MEETING SUMMARY
RESILIENT STRATFORD SOUTH END WORKSHOP #1
HELD ON DECEMBER 5, 2022

Introduction

A public workshop for the Resilient Stratford South End project was held on December 5, 2022. The workshop was a gallery-style event. Participants circulated among seven stations which presented information and solicited input from attendees. Approximately forty people attended during the five-hour event. Participants included South End residents, business owners and employees from the South End, local officials and staff, state officials and staff, and active citizens and members of various Stratford boards, as well as representatives of CIRCA (the project initiator and funder), and consultants from GZA and Dodson & Flinker. This document summarizes the event's stations and the information that was gathered at each.

Figure 1. Participants at the workshop. (Sources: clockwise from top left: David Murphy, David, Murphy, Samuel Bell, David Murphy)

Station 1: Welcome

At this station facilitators welcomed attendees and helped them sign in. The facilitators explained the organization of the event and the origin and purpose of the project and answered questions. This station also functioned as a closing station where comments were gathered from attendees at both the beginning and end of the event. Comments included:

- Stormwater flooding is a significant issue in the neighborhood for residents and businesses
- There is more flooding now than in the past. Some places flood now twice a month--spring tide flooding. Locations with frequent flooding:
    - Surf Avenue
    - Exit 30 underpass (frequently cited)
    - Birdseye boat ramp
    - Bond's dock
- Hamilton Avenue floods. A resident recently showed pictures to town council. Flooded kitchen. Residents have to climb out the window during flooding events to leave their properties.
- Residents of South End are fatigued: flooding is a decades old problem. Residents have been providing input but not seeing action.
- Streets that regularly flood include: Hamilton Ave, Orange St, Masarik Ave.
- Revise the study area boundaries to include area north of I-95 that floods (by brook).
- A number of homeowners have expressed interest in selling their homes, may be interested in being bought out by Town, but need market value for their property. Difficult to move—house prices are so expensive.
- Army Engine Plant—couldn't come to a decision about dredging harbor. Now it looks like it will be used for warehousing. It's a spectacular site, but flooding will build up behind the walls.
- The hours of the workshop were not convenient for South End residents. It was difficult to attend after work. Future meetings should be later—7PM or 8PM.
- The information from this workshop should be presented to boards and commissions, especially land board and zoning board. They need to know this information.

Station 2: Climate-Related Hazards and Vulnerabilities

This station presented information about climate-related hazards via a looped powerpoint presentation and conversation with Samuel Bell of GZA, who was the lead author of Stratford's 2016 Coastal Community Resilience Plan. Participants were asked to share their experiences with climate-related hazards and their greatest concerns for the future by contributing comments to a poster. The input is shown in Figure 4. Additional comments are below:

- Many people have had damages to property including lost cars resulting from flooding caused by heavy rainfall.
- Viaduct near Surf Avenue does not drain well especially during a flash flood leading to significant flooding.
- Don't see impacts from coastal flooding as much as from heavy rainfall events.
- The ground and stormwater system in the South End can't absorb or convey enough of the water from heavy rainfall events. This results in the flooding of basements, back yards and in homes. Many of the homes have sump pumps to pump out the water.
- Roads that are under water during heavy rain events include (see Figure 3):
    - Hamilton

- Harding Ave
- Garibaldi Ave
- Orange
- Yarwood Street
- General Street
- Roosevelt Ave
- McKinley Street
- Dewey Street
- Masarik Ave
- Columbus Ave

- During heavy rain events Frash Pond will overflow and impact Access Road, Ryan Ave, Meadowview Ave.
- Most of the flooding events happen in the fall.
- Church at 1301 Stratford Ave. has a river underneath that floods the site. The church installed a heavy-duty pump (costing $millions) to pump flood waters out during heavy rainfall events.
- Need better signage for evacuation routes so people know where to go.
- The Town needs to hire a full-time grant writer to help pursue funding for flood resiliency projects.

Figure 2. Participants discussing climate related hazards and vulnerabilities for the South End with Samuel Bell of GZA (Source: Susmitha Attota)

