Submerse NY in Ossining
Final Report

TXYZ Consulting Group: Thant Aung Paing, Xuanjiang Liu, Yujie Zeng, Zixuan Wang

College of Human Ecology, Cornell University

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Dr. Danielle L. Eiseman

Reviewer: Mollie Montague

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Introduction

Ossining is a Westchester County village on the eastern banks of the Hudson River's widest section. This town is at significant risk of flooding due to its location. Research indicates that within the next three decades, over 26% of the city's 499 properties will experience flood-related damages (Risk Factor, 2023). Therefore, it is essential to help local residents prepare for the increasing flood risk. Submerse NY, a project led by New York Sea Grant, New York State Water Resources Institute (NYSWRI), and FEMA (Federal Emergency Management Agency), aims to supplement local community capacity to communicate flood risk creatively through visual markers. The consulting team's mission is to help Submerse NY raise flood awareness among local residents in Ossining by promoting community engagement through a digital campaign. This final report includes goals and objectives, background, implementation plan, promotion plan, and recommendations for the future.

Goals & Objectives

The overall goal is to raise flood awareness among local residents by promoting community engagement in Ossining. Based on the overall goal, three objectives were established for Submerse NY to spread flood risk awareness successfully. The first objective is to disseminate messaging about flood risk to the Ossining Community. To fulfill this objective, the consulting team conducted the literature review and ideated effective messaging methods for dissemination. The second objective is to design a digital campaign about flood risk. For this objective, the consulting team incorporated six inspirations from the literature review in designing a digital campaign. The third objective is to promote this digital campaign to increase public engagement. The recommendations are designed to promote the digital campaign through different social media platforms, award incentives, and partnerships with local businesses and libraries.

Overall Goal: Raise flood awareness among local residents by promoting community engagement in Ossining	
Objective 1 :	Disseminate messaging about flood risk to Ossining Community
Objective 2 :	Design digital campaigns about flood risk
Objective 3 :	Promote digital campaigns to increase public engagement

Background

1. Flooding History

Ossining, a town located in Westchester County, New York, has experienced several notable flooding events throughout its history. One such incident occurred on September 5, 1907, when Ossining was struck by three thunderstorms in a single day. The severity of the storms was such that darkness descended upon the town at 10 a.m. This extraordinary weather phenomenon was accompanied by a flood that affected the area (New York Times, 1907).

Another significant flood event took place on March 11, 2011, during a storm that impacted Westchester County. The Bronx River Parkway, Sprain Brook Parkway, Saw Mill Parkway, Hutchinson River Parkway, Cross Westchester Expressway, Taconic State Parkway, and the New York State Thruway were all forced to close due to flash flooding. In Ossining, local roads such as Route 9A were also inundated, causing further disruptions (ABC7, 2011).

The town of Ossining was also affected by the destructive storm surge caused by Hurricane Sandy in October 2012. This powerful hurricane's storm surge resulted in flooding that impacted approximately 35 properties in the area. Tragically, Hurricane Sandy claimed at least four lives in the Lower Hudson Valley region (McHugh, 2012).

These flooding events serve as reminders of the vulnerability of Ossining to severe weather conditions and the need for preparedness and resilience measures to mitigate the impact of future floods.

2. Flooding Risk in Ossining

Ossining, located along the Hudson River, is susceptible to flooding due to its low-lying areas and its riverfront location. The sea level along the Hudson River, including Ossining, has risen approximately 1.2 feet over the past century, which is nearly twice the global average (Horton et al., 2014). This rise in sea level increases the risk of flooding, particularly during storms and high tide events.

Ossining, like much of the Northeastern United States, experiences its highest risk of flooding in the spring and during periods of intense storms, such as hurricanes or tropical storms. The risk is amplified due to factors such as sea-level rise and increased precipitation associated with climate change.

According to the National Oceanic and Atmospheric Administration (NOAA), mean sea level around New York State rose by approximately 12 inches over the past century (NOAA, 2020).

This increase in sea level, coupled with the region's geographic features, contributes to Ossining's vulnerability to coastal flooding.

In Ossining specifically, sea-level rise is predicted to cause more frequent and severe flooding events. A study by the New York State Department of Environmental Conservation (DEC) predicted an increase in sea level between 2 and 10 inches by the 2020s and between 8 and 30 inches by the 2050s (DEC, 2014). These increases can significantly exacerbate the impact of storm surges and high tides, leading to more extensive flooding.

Furthermore, the high-risk periods for flooding in Ossining typically coincide with the hurricane season, which runs from June through November, with the peak in late August through October (New York State, 2023). The combination of high sea levels, increased precipitation, and the potential for hurricane-driven storm surges during these periods make flooding a significant concern for the Ossining community.

As Ossining continues to face these climate-related challenges, the importance of effective flood mitigation and resilience strategies becomes increasingly apparent.

