

# I THE PLANNING PROCESS

## *Purpose*

FEMA defines mitigation as the effort to reduce loss of life and property by lessening the impact of disasters. The Local Mitigation Strategy (LMS) is the plan that identifies risks and possible solutions to reduce the effects of those risks through a set of goals and objectives set forth by a committee devoted to implement the plan. The LMS utilizes the “whole community” approach in order to present solutions through projects and identified funding sources which ultimately enhances collaboration between the local governments, private sector, and engaged citizens in order to protect businesses, nonprofit organizations, faith based organizations, private homes, and critical government facilities. Mitigation has become an essential mission area for emergency management. Mitigation activities may be implemented prior to, during, or after an incident. However, hazard mitigation is most effective when based on an inclusive, comprehensive, long-term plan that is developed before a disaster occurs. In response to the loss of life and property from recent disasters, and the prospect of even greater catastrophic loss in the future, the Local Mitigation Strategy has been developed to provide a conceptual framework to reduce these losses by breaking the cycle of “disaster event-rebuilding-disaster.”

Pasco County and its municipalities first developed a unified LMS in the late 20<sup>th</sup> century, and the plan was updated in 2014 in response to guidelines set forth in the Disaster Mitigation Act of 2000 (DMA 2000) and its most recent FEMA required review. This 2019 update represents unincorporated Pasco County; the five cities of Dade City, New Port Richey, Port Richey, San Antonio, and Zephyrhills; and the Town of St. Leo, in their combined commitment to mutual aid and mitigation planning. As a result of incorporating everyone, the County is more resilient to the disruption and impacts of disasters, and positions itself to reduce the financial and emotional cost of disaster. The burden of recovery and the price of rebuilding post-devastation is greater than the cost of planning and preparing before disaster strikes.

The purpose of the LMS is to establish an ongoing process that will make hazard mitigation part of the daily function of the entire community. The LMS planning process assesses the vulnerability of the community with an “All Hazards, Whole Community” approach. It identifies a comprehensive list of Plans; programs and projects developed to reduce the severity of impacts from hazards and prioritize the implementation of these activities.

The DMA 2000 mandated further expansion of the planning process by requiring the LMS to include a description of the planning process. In this section, the description includes the sequence of events for the planning process. This includes who was involved in the process, how the proposed development was actually accomplished, and how the public was involved.

The first step in the planning process for the LMS update was to reevaluate and revise the goals and objectives in order to enhance new projects and solutions based on the recent hardships, (identified in Appendix E and F) Pasco County experienced. Pasco County currently has several existing programs and plans related to hazard mitigation and post-disaster redevelopment. These programs and plans include the Comprehensive Emergency Management Plan, Floodplain Management Plan, Local Comprehensive Plans, Local Land Development Regulations, National Flood Insurance Program,

Stormwater Management Plan, Building Codes, Zoning Ordinances, establishment of the Environmental Lands Acquisition & Management Program, and the Hurricane Mitigation Ordinance. The existing programs and resources support a foundation necessary to identify additional planning and regulatory requirements. The review of existing programs and resources has provided a foundation necessary to identify additional planning and regulatory requirements for this update and will continually be used moving forward.

The second step in the process of updating this plan was to review and update the hazards Pasco County is vulnerable to and conduct an assessment of the impact on people, property and public infrastructure. The final step is to continue to identify and update a list of potential mitigation programs and projects that support the Goals and Objectives and the results of the identified hazard assessments. This ongoing evaluation of projects occurs during quarterly LMS meetings.

Mitigation projects fall into three broad categories: design and construction guidelines (structural), environmental interventions, and non-structural interventions. Structural mitigation projects identified through the LMS include the strengthening of vulnerable structures, public facilities, and other critical infrastructure. These projects are designed to ensure these structures withstand wind, flooding, fire, and other hazards. A few examples of structural mitigation are elevation of facilities or homeowner properties, hardening of critical facilities, and upgrades of stormwater infrastructure. Environmental intervention refers to actions that reduce the vulnerability of communities hardening them against the elements. This category commonly includes the works of engineers as well as the purchase and/or the protection of environmentally sensitive lands, wildlife habitats, beach restoration and planting vegetation on loose hillsides. Non-structural mitigation usually refers to policies for avoiding hazard impacts. These policies may include zoning restrictions, acquiring land in the floodplain, promoting citizen awareness of hazard risks, and assessment of shelter mitigation initiatives. The LMS includes educational programs and the development of a Post-Disaster Recovery Ordinance. The implementation of a mitigation program is a key component in the achievement of a “sustainable community” one in which citizens, businesses and institutions are protected from the disruptions and impacts of emergencies, hazards, and disasters.

Implementation of the LMS has and will continue to decrease human and economic costs of disaster. Addressing public and private vulnerabilities within our community remains essential before a disaster strikes. Projects are created to find a solution to vulnerabilities and therefore creating a more effective plan for hazard mitigation, which is then shared and adopted during public LMS meetings to provide transparency to the whole community. In addition, this sharing of information reduces duplication of effort and increases collaboration between government entities, private partners, homeowners, and municipalities on project identification and execution. The increase in collaboration provides new avenues for offsetting costs for projects. The LMS provides eligibility for Pasco County to receive federal dollars. Without an LMS that has been approved by the community, specific grant funding is not attainable and without funding, projects and programs cannot be implemented.

The majority of the LMS incorporates pre-disaster assessments and solutions; however, post disaster actions must be in place to make Pasco County a more resilient community. A long-term plan for reconstruction of impacted areas after a disaster occurs is instrumental in assuring the community does not continue to suffer repetitive losses. Continuous updates to policies for building codes,

wetland protection, and local ordinances located in other plans throughout the County were taken into consideration in the development of the LMS.

Members will continue to recognize the importance of the “whole community” approach to this plan and encourage more proactive approaches to prevent and enhance the resilience throughout Pasco County. As such, all government entities will formally adopt the LMS update by resolution after FEMA has conditionally approved the plan.

### ***Local Mitigation Strategy Working Group (LMSWG)***

The LMSWG includes Participants and Other Interested Parties. The LMSWG develops the LMS by establishing the planning process, goals and objectives, identifies and estimates hazards threatening the County, determines the vulnerability to identified hazards, analyzes current mitigation policies and programs, identifies proposed mitigation initiatives, ensures development of the LMS, and periodically reviews and updates the LMS as necessary. The LMSWG will meet annually to review and make recommendations for amending the LMS plan, if necessary. The LMSWG may continue to have quarterly meetings for minor updates, project inclusion, and any other pertinent topics.

For FEMA - five year updates, the LMSWG will have a voting panel to ensure that all municipalities are included in the update. This panel will be comprised of at least one voting representative from each of the local jurisdictions within Pasco County to ensure the entire involvement of the community, consistent with the “whole community” approach. One representative must be present to vote on major items from the cities of New Port Richey, Port Richey, Zephyrhills, Dade City, St. Leo, and San Antonio. The panel will include two individuals who will represent unincorporated Pasco County. The LMSWG will have the authority to make minor changes to the LMS at the quarterly meetings and annual update meetings on behalf of the voting panel.

Members of the LMSWG coordinated the development of the LMS with neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, businesses, academia and other private and non-private interests. These agencies and groups were invited and encouraged to actively participate in the planning process by attending LMSWG meetings. The representatives’ acceptance of the invitation, formal or verbal, and actual attendance initiated their commitment to the effort. Formal invitations to the LMSWG are conducted through email correspondence and an announcement on Pasco County’s website calendar. A copy of the formal invitation can be referenced in Appendix A for each meeting. The representatives committed their time and available resources to develop a mitigation strategy that would protect life, property, and the environment as well as contribute to the economic well-being of the County.

