris County, Houston County, and Sabine County.

Region 3: Bee County, Cameron County, Jim Wells County, and San Patricio County.

Region 4: Brewster County, El Paso County, Jeff Davis County, and Mason County.

Region 5: Gray County, Lubbock County, Moore County, and Wichita County.

Region 6: Bosque County, Hays County, San Saba County, and Travis County.

Data Analysis

Table 1 presents the FEMA requirements for a Hazard Mitigation Plan. There are 38 specific planning requirements to meet, with an additional 6 elements for updated plans only. They are scored on a “Met” or “Not Met” basis. FEMA requirements represent the bare necessities a plan must contain in order to be approved and eligible to receive Federal grant funding. These elements alone do not guarantee a quality plan.

Table 1. FEMA Requirements for HMPs

| Element | Requirements |
|---|---|
| <i>Element A: Planning Process</i> | |
| A1. Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? 44 CFR 201.6(c)(1) | <p>a. Documentation of how the plan was prepared must include the schedule or timeframe and activities that made up the plan’s development as well as who was involved.</p> <p>b. The plan must list the jurisdiction(s) participating in the plan that seek approval.</p> <p>c. The plan must identify who represented each jurisdiction. The Plan must provide, at a minimum, the jurisdiction represented and the person’s position or title and agency within the jurisdiction.</p> <p>d. For each jurisdiction seeking plan approval, the plan must document how they were involved in the planning process.</p> <p>e. Plan updates must include documentation of the current planning process undertaken to update the plan. (updates only)</p> |
| A2. Does the Plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? 44 CFR 201.6(b)(2) | <p>a. The plan must identify all stakeholders involved or given an opportunity to be involved in the planning process. At a minimum, stakeholders must include:</p> <ol style="list-style-type: none"> 1) Local and regional agencies involved in hazard mitigation activities; 2) Agencies that have the authority to regulate development; and 3) Neighboring communities. <p>b. The Plan must provide the agency or organization represented and the person’s position or title within the agency.</p> |

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| | <p>c. The plan must identify how the stakeholders were invited to participate in the process.</p> |
| <p>A3. Does the Plan document how the public was involved in the planning process during the drafting stage? 44 CFR 201.6(b)(1) and 201.6(c)(1)</p> | <p>a. The plan must document how the public was given the opportunity to be involved in the planning process and how their feedback was incorporated into the plan.</p> <p>b. The opportunity for participation must occur during the plan development, which is prior to the comment period on the final plan and prior to the plan approval / adoption.</p> |
| <p>A4. Does the Plan document the review and incorporation of existing plans, studies, reports, and technical information? 44 CFR 201.6(b)(3)</p> | <p>a. The plan must document what existing plans, studies, reports, and technical information were reviewed.</p> <p>b. The plan must document how relevant information was incorporated into the mitigation plan.</p> |
| <p>A5. Is there discussion on how the community(ies) will continue public participation in the plan maintenance process? 44 CFR 201.6(c)(4)(iii)</p> | <p>a. The plan must describe how the jurisdiction(s) will continue to seek public participation after the plan has been approved and during the plan's implementation, monitoring and evaluation.</p> |
| <p>A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? 44 CFR 201.6(c)(4)(i)</p> | <p>a. The plan must identify how, when, and by whom the plan will be monitored. Monitoring means tracking the implementation of the plan over time.</p> <p>b. The plan must identify how, when, and by whom the plan will be evaluated. Evaluating means assessing the effectiveness of the plan at achieving its stated purpose and goals.</p> <p>c. The plan must identify how, when, and by whom the plan will be updated. Updating means reviewing and revising the plan at least once every five years.</p> <p>d. The plan must include the title of the individual or name of the department/ agency responsible for leading each of these efforts.</p> |
| <p><i>Element B: Risk Assessment</i></p> | |
| <p>B1. Does the Plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction? 44 CFR 201.6(c)(2)(i) and 44 CFR 201.6(c)(2)(iii)</p> | <p>a. The plan must include a description of the natural hazards that can affect the jurisdiction(s) in the planning area.</p> <p>b. The plan must provide the rationale for the omission of any natural hazards that are commonly recognized to affect the jurisdiction(s) in the planning area.</p> <p>c. The description, or profile, must include information on location, extent, previous occurrences, and future probability for each hazard. Previous occurrences and future probability are addressed in sub-element B2.</p> |

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| B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? 44 CFR 201.6(c)(2)(i) | <p>a. The plan must include the history of previous hazard events for each of the identified hazards.</p> <p>b. The plan must include the probability of future events for each identified hazard.</p> <p>c. Plan updates must include hazard events that have occurred since the last plan was developed.</p> |
| B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? 44 CFR 201.6(c)(2)(ii) | <p>a. For each participating jurisdiction, the plan must describe the potential impacts of each of the identified hazards on the community.</p> <p>b. The plan must provide an overall summary of each jurisdiction's vulnerability to the identified hazards.</p> |
| B4. Does the Plan address NFIP insured structures within each jurisdiction that have been repetitively damaged by floods? 44 CFR 201.6(c)(2)(ii) | <p>a. The plan must describe the types (residential, commercial, institutional, etc.) and estimate the numbers of repetitive loss properties located in identified flood hazard areas.</p> |
| <i>Element C: Mitigation Strategy</i> | |
| C1. Does the plan document each jurisdiction's existing authorities, policies, programs and resources, and its ability to expand on and improve these existing policies and programs? 44 CFR 201.6(c)(3) | <p>a. The plan must describe each jurisdiction's existing authorities, policies, programs and resources available to accomplish hazard mitigation.</p> |
| C2. Does the Plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? 44 CFR 201.6(c)(3)(ii) | <p>a. The plan must describe each jurisdiction's participation in the NFIP and describe their floodplain management program for continued compliance.</p> |
| C3. Does the Plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? 44 CFR 201.6(c)(3)(i) | <p>a. The plan must include general hazard mitigation goals that represent what the jurisdiction(s) seeks to accomplish through mitigation plan implementation.</p> <p>b. The goals must be consistent with the hazards identified in the plan.</p> |
| C4. Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? 44 CFR 201.6(c)(3)(ii) and 44 CFR 201.6(c)(3)(iv) | <p>a. The plan must include a mitigation strategy that</p> <ol style="list-style-type: none"> 1) analyzes actions and/or projects that the jurisdiction considered to reduce the impacts of hazards identified in the risk assessment, and 2) identifies the actions and/or projects that the jurisdiction intends to implement. <p>b. Each jurisdiction participating in the plan must have mitigation actions specific to that jurisdiction that are based on the community's risk and vulnerabilities, as well as community priorities.</p> |

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| | <p>c. The action plan must reduce risk to existing buildings and infrastructure as well as limit any risk to new development and redevelopment.</p> |
| <p>C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? 44 CFR 201.6(c)(3)(iii) and 44 CFR (c)(3)(iv)</p> | <p>a. The plan must describe the criteria used for prioritizing implementation of the actions.</p> <p>b. The plan must demonstrate when prioritizing hazard mitigation actions that the local jurisdictions considered the benefits that would result from the hazard mitigation actions versus the cost of those actions.</p> <p>c. The plan must identify the position, office, department, or agency responsible for implementing and administering the action (for each jurisdiction), and identify potential funding sources and expected timeframes for completion.</p> |
| <p>C6. Does the Plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? 44 CFR 201.6(c)(4)(ii)</p> | <p>a. The plan must describe the community's process to integrate the data, information, and hazard mitigation goals and actions into other planning mechanisms.</p> <p>b. The plan must identify the local planning mechanisms where hazard mitigation information and/or actions may be incorporated.</p> <p>c. A multi-jurisdictional plan must describe each participating jurisdiction's individual process for integrating hazard mitigation actions applicable to their community into other planning mechanisms.</p> <p>d. The updated plan must explain how the jurisdiction(s) incorporated the mitigation plan, when appropriate, into other planning mechanisms as a demonstration of progress in local hazard mitigation efforts. (updates only)</p> <p>e. The updated plan must continue to describe how the mitigation strategy, including the goals and hazard mitigation actions will be incorporated into other planning mechanisms. (updates only)</p> |
| <i>Element D: Updated Plans Only</i> | |
| <p>D1. Was the plan revised to reflect changes in development? 44 CFR 201.6(d)(3)</p> | <p>a. The plan must describe changes in development that have occurred in hazard prone areas and increased or decreased the vulnerability of each jurisdiction since the last plan was approved. If no changes in development impacted the jurisdiction's overall vulnerability, plan updates may validate the information in the previously approved plan.</p> |
| <p>D2. Was the plan revised to reflect progress in local mitigation efforts? 44 CFR 201.6(d)(3)</p> | <p>a. The plan must describe the status of hazard mitigation actions in the previous plan by identifying those that have been completed or not completed. For actions that have not been completed, the plan must either describe whether the action is no longer relevant or be included as part of the updated action plan.</p> |

| | |
|---|---|
| D3. Was the plan revised to reflect changes in priorities? 44 CFR 201.6(d)(3) | a. The plan must describe if and how any priorities changed since the plan was previously approved. |
|---|---|

(FEMA 2011)

The evaluation matrix in Table 2 was developed based on the FEMA plan requirements, the prevailing literature on plan analysis, and my personal knowledge as a mitigation-planning professional. It is intended to go beyond the scope of basic FEMA requirements, and to convey a more accurate depiction of plan quality. Scoring was also improved, as a simple “met” or “not met” fails to grasp the detail of the element discussed.

The scoring protocol was adopted from Peacock et al. 2009 study of coastal Texas plans. The evaluation matrix contains 6 components and 55 specific planning elements. Scoring was assessed in an ordinal manner, with 0 = not discussed; 1 = generally discussed; and 2 = discussed in detail. This scoring system provided an ordinal scale where the higher the value, the stronger the quality of the planning element, with a total possible score of 110.

If an element was not discussed or described, it received a score of 0. If it was discussed using passive terms such as “should,” “may,” “encourage,” or “suggest,” it received a score of 1. If the element was discussed using active terms such as “will,” “shall,” “mandate,” or “must,” it received a score of 2.