Implementation plan

1. Introduction

In this campaign, we are focusing on two online platforms: GooseChase and Otocast. Goosechase will serve as the main activity platform, with Otocast as an additional support. Both of these platforms offer unique opportunities to engage our audience and promote 'Submerse Ossining' in an interactive and immersive way.

1.1. Estimated number of participants

GooseChase has been used for organizing city-wide events or community-based activities. For example, cities and towns have used the platform for hosting events like city-wide scavenger hunts, cultural exploration activities, and local history tours. In these cases, the number of participants can range from a few hundred to over a thousand, depending on the size of the community and the level of interest in the event (GooseChase, 2023).

Therefore, to estimate the number of people in Ossining who may be expected to attend the Submerse NY GooseChase event, we can consider the following factors based on the facts:

- Population size: The Town and Village of Ossining has a population of around 40,000 people (U.S. Census Bureau, 2021). Given that the event targets a wide range of age

groups and interests, we can assume that a significant portion of the population might be interested in participating.

- Social media reach: The event will be publicized through various online platforms such as email, Facebook, Instagram, and Twitter. If these platforms have a strong presence in the Ossining community, the event could reach a significant number of people. For example, if the Ossining Families Facebook group has 1,000 members, and 10% of them decide to participate, that would result in 100 participants.

- Local media partnerships: By partnering with local media outlets, the event can reach a wider audience. This could lead to increased participation from people who might not have learned about the event through social media.

- Type of missions: The event offers a variety of missions, including quizzes, visiting landmarks, taking photographs, and making videos. These diverse activities cater to different interests, which could attract a broader range of participants.

- Word of mouth: If the event generates excitement and interest within the community, word of mouth could encourage more people to participate.

Taking these factors into account, we can estimate that the event could attract anywhere from 400 to 800 participants, assuming a conservative turnout of around 1-2% of the population. This range takes into consideration the various ways in which the event is being promoted, as well as the diverse activities and missions offered.

However, it's important to note that estimating the number of participants for an event like this can be challenging, as factors such as weather, competing events, and general community interest can significantly impact turnout. Therefore, these estimates should be taken as a rough guide and not a guarantee of attendance.

1.2. Similar Case

Examining similar successful campaigns informed our work as we devise our digital campaign strategy for 'Submerse Ossining'. A notable example is the #TheMagicWater Campaign organized by the Water Association of Kern County. The #TheMagicWater Campaign aimed to raise awareness about water conservation through an engaging and interactive online challenge. The campaign was incorporated into a social media contest, further boosting engagement. Attendees had the chance to win $125 in gift cards from partner businesses by simply tagging @waterkern and the respective partner business in a photo with the artwork at each location (23 ABC News, 2021). This activity is similar to the 'Submers NY in Ossining' digital campaign project in terms of format and purpose. The final number of participants in the campaign was around 400 (based on a rough count of the total number of social media tags), which is in line

with our previous estimate of the number of participants and further proves the credibility of the estimate.

1.3. Duration

The digital campaign for 'Submerse Ossining' will be spread out strategically over different periods, based on the distinct characteristics and activity durations of our chosen platforms, GooseChase and Otocast.

Goosechase: The GooseChase portion of our campaign will run for four weeks. By using GooseChase as a digital scavenger hunt, we will be encouraging our audience to explore and interact with various elements of the event. The four-week window will allow enough time for participants to engage with the challenges, while also maintaining a sense of anticipation for the main event.

Otocast: The use of Otocast will be more enduring, with a duration of at least one year. This platform will provide an immersive audio guide for 'Submerse Ossining', offering a deeper understanding and appreciation of the event. The year-long availability of the Otocast guide will not only cater to event attendees but also to those who couldn't attend in person or wish to relive the experience. It provides an opportunity to sustain the interest and engagement in the project long after the event has concluded.

The two-phased duration approach for this campaign has been designed to maximize both the immediate and long-term engagement of our audience. By combining the four-week intense GooseChase promotion with the long-standing Otocast guide, we aim to create a comprehensive and lasting digital experience around the 'Submerse NY in Ossining' project.

2. Goosechase

GooseChase is an innovative and interactive mobile application that has revolutionized the way people engage in scavenger hunts and interactive challenges. It offers a modern twist on the traditional concept of scavenger hunts by combining it with the power of smartphone technology. The app is designed to provide a fun and exciting platform for individuals, groups, and organizations to create, participate in, and manage their own scavenger hunts and virtual adventures.

2.1. Targeted Audience

Given that GooseChase requires a comparatively high level of smartphone proficiency and the need to complete missions in a relatively short period of time in a focused manner, the team think its audience will more likely be young people, especially school students. Therefore, in

terms of promotion strategy, we can focus on working with schools or companies to achieve better results.

2.2. Functions

[Refer to Appendix D for Goosechase Missions]

With GooseChase, participants can embark on thrilling quests, complete missions, and solve puzzles all within the convenience of their smartphones. The app allows users to create customized game experiences by setting up missions with varying levels of difficulty and assigning point values to each task.