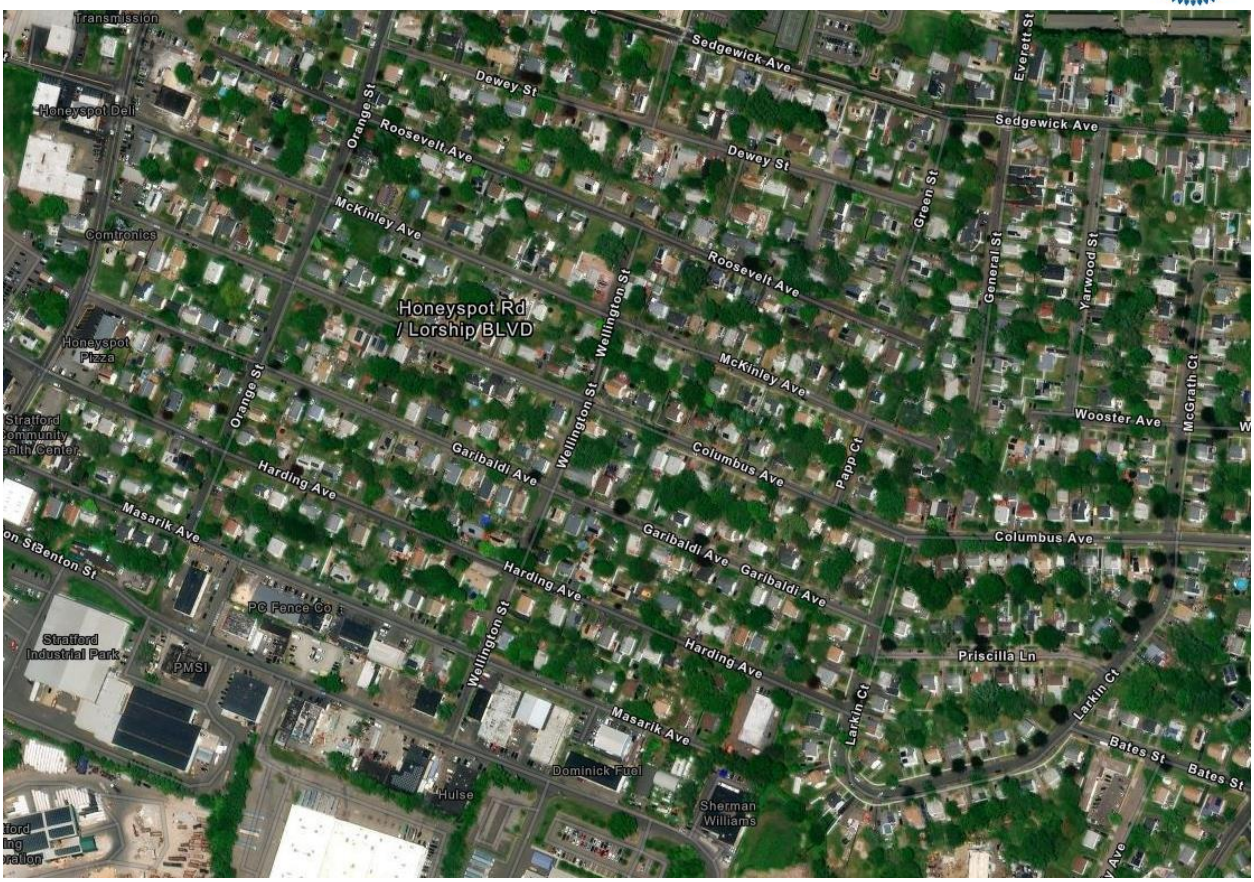


Figure 3. Map showing streets that participants said are frequently flooded

Resilient Stratford South End
Climate-Related Hazards

In partnership with:

Climate change is increasing the risk from natural hazards—events or physical conditions that have the potential to damage property, infrastructure, or the environment, to threaten lives, or to cause other harm or loss.

Tell us about your experience with natural hazards in the South End and about your concerns for the future by filling in the grid below.

	My experience is… (write on post-it notes and stick them below)	**The South End places and people that I'm most concerned about are…** (write on post-it notes and stick them below)
Sea Level Rise	Great Medows Marsh Plant native phragmites. Sell the concept of nature-baed protection. People want the view. Rocks won't save you. plant trees, talk to landscapers about native species. Housatonic River high tide cycles higher every year	Exit 30 Stratford having a replay of Katrina. Where is everyone going to go? Contained flooding not only causing structural damage to homes/ devalues property, but increases mental stress and health problems, i.e. mold Housatonic River Marsh Areas Sikorski Airport Natural areas along river/marsh
Inland Flooding & Coastal Flooding	Frequent flooding along Main Street near airport->cuts off access for cars Hamilton Ave. Floods with big drop in road Surf Ave flooding under exit 30 overpass (astronomical high tide) Children & elderly have to walk in flooded waters to bus stop 1 foot of water in building Surf Ave Exit 30 underpass Residents feel no one cares. Years old problem Flooding Exit 30. Property value??? Basement floods up to 2nd step leading to main level-Orange St. House on Hamilton Ave between Corintihian Ave and South Ave. Main level floods. Floor had to be replaced Housatonic River incoming tide/storm water coming down creating flooding is more frequent Base flooding Lack of insurance issue Children and bus stops. Children have to walk through flooded streets	Loss of cars, property caused by flooding insurance claims get denied. Orange St. Hazard. whole road floods making driving hazardous. Children unable to play in front or back yards when it floods. 304 Orange St and surrounding areas. Loss of cars, property caused by flooding insurance claims get denied. Signage and evacuation plans. Not clear which any to go during a flood. Need signage. Cannot drive some roads when flooded. Finding alternate roads can be challenging. South End--Orange St, Garibaldi, Harding, Masarik. Increase in frequency and depth of the water flooding on Long Beach Blvd. Columbus Ave. McKinley Ave. Hamilton Ave and Stratford Ave corner. Masarik Ave. Elderly residents/young children stuck indoors when flooding is high. Anywhere it floods. Property damage to vehicles and basements and property. Orange St, Harding. Hamilton, Columbus
Extreme Temperatures & Drought	Air pollution. Lack of trees. Open space needs more funding to increase value of non-industry buildings	
Severe Storms (hurricanes, tornadoes, thunderstorms, ice storms, blizzards, nor'easters, etc.)		

Figure 4. Public input gathered at Station 2 poster

Station 3: Stratford Coastal Resilience Strategies and Projects—Progress So Far

Station 3 featured a timeline of the Town of Stratford's coastal resilience and implementation. A poster displayed key project recommendations from the 2016 Stratford Coastal Community Resilience Plan and their status. A video displayed resilience project progress in Stratford with milestone dates from 2016 to December 2022 by the Town and CIRCA. Several participants commented that they were surprised that the town had made so much progress. Additional comments are below:

- Interest in flood protection of Water Pollution Control Facility (WPCF) as top priority.
- Concerns for public investment in expansion of the Airport due to high flood risk location.
- Flooding has been getting worse in the South End.
- Interest in the completed living shoreline project and the Audubon ecological restoration project.
- Thomas Gillon of Meyer Inc., a logistics, relocation, and storage solutions company with a warehouse facility on 255 Long Beach Boulevard. He has seen more frequent flooding enter this property on the east wall from the Great Meadows Marsh. He would support a berm or flood barrier project on the property if it does not block truck access to the warehouse.