Each participating agency and group presented its programs, identified mitigation opportunities and subsequently had an opportunity to comment on preliminary and draft versions of the LMS. The Working Group reviewed each agency’s function and identified more opportunities for mitigation, including some applicable to agencies not present. The LMSWG incorporated appropriate comments and distributed a final copy of the LMS to all participants. At the conclusion of the 2019 update to the LMS and after approval is provided by FEMA, the LMS will, within the next twelve months, be formally executed and adopted by the legislative bodies of Pasco County and its municipalities.

## **Participants**

Participants are defined as those entities that would be eligible applicants for federal assistance in the case of a disaster. This includes public agencies and private non-profits assigned responsibilities under the Comprehensive Emergency Management Plan (CEMP). Participants also include Emergency Management staff, and support staff from county and city departments, such as Community Development, Development Review Services, Facilities Management, Geographic Information Services, Zoning, Planning and Development, Parks, Recreation, and Natural Resources, Public Safety, Public Works, Utilities Services, and Stormwater Management.

## **Other Interested Parties (OIP) – Public Participation**

In order to ensure a cross-section of the community was involved in the development of the LMS, a designation of “Other Interested Parties” was established. Other Interested Parties (OIP) are citizens, businesses, contiguous counties, regional entities, etc. who may be affected by provisions in the plan. OIP do not have any requirement for participation; however they are provided the opportunity to review the work products developed by the Participants and providing comment to the LMSWG. All interested parties were encouraged to review and comment on the plan and submit appropriate projects. Some of the agencies, organizations, associations and businesses represented in OIP are the American Red Cross, Greater Dade City Chamber of Commerce, Emergency Management representatives from surrounding counties, the Pasco County Economic Development Council, and Tampa Bay Regional Planning Council, Florida Forest Service, Florida Division of Emergency Management, and FEMA Region IV representatives.

## **Public Involvement**

An open public involvement process is essential to the development of an effective plan. The open nature of the LMSWG meetings and ability for the public to attend update sessions was a priority during the update of the LMS. Additionally, it was imperative that the citizens of Pasco County were informed and educated about the LMS at various outreach functions. All LMS meetings were advertised on the County website. The plan, prepared by the Pasco County Emergency Management, was created with a whole community approach which considers input of all interested individuals and agencies, with the public being given many opportunities to participate and contribute to its finalization before, during, and after LMSWG meetings. Also, all members of the LMSWG may contact Pasco County Emergency Management during non-emergency and normal business hours to comment on the plan, projects incorporated in the plan, and anything discussed at LMSWG meetings. The LMSWG has representation from homeowners and homeowner associations who actively participate, vote on project inclusions, and other items involved in the LMS plan and updates to the plan.

Pasco County remains dedicated to involving the public directly in the continual reshaping and updating of the LMS. The LMSWG members are responsible for the annual review of the plan and recommendations to update the LMS. Although they represent the public to some extent, the public will be able to directly comment on and provide feedback concerning the LMS. Appendices A document community attendance at Mitigation Committee meetings.

Upon approval of the plan by FEMA, copies of the LMS Update will be catalogued and made available at County Public Libraries, as well as the New Port Richey Library and published on the Pasco County Emergency Management website located on the main County website ([www.pascocountyfl.net](http://www.pascocountyfl.net)). The existence and location of these copies will be publicized in public notices. The copies in the libraries will have a first page in the binder containing the address and phone number of the County Emergency Management Staff Member(s) responsible for keeping track of public comments on the plan. A notice will also be posted on the County website regarding the public availability of the LMS Update copies at the libraries. The most recent FEMA and Board of County Commissioner approved LMS will remain on the new Pasco County Emergency Website. In addition, the new website will incorporate LMSWG meeting minutes and any LMS updates to the LMS as required by Florida Administrative Code 27P-22.004 starting after the October quarterly meeting of 2018. The site will also include an e-mail address and phone number to which people can direct any comments or concerns.

Public notices will be distributed prior to each LMSWG meeting to encourage the “whole community” approach, increase community awareness and further encourage public involvement. Each LMSWG will be an open forum where anyone may comment, question, or express concerns, opinions and/or ideas about the LMS.

The LMS has provided educational information for various outreach events since 2014:

- The Annual Pasco County Disaster Expo conducted by Emergency Management
- Watershed Community Meetings conducted by the Community Rating System Coordinator
- Homeowner Consultations conducted regarding Hazard Mitigation Assistance Grant opportunities conducted by Emergency Management
- Various pre-hurricane season Emergency Management Speaking Engagements that target assisted living facilities, homeowner associations, schools, nursing homes, etc.
- Citizen Corps and CERT classes
- Meetings with private businesses and other nonprofit organizations

### **Multi-Jurisdictional Participation**

In addition to Pasco County Emergency Management acting as one of the representatives for Pasco County, the cities of New Port Richey, Port Richey, Zephyrhills, Dade City, San Antonio, St. Leo and existing members of the Local Mitigation Strategy Working Group (LMSWG) formed the core of the planning effort. No jurisdictions opted out of the planning process during this revision cycle. Each of these groups assisted in the maintenance and participation in the LMSWG. The LMSWG’s multi-jurisdictional participation allows for more effective communication to the community and business organizations that help drive the LMS. In addition, each of the participating members was charged with:

1. Assisting with the development and updates of the plan.
2. Reviewing the initial drafts for accuracy relative to their jurisdictions.
3. Identifying potential mitigation projects for their areas of responsibility.
4. Providing updates to ongoing mitigation projects
5. Reporting successful or unsuccessful project completions
6. Providing assistance with project prioritization.

7. Reviewing and providing concurrence with the proposed risk analysis.
8. Adoption of the plan for their jurisdiction.

### ***The Planning Process***

In January 2018, the LMSWG was notified that the LMS plan was to be resubmitted to FEMA before August 2019 for renewal. As such, the group worked to meet the new mitigation criteria established in the 2018 Florida State Hazard Mitigation Plan. Throughout the year, the LMSWG members were asked to join subcommittees to assist in updating specific sections of the main document. The members provided feedback, and project status. Simultaneously, Pasco County Emergency Management staff was tasked with updating the risk analysis section of the plan. Upon completion of all tasks, Pasco County Emergency Management conducted a final review of the LMS Plan using the new criteria set forth in the State Local Mitigation Update Manual and the required Mitigation Plan Review Checklist. Pasco County Emergency Management believes that the Pasco County LMS remains compliant with Federal criteria and has submitted the plan to the Florida Division of Emergency Management for review.

During the January annual update meeting of 2018, Pasco County Emergency Management initiated the process of the updating the plan by explaining to the LMSWG the purpose of the LMS and why it is essential that there is involvement throughout the remainder of the update. Representatives from each jurisdiction were in attendance. All attendees of this initial meeting were encouraged to participate in the plan update and encouraged to increase community participation through their contacts.

Prior to this meeting in 2018, Emergency Management brought forth a new method to submit and rank projects that was adopted by the LMSWG for the LMS. Since the summer of 2016, the Committee has introduced, edited, and adopted these new methods. The project submissions for the LMS were in need of revision as they were too in depth and one dimensional. The group felt that the use of a an open ended questionnaire regarding submission for the project list provided a better understanding of the project being presented for consideration, the ranking process and progress tracking. The ranking process was updated as the group decided the 10 point structure provided better detail for each criterion and showed better representation for newly adopted projects that have already had funding sources identified, in addition to exposure and benefit to the whole community.