GooseChase offers a wide variety of mission types that can be incorporated into the app's interactive experiences. One popular mission category is photo and video challenges, where participants are tasked with capturing specific moments or creative shots. These missions encourage participants to showcase their artistic skills, imagination, and ability to think outside the box. Another mission type is location-based tasks, which leverage the app's GPS capabilities. Participants are required to visit specific places or landmarks and complete designated activities or gather information, adding an exciting element of exploration and discovery to the game. It also offers answer submission missions where participants can respond to questions or challenges in various formats such as text, multiple-choice, or file uploads. These missions enhance interactivity, encourage critical thinking, and allow organizers to create engaging challenges tailored to their specific goals. With its diverse range of mission types, GooseChase offers a customizable and dynamic experience that can be tailored to suit various event themes, educational objectives, or entertainment purposes.

2.3. Suitability

The GooseChase app is highly suitable for our project due to several key factors. Firstly, it boasts an easy-to-operate platform, offering a straightforward operating system that requires no advanced technical knowledge. Users can quickly navigate the app's features and functionalities, making it accessible to individuals of all skill levels. Furthermore, GooseChase provides a fun and engaging experience for participants. With its wide range of missions and the ability to earn points, users are motivated to actively participate and immerse themselves in the challenges. This gamified approach adds an exciting element to the app, keeping players entertained and eager to complete tasks. Additionally, GooseChase stands out for its versatility, as it offers a combination of different activities. Whether it's capturing photos and videos, solving puzzles, answering quizzes, or completing location-based tasks, the app provides a diverse range of experiences to cater to various preferences. The inclusion of visual elements enhances the overall engagement and makes the activities more interactive and enjoyable. Overall, GooseChase's suitability lies in its user-friendly interface, enjoyable gameplay mechanics, and diverse array of activities, making

it an excellent choice for individuals, groups, and organizations seeking an easy, fun, and dynamic mobile experience.

2.4. Pricing

Based on the estimated number of participants and the activity duration, our team met with GooseChase to discuss the pricing.

GooseChase offers flexible pricing options for their experiences. During the meeting, they provided the following price tiers: for up to 100 participants, the cost is $1,000; for 101 to 200 participants, the price is $1,300; for 201 to 300 participants, the rate is $1,900; and for 301 to 500 participants, the fee is $2,500. However, if the project decides to use this tool, the price can be further negotiated to ensure it aligns with the project's specific needs and requirements.

2.5. Implementation Procedure

To organize a successful GooseChase experience in Ossining, we can simply follow these steps:

Step 1. Create a GooseChase account to access the platform's features and tools.

Step 2. Design a new experience by defining the theme, objectives, and desired mission types.

Step 3. Set up the timeline and missions, including photo/video challenges, location-based tasks, and answer submissions.

Step 4. Plan rewards or incentives for participants to encourage engagement and competition.

Step 5. Publicize the event on social media platforms, sharing details, registration information, and highlights of the experience.

Step 6. Invite the Ossining community to participate by reaching out to local organizations, schools, and individuals who may be interested.

Step 7. Analyze the data collected from the backend of the GooseChase platform and share the insights and outcomes on social media, celebrating participants' achievements and generating excitement for future events.

3. Otocast

Otocast is a digital application where people can join virtual tours of a particular area. It was created for a public art exhibition in Ossining, New York, in 2013. In addition, the application already has virtual tours of different places in Ossining and can be used as an external tool in cooperation with Goosechase for missions.

3.1. Targeted Audience

Outcast's target audience will be Ossining residents and tourists. They can visit the town of Ossining following the tour offered in Otocast. For local residents, they can visit different attractions in their free time, so they will be able to better understand their town. For tourists who travel to Ossining, they can use the tour as a guide to visit Ossining. Compared to the Goosechase app, Otocast has no complicated setup and is easier to use. People of all ages can download the app and use it as an everyday travel tool.

3.2. Functions

Otocast offers different content combinations, including custom audio narratives, text descriptions with active links, a photo gallery, embedded videos, real-time directions, and social media sharing. It is also suitable for all platforms and all visitors, as people can download this application through Apple and Android. It offers a website version if the users are unfamiliar with the application and downloading. Also, the application developers are based in the town of Ossining. Their work lets Ossining residents embed the guide on different websites, making it useful for the digital campaign. In addition, people can call a phone number to listen to the tour (Otocast, 2023).

The gamification features of the application also help boost engagement. It contains digital badges, rewards, achievement levels and chances to win prizes or enter a prize drawing to heighten user engagement. Furthermore, local businesses can benefit by attracting visitors and awarding prizes at their addresses. The local partners can also gain the opportunity to build ongoing relationships with visitors. It is easy to track the data from the application. The analytic section allowed the developers to check the number of visitors, points of interest accessed, time spent (duration), most popular tours, new versus repeat visitors, and social media sharing (Otocast, 2023).