Figure 5. Participants and the facilitator, Wayne Cobleigh of GZA, at Station 3 (Source: David Murphy)

Station 4—Strategies: Protect, Accommodate, Retreat

This station presented the three basic strategies for coastal resilience: protect, accommodate, and managed retreat. A series of three posters explained the strategies and showed case studies of them. Participants discussed the strategies with a facilitator and gave the following input:

- Severe stormwater challenges were the main focus across all participants.
- Several participants highlighted specific properties that have experienced on-going stormwater flooding problems, including multiple losses of vehicles, flooded basements and first floors resulting in loss of property and need for mold remediation, etc. One property on Hamilton Ave was cited in particular.
- Several participants talked about how neighborhood residents are exhausted, both by the flooding, and by the lack of progress. They said they have raised the issues with various town representatives, but they have not seen progress. They were skeptical that this project would result in action but came to the meeting to make sure stormwater flooding was at the forefront so that any resilience-related work be designed to also help alleviate these immediate issues.
- A participant said he grew up in the neighborhood and owns many residential properties. He was extremely skeptical that this project was going to solve the community's actual issues, namely stormwater/flooding. He is a plumber and said that he thought it seemed obvious to him that building levees around the neighborhood was not going to help -- where is the water going to go? The issue that they have is getting water out of the neighborhood, not preventing coastal waters coming in. He remembers as a child that there were old drainages/creeks in the neighborhood, such as in the area of Fresh Pond. At that time, flooding was not as bad. He thought the current situation appeared to be the result of these drainages being filled in for the industrial/commercial properties. He suggested that if this fill was removed, the stormwater problem would likely improve. He was frustrated that the Town seemed to allow this in the past and seems to continue to be interested in commercial redevelopment/development rather than solving stormwater problems. He was concerned that resilience and stormwater improvements would result in additional coastal development.
- Several participants pointed out that the South End is a lower-income area. Many residents do not have the resources (time, money, expertise) to deal with complicated stormwater solutions. For example, one participant said that they had looked into improving flood resistance for their own home. Advice from an insurance company(?) was: don't put belongings in the basement and live on the second floor. That was not particularly helpful for them.
- Homes with multiple losses are going to be challenging if not impossible to sell. This is particularly challenging for people who have low incomes. Meanwhile, the cost to move elsewhere may be prohibitive for property owners.
- Most participants seemed to feel that the Protect strategy was best, but many also were skeptical that it could be accomplished due to cost. Several people mentioned that they didn't want taxes to go up. Others cited potential divisions within the town: are people from other parts of Stratford going to be willing to pay for improvements in the South End?
- A participant said she lived in New Orleans around the time of Katrina. She noted that the protect strategy is familiar, since this was the path New Orleans took historically. Katrina showed the problems of this approach. However, they were able to rebuild and New Orleans has gotten a lot of investment after that storm.

- The protect example from Derby, CT, was interesting to some participants because it has enabled imminent redevelopment of the point between the rivers.
- Several participants indicated that managed retreat/acquisition is appropriate for some repetitive-flood properties. However, they said that managed retreat was politically challenging. It is difficult for an elected official to advocate for managed retreat when their future opponent can take the opposite stance. One set of participants, who were not from the neighborhood, thought managed retreat seemed like the best long-term solution, but like others, said it would be politically very challenging. They also felt that "regionalization" of the strategy seemed important—there need to be places for climate migrants to move to. One participant said that they can't speak for individual repetitive-loss property owners, but in cases where there are multiple losses and no clear solution to the underlying problem, the idea of acquisition seems like a straightforward solution that may be acceptable to some property owners.
- If some properties can be bought out, as part of a managed retreat strategy, the land should be used for some purpose that is beneficial to the neighborhood.
- Managed retreat drew questions such as:
    - would property owners get market value for their property?
    - the cost of housing is very high elsewhere so if people were bought out, where could they go?
    - is FEMA is still offering buyouts?
    - for measures other than acquisition, how could people sell their homes?
- For some participants the fact that some of the case study projects were on rivers was a little confusing since the focus of this project is on the coast.
- General sentiment across participants that this represents a very challenging situation. Not a clear answer. Who makes these choices? How can we make these choices?
- A request was made: how can the workshop materials be passed along to the community after the meeting? Materials available on website are too small and hard to read.

Figure 6. A participant looks at posters showing case studies for resilience strategies (Source: Susmitha Attota)

Station 5—South End Resilience Priorities

At this station, participants first placed a colored pin on a map of the study area indicating where they live, work, or visit in the South End. They then wrote on sticky notes and attached them to a map of the South End study area to identify the most important aspects of the South End from a resilience perspective. While contributing to the map, participants discussed the following with the facilitator:

- What do you like about the South End? What needs to be protected to maintain or improve quality of life? Why?
- What would you miss most if it were gone? Why?
- What makes this neighborhood work? What holds people together? What could your community lose before the whole community fails/is lost?
- Where are the opportunities for neighborhood improvements that might dovetail with projects for resilience? What potential strategies and projects might support other community goals?

Input contributed to the map is shown in Figure 8.

