Tropical Storm Chantal
After Action Review
Survey Results and Next Steps

Aug. 25, 2025

TOWN OF
HILLSBOROUGH

Topics

- Resolutions for internally identified items from the Early After Action Review

- Post-event survey results

- Recommended next steps

Resolutions from Early After Action Review

Staff has identified or acted on resolutions for many issues reported as gaps or weaknesses in the Early After Action Review, including:

- Alternative locations and procedures for moving vehicles from flood-prone areas

- Updating town code language regarding water supply emergencies

- Partnering with Orange County and other agencies for a comprehensive review

- Addressing future flood risk in planned construction projects

- Designing new signs for boil water notices and planning to order a large number

Post-Event Surveys

- Responses were collected from four groups

  - Mayor and Board of Commissioners

  - Emergency Management Team

  - Key operational staff

  - Community members

- 140 responses were received collectively from those groups
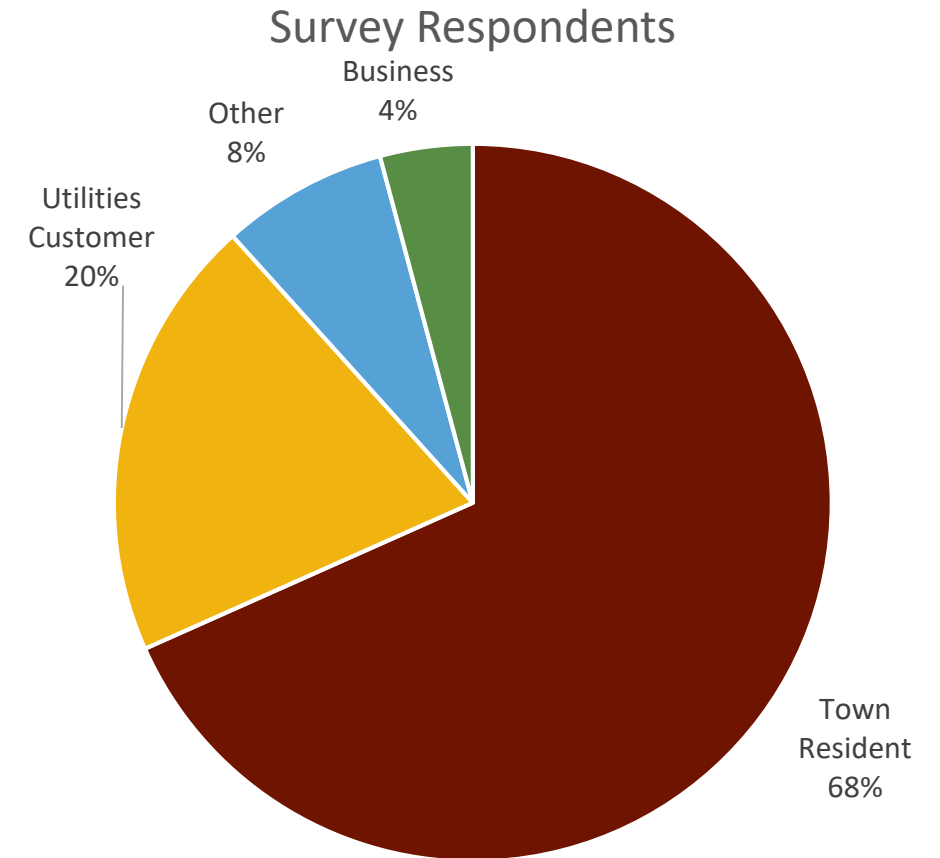
Post-Event Surveys

Results of Internal Surveys

- **Board survey** — Positive and showed Emergency Management Team performed well. Recommended actions to reduce reporting burden and enhance inclusion and resident support using pre-planned decision tools.

- **Emergency Management Team survey** — Noted generally strong communication and coordination but challenges with timely public messaging, initial risk assessment, and reliance on limited staff resources. Highlighted need for clarity on Emergency Operations Center activation triggers, faster public information and ongoing preparedness improvements.

- **Key operational staff survey** — Noted internal communication and training created an effective response but noted gaps in cross-departmental coordination, clarity of roles and procedures, timeliness of public information and financial readiness. Recommended clearer policies, more training and improved outreach to residents.

Post-Event Surveys

Community Survey Results

- 120 responses
  - 68.3% town residents
  - 20.0% utilities customers outside of town limits
  - 7.5% other
 - 4.2% business owners or employees

Survey Respondents

Business 4%

Other 8%

Utilities Customer 20%

Town Resident 68%

Post-Event Surveys

Community survey respondents generally felt safe and secure during storm

- 73.3% of all respondents selected "somewhat safe" or "very safe."
- 79.3% of town residents and 54.2% of utility customers felt safe.
- 80.0% of business responses and 66.7% of "Other" responses were positive.