Following the 2016 annual update meeting, the LMSWG started implementing subcommittees. Subcommittees were formed to focus on specific portions of the LMS during the planning process. Fortunately for the LMSWG, the subcommittee process allowed the LMS to be updated more productively. The subcommittees would be created with either voluntary participants or invited by Pasco County Emergency Management as Subject Matter Experts from the LMSWG to complete the project. The subcommittees would focus attention on specific portions of the LMS and present their edits and revisions to the LMSWG where final edits and feedback could be implemented before the LMSWG amended and adopted the changes.

Shortly after Hurricane Hermine in 2016, the LMSWG identified gaps in the Goals and Objectives of the LMS. The plan's goals and objectives were very general and did not provide specific direction for the LMSWG to move forward. Noticing this gap, the LMSWG was presented with the existing

goals and objectives from 2016. A subcommittee formed to complete the revision of this section. This group met and collaborated virtually and in person to finalize new goals and objectives that would be presented to the entire LMSWG for final review, feedback, and final editing. Ultimately, the LMSWG amended the changes initially created by the Goals and Objectives Subcommittee and finalized through the main group.

Project lists were consistently shared with the LMSWG throughout the last 5-years to ensure accurate project updates were provided to the LMSWG and that eligible grant funding was identified and presented. The LMSWG was tasked with providing all updates to Pasco County Emergency Management to ensure the list remained up to date. Pasco County Emergency Management provides any participant the time to provide newly identified projects, which relates to the goals and objectives of the LMS, and allow them to present it to the LMSWG for amendment to the LMS Project List. In addition, Pasco County Emergency Management would communicate with project leads to obtain a status update for existing projects, if one was not provided, in the weeks leading up to annual update meetings. At the conclusion of each annual update meeting, projects that were unable to continue, or were completed were retired and removed from the active LMS project list. The LMSWG archives all projects on a master project list for any future inquiries regarding specific projects. This archive of projects has enabled Pasco County to apply grant funding for special projects as funding opportunities become available.

The group was instructed to look at the approved 2014 Local Mitigation Strategy and specifically read over the Risk Assessments and Vulnerabilities for their review and input. Pasco County Emergency Management took the lead on compiling the data required for updating the Risk Analysis and assembling that information into a comprehensive format. Pasco County Emergency Management requested a subcommittee to focus more specifically on the compiled data and provide additional feedback is created. Of specific interest were comments from subject matter experts in flooding and wildfire as these remain common risks in our region.

Each member of the subcommittee reviewed the hazards that Pasco County may be vulnerable to and the assessment of each hazard as well as the anticipated impact it may have on people, property and public infrastructure. At the conclusion of the review period, the subcommittee provided additional input into the Risk Assessment which was used to further revise and update the plan. Pasco County Emergency Management then reviewed existing County and municipal policies, programs, ordinances and plans. Pasco County currently has several existing programs and plans related to hazard mitigation and post-disaster redevelopment. These programs and plans include the Comprehensive Emergency Management Plan, the Floodplain Management Plan, Local Comprehensive Plans, Local Land Development Codes and Regulations, Community Rating System Program for Public Information (CRSPPI), National Flood Insurance Program, Stormwater Management Plan, Building Codes, Zoning Ordinances and the Environmental Sensitive Lands Program. These plans were reviewed with the subcommittee. It was agreed that each of the aforementioned plans contained information that is both detailed and relevant to the mitigation efforts that further support the mission of the Local Mitigation Strategy.

In summary, the planning process was inclusive in that all participants in the LMSWG were provided the opportunity to review, comment and otherwise contribute to all aspects of the plan. At the core of

the mitigation planning process was the coordination and partnership among the governmental units involved in the planning process as well as the input from private citizens and businesses.

As a final note, members of the LMSWG and OIPs are listed in Appendix K. The listing will identify that the LMS is comprised of a co-chair system between the Pasco County Emergency Management Director and the County Administrator. Appendix K also includes the legislative resolutions to be presented to the Pasco County Board of County Commissioners and other governing bodies certifying their approval and acceptance of the LMS update.

## ***The Community***

The population of Pasco County is growing exponentially. Because of the growth in population, there are changes in the County's demographic makeup and age distribution. From 2000 to 2010, Pasco County grew by 34.8% – the highest in the Tampa Bay Region. It has also grown younger, more mobile and diverse. Changing demographics include a shift from smaller, “empty-nest” families to larger family households with two or more children. The County is also becoming more ethnically diverse with considerable increases in its Asian, African-American and Hispanic populations. Other trends include a spike in its rental population and a dip in its median age from 44.9 in 2000 to 43.6. Although the population is younger overall, 20% of residents are over age 65. The last decade saw a rise in per capita income with increased median earnings for both men and women. But despite an overall improvement in economic health, many households are significantly “housing burdened” (spending over 30% of monthly household income on housing expenses). Additionally an aging housing stock, homelessness, and aging baby boomer populations are some of the trends that pose critical social and economic challenges for post-disaster redevelopment.

### **Population Density**

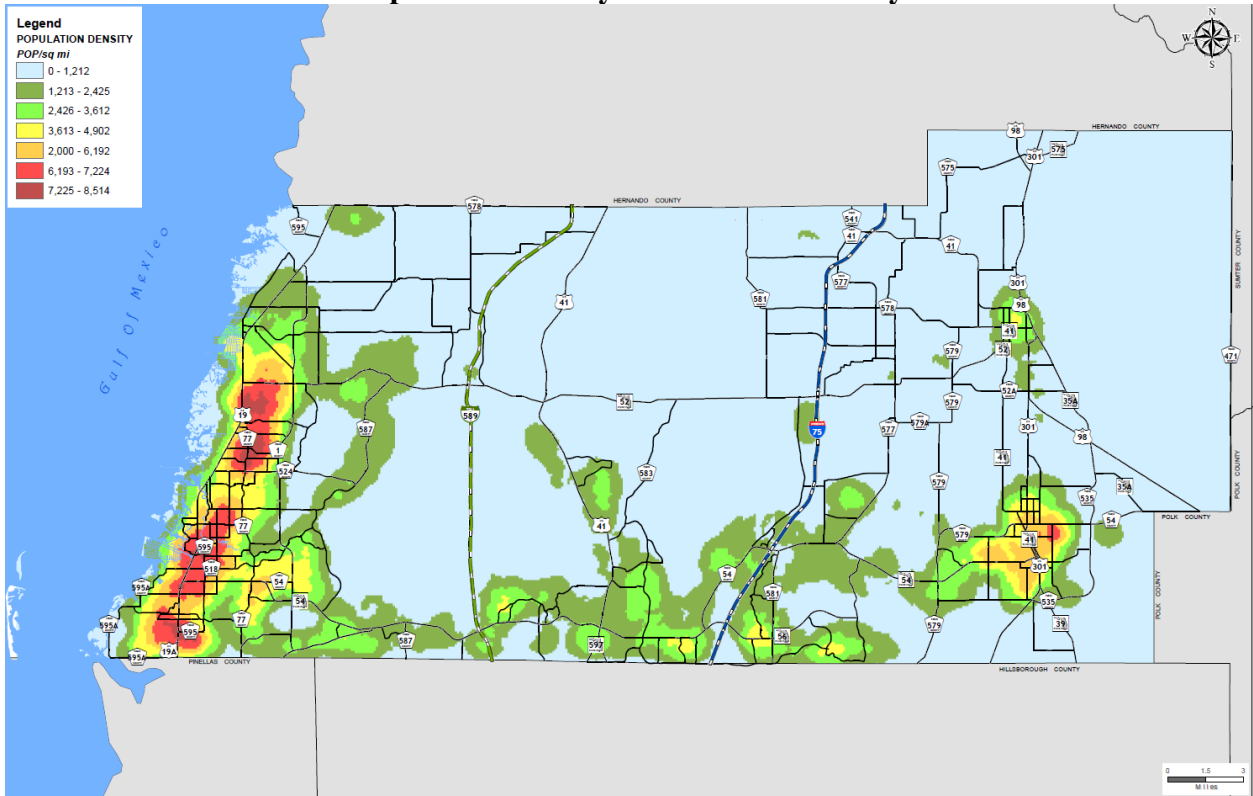
With a land area of 745 square miles, Pasco County has the highest percentage of undeveloped land within the Tampa Bay Region. According to the 2010 U.S. Census, Pasco County has a population of 464,697 with the majority of its population (91.4%) still residing in the unincorporated areas (see Figure 1.1). The highest concentration of population exists towards the western coast between US 19 and Little Road with a population density of at least 2,000 to 4,000 people per square mile. The next map indicates the distribution of population density in Pasco County (Figure 1.2).