Figure 7. Discussing resilience priorities for the South End (Source: John Truscinski)

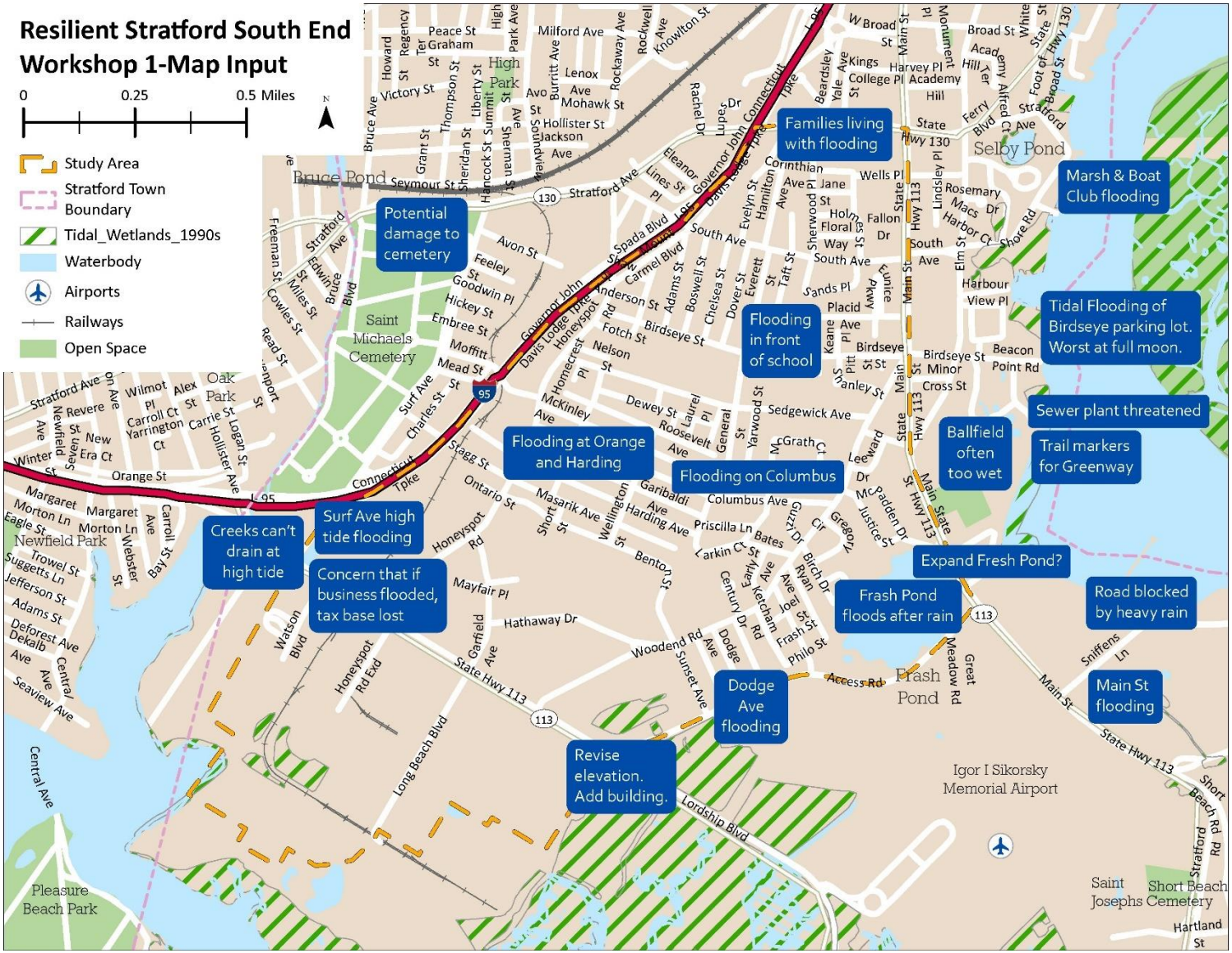


Figure 8. Public input from Station 5: South End Resilience Priorities

Station 6 – Project Criteria

Station 6 asked participants to use stickers to rank criteria for evaluating climate resilience projects for the South End on a scale from 1 to 8, with one being the highest rank. The criteria used were the eight components of the P.E.R.S.I.S.T.S. framework developed by CIRCA, outlined below:

Permittable – Can be authorized through necessary federal, state, and local permits

Equitable – Ensures that benefits are equitable among populations

Realistic – Can be realistically engineered and is plausibly fundable

Safe – Reduces risks to people and infrastructure

Innovative – Process has considered innovative options

Scientific – Apply and improve on the best available science

Transferrable – Can serve as model for other communities

Sustainable – Socially, economically, and ecologically sustainable and supported by the public and leadership

A weighted average of all the rankings shows that Realistic had the highest ranking (or lowest weighted average), at 2.8, closely followed by Equitable, at 2.9. The criteria for Sustainable and Transferrable received the lowest rankings (or highest weighted averages), at 5.7 and 7.2, respectively. Of note, seven participants ranked Equitable as #1, showing this component to have high importance to several participants. Alternatively, nine participants ranked Transferrable as #8, showing that many participants agreed this value was the least important among the group. Two components, Safe and Innovative, received fewer rankings than the others. One participant ranked only their top choice, selecting Equitable, which may explain why this component has 18 rankings instead of 17.