10. During the event, how safe did you feel?

● Very safe	47
● Somewhat safe	41
● Neither safe nor unsafe	18
● Somewhat unsafe	14
● Very unsafe	0

12%
15%
39%
34%
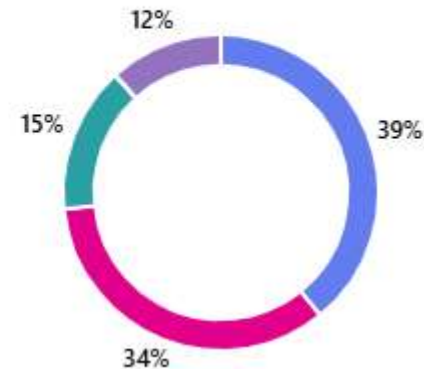
Post-Event Surveys

Community Survey Results

- 55.8% of respondents reported they considered the town "somewhat prepared" or "very prepared" before the storm, compared to 52.5% afterward.

- Opinions that the town was "somewhat unprepared" or "very unprepared" increased from 16.7% to 42.5% after the storm.

Perception of Preparedness (All Responses)
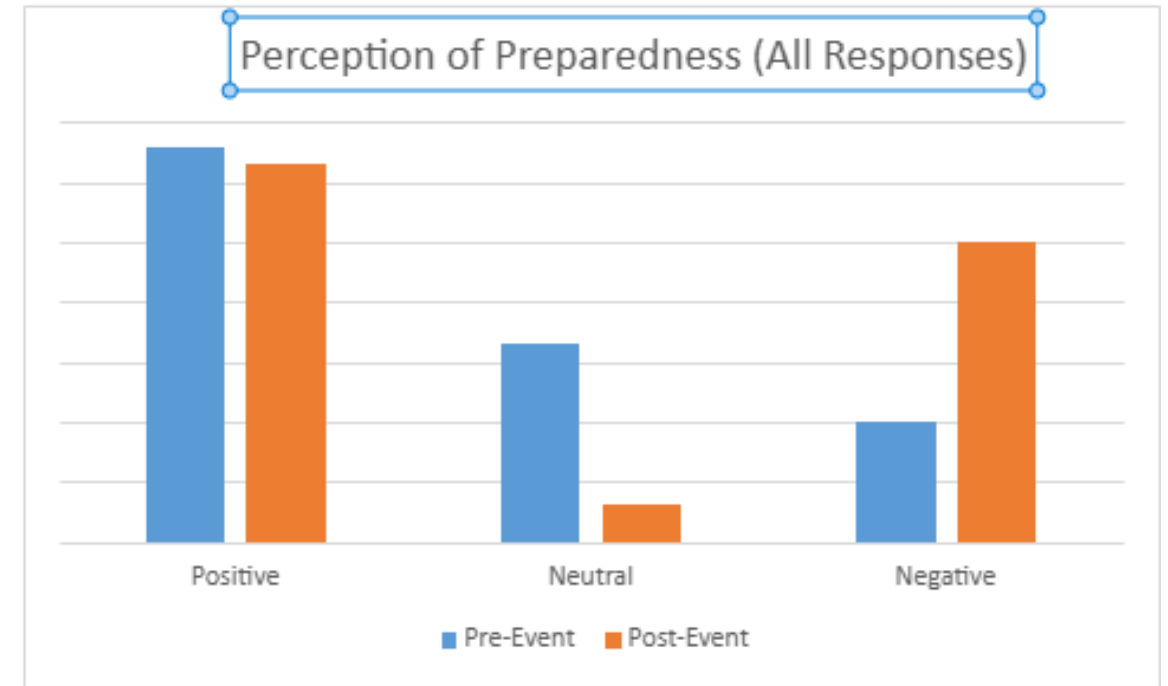
Category	Pre-Storm +	Post-Storm +	Pre-Storm -	Post-Storm -
Resident	48	46	13	32
Utility Customer	10	10	5	14
Business	3	3	1	1
Other	5	4	1	4

Post-Event Surveys

Community Survey Results

- 66.4% of respondents reported they had "high" or "very high" confidence in the town's emergency response capabilities before the storm, compared to 58.5% afterward.

- Respondents with "low" or "very low" confidence increased from 5.0% to 19.5% after the storm.

