Local Hazard Mitigation Planning Tool Progress Report for the City of San Marcos, TX

AMC Hazard Planning
Austin Nicholson (Project Manager)
Madelyn Flores (Senior Web Designer)
Corina Whitman (Senior Data Analyst)

Table of Contents

Introduction……1

Summary……1

Purpose Statement……...1

Scope……...2

Tasks……...2

Work Completed……2

Present Work……...4

Work Scheduled……..4

Problems……..5

Conclusion……...5

References……...6

1. Introduction

1.1 Summary

AMC Hazard Planning has been working to outline a hub website that will contain information about past hazards, potential future hazards, and past and future mitigation efforts in the City of San Marcos based on the 2024 update of the Hazard Mitigation Action Plan (HMAP) for our client, the City of San Marcos. This progress report illustrates the work completed and the remaining work under the timeline established in the project proposal.

1.2 Purpose Statement

The purpose of this project is to create a site plan for the City of San Marcos's HMAP. This site plan will include information about past, current, and future hazards, along with information about how the city is working to mitigate those hazards. This site will also outline possible interactive maps to allow the public to better understand the hazards they face and where they are most likely to occur. The creation of this website will not only be a tool for the public but will also serve as a repository for the city as all of the hazard information will be in one place and easy to find and update, making it easy for them to refer back to if need be. This progress report will further discuss how the team will meet the project goal by utilizing the following tasks.

Task 1: Review and synthesize the information in the HMAP and conduct research on established hazard mitigation websites.

Task 2: Create a site plan diagram and wireframes to illustrate how the HMAP website will share information.

Task 3: Generate descriptive text for the website pages and generate suggestions on the data to properly convey hazards and mitigation efforts in the City of San Marcos.

Task 4: Create a prototype of the planned website that includes the site homepage, a flood visualization page, a historical events viewer, and time-allowing additional relevant pages.

1.3 Scope

The scope for this project has not changed and still includes the City of San Marcos and its surrounding ETJ, where the San Marcos city limits are in light blue, and the ETJ is the black outline around the outside of the city in Figure 1.

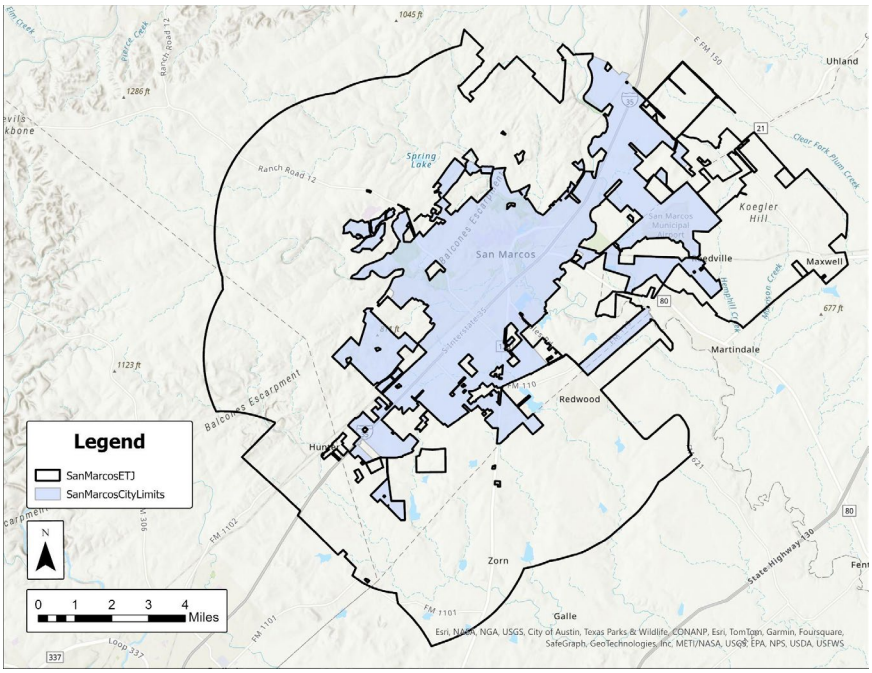

Figure 1: San Marcos City Limits and ETJ

2. Tasks

2.1 Work Completed

Multiple aspects of this project are complete. Completed tasks include background research, review and summarization of the HMAP, site plan and wireframe creation, and preliminary data gathering and descriptive text generation. Continued generation of descriptive text may cause variations in the established sitemap and wireframes.