Criteria	Weighted Average	Frequency of top rankings (#1)	Frequency of bottom rankings (#8)	Total # of rankings
Permittable	**4.4**	3	1	17
Equitable	**2.9**	7	0	18
Realistic	**2.8**	4	1	17
Safe	**3.3**	1	0	15
Innovative	**4.7**	1	2	14
Scientific	**4.2**	2	2	17
Transferrable	**7.2**	0	9	17
Sustainable	**5.7**	0	1	17

A follow-up interview asked participants to explain their ranking choices. In explaining the high interest in Equitable, participants described addressing long-standing needs in the South End as a priority for this project. Some residents of the South End described feeling unheard and wanting to be better supported by the Town. Several participants described the South End's vulnerability to flooding and linked the high concentration of lower-income households to being "overlooked" by the Town and "not treated equitably". One participant described the importance of equity in maintaining the social resilience of the overall town, and that if one area falls, everywhere will fall. One person described inequities in knowledge and resources as increasing personal risk. Another cited the inequities of the underlying

landscape – that the neighborhood was originally built on a wetland to house lower income families – as a systemic problem that requires a systemic solution.

Comments on Realistic spoke to the importance of projects that "work" and the need to follow projects through to completion. One participant mentioned that experience being on the Town Council elevated the importance of Realistic to her, along with Permittable. While others also saw Permittable as "necessary to get things done" some participants ranked this component lower, since they saw it as a "given" and "already taken care of" and did not feel it needed advocacy. The criteria for Safe was also ranked highly, which some described as "the point for any intervention in the first place", seeing safety as the benchmark for evaluating project success. Some spoke to the importance of "protecting people first, then property" and related safety back to equity. Similar to Equitable, no participant ranked Safe last.

Several criteria received a variety of ratings, but nevertheless were very important to some people. Two participants who ranked Scientific as either 1 or 2 both spoke to the need to "listen to climate science" as a foundation for a successful project, and others spoke to the need to "use the best info" and to have "a good blueprint" for project success. Some saw Innovative as part of this, and one person commented that Stratford's unique location and large amount of shoreline along the Housatonic and Long Island Sound required innovation. Another person felt that innovation complemented Equitable, as it required "all people involved, not just the engineers" to be truly innovative. However, others commented that a time-tested solution doesn't need to be innovative to work.

The criteria that received the lowest ranking, Transferable, was largely seen as a bonus but not a priority. One commented that they liked the value, it was "just less important than the others", while another said "it was not that important". A couple of participants commented that "everywhere is different", so that being transferable may be difficult or not possible. One person who ranked Transferable at 5 noted value in not having to recreate the wheel in every community. The criteria for Sustainable similarly seemed to be seen as less important than others, though one person commented that it was an important value for longevity and that he didn't "want to have to repeat our investment." However, another participant who ranked Sustainable at 7 noted that ecological and social sustainability may be at odds with economic sustainability, and felt that what is politically sustainable may not always be equitable.

Figure 9.Participants discussing how to prioritize future resilience projects for the South End (Source: David Murphy)