Opinion of Response Capability (All Responses)
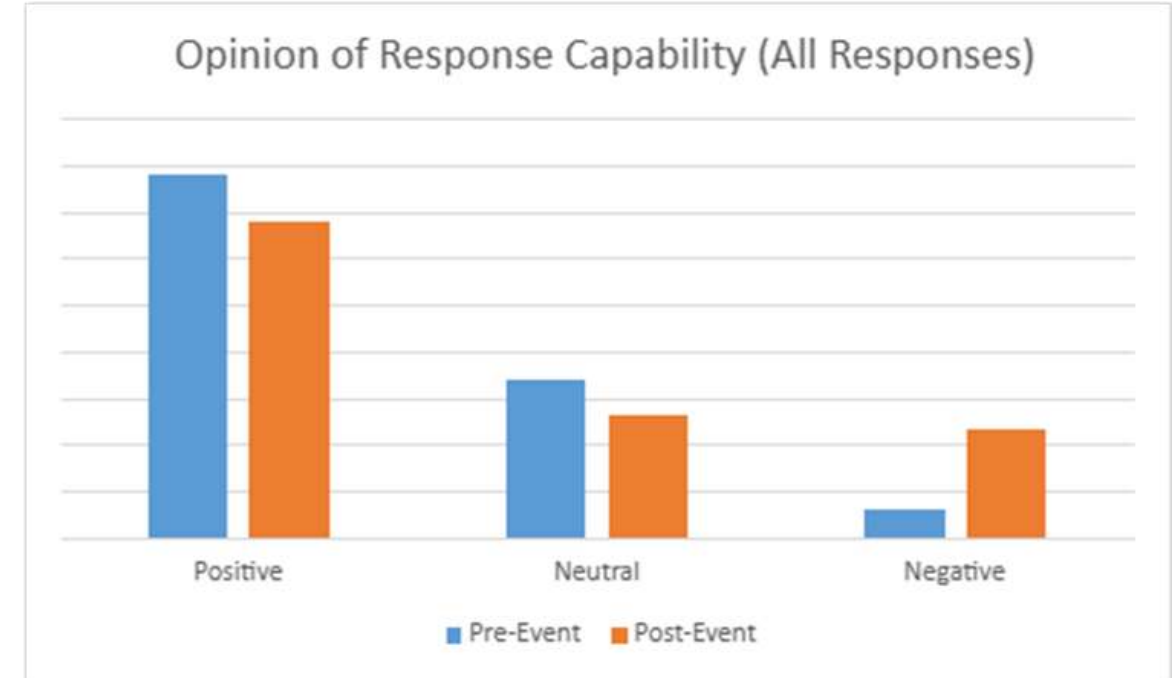
Category	Pre-Storm +	Post-Storm +	Pre-Storm -	Post-Storm -
Resident	56	50	2	14
Utility Customer	14	11	3	7
Business	3	3	0	0
Other	6	5	1	2

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Post-Event Surveys

Community survey respondents rated the town's services or support during the event an average of 7.26 out of 10.

- 23.3% of responses were at a 10

- 12.5% of responses were below a 5 (negative).

12. How would you rate the services or support you received from the Town of Hillsborough during the event?
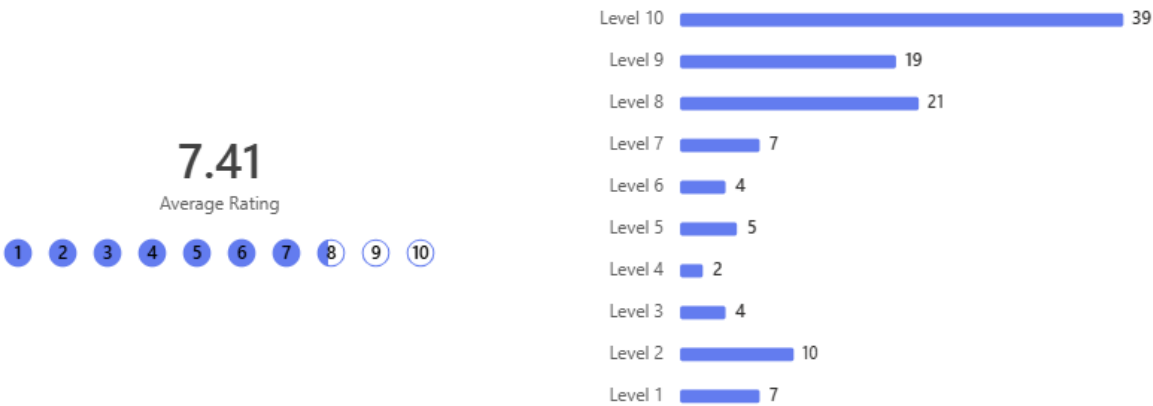