The team reviewed and synthesized the updated HMAP to create a document that could be referenced in descriptive text generation. The team also conducted additional research to determine what information other cities included in websites based on HMAPs. The Federal Emergency Management Agency (FEMA) discusses how the City of New York created one of the first websites that decimates the information from their HMAP to their community (2021). As FEMA expects this website to lead the way for others like it, the team based much of our wireframes, site plan, and expected descriptive text on it.

The wireframes created, shown in Figure 2, are a visual representation of each page of the HMAP website. These wireframes were used to create the sitemap, shown in Figure 3, which displays the flow of the pages of the outlined website.

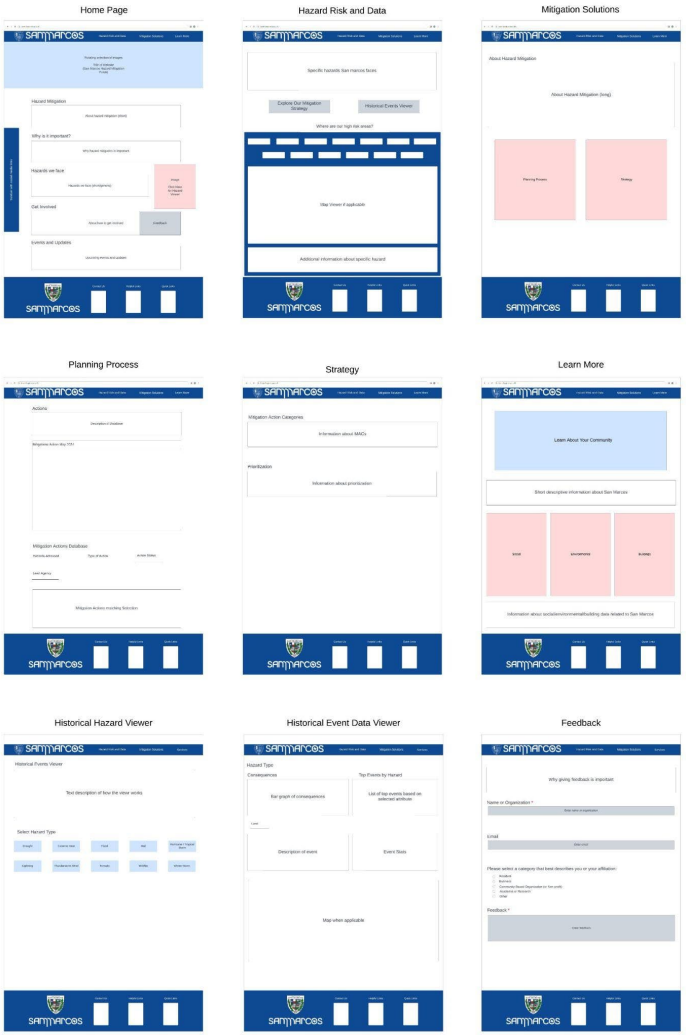

Figure 2: Wireframes for HMAP Site

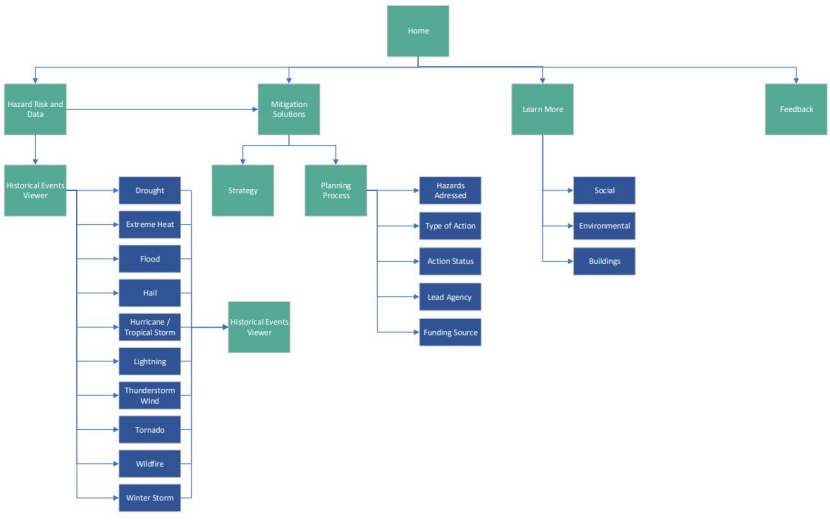

Figure 3. Sitemap for HMAP Site

2.2 Present Work

AMC Hazard Planning is currently working on generating text for each hazard type and other portions of the website. The team may also make additional edits to the wireframes and sitemap based on the generated text. The team is focused on including all the information from the provided HMAP in the generated descriptive text to maximize the website's effectiveness. As this is a tool geared towards public use, the team has been working to establish how to provide access to information relevant to them.

2.3 Work Scheduled

The bulk of the work remaining in this project is generating the necessary descriptive text. The team will generate text for each hazard type and text information for the site itself, as additional sections will require it. The team will continue to evaluate and summarize the information in the HMAP for use on a public-facing website. Information will be in the form of hazard description, the number of times it has occurred, where it has happened, and what the city is doing to mitigate these hazards. If data is not available from the provided HMAP, we will be making suggestions as to what data should be collected to flesh out the information needed fully. If time permits, we will also create an example home page, a page for a specific event, which will be flooding and a historical events viewer. We will be suggesting data to collect for the historical events viewer as well. At this point, however, we are more concerned with ensuring all necessary information is included in the descriptive text, as the team views it as the most important aspect of this project.