Each of the 55 planning elements was scored for each of the 24 plan samples and given an *element raw score*. Additionally, a *component raw score* for each of the 6 component sets was given, and a *total raw score* for the overall plan.

Because the components contained variable numbers of elements, each component was given a *component quality score (CQS)*, by adding the points of the elements in each component, dividing by the possible points allowed in the component, and multiplying by 100 to produce a

percentage. This allowed for better understanding of which components were strongest in the plans.

The plans were then be given an overall *plan quality score (PQS)* by producing the average of the six *CQS* percentages.

Table 2. Evaluation Matrix

| Component & Sub-Components | Specific Planning Elements Assessed |
|---------------------------------------|---|
| <i>I. Planning Process</i> | |
| 1. General Description | 1.1 General description of planning process |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation 2.2 Multiple outreach methods (email, call, letter) 2.3 Multiple outreach attempts |
| 3. Public Participation Techniques | 3.1 Formal public hearings 3.2 Open meetings 3.3 Workshops or forums 3.4 Online survey 3.5 Call-in hotlines 3.6 Citizen advisory committees |
| <i>II. Fact Basis</i> | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. 4.3 Identification of current or potential evacuation routes or storm shelters |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure 5.2 Assessment of critical facility exposure 5.3 Assessment of infrastructure exposure 5.4 Assessment of social vulnerability 5.5 Description of population figures and future expectations |

| | |
|--|--|
| 6. Risk Analysis | 6.1 Hazard locations 6.2 Historical occurrences 6.3 Magnitude experienced and expected 6.4 Probability of occurrence 6.5 Historical and expected impacts |
| <i>III. Mitigation Goals & Objectives</i> | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies |
| <i>IV. Inter-organization Coordination & Capabilities</i> | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities |

| | |
|--|---|
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans |
| <i>V. Specific Mitigation Actions</i> | |
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation |
| <i>VI. Implementation</i> | |
| 17. Action Implementation | 17.1 Priority of action 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process and timeframe 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness |

In addition to passive vs. active language considerations, the following considerations on level of detail were assessed while scoring plans, including but not limited to:

| | |
|-----------|--|
| 1.1 | General description to include time frame of process, identification of planning team members, and sign-in sheets for attendance of each planning meeting. |
| 2.1 | Invitation of variety of stakeholders, and if they participated. |
| 2.2 | Stakeholder invitations of at least 2 methods. |
| 2.3 | Multiple attempts to solicit stakeholder participation. |
| 3.1 - 3.6 | Multiple methods of public participation and multiple outreach methods to invite public. Did the public participate? |
| 4.1 | Scientific description of the hazard including a scientifically recognized scale of magnitude. |
| 4.2 | How many plan jurisdictions were NFIP participants? |
| 4.3 | Discussion of current or potential storm shelter and evacuation route locations. |
| 5.1 - 5.3 | Assessment of property, critical facilities, and infrastructure vulnerability to hazards including potential dollar loss values. |
| 5.4 | Assessment of social vulnerability including but not limited to age, race, income, disability, language spoken. |
| 5.5 | Description of current population and future expectations. |
| 6.1 | Hazard locations including maps when applicable. |
| 6.2 | Historical occurrences dating back at least 10 years. |
| 6.3 | Magnitude of experienced and worst-case expectations. |
| 6.4 | Numerical probabilities. |

| | |
|-------------|--|
| 6.5 | Historical and expected impacts including past and potential dollar or social losses. |
| 7.1 – 9.5 | Goals as listed in evaluation matrix, with a corresponding object to achieve goal. |
| 10.1 | Identification of capabilities for all plan jurisdictions. |
| 11.1 | Ability to expand or improve using active language. |
| 11.2 | Identification of integration and schedules using active language. |
| 13.1 - 16.5 | Identification of the various actions listed in evaluation matrix, including specific site locations for applicable projects, or comprehensive action to be applied to multiple plan jurisdictions or hazards. |
| 17.1 | Was each action given a priority measure? |
| 17.2 | Did each action have a responsible party for implementation? |
| 17.3 | Did each action have an estimated cost? |
| 17.4 | Did each action identify funding sources? |
| 17.5 | Did each action contain a timeframe for completion? |
| 18.1 - 18.3 | Was the process described with active language? |

Limitations

As the literature suggests, reliability of data is an issue with plan quality research because quality components are often subjective. To combat this issue, most studies into plan quality utilize multiple individual reviewers, with each reviewing the same plan and scoring its content to reach an overall consensus. The limitation with my study was that I am a single reviewer attempting to assess the quality of Texas plans. Future replication of my study to test reliability would be beneficial.

Additionally, it should be noted that the quality indicators identified in this evaluation matrix did not represent the end-all-be-all of quality indicators. There are many more indicators that can be utilized in further study. For the purpose, feasibility, and timeframe of this study, I chose indicators that I believed to be important, and that would provide the jurisdictions with an attainable starting point towards plan quality.

5. Findings

The following table shows the *CQS* and the overall *PQS* for each component and each plan. In analyzing these scores, I chose to adopt a basic academic grading system of A, B, C, D, F:

- 90% and above equaling an “A,” or excellent;
- 80% - 89% equaling “B,” or good;
- 70% - 79% equaling “C,” or average;
- 60% - 69% equaling “D,” or poor;
- below 60% as “F,” or very poor.

As the mean scores at the bottom of the table show, components that were most in need of improvement included Component 1 - Planning Process; Component 3 - Mitigation Goals & Objectives; and Component 5 - Specific Mitigation Actions. All components are discussed further in the following subsections.

| Region & Plan | | Planning Process | Fact Basis | Mitigation Goals & Objectives | Coordination & Capabilities | Specific Mitigation Actions | Implementation | Total Component Raw Score | Plan Quality Score |
|---------------|------------|------------------|------------|-------------------------------|-----------------------------|-----------------------------|----------------|---------------------------|--------------------|
| Region 1 | Johnson | 9 45% | 20 77% | 12 55% | 4 67% | 8 40% | 15 94% | 67 61% | 62 |
| | Marion | 6 30% | 23 88% | 20 91% | 5 83% | 12 60% | 15 94% | 81 74% | 74 |
| | Palo Pinto | 9 45% | 21 81% | 16 72% | 5 83% | 6 30% | 15 94% | 71 65% | 67 |

| | | | | | | | | | |
|---------------------|-----------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|----|
| | Tarrant | 12 60% | 21 81% | 17 77% | 5 83% | 14 70% | 13 81% | 82 75% | 75 |
| Region 2 | Brazoria | 12 60% | 25 96% | 11 50% | 6 100% | 13 65% | 16 100% | 83 75% | 79 |
| | Harris | 12 60% | 23 88% | 12 55% | 5 83% | 17 85% | 14 88% | 83 75% | 77 |
| | Houston | 12 60% | 22 85% | 13 59% | 5 83% | 10 50% | 14 88% | 76 69% | 71 |
| | Sabine | 8 40% | 23 88% | 4 18% | 6 100% | 13 65% | 16 100% | 70 64% | 69 |
| Region 3 | Bee | 11 55% | 24 92% | 11 50% | 5 83% | 10 50% | 16 100% | 77 70% | 72 |
| | Cameron | 10 50% | 21 81% | 13 59% | 6 100% | 12 60% | 14 88% | 76 69% | 73 |
| | Jim Wells | 11 55% | 22 85% | 9 41% | 5 83% | 11 55% | 16 100% | 74 67% | 70 |
| | San Patricio | 12 60% | 21 81% | 13 59% | 5 83% | 14 70% | 16 100% | 81 74% | 76 |
| Region 4 | Brewster | 11 55% | 19 73% | 7 32% | 4 67% | 11 55% | 14 86% | 66 60% | 61 |
| | El Paso | 11 55% | 17 65% | 8 36% | 6 100% | 14 70% | 15 94% | 71 65% | 70 |

| | | | | | | | | | |
|-----------------|------------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|
| | Jeff Davis | 11 55% | 19 73% | 7 32% | 5 83% | 9 45% | 16 100% | 67 61% | 65 |
| | Mason | 12 60% | 23 88% | 15 68% | 5 83% | 12 60% | 16 100% | 83 75% | 77 |
| Region 5 | Gray | 9 45% | 18 69% | 12 55% | 5 83% | 10 50% | 15 94% | 69 63% | 66 |
| | Lubbock | 12 60% | 22 85% | 13 59% | 5 83% | 12 60% | 16 100% | 80 73% | 75 |
| | Moore | 12 60% | 22 85% | 11 50% | 3 50% | 8 40% | 16 100% | 72 65% | 64 |
| | Wichita | 9 45% | 22 85% | 11 50% | 4 67% | 12 60% | 15 94% | 73 66% | 67 |
| Region 6 | Bosque | 7 35% | 15 58% | 11 50% | 4 67% | 13 65% | 15 94% | 65 59% | 62 |
| | Hays | 8 40% | 23 88% | 4 18% | 5 83% | 19 95% | 14 88% | 73 66% | 69 |
| | San Saba | 12 60% | 23 88% | 13 59% | 5 83% | 10 50% | 16 100% | 79 72% | 73 |
| | Travis | 12 60% | 24 92% | 14 64% | 6 100% | 17 85% | 16 100% | 89 81% | 84 |
| Mean | | 10 52% | 21 82% | 12 52% | 5 83% | 12 60% | 15 95% | 75 69% | 71 |
| Max | | 20 | 26 | 22 | 6 | 20 | 16 | 110 | 100 |

Component I - Planning Process

One of the most important aspects of the plan is the planning process. In this stage, the planning team is established, and hazard identification occurs. It is important to include various stakeholders and the public in the planning process. Stakeholders and the public have unique views and perspectives on what hazards they are most vulnerable to, and can provide detail on locations that they know are frequently impacted. It is, therefore, important that the planning team utilize various and multiple outreach methods to garner stakeholder and public participation.

Overall, the reviewed plans scored very poorly on the planning process component, with a mean *CQS* of 52% (F). This was largely due to a lack of range in participation methods offered, and poor outreach to garner public input. The most common methods used to give the public opportunity to participate included public meetings and online surveys. However, often times these opportunities were poorly advertised, which lead to minimal or no public participation.