**Figure 1.1**  
**Pasco County Population**

| Jurisdiction                   | Population<br>2000 | Population<br>2010 | % Change<br>2000 - 2010 | Population<br>Estimates<br>2016 |
|--------------------------------|--------------------|--------------------|-------------------------|---------------------------------|
| <b>City of New Port Richey</b> | 16,117             | 14,911             | -7.5                    | 15,503                          |
| <b>City of Port Richey</b>     | 3,021              | 2,671              | -11.5                   | 2,731                           |
| <b>City of Zephyrhills</b>     | 10,833             | 13,288             | 22.7                    | 14,454                          |
| <b>Dade City</b>               | 6,188              | 6,437              | 4.0                     | 6,782                           |
| <b>City of San Antonio</b>     | 655                | 1,138              | 73.7                    | 1,129                           |
| <b>Town of St. Leo</b>         | 595                | 1,340              | 125.2                   | 1,172                           |
| <b>Total (Incorporated)</b>    | 37,409<br>(10.8%)  | 39,785 (8.6%)      | 6.35                    | 41,771                          |
| <b>County Total</b>            | 344,765            | 464,697            | 34.8                    | 488,310                         |

*Source: U.S. Census Bureau 2000 and 2010 population, and 2016 American Community Survey 5-year estimated population.*

**Figure 1.2**  
**Population Density within Pasco County**



*Source: Pasco County Geographical Information Systems and U.S. Census Bureau 2014 population*

Other areas that have shown significant growth in the recent decade are the south central and eastern portions of the County that are in close proximity to the I-75 corridor, Suncoast Parkway, State Road 54, and State Road 56 interchanges. According to the 5-year estimate by the American Community Survey, the population increased to 488,310 in 2016. The County continues to grow at a rapid pace. Pasco County is expected to maintain these same growth patterns into 2035 and 2050, with the majority of the population still residing along the coastal and inland western areas of the County, and

population increasing along the State Road 54 and State Road 56 corridor. Because of its geographical location, many Pasco County residents commute to surrounding counties for employment opportunities.

As Pasco County continues to experience growth pressures, it becomes extremely critical to effectively direct the new growth in a manner that considers hazard mitigation and efficiently utilizes and enhances its resources to protect life, property, and the environment from the impacts of disasters to the greatest extent possible.

### ***Vulnerable Populations***

#### **Seasonal Population and Migrant Workers**

Pasco County also has a regular influx of seasonal population which includes tourists, short-term or long-term visitors, and persons who live here part of the year which includes migrant farm workers. The coastal areas (i.e. evacuation zones) have a moderate concentration of tourists during the winter months. Figure 1.3 shows the housing vacancy status for Pasco County in 2016 and approximately 68% of the vacant properties owned are considered seasonal, recreational, or occasional use and the homeowner has permanent residence elsewhere.

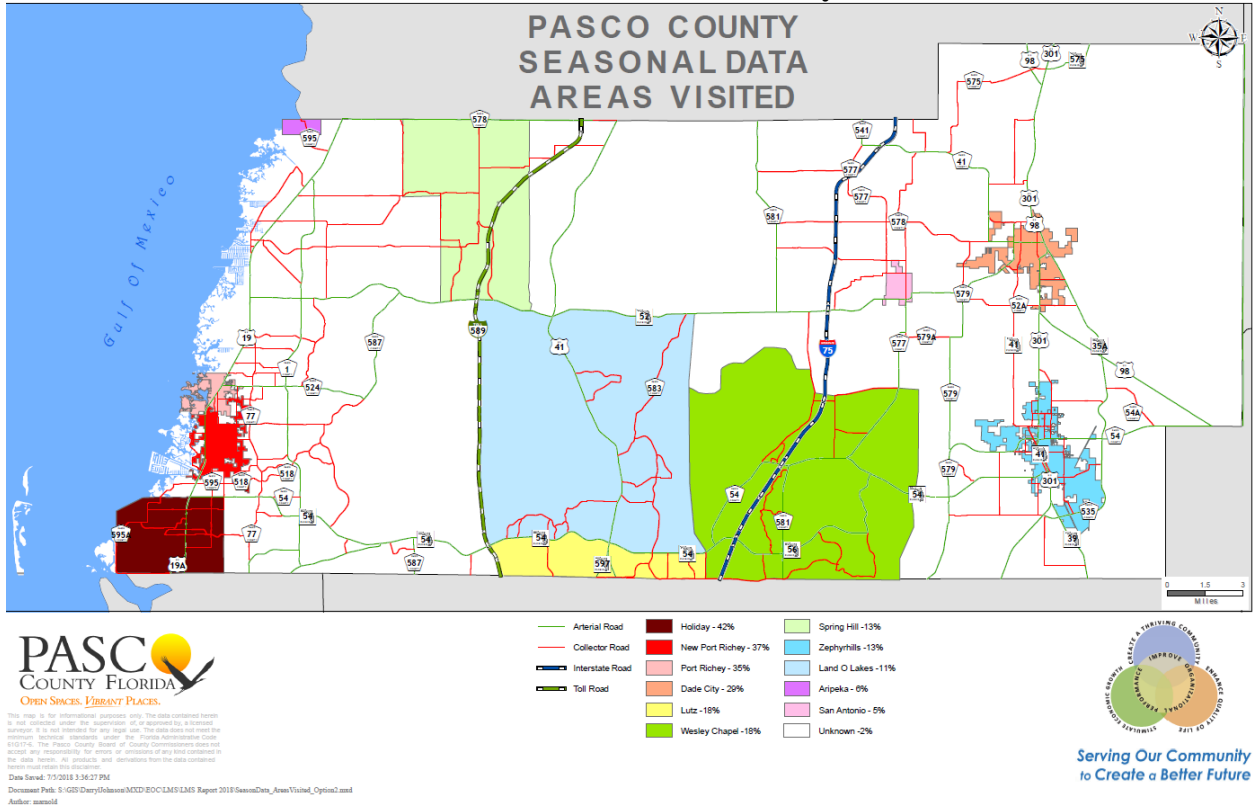
**Figure 1.3  
Pasco County Housing Vacancy Status**

|                                                            |               |
|------------------------------------------------------------|---------------|
| <b>Seasonal, Recreational, or Occasional Use</b>           | <b>20,794</b> |
| <b>Vacant – Current Residence Elsewhere</b>                | <b>2,194</b>  |
| <b>Rental, For Sale Only, Rented or Sold, not Occupied</b> | <b>10,650</b> |