3.3. Suitability

As the application was originally launched in Ossining by local residents and the developers had experience working with the Ossining community, the application was well suited for a flood risk awareness digital campaign for the community. The Otocast application will be used as part of the GooseChase digital campaign. The external link in the "answer submission" mission will lead participants to the Otocast application. Then, users can read introductions about some specific locations in Ossining that the increasing flood risk will heavily influence. Participants can also check out different locations by using this app. We recommend four locations for an Otocast tour in Ossining: Westchester Waste Treatment Facility, Louis Engel Waterfront Park, The Boat House, and Sing Sing Correctional Facility. The consulting team selected these locations because they are on the banks of the Hudson River and would be severely impacted by rising water levels.

3.4. Pricing

Based on the estimated number of participants and the activity duration, the team conducted a meeting with Otocast to discuss the pricing.

Otocast offers flexible pricing options for their experiences. During the meeting, they provided the following price tier: add one more spot on Ottocast Ossining tour for $125 a year. This is the price for one location for one year and the language is English. If a team chooses to use both English and Spanish in Ottocast, the price will be $150 per year for one spot. However, if the project decides to use this tool, the price can be further negotiated to ensure it aligns with the project's specific needs and requirements.

3.5. Implementation Procedure

A detailed example of the Westchester waste treatment facility shows how Otocast works.

Location - Westchester Waste Treatment Facility

Step 1. Choose the answer submission mission on the Goosechase application

Step 2. Externally link to Otocast application to review the whole tour in Ossining

Step 3. The participants will choose and review the waste treatment facility through the Otocast application (location, audio, text)

Step 4. Go back to the Goosechase application, and submit answers to complete the mission

The answer submission mission can be designed based on the introduction. The main idea of using the Otocast application is to educate the participants to raise awareness of the flood.

Promotion plan

[Refer to Appendix C for the contact information]

[Refer to Appendix F for the promotion slogan and hashtags]

The promotion plan is related to Objective 3, promoting digital campaigns to increase public engagement. The consulting team proposes partnering with social media, local media, and local businesses and libraries to educate more residents about the increasing flood risk in Ossining. The team also designed sample slogans and hashtags. These can be used to promote the digital campaign when cooperating with other organizations

The social media channels include Facebook - OSSINING FAMILIES, Instagram - Village of Ossining, and Twitter - Ossining UFSD. For Facebook, there is a group called OSSINING FAMILIES. Almost all the members in this group are Ossining residents. The consulting team can contact the group managers to partner and share the digital campaign information in the posts. For Instagram, there is an account called Village of Ossining, and the consulting team can contact the account manager to participate. The account can share new stories and posts about increasing flood risk and the digital campaign. For Twitter, there is an account called Ossining UFSD. It is the official account for Ossining Union Free School District (UFSD), and many parents and students are on this account. Therefore, the consulting team can cooperate with this school account to promote the digital campaign for parents and students.

The local media includes a newspaper - Daily Voice, a local radio - WQXR-FM, and a regional magazine - Westchester Magazine. The first local media is a newspaper called Daily Voice, it is one of the most popular newspapers in the town of Ossining. Thus, the consulting team can cooperate with this local newspaper to share the digital campaign information. The second local media is a local radio station called WQXR-FM, the only radio station in the town. The radio presenter can discuss the increasing flood risk and share the digital campaign with audiences. The last local media is a regional magazine called Westchester Magazine. This magazine belongs to Westchester County. The team can build relationships with it for further cooperation to promote digital campaigns about increasing flood risk.

The local businesses include The Ossining Boathouse Restaurant, Ossining Boat and Canoe Club, Harbor Square Apartments, and Artisan Epoxy Builders. All these local businesses are located on the waterfront of the Hudson River. In addition, these businesses belong to different industries, including restaurants, clubs, apartments, and private companies. Partnership with local businesses is mutually beneficial. The consulting team can reach out to more residents in Ossining for flood risk awareness, while the local businesses can receive new customers due to the visiting places featured in the digital campaign.

By contacting the Ossining public library, the posters, leaflets/ pamphlets on the digital campaign could be placed at the main entrance, bookshelves, front desks, and reading tables. The digital campaign information could also be posted on the library's official website. It will benefit the residents who do not visit the library in person. They can still get the latest information on digital campaigns by checking the website.

The consulting team considered the importance of including those with disabilities in this digital campaign. It is also important to disseminate flood risk awareness to marginalized groups and communities. Therefore, the team planned to contact representatives of marginalized groups, including VISIONS, disability resources by Westchester Government, and Beltone Hearing Care Center in Ossining.

Recommendations

Collecting and analyzing data in Goosechase: The Goosechase app can collect participants' submissions backstage, and those answers can be downloaded in Excel. However, the Excel format is hard for the project implementers to track the overall trends of the application operation and participants' submissions. Therefore, the project implementation team should discuss the barriers to accessing the analytics of the Goosechase activities and try to advance its data-collecting formats with Goosechase. It can also add graphs to highlight differences in the number of participants in different Goosechase missions.