Component II - Fact Basis

The risk assessment provides the fact basis for the plan. In the risk assessment, communities evaluate their vulnerability to the hazards they identified as relevant to the planning area. The risk assessment should consist of:

- descriptions of the hazards;
- the location where the hazard is known to occur;
- a scale of magnitude that measures the hazards and what magnitude event the jurisdiction can expect to see;
- the history of past events;
- the probability of a future event;

- past and expected impacts;
- a statement of vulnerable assets; and
- a social vulnerability statement.

Overall, the reviewed plans scored good on risk assessments, with a mean *CQS* of 82% (B). The most common area of the risk assessment that was underdeveloped was the analysis of social vulnerability. Knowing who is most at risk in the community is essential in both preparing for a disaster and during a disaster, as you can then better allocate resources and rescue operations for those individuals.

Component III - Mitigation Goals & Objectives

Once a community has assessed their risk, they have a clearer image of their strengths and weaknesses and can then develop a strategy of goals and objectives to help mitigate those risks. A goal should be a general statement, such as “protect the lives of citizens,” while the objectives should lay out the means by which the goal will be achieved, such as “educate citizens on how to prepare and mitigate risks.” The mitigation goals and objectives of the plan helps the community to develop a path toward resilience and guide them in developing specific mitigation actions to protect the community. There should also be a range of goals and objectives to account for all aspects of community resilience, such as property, citizen, and environmental protection.

Overall, the reviewed plans scored very poorly on mitigation goals and objects, with a mean *CQS* of 52% (F). The reason the score was so low was that plans often lacked a range of goals. For example, all plans had goals to protect property and lives, but few included goals for environmental protection or regulation. The other frequent issue was that plans failed to include objectives for how to achieve their goals.

Component IV - Inter-organization Coordination & Capabilities

The coordination and capabilities component consists of identification of the current capabilities communities have in place to support mitigation, and how they can improve those capabilities. It also includes a plan for merging the mitigation plan into other community planning mechanisms in order to support the goals and objectives of the hazard mitigation plan.

Overall, the reviewed plans scored good on this component, with a mean *CQS* of 83% (B). The plans were generally very detailed in their current capabilities and plan for integration of the HMP into other planning mechanisms but lacked somewhat in their descriptions of how they can improve their capabilities in the future.

Component V - Specific Mitigation Actions

The specific mitigation actions of the plan is guided by both the risk assessment and the mitigation goals and objectives. This is where the community lays out the specific projects and programs they plan to implement in order to make their community more resilient to natural hazards. There are four general categories of actions:

- Structural or infrastructural actions;
- Public education actions;
- Environmental protection actions, and;
- Policy or regulation actions.

Plans should aim to have actions from all categories, as this will best serve the community in the path toward resilience.

Overall, the reviewed plans scored poorly on mitigation actions, with a mean *CQS* of 60% (D). This was due to a lack of range in the categories of actions presented. All plans had actions for structural or infrastructural projects, as well as public education programs, but very

few included actions from the other categories of environmental protection or policy and regulation.

Component VI - Implementation

The implementation component is very important as this lays the foundation for how the community will execute the goals, objectives, and mitigation actions the plan has set forth. Implementation includes prioritization of mitigation actions, identification of the funding sources that can be utilized to execute mitigation actions, a timeframe for completion of the projects, as well as who will be responsible for the projects. Implementation also includes the process with which the community will monitor, track, and evaluate the plan's progress.

Overall, the reviewed plans scored excellent on implementation, with a mean *CQS* of 95% (A). This is very encouraging as it shows that while communities may need help to improve the content of the plans, they have a strong understanding of how they can implement the plan.

Overall Plan Results

Overall, the final *PQS*'s of the reviewed plans mostly ranged in the C's and D's. The lowest scoring plan was Brewster County in Region 4, with a *PQS* of 61 (D), while the highest scoring plan was Travis County in Region 6 with a *PQS* of 84 (B). This indicates that most communities in the state need help to develop their plans to a higher standard of quality.

Hays County Outlier

Hays County was a unique plan that I felt required further explanation. The plan had a low *PQS* of 69 (D). The reason the *PQS* was so low was because they scored very poorly on their mitigation goals and objectives, with a *CQS* of 18%. This was due to the fact that they only list three mitigation goals:

- Enhance the abilities of Hays County to provide protection of life, property, economy, and natural systems.
- Mitigate vulnerabilities.
- Assist with the improvement of water conservation.

Although these goals represent a decent range of goals, they did not include any objectives with which to achieve these goals, thus the low *CQS*. However, despite the lack of complementing objectives, the plan had a very impressive range of mitigation actions, including structural, educational, environmental protection, and policies and regulations, giving them a high *CQS* of 95% for mitigation action. For this reason, I have identified Hays County as an outlier that does not conform to the trends seen with the other plans.

Regional Trends

When viewing these results from a geographic perspective, it is clear that the more rural areas of the state scored the lowest on their plans. The lowest scoring region was Region 5 in the panhandle of Texas, with 3 out of 4 plans receiving a *PQS* of D. This is likely due to a lack of resources that will aid communities in developing an HMP. Hazard Mitigation Planning is a very long and involved process that on average takes eighteen months to complete. Rural communities that lack sufficient resources often have to take on the project on their own, without the assistance of a planning consultant. This can result in a prolonged period to complete the project, and a lack of understanding of the concepts that help make a quality plan.

6. Conclusion

The 24 mitigation plans reviewed showed that the planning aspects most in need of improvement were the planning process, social vulnerability statements, mitigation goals and objectives, and specific mitigation actions.

In summarizing my findings, I believe that communities would benefit from a mitigation planning professional to assist them in plan development. In addition, mitigation planning professionals would benefit from workshops offered by Texas Division of Emergency Management (TDEM) on how to develop mitigation plans.

Although TDEM offers these workshops, they are largely focused on meeting FEMA requirements only, and do not expand on how to improve past these requirements. This is due to the fact that the workshops offered are frequently used by professionals to receive credit towards the FEMA professional development series offered by the Emergency Management Institute. It is my belief that in order to best serve the communities of Texas, TDEM should develop a supplementary workshop for community members and leaders that will expand on the purpose and benefit of mitigation planning, and how to push past the bare requirements set forth by FEMA in order to create a quality plan. With natural hazards increasing in frequency and magnitude, it is of the utmost importance for the communities in Texas, the most disaster-prone state, to actively participate in hazard preparedness and mitigation.

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Appendix A - Region 1 Evaluation Score Sheets (ESS)

ESS - Johnson County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|--|---|--|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation 2.2 Multiple outreach methods (email, call, letter) 2.3 Multiple outreach attempts | 2.1) 2 2.2) 2 2.3) 2 |
| 3. Public Participation Techniques | 3.1 Formal public hearings 3.2 Open meetings 3.3 Workshops or forums 3.4 Online survey 3.5 Call-in hotlines 3.6 Citizen advisory committees | 3.1) 0 3.2) 1 3.3) 0 3.4) 0 3.5) 0 3.6) 0 |
| Component I Score (CQS-I) Total points possible = 20 | | 9 = 45% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions 4.2 Participation in NFIP, or plan to participate in NFIP, for all plan jurisdictions. 4.3 Identification of current or potential evacuation routes or storm shelters | 4.1) 2 4.2) 2 4.3) 0 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure 5.2 Assessment of critical facility exposure 5.3 Assessment of infrastructure exposure 5.4 Assessment of social vulnerability 5.5 Description of population and expected growth | 5.1) 2 5.2) 2 5.3) 2 5.4) 0 5.5) 1 |
| 6. Risk Analysis | 6.1 Hazard locations 6.2 Historical occurrences 6.3 Magnitude experienced and expected 6.4 Probability of occurrence 6.5 Historical and expected impacts | 6.1) 2 6.2) 2 6.3) 2 6.4) 1 6.5) 2 |

| | | |
|---|--|--|
| Component II Score (CQS-II) Total possible points = 26 | | 20 = 77% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 1 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 0 8.3) 0 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 2 9.3) 1 9.4) 1 9.5) 0 |
| Component III Score (CQS-III) Total Possible Score = 22 | | 12 = 55% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 1 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 1 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 4 = 67% |
| V. Specific Mitigation Actions | | |
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 1 |

| | | |
|--|---|--|
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 0 14.2) 1 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 0 16.3) 0 16.4) 1 16.5) 1 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 8 = 40% |
| VI. Implementation | | |
| 17. Action Implementation | 17.1 Priority of action 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 1 17.4) 2 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process and timeframe 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 15 = 94% |
| Overall Plan Score (PQS) | | 62 |

ESS - Marion County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|---|---|--|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 1 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation 2.2 Multiple outreach methods (email, call, letter) 2.3 Multiple outreach attempts | 2.1) 1 2.2) 2 2.3) 1 |
| 3. Public Participation Techniques | 3.1 Formal public hearings 3.2 Open meetings 3.3 Workshops or forums 3.4 Online survey 3.5 Call-in hotlines 3.6 Citizen advisory committees | 3.1) 0 3.2) 1 3.3) 0 3.4) 0 3.5) 0 3.6) 0 |
| Component I Score (<i>CQS-I</i>) Total Possible Points = 20 | | 6 = 30% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. 4.3 Identification of current or potential evacuation routes or storm shelters | 4.1) 2 4.2) 2 4.3) 0 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure 5.2 Assessment of critical facility exposure 5.3 Assessment of infrastructure exposure 5.4 Assessment of social vulnerability 5.5 Description of population and future expectations | 5.1) 2 5.2) 2 5.3) 2 5.4) 2 5.5) 2 |
| 6. Risk Analysis | 6.1 Hazard locations 6.2 Historical occurrences 6.3 Magnitude experienced and expected 6.4 Probability of occurrence 6.5 Historical and expected impacts | 6.1) 2 6.2) 2 6.3) 2 6.4) 1 6.5) 2 |

| | | |
|---|--|---|
| Component II Score (CQS-II) Total Possible Points = 26 | | 23 = 88% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 2 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 2 8.2) 1 8.3) 1 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 2 9.3) 2 9.4) 2 9.5) 2 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 20 = 91% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 1 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 5 = 83% |
| V. Specific Mitigation Actions | | |

| | | |
|--|---|--|
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 0 14.2) 2 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 2 16.3) 0 16.4) 0 16.5) 2 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 12 = 60% |
| VI. Implementation | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 1 17.4) 2 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 15 = 94% |
| Overall Plan Score (PQS) | | 74 |