*Source: U.S. Census Bureau 2016 Housing Data and Pasco County Office of Economic Growth*

The Pasco County Office of Economic Growth advises that the Southeastern United States hosts 55% of all tourism and that Florida is the number 1 tourist destination for North America Countries and States. During the summer of 2018, 42% of Pasco County’s guests visited the Holiday area. Other favorite visitor destinations include New Port Richey, Port Richey, Dade City, Lutz, and Wesley Chapel. The western locations may be popular because of the proximity to beaches and water access to the Gulf Coast, close proximity to Tarpon Springs in Pinellas, and major thoroughfare of U.S. 19. The popularity of the eastern locations may be related to I-75 corridor and major thoroughfare of U.S. 301, the developing tourist attractions in Wesley Chapel, and the close proximity to the City of Tampa (see Figure 1.4).

**Figure 1.4**  
**Areas Visited in Pasco County**



Source: Pasco County Office of Economic Growth and Pasco County GIS

## The Elderly

Just over 20% of the County’s population is age 65 and above (Figure 1.5), out of which approximately 3% is over the age of 85. Moreover, the 65 years and older population estimate increased by 2% since 2010. Most of the 65 year and older population is concentrated along the western and south-eastern part of the County. A majority of the minority low-income elderly are concentrated primarily in east Pasco, with highest concentrations in Dade City, Lacoochee, and Tribly.

**Figure 1.5**  
**Pasco County Age Distribution**

| Age                | Population<br>2010 | Percentage<br>2010 | Estimated<br>Population<br>2016 | Estimated<br>Percentage<br>2016 |
|--------------------|--------------------|--------------------|---------------------------------|---------------------------------|
| Under 5 years      | 25,664             | 5.5                | 25,415                          | 5.2                             |
| 5 to 19 years      | 83,322             | 17.9               | 84,667                          | 17.3                            |
| 20 to 34 years     | 71,398             | 15.3               | 77,101                          | 15.8                            |
| 35 to 64 years     | 237,275            | 51.1               | 243,861                         | 39.2                            |
| 65 years and above | 96,245             | 20.7               | 109,345                         | 22.4                            |

Source: U.S. Census 2010 SF1 Table and 2016 American Community Survey 5-year estimates

Disasters usually affect older people disproportionately. As mentioned in a Center for Disease Control (CDC) report, more than 70% of those who died as a result of Hurricane Katrina were elderly. Many of the 200 people who died as a result of the hurricane in Mississippi were also older adults. People over 65 years of age are specifically vulnerable due to both physical and financial reasons. The CDC explains that 80% of older adults have at least one chronic condition which makes them more vulnerable than younger, healthier adults. The combination of the stress related to the chronic condition mixed with additional stressors in a disaster emergency increases this age group's risk of being negatively impacted by a disaster. The CDC explains that 75% of Americans over age 65 have two or more chronic conditions that stress the body, which exponentially increases with additional stress of an impending disaster. In addition, according to the American Medical Association, there is a greater probability that seniors may be more susceptible to fraud and financial exploitation during times of crisis than other populations.

### **Children**

Children are also vulnerable after disasters due to their physiological sensitivities, their susceptibility to disease or illness, and their growth status. FEMA reports that children are easily influenced by their caregivers' thoughts, behaviors, and feelings. Children have not matured and remain easily impressionable and sensitive to major events that occur in their early years. Children are particularly vulnerable to post-disaster stress and anxiety and will require special and prolonged care to treat the lasting effects of the trauma they have experienced during a disaster. Dependent children will cause additional delays in recovery as parents may need to care for their children and not be able to return to work immediately. Approximately 22.5% of Pasco County's estimated 2016 population is of age 19 years or younger and 5.2% is below 5 years of age.

### **Disabled Persons**

Approximately 17.5% of the County's population above the age of 5 years has some form of disability. The United States Census Bureau defines disability as "a long-lasting sensory, physical, mental, or emotional condition or conditions that make it difficult for a person to do functional or participatory activities such as seeing, hearing, walking, climbing stairs, learning, remembering, concentrating, dressing, bathing, going outside the home, or working at a job." Figure 1.6 breaks down the estimated population reporting disabilities by age group.

**Figure 1.6  
Disabilities by Age in Pasco County**

|                                     | Population by<br>Age | Population<br>Percentage by Age |
|-------------------------------------|----------------------|---------------------------------|
| <b>Population under 5 years</b>     | 25,406               | 100%                            |
| <b>With a disability</b>            | 159                  | 0.63%                           |
| <b>Population 5 to 17 years</b>     | 74,547               | 100%                            |
| <b>With a disability</b>            | 5,076                | 6.81%                           |
| <b>Population 18 to 64 years</b>    | 275,242              | 100%                            |
| <b>With a disability</b>            | 37,014               | 13.45%                          |
| <b>Population 65 years and over</b> | 107,252              | 100%                            |
| <b>With a disability</b>            | 38,226               | 35.64%                          |
| <b>Population 5 years and over</b>  | 457,041              | 100%                            |
| <b>With a disability</b>            | 80,475               | 17.61%                          |

*Source: 2016 American Community Survey Estimates.  
Pertinent Information Taken from Table B1801, Sex by Age by Disability Status*

### **Special County Outreach: Special Needs Disaster Preparedness Packet**

Recognizing that there are a large number of disadvantaged and disabled persons living in the County, Pasco County Emergency Management prepared a unique outreach packet for those who may require special assistance during a time of disaster, including finding a place to shelter and transportation during an evacuation. Appendix B includes a Special Needs Disaster Preparedness Packet that includes a registration form, Special Needs Shelter Fact Sheet, and information the resident would need if they are driving themselves to the shelter. The database of registered citizens includes roughly, 1,500 people, who have advised the County of their need for disaster support.

As of July 2018, 3,089 people were registered with the Pasco County Special Needs Program for evacuation transportation and shelter assistance. Approximately 12% of the registrants (369) are oxygen dependent for 24 hours a day, 17% are hearing impaired (537 registrants), 18.5% are visually impaired (571 registrants), and a combined 6% have both hearing and visual impairments (177 registrants). In regards to more likely evacuations, roughly 38% of the people registered (951) reside in predetermined hurricane evacuation areas, Levels A through E, or live in vulnerable mobile homes (222) throughout the county. To further complicate evacuations and possible shelter needs, approximately 23% of the County’s population lives in mobile homes and are historically asked to evacuate first in major events due to structures being extremely vulnerable.

### **Homeowner vs. Rental Population**

Understanding the percentage of renters in Pasco County is important. The rental population is more mobile and is most likely to leave the County and not return in the event of a major disaster. According to the 2016 American Community Survey (ACS) Estimates, approximately 29% of the Pasco County population lives in rental housing units.

Losing population following a catastrophic event can have severe impacts on the County’s economy making it increasingly difficult to recover quickly. This is a major concern for Pasco County especially since the County has seen an increase renter occupied units from 2010 to 2016 by more than 25% (see Figure 1.7). Pasco County Community Development’s Analysis of Impediment of Fair Housing provides an explanation to this phenomenon by relating it to the recovery process from the housing crisis of that occurred after the turn of the century. Many homes went into foreclosure during the crisis and are now being purchased by investors with the intent to rent.