Cooperation with Otocast: In the implementation plan, Otocast simply served as the platform for one GooseChase mission to be conducted on. However, based on the information gathered from the meeting with Otocast, the team would recommend that Otocast could achieve more functions. The project can make use of the "E passport" function in Otocast to invite participants to join the tour, visit the spots, and earn their own passports. It can also be combined with the reward system in Otocast to make the activity more attractive.

Online promotion: The promotion will mainly focus on digital social media platforms such as Facebook, Twitter, and Instagram. The project implementation team should add a digital poster and advertisement post to promote the digital campaign. These digital posters should be innovative, creative, and useful for the Ossining community and align with the standards of the corresponding social media platforms. The team should also keep a close relationship with the account managers from these social media platforms for further corporations.

Local promotion: In addition to cooperating with local businesses and libraries, the project can engage the Ossining community by participating more in the local events. For instance, the town of Ossining will hold its Village Fair on June 10, 2023, and the project should set up a booth to promote the online digital campaign. The project implementation team should also develop performance indicators to keep track of the project whether the desired outputs and outcomes were achieved for the flood risk awareness campaigns. Another possible idea is to cooperate with local schools. The GooseChase activity that the team designed can be used as a practical course in schools. Students can participate in this activity by taking the course in order to gain a better understanding of flooding.

Additional digital campaigns methods: As we reflect on the digital campaign for 'Submerse NY in Ossining', it's essential to consider additional methods to further enhance engagement and promote our cause. One promising approach is the implementation of an E-Certification program, inspired by the Healthy Communities Digital Badge Program by the University of Florida (University of Florida Center for Arts in Medicine, 2023). We recommend developing an

online program centered around environmental and community education. This program could comprise self-paced online modules covering a range of topics pertinent to Ossining and its surrounding environment. Potential subjects could include local history, the importance of water conservation, the impact of climate change on coastal communities, and ways individuals can contribute to environmental sustainability. Upon completing each module, participants would earn digital badges, providing a sense of accomplishment and a tangible display of their commitment to their community and the environment. These badges could be shared on social media, increasing the visibility of our cause and encouraging others to participate. Such an E-Certification program would not only serve as an educational tool but also foster community engagement and awareness. It could also provide an opportunity for participants to feel more connected to 'Submerse NY in Ossining' and its goals, further enhancing the impact of our project. After the digital campaign, the project implementation team will need to collect the advice and suggestions from the participants. Based on their advice and suggestions, the project implementation team can design better digital campaign projects in the Ossining community or elsewhere.

Estimated number of participants: Estimating the number of participants for the 'Submerse NY in Ossining' digital campaign is crucial for planning and executing effective strategies. Given that we're using the platform GooseChase for our campaign, it's advisable to leverage their broad user database to help make an informed estimate. GooseChase has facilitated numerous digital campaigns with various scopes and backgrounds, and it maintains a comprehensive record of these cases. While none of the cases available publicly align directly with our project's unique context, they can still provide valuable insights into user engagement and participation rates. We recommend reaching out to GooseChase directly, explaining the nature of our project, and requesting their assistance in estimating the potential number of participants. Their team's expertise and access to a broad database of past campaigns could provide a more accurate forecast based on similar projects or demographic targeting similar to ours.

Appendix

Appendix A - Emergency preparedness plan

A.1. How to determine whether a place is in a Flood Zone?

1. Use FEMA's "What is my BFE" tool: Access FEMA's BFE tool on their Region 2 Coastal website, enter your address, and click "Get Details" to retrieve your Base Flood Elevation information.
2. Download the FIRM for your property: Visit the FEMA Map Service Center, enter your address, and download the appropriate Flood Insurance Rate Map (FIRM) by clicking the download button.
3. Create flood maps for your property using FEMA's FIRMette tool: Visit FEMA's FIRMette website, enter your address, view the map, and click "Make a FIRMette" to generate a customized FIRMette for your property.
4. Locate your property on the county's interactive maps: Go to Westchester County's mapping website, enter your address, select the "Show Additional Data on Map" tab, check the "Floodplains" box, zoom in on your property, and use the information tool to access flood information for your parcel.

A.2. Self-saving skills when flood comes

If you find yourself in a flood situation, it is crucial to act swiftly and take necessary precautions to ensure your safety. Here are some essential tips and skills to help you survive (Commonwealth of Massachusetts, 2023):

- **Stay updated:** Stay informed about the flood situation by monitoring local news and weather reports. Use battery-operated radios or smartphone apps to receive alerts and guidance from authorities.
- **Evacuate promptly:** If you reside in a flood-prone area and receive evacuation orders, leave immediately. Take your emergency kit and move to higher ground or a designated evacuation center.
- **Avoid floodwaters:** Never attempt to walk, swim, or drive through floodwaters. They can be deceptively deep and strong, containing hazardous debris, chemicals, or live wires.
- **Seek higher ground:** If evacuation is not possible, find the highest point in your home and gather essential supplies there. This could be an upper floor or even the roof in extreme cases.
- **Turn off utilities:** Prevent electrical hazards, fires, and contamination by shutting off electricity, gas, and water supply to your home.