ESS - Palo Pinto County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|---|--|----------------|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation | 2.1) 2 |
| | 2.2 Multiple outreach methods (email, call, letter) | 2.2) 2 |
| | 2.3 Multiple outreach attempts | 2.3) 1 |
| 3. Public Participation Techniques | 3.1 Formal public hearings | 3.1) 1 |
| | 3.2 Open meetings | 3.2) 1 |
| | 3.3 Workshops or forums | 3.3) 0 |
| | 3.4 Online survey | 3.4) 0 |
| | 3.5 Call-in hotlines | 3.5) 0 |
| | 3.6 Citizen advisory committees | 3.6) 0 |
| Component I Score (<i>CQS-I</i>) Total Possible Points = 20 | | 9 = 45% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions | 4.1) 2 |
| | 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. | 4.2) 2 |
| | 4.3 Identification of current or potential evacuation routes or storm shelters | 4.3) 0 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure | 5.1) 2 |
| | 5.2 Assessment of critical facility exposure | 5.2) 2 |
| | 5.3 Assessment of infrastructure exposure | 5.3) 2 |
| | 5.4 Assessment of social vulnerability | 5.4) 0 |
| | 5.5 Description of population and future expectations | 5.5) 2 |

| | | |
|---|--|---|
| 6. Risk Analysis | 6.1 Hazard locations 6.2 Historical occurrences 6.3 Magnitude experienced and expected 6.4 Probability of occurrence 6.5 Historical and expected impacts | 6.1) 2 6.2) 2 6.3) 2 6.4) 2 6.5) 1 |
| Component II Score (CQS-II) Total Possible Points = 26 | | 21 = 81% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 2 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 1 8.3) 0 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 2 9.3) 2 9.4) 1 9.5) 2 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 16 = 72% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 1 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 5 = 83% |

| | | |
|--|---|--|
| <i>V. Specific Mitigation Actions</i> | | |
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 0 14.2) 0 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 0 16.3) 0 16.4) 0 16.5) 0 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 6 = 30% |
| <i>VI. Implementation</i> | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 1 17.4) 2 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 15 = 94% |
| Overall Plan Score (PQS) | | 67 |

ESS - Tarrant County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|--|--|-----------------|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation | 2.1) 2 |
| | 2.2 Multiple outreach methods (email, call, letter) | 2.2) 2 |
| | 2.3 Multiple outreach attempts | 2.3) 2 |
| 3. Public Participation Techniques | 3.1 Formal public hearings | 3.1) 0 |
| | 3.2 Open meetings | 3.2) 1 |
| | 3.3 Workshops or forums | 3.3) 0 |
| | 3.4 Online survey | 3.4) 2 |
| | 3.5 Call-in hotlines | 3.5) 1 |
| | 3.6 Citizen advisory committees | 3.6) 0 |
| Component I Score (CQS-I) Total Possible Points = 20 | | 12 = 60% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions | 4.1) 2 |
| | 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. | 4.2) 2 |
| | 4.3 Identification of current or potential evacuation routes or storm shelters | 4.3) 0 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure | 5.1) 1 |
| | 5.2 Assessment of critical facility exposure | 5.2) 2 |
| | 5.3 Assessment of infrastructure exposure | 5.3) 1 |
| | 5.4 Assessment of social vulnerability | 5.4) 2 |
| | 5.5 Description of population and future expectations | 5.5) 1 |

| | | |
|---|--|---|
| 6. Risk Analysis | 6.1 Hazard locations 6.2 Historical occurrences 6.3 Magnitude experienced and expected 6.4 Probability of occurrence 6.5 Historical and expected impacts | 6.1) 2 6.2) 2 6.3) 2 6.4) 2 6.5) 2 |
| Component II Score (CQS-II) Total Possible Points = 26 | | 21 = 81% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 2 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 1 8.3) 0 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 2 9.3) 2 9.4) 2 9.5) 2 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 17 = 77% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 1 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 5 = 83% |

| | | |
|--|---|--|
| <i>V. Specific Mitigation Actions</i> | | |
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 0 14.2) 2 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 1 16.2) 0 16.3) 2 16.4) 2 16.5) 1 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 14 = 70% |
| <i>VI. Implementation</i> | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 1 17.2) 2 17.3) 1 17.4) 1 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 13 = 81% |
| Overall Plan Score (PQS) | | 75 |

Appendix B - Region 2 Evaluation Score Sheets (ESS)

ESS - Brazoria County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|---|--|-----------------|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation | 2.1) 2 |
| | 2.2 Multiple outreach methods (email, call, letter) | 2.2) 2 |
| | 2.3 Multiple outreach attempts | 2.3) 2 |
| 3. Public Participation Techniques | 3.1 Formal public hearings | 3.1) 0 |
| | 3.2 Open meetings | 3.2) 2 |
| | 3.3 Workshops or forums | 3.3) 0 |
| | 3.4 Online survey | 3.4) 2 |
| | 3.5 Call-in hotlines | 3.5) 0 |
| | 3.6 Citizen advisory committees | 3.6) 0 |
| Component I Score (<i>CQS-I</i>) Total Possible Points = 20 | | 12 = 60% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions | 4.1) 2 |
| | 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. | 4.2) 2 |
| | 4.3 Identification of current or potential evacuation routes or storm shelters | 4.3) 2 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure | 5.1) 2 |
| | 5.2 Assessment of critical facility exposure | 5.2) 2 |
| | 5.3 Assessment of infrastructure exposure | 5.3) 1 |
| | 5.4 Assessment of social vulnerability | 5.4) 2 |
| | 5.5 Description of population and future expectations | 5.5) 2 |

| | | |
|---|--|--|
| 6. Risk Analysis | 6.1 Hazard locations 6.2 Historical occurrences 6.3 Magnitude experienced and expected 6.4 Probability of occurrence 6.5 Historical and expected impacts | 6.1) 2 6.2) 2 6.3) 2 6.4) 2 6.5) 2 |
| Component II Score (CQS-II) Total Possible Points = 26 | | 25 = 96% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 0 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 1 8.3) 0 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 1 9.2) 0 9.3) 1 9.4) 2 9.5) 2 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 11 = 50% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 2 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 6 = 100% |

| | | |
|--|---|--|
| V. Specific Mitigation Actions | | |
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 2 14.2) 0 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 2 16.3) 2 16.4) 0 16.5) 1 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 13 = 65% |
| VI. Implementation | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 2 17.4) 2 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 16 = 100% |
| Overall Plan Score (PQS) | | 78.5 |

ESS - Harris County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|--|--|-----------------|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation | 2.1) 2 |
| | 2.2 Multiple outreach methods (email, call, letter) | 2.2) 2 |
| | 2.3 Multiple outreach attempts | 2.3) 2 |
| 3. Public Participation Techniques | 3.1 Formal public hearings | 3.1) 0 |
| | 3.2 Open meetings | 3.2) 0 |
| | 3.3 Workshops or forums | 3.3) 0 |
| | 3.4 Online survey | 3.4) 2 |
| | 3.5 Call-in hotlines | 3.5) 2 |
| | 3.6 Citizen advisory committees | 3.6) 0 |
| Component I Score (CQS-I) Total Possible Points = 20 | | 12 = 60% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions | 4.1) 2 |
| | 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. | 4.2) 2 |
| | 4.3 Identification of current or potential evacuation routes or storm shelters | 4.3) 0 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure | 5.1) 2 |
| | 5.2 Assessment of critical facility exposure | 5.2) 2 |
| | 5.3 Assessment of infrastructure exposure | 5.3) 2 |
| | 5.4 Assessment of social vulnerability | 5.4) 1 |
| | 5.5 Description of population and future expectations | 5.5) 2 |
| 6. Risk Analysis | 6.1 Hazard locations | 6.1) 2 |
| | 6.2 Historical occurrences | 6.2) 2 |
| | 6.3 Magnitude experienced and expected | 6.3) 2 |
| | 6.4 Probability of occurrence | 6.4) 2 |
| | 6.5 Historical and expected impacts | 6.5) 2 |

| | | |
|---|--|---|
| Component II Score (CQS-II) Total Possible Points = 26 | | 23 = 88% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 0 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 1 8.3) 1 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 2 9.3) 0 9.4) 0 9.5) 2 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 12 = 55% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 2 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 1 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 5 = 83% |
| V. Specific Mitigation Actions | | |

| | | |
|--|---|--|
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 1 14.2) 2 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 2 16.3) 2 16.4) 2 16.5) 2 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 17 = 85% |
| VI. Implementation | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 1 17.4) 2 17.5) 1 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 14 = 88% |
| Overall Plan Score (PQS) | | 76.5 |