As the team realized more time may be necessary to complete the descriptive text, the timetable was adjusted so that wireframe creation and the start of descriptive text generation could be worked on simultaneously. Figure 4 displays the new timetable established by the team. The same time allowance is given for prototype creation as was in the proposal. We also adjusted the time to review the HMAP to run simultaneously with wireframe creation.

Figure 4. Revised Timetable

2.4 Problems

While the process has been smooth, there has been some trouble with fully summarizing the HMAP to support the generation of desired descriptive text. The team slightly underestimated the time allocated for reviewing and synthesizing information from the HMAP, so we split the work between creating wireframes and continuing the review. The team anticipated the data gathering and descriptive text generation would take longer than the allotted timetable. Therefore, we have changed the work allocation to make our time more organized and concise. Now, the entire team has participated in and has access to all steps necessary to complete the project. Communication has been essential as we have and will continue to work on our project as a team. Our support system includes each other, Dr. Yuan, Nakky, and the City of San Marcos GIS team. Utilizing our time correctly and using all support when needed will keep our Local Hazard Mitigation Planning Tool project successful and on schedule.

3. Conclusion

AMC Hazard Planning will continue to work towards creating a fleshed-out public-facing site plan to disseminate the information of the City of San Marcos Hazard Mitigation Action Plan. The team has made the expected progress for the project based on the timetable established in the proposal. The team will continue to work towards creating the descriptive text and data suggestions needed to support the wireframes and sitemap created. We will also work toward

creating a prototype that will showcase the information of the HMAP in a way that can be easily accessed and visualized by the public.

4. References

Federal Emergency Management Agency. (2021, February 11). New York City hazard mitigation plan goes digital. FEMA.gov. https://www.fema.gov/case-study/new-york-city-hazard-mitigation-plan-goes-digital