**Figure 1.7  
Renter vs. Owner Occupied Housing**

| Year                | Renter Occupied Housing Units | Owner Occupied Housing Units | Median Property Value | Percent of Owner Occupied Units |
|---------------------|-------------------------------|------------------------------|-----------------------|---------------------------------|
| 2010                | 39,309                        | 144,148                      | \$157,400             | 79                              |
| 2013                | 48,781                        | 135,342                      | \$120,000             | 74                              |
| 2016<br>(estimates) | 51,432                        | 137,860                      | \$122,100             | 73                              |

*Source: U.S. Census Bureau 2000, 2010 Population, and 2016 American Community Estimates.*

## Income

A strong socio-economic status enables communities to quickly absorb and recover from losses whereas a weak one hampers their recovery and ability to return to normalcy. The Bureau of Labor and Statistics explains that employment rates have decreased to approximately 3% for July 2018, which is over 7% decrease since 2010. Additionally, the ACS estimates for 2016 approximately 25.5% of Pasco County households had a household income less than \$25,000 and around 6.7% had less than \$10,000. Moreover, in 2010 approximately 15.1% of the population was below the poverty line in comparison to 11% in 2000. In 2016, an estimated 13.6% of the County’s population fell below the poverty line which is a slight improvement compared 15.1% recorded back in 2010.

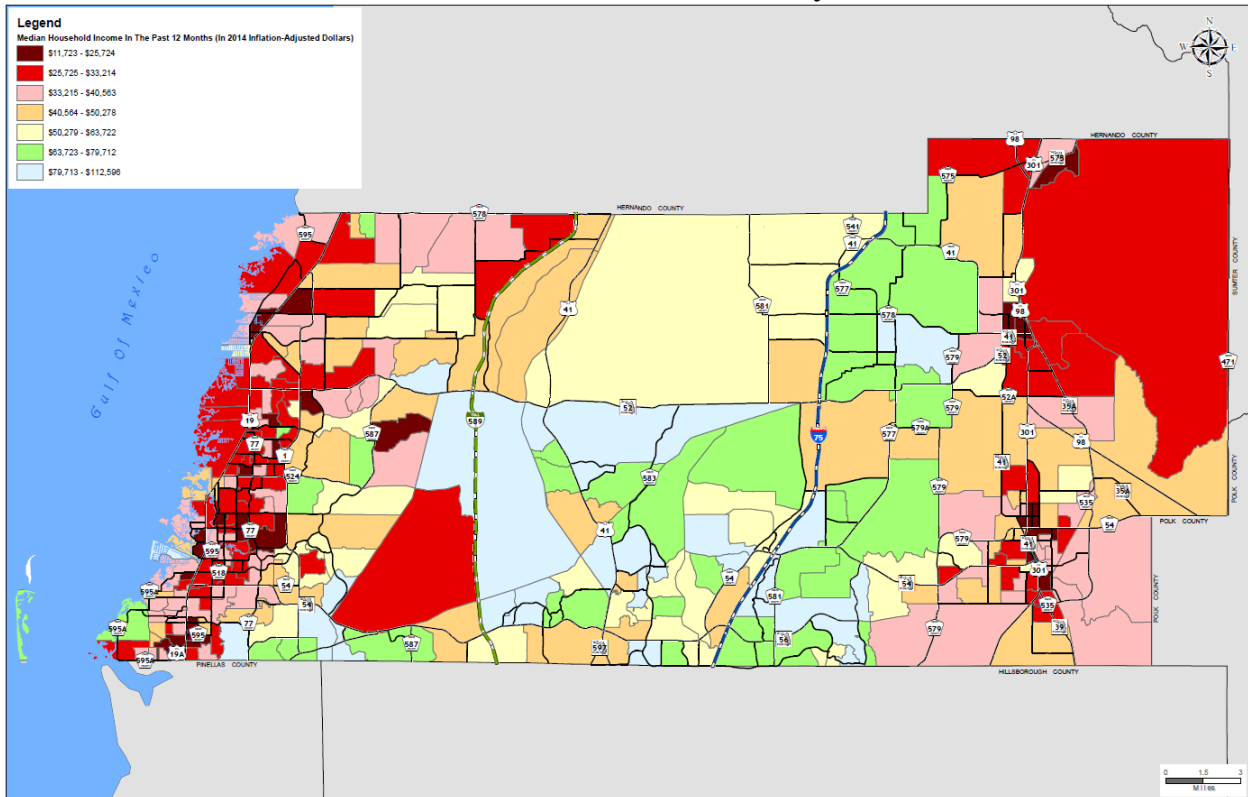
According to the U.S. Census Bureau and the Pasco County Environmental Scan Report of 2017, the median household income reported for 2014 was \$45,064. Approximately 26.4% of the County’s population reported a household median income less than \$25,000 and 7.1% reported less than \$10,000. Figure 1.8 shows these populations are located primarily in portions of New Port Richey, Port Richey, Bayonet Point, Dade City, and Lacombee.

The Economic Distress Criteria reported by the U.S. Bureaus of Census, Labor Statistics, and Economic Analysis<sup>1</sup> shows that Pasco County remains under national averages. The per capita money income, income solely from wages, falls 15.43% below the national average. The per capita personal income, income from wages and other sources like rent or investments, still represents an approximate 25% shortfall from the national average. This may be, but not solely related to the education attainment documented in the Social Economic Context report that is complete in conjunction with the Economic Distress Criteria report in Figure 1.9. The Social Economic Context report states that approximately 55% of Pasco County residents have only received their high school diploma (or equivalent) or some complete college classes (with no degree). Many of the higher paid jobs now have requirements for higher education, which over half of the County does not possess. In

<sup>1</sup> <http://www.statsamerica.org/distress/distress.aspx>

addition, the County has longer commute times, approximately 5 minutes longer compared to the nation. This will increase vehicle maintenance costs for the approximately 89% of the County that uses personal vehicles to commute. An estimated 3.4% of the population uses public transportation, walking, or other means to commute to their employer.

**Figure 1.8**  
**Median income in the Past 12 Months by Household**



Source: U.S. Census Bureau 2014 and Pasco County GIS

**Figure 1.9**  
**Economic Distress Criteria – Primary Elements**

|                                           | Region   | U.S.     | Threshold Calculation |
|-------------------------------------------|----------|----------|-----------------------|
| 24-month Average Unemployment Rate (BLS)  | 4.48     | 4.42     | 0.06                  |
| 2016 Per Capita Money Income (5-year ACS) | \$25,225 | \$29,829 | 84.57%                |
| 2016 Per Capita Personal Income (BEA)     | \$37,083 | \$49,246 | 75.30%                |

Source: U.S. Bureaus of Census, Labor Statistics, and Economic Analysis; Calculations generated by StatsAmerica.

Residents above the poverty line, which is determined by the Federal Office of Management and Budget’s Directive 14 on an annual basis, are evaluated each year accounting for each home’s total income. Despite some families not being considered below poverty, they may still struggle to afford

basic cost of living expenses. To account for the basic cost of living with the Federal poverty threshold, the United Way created the 2017 Asset Limited Income Constrained Employed Report (ALICE). The report explains that an additional estimated 28% of Pasco County residents are impacted financially by cost of living expenses. The combination of the ACS poverty estimates and the ALICE 2017 estimates represents an estimated 42% of the Pasco County population. While the percentage of ALICE households remains fairly constant across the county, there are areas where the ALICE households exceed 40% as defined in Figure 1.10.