Station 7 – Survey

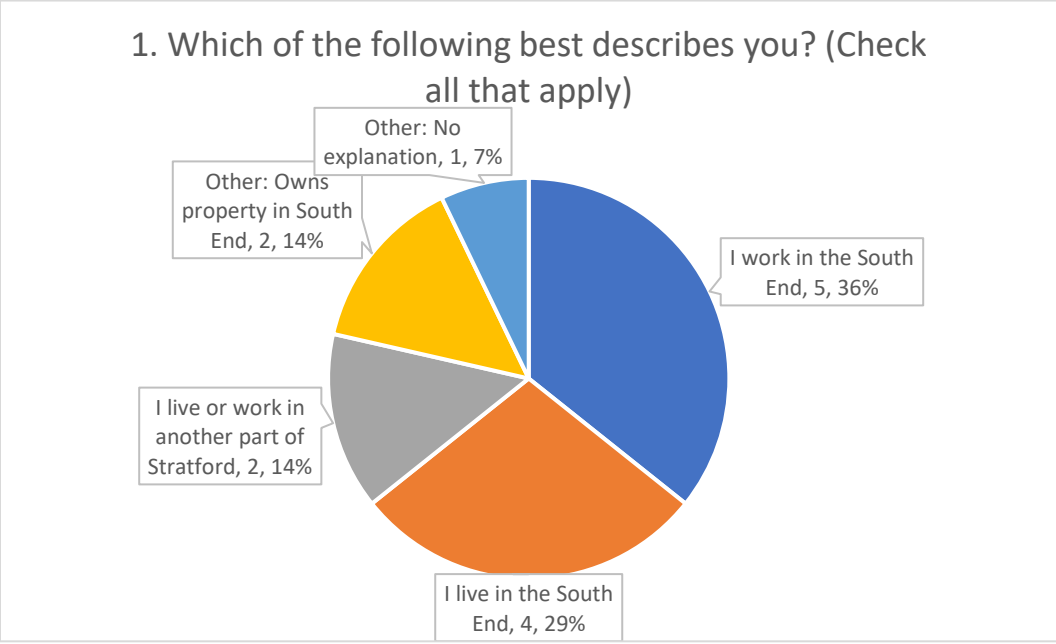
Summary

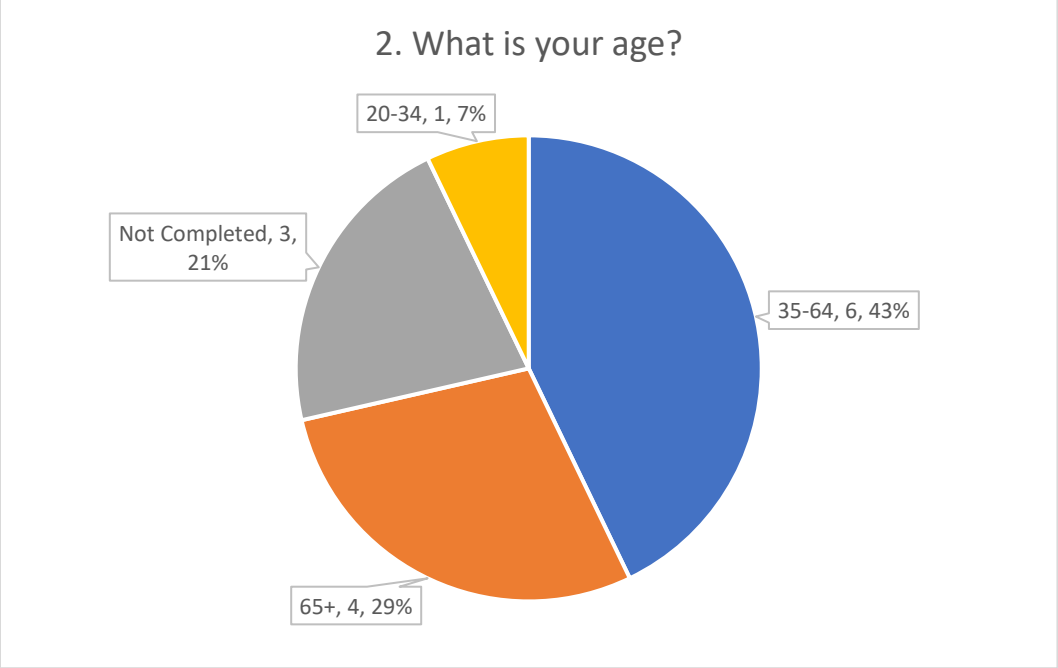
Fourteen participants completed a paper survey consisting of four open response questions and seven questions about participant background and demographics. In total, respondents were split between living in the South End and working there, with additional respondents who live elsewhere in Stratford and two who own property in the South End. Most respondents were age 35 or older, eight identified as White and three as Black, a majority as female, a majority as highly educated, and a majority earning in the highest household income brackets. No respondents reported a household income of less than $75,000.

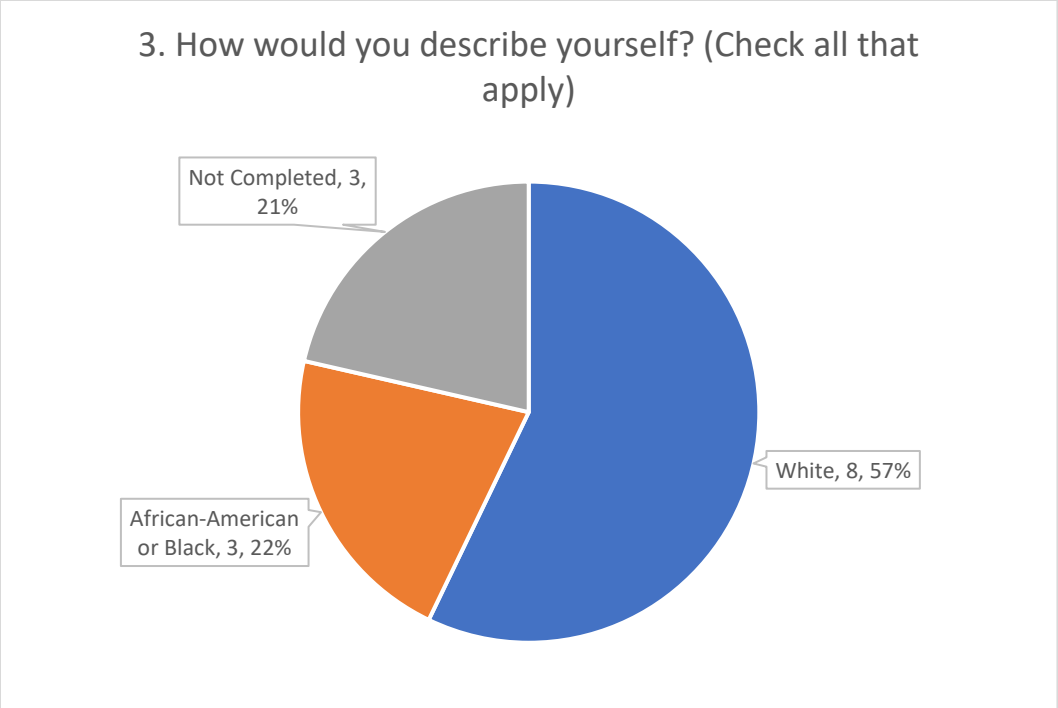
Comments expressed appreciation for the information provided about existing and planned projects, especially for "rainwater solution" projects, and a desire to see follow-through on plans and "something accomplished." A couple of comments noted the importance of funding and coordinating efforts between Town, state, and federal resources. Several comments noted that attendance at the workshop by South End residents was low and could have been improved through better scheduling and advertising, and one suggested an ongoing online presence. In general, comments described liking the format of the workshop and the chance to connect with others.