ESS - Houston County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|---|--|-----------------|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation | 2.1) 2 |
| | 2.2 Multiple outreach methods (email, call, letter) | 2.2) 2 |
| | 2.3 Multiple outreach attempts | 2.3) 2 |
| 3. Public Participation Techniques | 3.1 Formal public hearings | 3.1) 0 |
| | 3.2 Open meetings | 3.2) 2 |
| | 3.3 Workshops or forums | 3.3) 0 |
| | 3.4 Online survey | 3.4) 2 |
| | 3.5 Call-in hotlines | 3.5) 0 |
| | 3.6 Citizen advisory committees | 3.6) 0 |
| Component I Score (<i>CQS-I</i>) Total Possible Points = 20 | | 12 = 60% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions | 4.1) 2 |
| | 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. | 4.2) 2 |
| | 4.3 Identification of current or potential evacuation routes or storm shelters | 4.3) 2 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure | 5.1) 1 |
| | 5.2 Assessment of critical facility exposure | 5.2) 2 |
| | 5.3 Assessment of infrastructure exposure | 5.3) 0 |
| | 5.4 Assessment of social vulnerability | 5.4) 2 |
| | 5.5 Description of population and future expectations | 5.5) 2 |

| | | |
|---|--|--|
| 6. Risk Analysis | 6.1 Hazard locations 6.2 Historical occurrences 6.3 Magnitude experienced and expected 6.4 Probability of occurrence 6.5 Historical and expected impacts | 6.1) 2 6.2) 2 6.3) 2 6.4) 1 6.5) 2 |
| Component II Score (CQS-II) Total Possible Points = 26 | | 22 = 85% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 2 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 0 8.3) 0 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 2 9.3) 1 9.4) 0 9.5) 2 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 13 = 59% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 1 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 5 = 83% |

| | | |
|--|---|--|
| <i>V. Specific Mitigation Actions</i> | | |
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 0 14.2) 0 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 0 16.3) 0 16.4) 2 16.5) 2 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 10 = 50% |
| <i>VI. Implementation</i> | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 1 17.4) 2 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 1 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 14 = 88% |
| Overall Plan Score (PQS) | | 71 |

ESS - Sabine County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|--|--|----------------|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation | 2.1) 2 |
| | 2.2 Multiple outreach methods (email, call, letter) | 2.2) 1 |
| | 2.3 Multiple outreach attempts | 2.3) 1 |
| 3. Public Participation Techniques | 3.1 Formal public hearings | 3.1) 0 |
| | 3.2 Open meetings | 3.2) 2 |
| | 3.3 Workshops or forums | 3.3) 0 |
| | 3.4 Online survey | 3.4) 0 |
| | 3.5 Call-in hotlines | 3.5) 0 |
| | 3.6 Citizen advisory committees | 3.6) 0 |
| Component I Score (CQS-I) Total Possible Points = 20 | | 8 = 40% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions | 4.1) 2 |
| | 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. | 4.2) 2 |
| | 4.3 Identification of current or potential evacuation routes or storm shelters | 4.3) 0 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure | 5.1) 2 |
| | 5.2 Assessment of critical facility exposure | 5.2) 2 |
| | 5.3 Assessment of infrastructure exposure | 5.3) 2 |
| | 5.4 Assessment of social vulnerability | 5.4) 1 |
| | 5.5 Description of population and future expectations | 5.5) 2 |

| | | |
|---|--|--|
| 6. Risk Analysis | 6.1 Hazard locations 6.2 Historical occurrences 6.3 Magnitude experienced and expected 6.4 Probability of occurrence 6.5 Historical and expected impacts | 6.1) 2 6.2) 2 6.3) 2 6.4) 2 6.5) 2 |
| Component II Score (CQS-II) Total Possible Points = 26 | | 23 = 88% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 1 7.2) 1 7.3) 0 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 0 8.3) 1 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 1 9.2) 0 9.3) 0 9.4) 0 9.5) 0 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 4 = 18% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 2 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 6 = 100% |

| | | |
|--|---|--|
| V. Specific Mitigation Actions | | |
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 2 14.2) 2 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 0 16.3) 2 16.4) 0 16.5) 1 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 13 = 65% |
| VI. Implementation | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 2 17.4) 2 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 16 = 100% |
| Overall Plan Score (PQS) | | 69 |

Appendix C - Region 3 Evaluation Score Sheets (ESS)

ESS - Bee County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|--|--|-----------------|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 1 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation | 2.1) 2 |
| | 2.2 Multiple outreach methods (email, call, letter) | 2.2) 2 |
| | 2.3 Multiple outreach attempts | 2.3) 2 |
| 3. Public Participation Techniques | 3.1 Formal public hearings | 3.1) 2 |
| | 3.2 Open meetings | 3.2) 2 |
| | 3.3 Workshops or forums | 3.3) 0 |
| | 3.4 Online survey | 3.4) 0 |
| | 3.5 Call-in hotlines | 3.5) 0 |
| | 3.6 Citizen advisory committees | 3.6) 0 |
| Component I Score (CQS-I) Total Possible Points = 20 | | 11 = 55% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions | 4.1) 2 |
| | 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. | 4.2) 2 |
| | 4.3 Identification of current or potential evacuation routes or storm shelters | 4.3) 2 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure | 5.1) 2 |
| | 5.2 Assessment of critical facility exposure | 5.2) 2 |
| | 5.3 Assessment of infrastructure exposure | 5.3) 2 |
| | 5.4 Assessment of social vulnerability | 5.4) 1 |
| | 5.5 Description of population and future expectations | 5.5) 1 |

| | | |
|---|--|---|
| 6. Risk Analysis | 6.1 Hazard locations 6.2 Historical occurrences 6.3 Magnitude experienced and expected 6.4 Probability of occurrence 6.5 Historical and expected impacts | 6.1) 2 6.2) 2 6.3) 2 6.4) 2 6.5) 2 |
| Component II Score (CQS-II) Total Possible Points = 26 | | 24 = 92% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 1 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 0 8.3) 2 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 0 9.3) 0 9.4) 1 9.5) 1 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 11 = 50% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 1 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 5 = 83% |

| | | |
|--|---|--|
| V. Specific Mitigation Actions | | |
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 0 14.2) 2 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 0 16.3) 0 16.4) 2 16.5) 0 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 10 = 50% |
| VI. Implementation | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 2 17.4) 2 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 16 = 100% |
| Overall Plan Score (PQS) | | 72 |

ESS - Cameron County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|--|---|--|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation 2.2 Multiple outreach methods (email, call, letter) 2.3 Multiple outreach attempts | 2.1) 2 2.2) 1 2.3) 1 |
| 3. Public Participation Techniques | 3.1 Formal public hearings 3.2 Open meetings 3.3 Workshops or forums 3.4 Online survey 3.5 Call-in hotlines 3.6 Citizen advisory committees | 3.1) 0 3.2) 2 3.3) 0 3.4) 2 3.5) 0 3.6) 0 |
| Component I Score (CQS-I) Total Possible Points = 20 | | 10 = 50% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. 4.3 Identification of current or potential evacuation routes or storm shelters | 4.1) 2 4.2) 2 4.3) 0 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure 5.2 Assessment of critical facility exposure 5.3 Assessment of infrastructure exposure 5.4 Assessment of social vulnerability 5.5 Description of population and future expectations | 5.1) 2 5.2) 2 5.3) 1 5.4) 1 5.5) 2 |
| 6. Risk Analysis | 6.1 Hazard locations 6.2 Historical occurrences 6.3 Magnitude experienced and expected 6.4 Probability of occurrence 6.5 Historical and expected impacts | 6.1) 2 6.2) 2 6.3) 2 6.4) 1 6.5) 2 |

| | | |
|---|--|---|
| Component II Score (CQS-II) Total Possible Points = 26 | | 21 = 81% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 2 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 0 8.3) 0 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 2 9.3) 1 9.4) 0 9.5) 2 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 13 = 59% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 2 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 6 = 100% |
| V. Specific Mitigation Actions | | |

| | | |
|--|---|--|
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 0 14.2) 2 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 0 16.3) 1 16.4) 2 16.5) 1 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 12 = 60% |
| VI. Implementation | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 2 17.4) 1 17.5) 1 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 14 = 88% |
| Overall Plan Score (PQS) | | 73 |

ESS - Jim Wells County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|--|--|-----------------|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 1 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation | 2.1) 2 |
| | 2.2 Multiple outreach methods (email, call, letter) | 2.2) 2 |
| | 2.3 Multiple outreach attempts | 2.3) 2 |
| 3. Public Participation Techniques | 3.1 Formal public hearings | 3.1) 2 |
| | 3.2 Open meetings | 3.2) 2 |
| | 3.3 Workshops or forums | 3.3) 0 |
| | 3.4 Online survey | 3.4) 0 |
| | 3.5 Call-in hotlines | 3.5) 0 |
| | 3.6 Citizen advisory committees | 3.6) 0 |
| Component I Score (CQS-I) Total Possible Points = 20 | | 11 = 55% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions | 4.1) 2 |
| | 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. | 4.2) 2 |
| | 4.3 Identification of current or potential evacuation routes or storm shelters | 4.3) 0 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure | 5.1) 2 |
| | 5.2 Assessment of critical facility exposure | 5.2) 2 |
| | 5.3 Assessment of infrastructure exposure | 5.3) 2 |
| | 5.4 Assessment of social vulnerability | 5.4) 2 |
| | 5.5 Description of population and future expectations | 5.5) 1 |
| 6. Risk Analysis | 6.1 Hazard locations | 6.1) 2 |
| | 6.2 Historical occurrences | 6.2) 2 |
| | 6.3 Magnitude experienced and expected | 6.3) 2 |
| | 6.4 Probability of occurrence | 6.4) 1 |
| | 6.5 Historical and expected impacts | 6.5) 2 |

| | | |
|---|--|--|
| Component II Score (CQS-II) Total Possible Points = 26 | | 22 = 85% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 0 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 0 8.3) 2 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 0 9.3) 1 9.4) 0 9.5) 0 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 9 = 41% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 1 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 5 = 83% |
| V. Specific Mitigation Actions | | |

| | | |
|--|---|--|
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 0 14.2) 2 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 2 16.3) 1 16.4) 0 16.5) 0 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 11 = 55% |
| VI. Implementation | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 2 17.4) 2 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 16 = 100% |
| Overall Plan Score (PQS) | | 70 |