- **Signal for help:** Keep a whistle or flashlight handy to attract the attention of rescue teams if needed.
- **Learn basic first aid:** Acquire fundamental first aid skills, which can be invaluable during emergencies when professional medical assistance may be delayed.
- **Stay connected:** Keep your phone charged and inform friends and family of your whereabouts. Designate a meeting point in case you get separated.
- **Maintain hygiene:** As floodwaters can be contaminated, minimize contact with them. Wash your hands with soap and clean water, or use hand sanitizer when clean water is unavailable.
- **Stay calm:** Remain composed during the flood. Panic can hinder sound decision-making and increase the risk of dangerous situations.
- **Exercise patience:** Once the flood subsides, wait for authorities to give clearance before returning home. Hidden dangers such as structural damage or contaminated water may still pose risks.

Remember, being prepared is key to staying safe during floods. Develop an emergency plan, assemble an emergency kit, and familiarize yourself with the flood risk in your area to minimize the chances of being caught off guard.

A.3. Ossining Emergency Contact Information

	Organization Name	Address	Phone Number	Website
Local shelter	Joseph G Caputo Community Center	95 Broadway, Ossining, NY 10562	(914) 762-8953	
First responders	Open Door Family Medical Center-Ossining	165 Main St, Ossining, NY 10562	(914) 632-2737	https://opendoormedical.org/
	Ossining Volunteer Ambulance Corps	8 Clinton Ave Ossining NY 10562	(914) 941-9196	https://www.ossiningvac.org/
	Ossining Fire Department	21 State St, Ossining, NY 10562	(914) 941-0215	

	Organization Name	Address	Phone Number	Website
	Ossining Police Department	88 Spring St, Ossining, NY 10562	(914) 941-4099	https://villageofossining.org/police
Food Supplies/ Food Bank	Feeding Westchester Food Bank	200 Clearbrook Rd, Elmsford, NY	(914) 923-1100	https://feedingwestchester.org/
	Ossining Food Pantry	Grace (Trinity) Church — 7 South Highland Avenue	(914) 762-5510 (914) 762-5857 Spanish/en español	https://ossiningfoodpantry.org/

Appendix B - Additional Artist List

Aritis Name	Brief Introduction	Skills/Areas	Contact Information
Sophia Chizuco	A Brooklyn-based multidisciplinary artist, Sophia explores connections between different cultures and communities through her work.	Mixed media, painting, performance art	https://www.sophiachizuco.com/contact
Donna Sharrett	Based in Ossining, Sharrett creates intricate, symbolic installations using found materials.	Sculpture, installation art, mixed media.	http://www.donnasharrett.com/Donna2015WP/contact/
Anne de Carbuccia	An environmental artist, Anne creates powerful installations that reflect on	Photography, installation art, environmental art.	https://annedecarbuccia.com/contacts/

		ecological and cultural issues.		

Appendix C - Contact Information (Promotion Plan)

No.	Type	Organization Name	Contact Information
1	Social Media	OSSINING FAMILIES	https://www.facebook.com/groups/180368656196082/
2	Social Media	Village of Ossining	https://www.instagram.com/villageofossining/
3	Social Media	Ossining UFSD	https://twitter.com/OssiningSchools 400 Executive Boulevard Ossining, NY 10562 914-941-7700
4	Local Media	Daily Voice	https://dailyvoice.com/new-york/ossining/contact/ Ossining@dailyvoice.com
5	Local Media	WQXR-FM	https://newyorkpublicradio.my.site.com/wnyc/s/ Business & administrative questions: 646-829-4400
6	Local Media	Westchester Magazine	https://westchestermagazine.com/contact/ 2 Clinton Avenue Rye, NY 10580 914-345-0601
7	Local Business	The Ossining Boathouse Restaurant	https://ossiningboathouse.com/welcome/contact/ 46 Westerly Rd, Ossining, NY 10562 914-923-6466
8	Local Business	Ossining Boat and Canoe Club	http://www.obcc.org/ membership@obcc.org