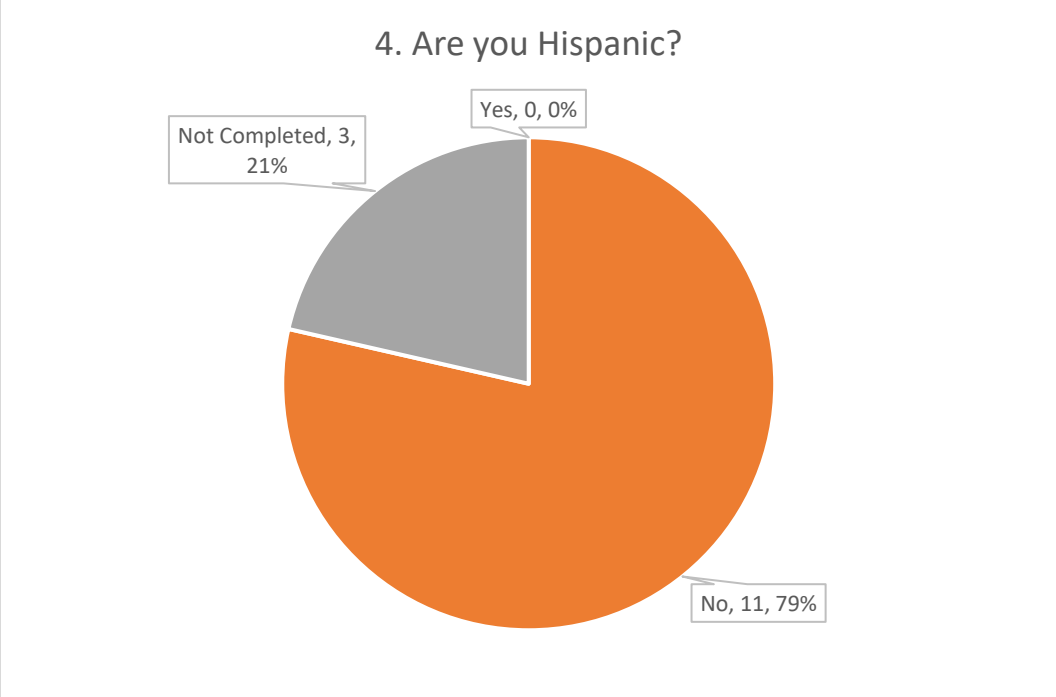
Demographics

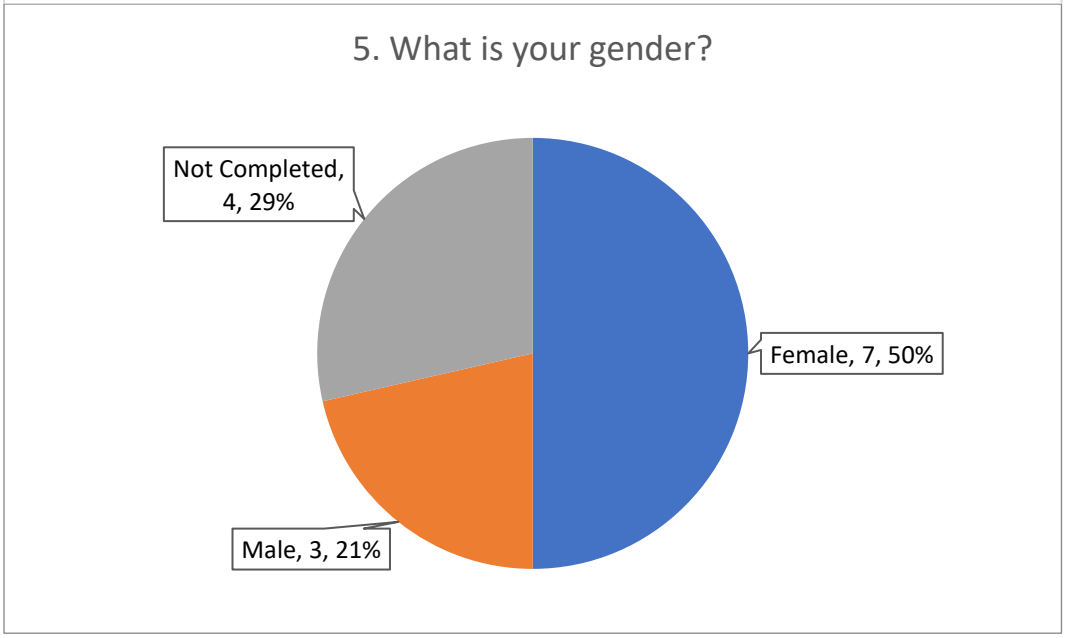
Of the eleven participants who completed the demographic section of the survey, four reported living in the South End, five reported working there, and two participants reported living or working in another part of Stratford. Another two owned property in the South End but did not report living there. Six respondents reported their age as between 35 and 64, another four were 65 or older, and only one was younger than 35. Eight respondents described their race as White and three as Black; no one identified as being of Hispanic ethnicity. Seven respondents identified as female, three as male, and four did not report a gender. A majority of respondents (7) hold a graduate or professional degree, and the remaining four who reported their education level were split between holding a bachelor's degree and an associate's degree. Reported incomes were evenly split between the brackets $75,000 to $99,999, $100,00 to $149,000, and $150,000 or more, though four did not complete this question or selected that they prefer not to answer.