ESS - San Patricio County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|---|--|-----------------|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation | 2.1) 2 |
| | 2.2 Multiple outreach methods (email, call, letter) | 2.2) 2 |
| | 2.3 Multiple outreach attempts | 2.3) 2 |
| 3. Public Participation Techniques | 3.1 Formal public hearings | 3.1) 0 |
| | 3.2 Open meetings | 3.2) 2 |
| | 3.3 Workshops or forums | 3.3) 0 |
| | 3.4 Online survey | 3.4) 2 |
| | 3.5 Call-in hotlines | 3.5) 0 |
| | 3.6 Citizen advisory committees | 3.6) 0 |
| Component I Score (<i>CQS-I</i>) Total Possible Points = 20 | | 12 = 60% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions | 4.1) 2 |
| | 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. | 4.2) 2 |
| | 4.3 Identification of current or potential evacuation routes or storm shelters | 4.3) 0 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure | 5.1) 2 |
| | 5.2 Assessment of critical facility exposure | 5.2) 2 |
| | 5.3 Assessment of infrastructure exposure | 5.3) 1 |
| | 5.4 Assessment of social vulnerability | 5.4) 1 |
| | 5.5 Description of population and future expectations | 5.5) 2 |
| 6. Risk Analysis | 6.1 Hazard locations | 6.1) 2 |
| | 6.2 Historical occurrences | 6.2) 2 |
| | 6.3 Magnitude experienced and expected | 6.3) 2 |
| | 6.4 Probability of occurrence | 6.4) 1 |
| | 6.5 Historical and expected impacts | 6.5) 2 |

| | | |
|---|--|---|
| Component II Score (CQS-II) Total Possible Points = 26 | | 21 = 81% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 0 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 0 8.3) 2 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 2 9.3) 0 9.4) 1 9.5) 2 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 13 = 59% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 1 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 5 = 83% |
| V. Specific Mitigation Actions | | |

| | | |
|--|---|--|
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 0 14.2) 2 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 1 16.3) 1 16.4) 2 16.5) 2 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 14 = 70% |
| VI. Implementation | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 2 17.4) 2 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 16 = 100% |
| Overall Plan Score (PQS) | | 76 |

Appendix D - Region 4 Evaluation Score Sheets (ESS)

ESS - Brewster County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|--|---|--|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation | 2.1) 2 |
| | 2.2 Multiple outreach methods (email, call, letter) | 2.2) 2 |
| | 2.3 Multiple outreach attempts | 2.3) 2 |
| 3. Public Participation Techniques | 3.1 Formal public hearings 3.2 Open meetings 3.3 Workshops or forums 3.4 Online survey 3.5 Call-in hotlines 3.6 Citizen advisory committees | 3.1) 0 3.2) 2 3.3) 0 3.4) 1 3.5) 0 3.6) 0 |
| Component I Score (CQS-I) Total Possible Points = 20 | | 11 = 55% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. 4.3 Identification of current or potential evacuation routes or storm shelters | 4.1) 2 4.2) 2 4.3) 2 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure 5.2 Assessment of critical facility exposure 5.3 Assessment of infrastructure exposure 5.4 Assessment of social vulnerability 5.5 Description of population and future expectations | 5.1) 0 5.2) 2 5.3) 1 5.4) 0 5.5) 2 |

| | | |
|---|--|---|
| 6. Risk Analysis | 6.1 Hazard locations 6.2 Historical occurrences 6.3 Magnitude experienced and expected 6.4 Probability of occurrence 6.5 Historical and expected impacts | 6.1) 1 6.2) 2 6.3) 1 6.4) 2 6.5) 2 |
| Component II Score (CQS-II) Total Possible Points = 26 | | 19 = 73% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 0 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 0 8.3) 0 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 1 9.3) 0 9.4) 0 9.5) 0 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 7 = 32% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 1 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 1 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 4 = 67% |

| | | |
|--|---|--|
| <i>V. Specific Mitigation Actions</i> | | |
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 1 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 0 14.2) 2 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 1 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 1 16.3) 0 16.4) 2 16.5) 2 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 11 = 55% |
| <i>VI. Implementation</i> | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 1 17.4) 2 17.5) 1 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 14 = 86% |
| Overall Plan Score (PQS) | | 61 |

ESS - El Paso County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|--|--|-----------------|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation | 2.1) 2 |
| | 2.2 Multiple outreach methods (email, call, letter) | 2.2) 2 |
| | 2.3 Multiple outreach attempts | 2.3) 2 |
| 3. Public Participation Techniques | 3.1 Formal public hearings | 3.1) 0 |
| | 3.2 Open meetings | 3.2) 2 |
| | 3.3 Workshops or forums | 3.3) 0 |
| | 3.4 Online survey | 3.4) 1 |
| | 3.5 Call-in hotlines | 3.5) 0 |
| | 3.6 Citizen advisory committees | 3.6) 0 |
| Component I Score (CQS-I) Total Possible Points = 20 | | 11 = 55% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions | 4.1) 2 |
| | 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. | 4.2) 2 |
| | 4.3 Identification of current or potential evacuation routes or storm shelters | 4.3) 0 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure | 5.1) 0 |
| | 5.2 Assessment of critical facility exposure | 5.2) 2 |
| | 5.3 Assessment of infrastructure exposure | 5.3) 1 |
| | 5.4 Assessment of social vulnerability | 5.4) 1 |
| | 5.5 Description of population and future expectations | 5.5) 1 |
| 6. Risk Analysis | 6.1 Hazard locations | 6.1) 1 |
| | 6.2 Historical occurrences | 6.2) 2 |
| | 6.3 Magnitude experienced and expected | 6.3) 1 |
| | 6.4 Probability of occurrence | 6.4) 2 |
| | 6.5 Historical and expected impacts | 6.5) 2 |

| | | |
|---|--|---|
| Component II Score (CQS-II) Total Possible Points = 26 | | 17 = 65% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 0 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 0 8.3) 0 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 1 9.3) 0 9.4) 0 9.5) 1 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 8 = 36% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 2 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 6 = 100% |
| V. Specific Mitigation Actions | | |

| | | |
|--|---|--|
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 0 14.2) 2 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 1 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 1 16.3) 2 16.4) 2 16.5) 2 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 14 = 70% |
| VI. Implementation | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 1 17.4) 2 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 15 = 94% |
| Overall Plan Score (PQS) | | 70 |

ESS - Jeff Davis County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|---|--|-----------------|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation | 2.1) 2 |
| | 2.2 Multiple outreach methods (email, call, letter) | 2.2) 2 |
| | 2.3 Multiple outreach attempts | 2.3) 2 |
| 3. Public Participation Techniques | 3.1 Formal public hearings | 3.1) 0 |
| | 3.2 Open meetings | 3.2) 2 |
| | 3.3 Workshops or forums | 3.3) 0 |
| | 3.4 Online survey | 3.4) 1 |
| | 3.5 Call-in hotlines | 3.5) 0 |
| | 3.6 Citizen advisory committees | 3.6) 0 |
| Component I Score (<i>CQS-I</i>) Total Possible Points = 20 | | 11 = 55% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions | 4.1) 2 |
| | 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. | 4.2) 2 |
| | 4.3 Identification of current or potential evacuation routes or storm shelters | 4.3) 2 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure | 5.1) 0 |
| | 5.2 Assessment of critical facility exposure | 5.2) 2 |
| | 5.3 Assessment of infrastructure exposure | 5.3) 1 |
| | 5.4 Assessment of social vulnerability | 5.4) 1 |
| | 5.5 Description of population and future expectations | 5.5) 1 |
| 6. Risk Analysis | 6.1 Hazard locations | 6.1) 1 |
| | 6.2 Historical occurrences | 6.2) 2 |
| | 6.3 Magnitude experienced and expected | 6.3) 1 |
| | 6.4 Probability of occurrence | 6.4) 2 |
| | 6.5 Historical and expected impacts | 6.5) 2 |

| | | |
|---|--|---|
| Component II Score (CQS-II) Total Possible Points = 26 | | 19 = 73% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 0 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 0 8.3) 0 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 1 9.3) 0 9.4) 0 9.5) 0 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 7 = 32% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 1 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 5 = 83% |
| V. Specific Mitigation Actions | | |

| | | |
|--|---|--|
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 0 14.2) 2 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 0 16.3) 0 16.4) 2 16.5) 1 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 9 = 45% |
| VI. Implementation | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 2 17.4) 2 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 16 = 100% |
| Overall Plan Score (PQS) | | 65 |

ESS - Mason County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|---|--|-----------------|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation | 2.1) 2 |
| | 2.2 Multiple outreach methods (email, call, letter) | 2.2) 2 |
| | 2.3 Multiple outreach attempts | 2.3) 2 |
| 3. Public Participation Techniques | 3.1 Formal public hearings | 3.1) 0 |
| | 3.2 Open meetings | 3.2) 2 |
| | 3.3 Workshops or forums | 3.3) 0 |
| | 3.4 Online survey | 3.4) 2 |
| | 3.5 Call-in hotlines | 3.5) 0 |
| | 3.6 Citizen advisory committees | 3.6) 0 |
| Component I Score (<i>CQS-I</i>) Total Possible Points = 20 | | 12 = 60% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions | 4.1) 2 |
| | 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. | 4.2) 2 |
| | 4.3 Identification of current or potential evacuation routes or storm shelters | 4.3) 1 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure | 5.1) 2 |
| | 5.2 Assessment of critical facility exposure | 5.2) 2 |
| | 5.3 Assessment of infrastructure exposure | 5.3) 2 |
| | 5.4 Assessment of social vulnerability | 5.4) 2 |
| | 5.5 Description of population and future expectations | 5.5) 1 |
| 6. Risk Analysis | 6.1 Hazard locations | 6.1) 2 |
| | 6.2 Historical occurrences | 6.2) 2 |
| | 6.3 Magnitude experienced and expected | 6.3) 2 |
| | 6.4 Probability of occurrence | 6.4) 1 |
| | 6.5 Historical and expected impacts | 6.5) 2 |

| | | |
|---|--|---|
| Component II Score (CQS-II) Total Possible Points = 26 | | 23 = 88% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 2 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 0 8.3) 0 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 2 9.3) 2 9.4) 1 9.5) 2 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 15 = 68% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 1 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 5 = 83% |
| V. Specific Mitigation Actions | | |

| | | |
|--|---|---|
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 0 14.2) 0 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 2 16.3) 1 16.4) 2 16.5) 1 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 12 = 60% |
| VI. Implementation | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 2 17.4) 2 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 16 = 100% |
| Overall Plan Score (PQS) | | 77 |