9	Local Business	Harbor Square Apartments	https://gdcrentals.com/harbor-square/ 914-945-0008
10	Local Business	Artisan Epoxy Builders	https://artisan-epoxy-builders.company.site/ 914-318-9965 artisanepoxy71@gmail.com
11	Local Library	Ossining Public Library	https://ossininglibrary.org/ 53 Croton Avenue Ossining, NY 10562 914-941-2416
12	Marginalized Group	VISIONS/Services for the Blind and Visually Impaired	https://disabled.westchestergov.com/visions-services-for-the-blind-and-visually-impaired 500 Greenwich St Suite 302, New York, NY 10013 212-625-1616
13	Marginalized Group	Disability resources by Westchester Government	https://disabled.westchestergov.com/disability-resource-guide/listed-by-disabilities-served/hearing-impaired 148 Martine Avenue, White Plains, NY 10601 914-995-2000
14	Marginalized Group	Beltone Hearing Care Center in Ossining	https://locations.beltone.com/ny/ossining/0050791025/ 226 N Highland Ave, Ossining, NY 10562 914-762-1811

Appendix D - Goosechase Missions

D.1. Answer submission

D.1.1. Expressing thoughts

The participants can use the external link to the Otocast application. Then, they can read the introduction about the specific location in Ossining, and write down their thoughts in the written submission box. The Otocast team will add more locations which will be heavily influenced by

the flooding risk in the future. The following is a public art called "Angel" in Ossining, and it is located by the Hudson River.

Introduction in the Otocast:
"A tribute to the firemen of the sister cities of Ossining, NY and Alijó, Portugal. The piece was commissioned by Harbor Square developer Martin Ginsburg, and is an exact replica of a sculpture in Alijó," and there is a 2-minute audio file.

Mission:
Please write down your thoughts after reading the introduction and listening to the audio.

D.1.2. Taking Quiz

The external link will lead the participants to take the online quiz. The quiz proposal is in Appendix E, and the following is the sample quiz question that will be asked.

Mission:
Which government facility in Ossining would be severely affected by the increasing water level?

A) Ossining Children's Center
B) Ossining Aquatic Center
C) Ossining Fire Department Headquarters
D) Westchester Waste Treatment Facility

Answer: D) Westchester Waste Treatment Facility

D.2. Share Your Spot

Description:

Share Your Spot: Louis Engel Waterfront Park

Ossining's Louis Engel Waterfront Park is a riverfront park located in the Old Village neighborhood. You've got beautiful views of the Hudson River, paved paths for walking, benches for watching the sunset, picnic tables with 4 grills around the playground area, restrooms, a playground, Ossining's only outdoor spray park and a stage used to host movie nights, bands and other presentations. The park also plays host to a number of special events throughout the year.

Mission:

Due to its geographical location, this park is under high-risk flooding.

For credit, submit a GPS check-in near Ossining's Louis Engel Waterfront Park!

Visiting famous places (artworks/ buildings/ public space) in Ossining; Westchester Waste Treatment Facility, Louis Engel Waterfront Park, The Boat House

D.3. Taking A Picture

Participants will be encouraged to take pictures of the various landmarks and locations they visit during the GooseChase scavenger hunt. This will not only make the experience more engaging but will also help raise awareness about the significance of these places in relation to flooding in Ossining. To ensure a diverse range of submissions, each location will have specific photography tasks associated with it.

Participants will submit their pictures through the GooseChase app, earning points for the quality and creativity of their submissions. The best photographs can be featured on the campaign's social media platforms, further raising awareness and engagement.

Description:

Take A Picture: The Boat House

The Boathouse restaurant sits between Westerly Marina and Shattemuc Yacht Club on the north end of the Ossining waterfront. But drop in on its new Quarterdeck Boat Bar on any sunny weekend, and you might think you've found a little slice of tropical heaven, Ossining own Margaritaville-on-Hudson.

Mission:

Due to its geographical location, this restaurant is under high-risk of flooding.

For credit, submit pictures near Ossining's Boathouse restaurant!

D.4. Shoot A Video

In addition to taking pictures, participants will be encouraged to create short videos (30-60 seconds) that showcase their experiences during the scavenger hunt, as well as their understanding of flooding issues in Ossining.

These videos will be submitted through the GooseChase app, and like the photographs, participants will earn points for their submissions. The best videos can be shared on the campaign's social media platforms to boost engagement and raise further awareness about flooding in Ossining.

Description:

Shoot A Video: The Yonkers Joint Wastewater Treatment Plant

The Yonkers Joint Wastewater Treatment Plant (YJ WWTP) provides primary and secondary treatment of wastewater generated from portions of southern and western Westchester County. The facility is currently permitted to treat 120 MGD from June 1 to October 31, and 145 MGD from November 1 to May 31, pursuant to a SPDES permit issued by NYSDEC.

Mission:

You are encouraged to create short videos (30-60 seconds) to share your understanding of the flood risk in The Yonkers Joint Wastewater Treatment Plant, expressing your concerns and hopes for the future.

Appendix E - Quiz Proposal：Digital Campaign Design-Online Quizzes

E.1. Introduction

The aim of the digital campaign is to enhance the awareness of flood preparedness and community engagement. Therefore, the consulting team decided to organize an online quiz with prizes on flooding to attract the participation of Ossining's residents. This quiz can be created online, and the participants can reach this online quiz by clicking the external link which will be provided in the written submission mission in the Goosechase application.