**Figure 1.10  
ALICE Report for Households Exceeding 40%**

| Location                 | 2007             |            |           | 2010             |                         |                   | 2012                        |                                |                                 | 2015             |           |         |
|--------------------------|------------------|------------|-----------|------------------|-------------------------|-------------------|-----------------------------|--------------------------------|---------------------------------|------------------|-----------|---------|
|                          | Total Households | Poverty %  | ALICE %   | Total Households | Poverty %               | ALICE %           | Total Households            | Poverty %                      | ALICE %                         | Total Households | Poverty % | ALICE % |
| Pasco                    | 183,910          | 11%        | 28%       | 183,457          | 14%                     | 32%               | 180,612                     | 12%                            | 33%                             | 192,628          | 14%       | 28%     |
| Report by Municipality   |                  |            |           |                  |                         |                   |                             |                                |                                 |                  |           |         |
| Municipality             | Population       | Households | Poverty % | ALICE %          | Above ALICE Threshold % | Unemployment Rate | Health Insurance Coverage % | Housing Burden: Owner Over 30% | Housing Burden: Renter Over 30% |                  |           |         |
| Bayonet Point CDP        | 25,453           | 10,974     | 17%       | 40%              | 43%                     | 11.0%             | 83%                         | 23%                            | 48%                             |                  |           |         |
| Beacon Square CDP        | 6,564            | 2,580      | 21%       | 41%              | 38%                     | 15.7%             | 81%                         | 33%                            | 52%                             |                  |           |         |
| Crystal Springs CDP      | 968              | 345        | 22%       | 48%              | 30%                     | 11.8%             | 77%                         | 24%                            | 15%                             |                  |           |         |
| Elfers CDP               | 13,982           | 5,482      | 20%       | 41%              | 39%                     | 12.4%             | 77%                         | 31%                            | 58%                             |                  |           |         |
| Holiday CDP              | 20,636           | 8,820      | 19%       | 43%              | 38%                     | 10.4%             | 78%                         | 27%                            | 58%                             |                  |           |         |
| New Port Richey East CDP | 8,686            | 3,972      | 18%       | 41%              | 41%                     | 13.5%             | 86%                         | 32%                            | 60%                             |                  |           |         |
| New Port Richey          | 15,260           | 6,575      | 21%       | 42%              | 37%                     | 10.7%             | 81%                         | 32%                            | 57%                             |                  |           |         |

*Source: United Way of Florida, 2017 ALICE Report.*

Low-income and lack of sufficient affordable housing choices are two factors that can drastically limit our ability to recover quickly from a major disaster. The reports show that the low-income housing and income impacted households reside mainly in evacuation zones, Special Flood Hazard Areas, and areas of historic flooding. Low-income households are most likely to suffer greater relative losses and face difficulty in finding sufficient shelter options after a disaster as the available housing stock becomes limited, uninhabitable or too costly to afford.

### **Repetitive Loss Properties and Development of Repetitive Loss Areas (RL)**

Pasco County receives its repetitive loss (RL) property information from FEMA508 repetitive loss parcels have been identified and will be credited for Community Rating System (CRS) purposes. Staff reviewed these properties and noted those already mitigated or not located within the jurisdiction of unincorporated areas. The properties were located on property appraiser parcel maps and repetitive loss areas were defined through the use of contour information from the Southwest

Florida Water Management District topographic maps and available flood elevation information. After evaluating RL locations, map information, and site inspections, it was determined that 20 Repetitive Loss Areas (RLA) currently exist in Pasco County. Other RL properties were isolated, and are identified by the drainage basin in which they are located. By using Geographical Information System (GIS) technology, an inventory was conducted of each RLA. The total number of underdeveloped and developed properties was identified along with the year in which the structures were built to determine how many structures were pre-Flood Insurance Rate Map (FIRM) (built prior to Pasco County joining the National Flood Insurance Program, or (NFIP) and post-FIRM (built after Pasco County joined NFIP). The data was then further subdivided into type of structure based on the use codes assigned to structures by the Appraiser’s Office. Identifying RL areas and using this information for long-term redevelopment decision making is essential to build resiliency. Appendix D includes extensive information about RL properties and the County’s CRS program.

### *Evacuation Vulnerability*

According to the Statewide Regional Evacuation Study Program report completed by the Tampa Bay Regional Planning Council (TBRPC), clearance times are defined as the time necessary to safely evacuate vulnerable residents and visitors to a place of safety and are determined through modeling data. The model incorporates the data from major road networks and recent roadway capacity and takes into account upgrades between 2010 through 2017 and planned upgrades from 2018 through 2020 (see Figure 1.11). In addition, the report uses resident and visitor population data with behavioral assumptions. Behavioral assumptions are decisions made based upon category strength versus evacuation zones as determine by County officials. The behavior assumption simulates the realistic response that occurs during major storm events (see Figure 1.12). As a result of the study, clearance times maxes at approximately 48 hours for the “out-of-county” clearance times through Evacuation Zone E for 2017 and 58 hours for 2020 (see Figure 1.13).

**Figure 1.11  
Pasco County Planned Roadway Improvements**

| Road to Upgrade             | Road From               | Road To              | No. Lanes Upgraded | Improvement Year |
|-----------------------------|-------------------------|----------------------|--------------------|------------------|
| <b>Clinton Ave.</b>         | Ft. King Hwy            | U.S. 301             | 4                  | 2011-2017        |
| <b>Denton Ave.</b>          | U.S. 19                 | Shady Hills Rd.      | 2                  | 2011-2017        |
| <b>Massachusetts Ave.</b>   | Congress St.            | Little Rd.           | 4                  | 2011-2017        |
| <b>Massachusetts Ave.</b>   | Little Rd.              | SR 52                | 2                  | 2011-2017        |
| <b>Trouble Creek Rd.</b>    | U.S. 19                 | Rowan Rd.            | 2                  | 2011-2017        |
| <b>Mitchell Blvd.</b>       | Seven Springs Blvd.     | Little Rd.           | 4                  | 2011-2017        |
| <b>Trinity Blvd.</b>        | Little Rd.              | SR 54                | 2                  | 2011-2017        |
| <b>I-75</b>                 | I-275/Pasco County Line | SR 56                | 10                 | 2011-2017        |
| <b>I-75</b>                 | SR 56                   | SR 54                | 6                  | 2011-2017        |
| <b>I-75</b>                 | SR 56                   | Hernando County Line | 4                  | 2011-2017        |
| <b>SR 52 (Schrader Hwy)</b> | East of Old Pasco Rd.   | Mc Kendree Rd.       | 4                  | 2018-2020        |

*Source: Tampa Bay Regional Planning Council’s Florida Statewide Regional Evacuation Study Program, Evacuation Transportation Analysis 2017, Tables ES-2 and ES-3.*

**Figure 1.12**  
**Evacuation Population by Behavioral Assumptions**

| Year                   | Evacuation Level A | Evacuation Level B | Evacuation Level C | Evacuation Level D | Evacuation Level E |
|------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| <b>2017</b>            | 99,037             | 81,078             | 87,355             | 82,755             | 84,492             |
| <b>2020 (estimate)</b> | 103,423            | 84,933             | 93,928             | 89,165             | 90,053             |

*Source: Tampa Bay Regional Planning Council's Florida Statewide Evacuation Study Program, Evacuation Transportation Analysis 2017, Table ES-8*