Appendix E - Region 5 Evaluation Score Sheets (ESS)

ESS - Gray County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|---|--|----------------|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation | 2.1) 2 |
| | 2.2 Multiple outreach methods (email, call, letter) | 2.2) 2 |
| | 2.3 Multiple outreach attempts | 2.3) 2 |
| 3. Public Participation Techniques | 3.1 Formal public hearings | 3.1) 0 |
| | 3.2 Open meetings | 3.2) 1 |
| | 3.3 Workshops or forums | 3.3) 0 |
| | 3.4 Online survey | 3.4) 0 |
| | 3.5 Call-in hotlines | 3.5) 0 |
| | 3.6 Citizen advisory committees | 3.6) 0 |
| Component I Score (<i>CQS-I</i>) Total Possible Points = 20 | | 9 = 45% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions | 4.1) 2 |
| | 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. | 4.2) 2 |
| | 4.3 Identification of current or potential evacuation routes or storm shelters | 4.3) 0 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure | 5.1) 0 |
| | 5.2 Assessment of critical facility exposure | 5.2) 2 |
| | 5.3 Assessment of infrastructure exposure | 5.3) 2 |
| | 5.4 Assessment of social vulnerability | 5.4) 0 |
| | 5.5 Description of population and future expectations | 5.5) 1 |

| | | |
|---|--|---|
| 6. Risk Analysis | 6.1 Hazard locations 6.2 Historical occurrences 6.3 Magnitude experienced and expected 6.4 Probability of occurrence 6.5 Historical and expected impacts | 6.1) 1 6.2) 2 6.3) 2 6.4) 2 6.5) 2 |
| Component II Score (CQS-II) Total Possible Points = 26 | | 18 = 69% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 2 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 0 8.3) 0 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 2 9.3) 1 9.4) 1 9.5) 0 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 12 = 55% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 2 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 1 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 5 = 83% |

| | | |
|--|---|--|
| <i>V. Specific Mitigation Actions</i> | | |
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 0 14.2) 2 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 0 16.3) 0 16.4) 2 16.5) 0 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 10 = 50% |
| <i>VI. Implementation</i> | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 1 17.4) 2 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 15 = 94% |
| Overall Plan Score (PQS) | | 66 |

ESS - Lubbock County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|---|--|-----------------|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation | 2.1) 2 |
| | 2.2 Multiple outreach methods (email, call, letter) | 2.2) 2 |
| | 2.3 Multiple outreach attempts | 2.3) 2 |
| 3. Public Participation Techniques | 3.1 Formal public hearings | 3.1) 0 |
| | 3.2 Open meetings | 3.2) 2 |
| | 3.3 Workshops or forums | 3.3) 0 |
| | 3.4 Online survey | 3.4) 2 |
| | 3.5 Call-in hotlines | 3.5) 0 |
| | 3.6 Citizen advisory committees | 3.6) 0 |
| Component I Score (<i>CQS-I</i>) Total Possible Points = 20 | | 12 = 60% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions | 4.1) 2 |
| | 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. | 4.2) 2 |
| | 4.3 Identification of current or potential evacuation routes or storm shelters | 4.3) 1 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure | 5.1) 2 |
| | 5.2 Assessment of critical facility exposure | 5.2) 2 |
| | 5.3 Assessment of infrastructure exposure | 5.3) 0 |
| | 5.4 Assessment of social vulnerability | 5.4) 2 |
| | 5.5 Description of population and future expectations | 5.5) 2 |

| | | |
|---|--|--|
| 6. Risk Analysis | 6.1 Hazard locations 6.2 Historical occurrences 6.3 Magnitude experienced and expected 6.4 Probability of occurrence 6.5 Historical and expected impacts | 6.1) 2 6.2) 2 6.3) 2 6.4) 1 6.5) 2 |
| Component II Score (CQS-II) Total Possible Points = 26 | | 22 = 85% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 2 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 0 8.3) 0 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 2 9.3) 1 9.4) 0 9.5) 2 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 13 = 59% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 1 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 5 = 83% |

| | | |
|--|---|--|
| V. Specific Mitigation Actions | | |
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 1 14.2) 2 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 0 16.3) 1 16.4) 0 16.5) 2 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 12 = 60% |
| VI. Implementation | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 2 17.4) 2 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 16 = 100% |
| Overall Plan Score (PQS) | | 75 |

ESS - Moore County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|---|--|-----------------|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation | 2.1) 2 |
| | 2.2 Multiple outreach methods (email, call, letter) | 2.2) 2 |
| | 2.3 Multiple outreach attempts | 2.3) 2 |
| 3. Public Participation Techniques | 3.1 Formal public hearings | 3.1) 0 |
| | 3.2 Open meetings | 3.2) 2 |
| | 3.3 Workshops or forums | 3.3) 0 |
| | 3.4 Online survey | 3.4) 2 |
| | 3.5 Call-in hotlines | 3.5) 0 |
| | 3.6 Citizen advisory committees | 3.6) 0 |
| Component I Score (<i>CQS-I</i>) Total Possible Points = 20 | | 12 = 60% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions | 4.1) 2 |
| | 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. | 4.2) 1 |
| | 4.3 Identification of current or potential evacuation routes or storm shelters | 4.3) 0 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure | 5.1) 2 |
| | 5.2 Assessment of critical facility exposure | 5.2) 2 |
| | 5.3 Assessment of infrastructure exposure | 5.3) 2 |
| | 5.4 Assessment of social vulnerability | 5.4) 1 |
| | 5.5 Description of population and future expectations | 5.5) 2 |
| 6. Risk Analysis | 6.1 Hazard locations | 6.1) 2 |
| | 6.2 Historical occurrences | 6.2) 2 |
| | 6.3 Magnitude experienced and expected | 6.3) 2 |
| | 6.4 Probability of occurrence | 6.4) 2 |
| | 6.5 Historical and expected impacts | 6.5) 2 |

| | | |
|---|--|--|
| Component II Score (CQS-II) Total Possible Points = 26 | | 22 = 85% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 2 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 0 8.3) 0 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 2 9.3) 1 9.4) 0 9.5) 0 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 11 = 50% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 1 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 1 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 1 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 3 = 50% |
| V. Specific Mitigation Actions | | |

| | | |
|--|---|---|
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 0 14.2) 2 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 0 16.3) 0 16.4) 0 16.5) 0 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 8 = 40% |
| VI. Implementation | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 2 17.4) 2 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 16 = 100% |
| Overall Plan Score (PQS) | | 64 |

ESS - Wichita County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|---|---|--|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation 2.2 Multiple outreach methods (email, call, letter) 2.3 Multiple outreach attempts | 2.1) 2 2.2) 1 2.3) 1 |
| 3. Public Participation Techniques | 3.1 Formal public hearings 3.2 Open meetings 3.3 Workshops or forums 3.4 Online survey 3.5 Call-in hotlines 3.6 Citizen advisory committees | 3.1) 0 3.2) 2 3.3) 0 3.4) 1 3.5) 0 3.6) 0 |
| Component I Score (<i>CQS-I</i>) Total Possible Points = 20 | | 9 = 45% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. 4.3 Identification of current or potential evacuation routes or storm shelters | 4.1) 2 4.2) 1 4.3) 2 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure 5.2 Assessment of critical facility exposure 5.3 Assessment of infrastructure exposure 5.4 Assessment of social vulnerability 5.5 Description of population and future expectations | 5.1) 2 5.2) 2 5.3) 2 5.4) 1 5.5) 2 |
| 6. Risk Analysis | 6.1 Hazard locations 6.2 Historical occurrences 6.3 Magnitude experienced and expected 6.4 Probability of occurrence 6.5 Historical and expected impacts | 6.1) 1 6.2) 2 6.3) 2 6.4) 1 6.5) 2 |

| | | |
|---|--|---|
| Component II Score (CQS-II) Total Possible Points = 26 | | 22 = 85% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 1 7.2) 1 7.3) 1 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 1 8.3) 0 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 1 9.2) 2 9.3) 2 9.4) 2 9.5) 0 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 11 = 50% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 1 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 1 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 4 = 67% |
| V. Specific Mitigation Actions | | |

| | | |
|--|---|--|
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 0 14.2) 2 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 0 16.2) 0 16.3) 2 16.4) 2 16.5) 0 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 12 = 60% |
| VI. Implementation | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 1 17.4) 2 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 15 = 94% |
| Overall Plan Score (PQS) | | 67 |

Appendix F - Region 6 Evaluation Score Sheets (ESS)

ESS - Bosque County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|--|---|--|
| I. Planning Process | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation 2.2 Multiple outreach methods (email, call, letter) 2.3 Multiple outreach attempts | 2.1) 2 |
| | | 2.2) 1 |
| | | 2.3) 1 |
| 3. Public Participation Techniques | 3.1 Formal public hearings 3.2 Open meetings 3.3 Workshops or forums 3.4 Online survey 3.5 Call-in hotlines 3.6 Citizen advisory committees | 3.1) 0 3.2) 1 3.3) 0 3.4) 0 3.5) 0 3.6) 0 |
| Component I Score (CQS-I) Total Possible Points = 20 | | 7 = 35% |
| II. Fact Basis | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. 4.3 Identification of current or potential evacuation routes or storm shelters | 4.1) 2 4.2) 1 4.3) 0 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure 5.2 Assessment of critical facility exposure 5.3 Assessment of infrastructure exposure 5.4 Assessment of social vulnerability 5.5 Description of population and future expectations | 5.1) 1 5.2) 2 5.3) 2 5.4) 0 5.5) 1 |

| | | |
|---|--|---|
| 6. Risk Analysis | 6.1 Hazard locations 6.2 Historical occurrences 6.3 Magnitude experienced and expected 6.4 Probability of occurrence 6.5 Historical and expected impacts | 6.1) 2 6.2) 2 6.3) 1 6.4) 1 6.5) 2 |
| Component II Score (CQS-II) Total Possible Points = 26 | | 15 = 58% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 1 7.3) 1 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 0 8.3) 0 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 2 9.3) 1 9.4) 0 9.5) 2 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 11 = 50% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 1 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 1 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 4 = 67% |

| | | |
|--|---|--|
| <i>V. Specific Mitigation Actions</i> | | |
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 0 14.2) 1 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 2 16.2) 2 16.3) 2 16.4) 0 16.5) 0 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 13 = 65% |
| <i>VI. Implementation</i> | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 2 17.4) 1 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 15 = 94% |
| Overall Plan Score (PQS) | | 62 |