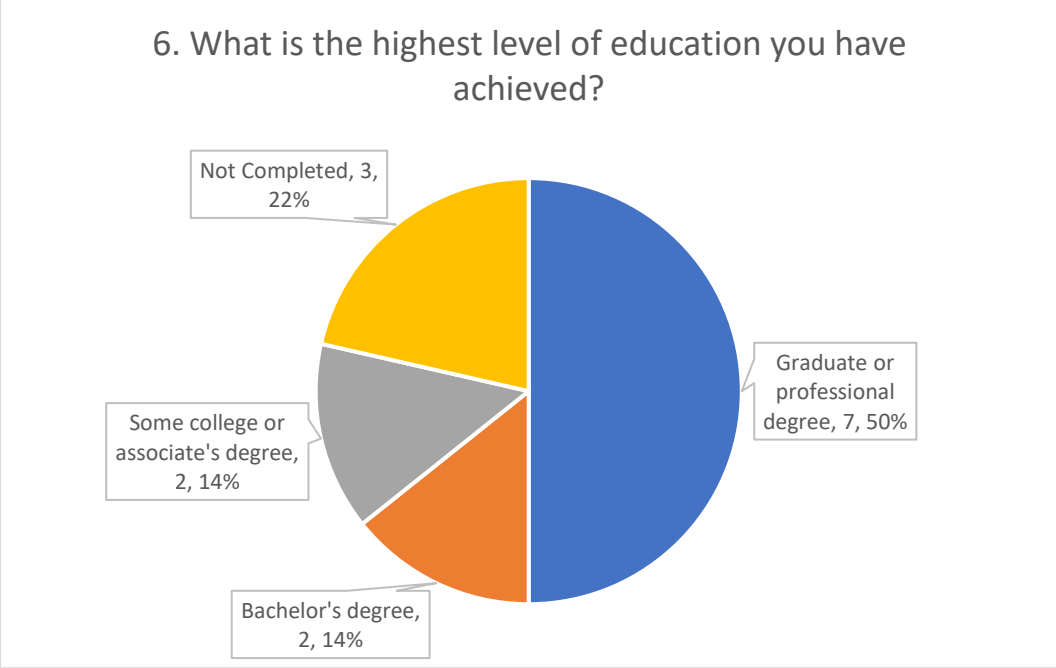


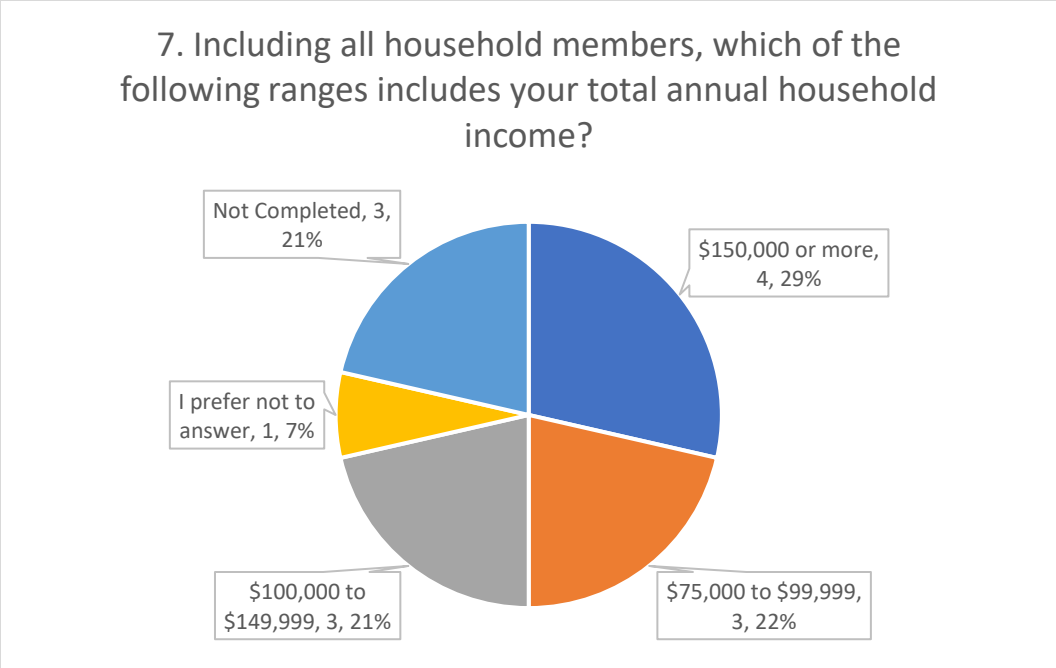

2. What is your age?
20-34, 1, 7%
Not Completed, 3, 21%
35-64, 6, 43%
65+, 4, 29%


3. How would you describe yourself? (Check all that apply)
Not Completed, 3, 21%
White, 8, 57%
African-American or Black, 3, 22%


4. Are you Hispanic?
Yes, 0, 0%
Not Completed, 3, 21%
No, 11, 79%


5. What is your gender?
Not Completed, 4, 29%
Female, 7, 50%
Male, 3, 21%





Comments

Question 1. Is there anything else you want to tell us that you haven't said already?
(10 responses)

Comments described either a desire for project follow-through or appreciation for the workshop. Two comments described a hope that “something gets done”, one expressed interest in a “sustained” effort, and one expressed interest in planning for the future that would allow his business to remain in the area. One comment noted the importance of buy-in among both residents and Town officials, another mentioned coordination between local, state, and federal authorities, and one commented on the

importance of funding. One comment directly mentioned the area around Exit 30. Three comments expressed appreciation for the workshop.

Question 2. What did you learn at this workshop? What do you want to know more about?
(13 responses)
Eleven comments described learning about projects – seven mentioned learning generally about what was already being done or what was being planned, and four specifically called out "flood remediation" and "rainwater solution" projects. One comment noted learning about the funding going into the project. One comment expressed interest in "more plans and designs to protect Stratford."

Question 3. What went well at today's workshop? What should we change at future workshops?
(13 responses)
Eleven comments noted successes of the workshop – five expressed appreciation for the quality of information, four appreciated the "flow" of the stations or the "mix of presentation slides and interactive stations", and four appreciated the chance to connect with others. Five comments noted a need to improve attendance either through better scheduling, better advertising and online presence, or more materials for residents. One of these noted that the participant had "found out about it last minute" and another suggested posting the workshop online.

Question 4. Please write any other comments below.
(8 responses)
One comment noted the importance of equitable projects and adequate funding, one expressed a hope for continuing the effort, and six expressed gratitude for the workshop.