**Figure 1.13**  
**Pasco County Clearance Times**

| Year                                | Evacuation Level A (hours) | Evacuation Level B (hours) | Evacuation Level C (hours) | Evacuation Level D (hours) | Evacuation Level E (hours) |
|-------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| <b>Clearance Times to Shelter</b>   |                            |                            |                            |                            |                            |
| <b>2017</b>                         | 23.5                       | 27                         | 34                         | 40.5                       | 46                         |
| <b>2020</b>                         | 24.5                       | 29                         | 37                         | 42.5                       | 45.5                       |
| <b>In-County Clearance Time</b>     |                            |                            |                            |                            |                            |
| <b>2017</b>                         | 23.5                       | 27                         | 34                         | 44                         | 47.5                       |
| <b>2020</b>                         | 24.5                       | 29                         | 37                         | 46                         | 58                         |
| <b>Out-of-County Clearance Time</b> |                            |                            |                            |                            |                            |
| <b>2017</b>                         | 23.5                       | 27                         | 34                         | 44                         | 47.5                       |
| <b>2020</b>                         | 24.5                       | 29                         | 37                         | 46                         | 58                         |

*Source: Tampa Bay Regional Planning Council's Florida Evacuation Study Program, Evacuation Transportation Analysis 2017, Tables ES-11 and ES-12*

TBRPC explains that throughout Tampa Bay Region, rural areas have increased in population and there is a higher likelihood of southern counties evacuating to the north. The increased clearance times and estimated influx for Tampa Bay residents, specifically Pasco County, may require additional roadway capacity upgrades or additional roadway networks to lower clearance times for evacuation and shelter travel. As such, Pasco County's 2025 Highway Needs Plan, which is part of the overall Pasco County's Comprehensive Plan – 2025, explains that significant roadway improvements are planned for the next 7 years. The roadway upgrades include Interstate 75, U.S. Highway 19, Ridge Road, and other new highway systems to account for the forecasted increase in populations. This should assist in reducing the currently projected clearance times for evacuation.

### ***Employer Vulnerability***

Small businesses are at greater risk of not recovering from a major disaster. This is a key concern for Pasco County as a majority of the County's establishments are small businesses. The County Business Patterns show that the relationship between established locations to employee ratio in Figure 1.14 is low. The majority of employee to total establishments is 50 or less employees. Additionally, the highest industry percentage falls under the Accommodation and Food Services, Retail and Trade, and Health Care and Social Assistance. This industry percentage makes sense as the County has a higher percentage of elderly population with additional needs. The County continues to grow for both residents and visitors which may also explain the higher need for retail and other accommodations.

**Figure 1.14  
Employment Estimates by Type of Industry**

| Employment Sector (NAICS code description)                               | Total Establishments | Employees     | Percentage of Employees |
|--------------------------------------------------------------------------|----------------------|---------------|-------------------------|
| Mining, quarrying, and oil and gas extraction                            | 4                    | 18            | 0.02                    |
| Industries not classified                                                | 16                   | 20            | 0.02                    |
| Management of companies and enterprises                                  | 31                   | 1,200         | 1.24                    |
| Forestry, fishing, hunting, and Agriculture support                      | 24                   | 133           | 0.14                    |
| Utilities                                                                | 19                   | 941           | 0.98                    |
| Educational Services                                                     | 116                  | 2,701         | 2.80                    |
| Information                                                              | 114                  | 1,070         | 1.11                    |
| Arts, Entertainment, and Recreation                                      | 120                  | 1,319         | 1.37                    |
| Transportation and Warehousing                                           | 224                  | 1,199         | 1.24                    |
| Manufacturing                                                            | 237                  | 3,206         | 3.32                    |
| Wholesale Trade                                                          | 362                  | 1,970         | 2.04                    |
| Real Estate and Rental and Leasing                                       | 545                  | 1,771         | 1.84                    |
| Finance and Insurance                                                    | 577                  | 2,547         | 2.64                    |
| Accommodation and Food Services                                          | 625                  | 12,130        | 12.57                   |
| Administrative and Support and Waste Management and Remediation Services | 667                  | 6,051         | 6.27                    |
| Other Services (except public administration)                            | 842                  | 4,526         | 4.70                    |
| Professional, Scientific, and Technical Services                         | 1,044                | 4,221         | 4.37                    |
| Construction                                                             | 1,087                | 7,138         | 7.40                    |
| Health Care and Social Assistance                                        | 1,227                | 20,997        | 21.76                   |
| Retail Trade                                                             | 1,496                | 23,363        | 24.21                   |
| <b>Total for all sectors</b>                                             | <b>9,337</b>         | <b>96,501</b> |                         |

*Source: U.S. Census Bureau, 2016 County Business Patterns (NAICS)*

## Major Employers

Pasco County Office of Economic Growth has identified major employers in Pasco County. The major employers include an array of chain stores, hospitals, utility companies, distribution centers, and major organizations. The LMS changed the focus from major employers throughout the County, to major employers within Special Flood Hazard Areas (SFHA) and Evacuation Zones in order to understand the most vulnerable employers and employees.

A total of 112 employers, with a combined total of approximately 21,580 employees, work within SFHA zones. The majority of the major employers are hospitals, medical centers, rehab centers, major retail stores, home improvement stores, and markets. Understanding these businesses is critical in the recovery as they provide critical and essential goods to the residents of Pasco County and employment to the residents of Pasco County. By having the businesses located in the SFHA zones and Evacuation Zones, employers may be impacted by employee retention and building damage.

Now, the focus will shift to all employers in Pasco County. Identifying all employers located within high hazard areas and assessing the number of people employed by each will indicate how susceptible Pasco County’s economy is to a large-scale disaster. To understand our economic vulnerability, employer distribution within the County was studied using data from the US Census Bureau. The employers’ addresses were geocoded using GIS and hazard layers (flood zones and storm surge zones) were overlaid to ascertain the number of employers in each of the hazard zones. The analysis has determined that approximately 35.2% of our employers are located within the flood zones – A, AE, VE, and 0.2% annual flood (shaded X Zone) while 44.7% are located within the Storm Surge zones – Category 1 to 5. Figure 1.15 lists the number of employers by flood and storm surge zone.

**Figure 1.15**  
**Employers within Storm Surge Zones and Flood Zones**

| Storm Surge/Flood Zone             | # Employers |
|------------------------------------|-------------|
| <b>500-Year Flood</b>              | 813         |
| <b>Flood Zone A</b>                | 453         |
| <b>Flood Zone AE</b>               | 2443        |
| <b>Flood Zone AH</b>               | 2           |
| <b>Flood Zone VE</b>               | 13          |
| <b>Flood Zone X non SFHA</b>       | 6,857       |
| <hr/>                              |             |
| <b>Category 1 Storm Surge Zone</b> | 1,279       |
| <b>Category 2 Storm Surge Zone</b> | 1,669       |
| <b>Category 3 Storm Surge Zone</b> | 869         |
| <b>Category 4 Storm Surge Zone</b> | 410         |
| <b>Category 5 Storm Surge Zone</b> | 510         |
| <b>Non Surge Zone</b>              | 5,844       |

*Source: Pasco County Property Appraiser and Pasco County GIS (obtained 2018)*

Understanding the distribution of employees is equally important as identifying the distribution of employers within the County. Post-disaster, decisions related to distribution of employment assistance, provision of public transportation and other supporting services will have to take these factors into consideration.

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