ESS - Hays County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|---|---|--|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 1 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation 2.2 Multiple outreach methods (email, call, letter) 2.3 Multiple outreach attempts | 2.1) 2 2.2) 1 2.3) 1 |
| 3. Public Participation Techniques | 3.1 Formal public hearings 3.2 Open meetings 3.3 Workshops or forums 3.4 Online survey 3.5 Call-in hotlines 3.6 Citizen advisory committees | 3.1) 0 3.2) 1 3.3) 0 3.4) 2 3.5) 0 3.6) 0 |
| Component I Score (<i>CQS-I</i>) Total Possible Points = 20 | | 8 = 40% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. 4.3 Identification of current or potential evacuation routes or storm shelters | 4.1) 2 4.2) 2 4.3) 2 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure 5.2 Assessment of critical facility exposure 5.3 Assessment of infrastructure exposure 5.4 Assessment of social vulnerability 5.5 Description of population and future expectations | 5.1) 1 5.2) 2 5.3) 2 5.4) 1 5.5) 1 |

| | | |
|---|--|---|
| 6. Risk Analysis | 6.1 Hazard locations 6.2 Historical occurrences 6.3 Magnitude experienced and expected 6.4 Probability of occurrence 6.5 Historical and expected impacts | 6.1) 2 6.2) 2 6.3) 2 6.4) 2 6.5) 2 |
| Component II Score (CQS-II) Total Possible Points = 26 | | 23 = 88% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 1 7.2) 1 7.3) 0 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 0 8.2) 1 8.3) 0 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 1 9.2) 0 9.3) 0 9.4) 0 9.5) 0 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 4 = 18% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 1 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 5 = 83% |

| | | |
|--|---|--|
| V. Specific Mitigation Actions | | |
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 1 14.2) 2 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 2 16.2) 2 16.3) 2 16.4) 2 16.5) 2 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 19 = 95% |
| VI. Implementation | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 1 17.4) 2 17.5) 1 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 14 = 88% |
| Overall Plan Score (PQS) | | 69 |

ESS - San Saba County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|---|--|-----------------|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation | 2.1) 2 |
| | 2.2 Multiple outreach methods (email, call, letter) | 2.2) 2 |
| | 2.3 Multiple outreach attempts | 2.3) 2 |
| 3. Public Participation Techniques | 3.1 Formal public hearings | 3.1) 0 |
| | 3.2 Open meetings | 3.2) 2 |
| | 3.3 Workshops or forums | 3.3) 0 |
| | 3.4 Online survey | 3.4) 2 |
| | 3.5 Call-in hotlines | 3.5) 0 |
| | 3.6 Citizen advisory committees | 3.6) 0 |
| Component I Score (<i>CQS-I</i>) Total Possible Points = 20 | | 12 = 60% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions | 4.1) 2 |
| | 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. | 4.2) 2 |
| | 4.3 Identification of current or potential evacuation routes or storm shelters | 4.3) 1 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure | 5.1) 2 |
| | 5.2 Assessment of critical facility exposure | 5.2) 2 |
| | 5.3 Assessment of infrastructure exposure | 5.3) 2 |
| | 5.4 Assessment of social vulnerability | 5.4) 2 |
| | 5.5 Description of population and future expectations | 5.5) 1 |
| 6. Risk Analysis | 6.1 Hazard locations | 6.1) 2 |
| | 6.2 Historical occurrences | 6.2) 2 |
| | 6.3 Magnitude experienced and expected | 6.3) 2 |
| | 6.4 Probability of occurrence | 6.4) 1 |
| | 6.5 Historical and expected impacts | 6.5) 2 |

| | | |
|---|--|---|
| Component II Score (CQS-II) Total Possible Points = 26 | | 23 = 88% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 2 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 2 8.2) 0 8.3) 0 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 0 9.3) 1 9.4) 0 9.5) 2 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 13 = 59% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 1 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 5 = 83% |
| V. Specific Mitigation Actions | | |

| | | |
|--|---|--|
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 1 14.2) 0 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 1 16.2) 0 16.3) 1 16.4) 1 16.5) 0 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 10 = 50% |
| VI. Implementation | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 2 17.4) 2 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 16 = 100% |
| Overall Plan Score (PQS) | | 73 |

ESS - Travis County

| Component & Sub-Components | Specific Planning Elements Assessed | Score |
|---|--|-----------------|
| <i>I. Planning Process</i> | | |
| 1. General Description | 1.1 General description of planning process | 1.1) 2 |
| 2. Cooperation | 2.1 Stakeholder invitation to include neighboring communities, agencies with the authority to regulate development, and agencies involved in hazard mitigation | 2.1) 2 |
| | 2.2 Multiple outreach methods (email, call, letter) | 2.2) 2 |
| | 2.3 Multiple outreach attempts | 2.3) 2 |
| 3. Public Participation Techniques | 3.1 Formal public hearings | 3.1) 0 |
| | 3.2 Open meetings | 3.2) 2 |
| | 3.3 Workshops or forums | 3.3) 0 |
| | 3.4 Online survey | 3.4) 2 |
| | 3.5 Call-in hotlines | 3.5) 0 |
| | 3.6 Citizen advisory committees | 3.6) 0 |
| Component I Score (<i>CQS-I</i>) Total Possible Points = 20 | | 12 = 60% |
| <i>II. Fact Basis</i> | | |
| 4. Hazard Identification | 4.1 Hazard identification & descriptions | 4.1) 2 |
| | 4.2 Participation in NFIP, or plan to participate in NFIP, for all participating jurisdictions. | 4.2) 2 |
| | 4.3 Identification of current or potential evacuation routes or storm shelters | 4.3) 2 |
| 5. Vulnerability Assessment | 5.1 Assessment of property exposure | 5.1) 2 |
| | 5.2 Assessment of critical facility exposure | 5.2) 2 |
| | 5.3 Assessment of infrastructure exposure | 5.3) 2 |
| | 5.4 Assessment of social vulnerability | 5.4) 1 |
| | 5.5 Description of population and future expectations | 5.5) 2 |
| 6. Risk Analysis | 6.1 Hazard locations | 6.1) 2 |
| | 6.2 Historical occurrences | 6.2) 2 |
| | 6.3 Magnitude experienced and expected | 6.3) 2 |
| | 6.4 Probability of occurrence | 6.4) 1 |
| | 6.5 Historical and expected impacts | 6.5) 2 |

| | | |
|---|--|---|
| Component II Score (CQS-II) Total Possible Points = 26 | | 24 = 92% |
| III. Mitigation Goals & Objectives | | |
| 7. Economic Impacts | 7.1 Any goal to reduce losses or protect property from loss 7.2 Any goal to minimize fiscal impacts 7.3 Any goal to distribute hazard mitigation cost equitably | 7.1) 2 7.2) 2 7.3) 2 |
| 8. Physical & Environmental Impacts | 8.1 Any goal to preserve open space and protect recreation sites 8.2 Any goal to reduce hazard impacts on and maintain good water quality 8.3 Any goal to reduce impacts on and protect critical natural areas | 8.1) 1 8.2) 0 8.3) 0 |
| 9. Public Interest | 9.1 Any goal to protect the safety of the population 9.2 Any goal to promote hazard awareness 9.3 Any goal to use available resources effectively 9.4 Any goal to improve preparedness or response 9.5 Any goal to promote partnership with other agencies | 9.1) 2 9.2) 2 9.3) 1 9.4) 0 9.5) 2 |
| Component III Score (CQS-III) Total Possible Points = 22 | | 14 = 64% |
| IV. Inter-organization Coordination & Capabilities | | |
| 10. Capability Identification | 10.1 Identification of capabilities that will support mitigation | 10.1) 2 |
| 11. Capability Improvement | 11.1 Ability to expand or improve capabilities | 11.1) 2 |
| 12. Plan integration | 12.1 Identification of and intent to integrate the HMPs goals and strategy into other community plans | 12.1) 2 |
| Component IV Score (CQS-IV) Total Possible Points = 6 | | 6 = 100% |
| V. Specific Mitigation Actions | | |

| | | |
|--|---|---|
| 13. Structural or Infrastructural | 13.1 Development of new structures or infrastructure 13.2 Improvement of existing structures or infrastructure | 13.1) 2 13.2) 2 |
| 14. Environmental Protection | 14.1 Open space dedication 14.2 Increase water conservation | 14.1) 2 14.2) 2 |
| 15. Public Education | 15.1 Development and implementation of public education tools for all hazards | 15.1) 2 |
| 16. Policy or Regulation | 16.1 Prevent new development in certain hazard prone areas 16.2 Regulate new development in certain hazard prone areas 16.3 Property acquisition in floodplain 16.4 Building codes 16.5 Floodplain regulation | 16.1) 2 16.2) 0 16.3) 2 16.4) 2 16.5) 1 |
| Component V Score (CQS-V) Total Possible Points = 20 | | 17 = 85% |
| VI. Implementation | | |
| 17. Implementation | 17.1 Priority of actions 17.2 Clear designation of responsibility for implementation 17.3 Estimated costs for implementation 17.4 Identification of funding sources 17.5 Clear time-table for implementation | 17.1) 2 17.2) 2 17.3) 2 17.4) 2 17.5) 2 |
| 18. Evaluating, Monitoring & Updating | 18.1 Description of process 18.2 Identification of participants in process 18.3 Plan for evaluation of mitigation projects progress and effectiveness | 18.1) 2 18.2) 2 18.3) 2 |
| Component VI Score (CQS-VI) Total Possible Points = 16 | | 16 = 100% |
| Overall Plan Score (PQS) | | 84 |