E.2. Executive Plan

E.2.1. Platforms

Cooperate with the organizations in the promotion plan to publicity the digital campaign.
External link in Written Submission Mission in the Goosechase application.
Language: Quiz will be provided in both English and Spanish

E.2.2. Quizz Design
1. 3 categories (Flood-risk general questions / Preparation - what should you do when the floods come / Flood-risk in Ossining)
2. 5 questions for each category
3. Single-option / multi-option / fill in the blank

E.2.3. Quiz Questions

Category 1: Flood-risk - general questions

Question 1:

Which of the following factors can contribute to increased flood risk in a community?

A) Deforestation
B) Poorly designed infrastructure
C) Inadequate urban planning
D) All of the above

Answer: D) All of the above

Question 2:

What is a floodplain?

A) An area of land adjacent to a river or stream that is prone to flooding
B) A type of insurance policy that covers flood damage
C) A man-made structure designed to control the flow of water
D) A region with a high elevation that is resistant to flooding

Answer: A) An area of land adjacent to a river or stream that is prone to flooding

Question 3:

Which of the following is a method used by communities to mitigate flood risks?

A) Building retention ponds
B) Implementing stricter building codes
C) Constructing floodwalls
D) All of the above

Answer: D) All of the above

Question 4:

What is the purpose of a flood forecast?

A) To predict the timing, location, and severity of potential flooding events
B) To provide real-time information about the water level of rivers and streams
C) To assess the risk of flooding for a specific property
D) To determine the cost of flood insurance for homeowners

Answer: A) To predict the timing, location, and severity of potential flooding events

Question 5:

How does urbanization contribute to increased flood risk?

A) By increasing the amount of impervious surfaces, such as concrete and asphalt
B) By reducing the overall amount of vegetation in an area
C) By increasing the rate of runoff during heavy rainfall events
D) All of the above

Answer: D) All of the above

Category 2: Preparation - what should you do when the floods come

Question 1:

What is the most effective way for homeowners to protect their property from flood damage?

A) Installing sandbags around the perimeter of the property
B) Raising the elevation of the property
C) Purchasing flood insurance
D) Storing valuable items on the second floor of the home

Answer: C) Purchasing flood insurance

Question 2:

What is a levee?

A) A type of flood warning system
B) A barrier designed to prevent flooding
C) A low-lying area that is prone to flooding
D) A type of flood insurance policy

Answer: B) A barrier designed to prevent flooding

Questions 3:

In the future, which of the following is expected to increase the risk of flooding?

A) Population growth
B) Urbanization
C) Climate change
D) All of the above

Answer: D) All of the above

Questions 4:

When a river's water level reaches 10 meters, this means that

A) The water level is 10 meters above an arbitrary zero level
B) The water level is 10 meters above mean sea level
C) The water level is 10 meters above an arbitrary zero level or mean sea level
D) It will flood

Answer: C) The water level is 10 meters above an arbitrary zero level or mean sea level

Questions 5:

What should people do during the floods?

A) Avoid areas subject to sudden flooding
B) Never try to walk, swim or drive through such swift water
C) Find high grounds in the neighbors/ communities
D) All of the above

Answer: D) All of the above

Category 3: Flood-risk in Ossining

Question 1:

Over the next thirty years, how many properties will be affected by flooding in the town of Ossining?

A) About 400 properties
B) About 500 properties
C) About 600 properties
D) About 700 properties

Answer: B) About 500 properties

Questions 2:

When was the last time the town of Ossining was affected by flooding?

A) October 2020
B) September 2021
C) December 2021
D) February 2022

Answer: B) September 2021

Questions 3:

Which government facility in Ossining would be severely affected by the increasing water level?

A) Ossining Children's Center
B) Ossining Aquatic Center
C) Ossining Fire Department Headquarters
D) Westchester Waste Treatment Facility

Answer: D) Westchester Waste Treatment Facility

Questions 4:

Over the past century, Hudson River has risen in water level -

A) about half feet
B) about a foot
C) about one and a half feet
D) about two feet

Answer: B) about a foot

Questions 5:

What risk category does Ossining belong to from flooding?

A) High Risk
B) Medium Risk
C) Low Risk
D) No Risk

Answer: A) High Risk

Appendix F - Slogans and Hashtags for Promotion

- Submerse - the danger is real! #FloodWarning

- Test your knowledge and stay ahead of the flood! Take our quiz today. #FloodAwareness #KnowYourStuff

- Think you know everything about flooding? Put your knowledge to the test with our quiz! #FloodPreparedness #StaySafe

- Don't let flooding catch you off guard! Take our quiz and learn how to protect yourself. #BePrepared #FloodAware

- Get your flood IQ up! Take our quiz and see how much you really know. #StayInformed #FloodPrevention"

- Knowledge is power when it comes to flooding. Test yourself with our quiz and stay one step ahead. #FloodReady #StaySafe

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