7.26
Average Rating

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

Level 10	28
Level 9	15
Level 8	23
Level 7	11
Level 6	3
Level 5	16
Level 4	2
Level 3	3
Level 2	5
Level 1	5
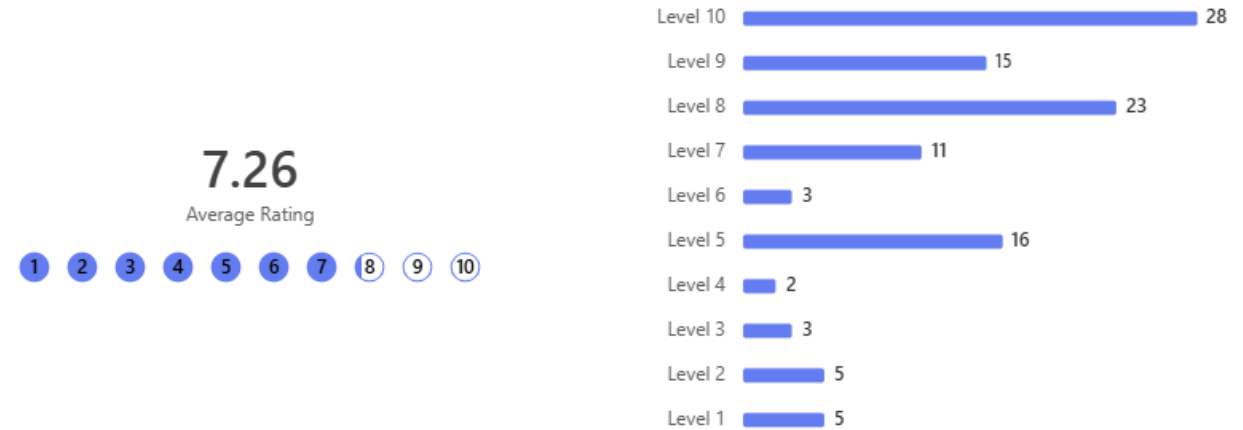
Category	Average Rating	10 Rating	Below 5
Resident	7.8	24	6
Utility Customer	5.7	4	8
Business	7.0	0	0
Other	6.3	0	1

Post-Event Surveys

Community survey respondents rated the town's communications during the event an average of 7.41 out of 10.

- 31.7% of responses were at a 10
- 19.2% of responses were below a 5 (negative).

5. How would you rate the communications you received from the Town of Hillsborough during the event?

7.41
Average Rating

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

Level	Count
Level 10	39
Level 9	19
Level 8	21
Level 7	7
Level 6	4
Level 5	5
Level 4	2
Level 3	4
Level 2	10
Level 1	7

Category	Average Rating	10 Rating	Below 5
Resident	7.8	34	13
Utility Customer	6.3	5	8
Business	8.3	0	0
Other	6.4	0	2

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Post-Event Surveys

Community survey respondents provided over 40 pages of open-ended responses on a range of topics, including pre- and post-storm confidence and concerns, perceptions of safety and communications, and priorities to address before the next emergency event.

Post-Event Surveys

- Before the event, many survey respondents had not considered the possibility of such a severe storm and assumed the town was well-prepared based on:

    - History of effective maintenance, planning, and communication
    - Past positive experiences with the town, emergency services and public works.
    - Belief that certain areas (like Riverwalk and Gold Park) were intentionally designed to flood safely.

- Concerns centered on aging or vulnerable utilities infrastructure, repeated unresolved flooding in certain areas, inadequate targeted communication, and insufficient preparation for extreme, unprecedented weather events.

"The town is generally well-managed, fiscally responsible, and attentive to future needs ... it's hard to anticipate freak accidents."

Post-Event Surveys

- Post-event, community survey respondents generally expressed confidence in the dedication and quick response of town staff, appreciating transparent updates and resiliency of the community.

- Significant concerns were expressed about inconsistent communications and infrastructure vulnerabilities in flood-prone areas, which were identified as key challenges to be addressed for future events.

"I was impressed with the quick action and transparent communication."

"While the response itself was pretty well handled, having the town's water facilities in the floodplain is a significant point of vulnerability."

Post-Event Surveys

Community survey respondents were largely divided on communications.

- While there were positive notes about the frequency and clarity of town communications, there also were negative responses about the speed, fragmentation and reliance on social media during the event.

- General feedback suggests the need for broader outreach (beyond opt-in OC Alerts and Facebook) and clear, more consistent instructions during emergency events.

"Yes. Communications exceeded my expectations … I was impressed by the frequency of updates on flooding, the water supply and steps the town was taking to fix the problem."

"First found out about the boil water order while scrolling through Nextdoor … I finally received text and phone calls about the boil order, but it was 2 hours later. The delay was unacceptable."

Post-Event Surveys

Community survey respondents indicated that their overall sense of safety was influenced by their personal location relative to flood-prone areas personal preparedness.

- Several responses indicated new or lingering concerns about communications and infrastructure even if they were not personally impacted by the event.

"I always have drinking water on hand. My neighbors check on me. My house has been here over 100 years."

"The boil water advisory was surprising and made me feel somewhat unprepared."

Post-Event Surveys

"Frequent updates about the water situation …the boil notice, estimated time before it would be lifted, and location of free bottled water."

"As seniors, we really appreciated the access to bottled water … we didn't have to search stores during the boiled water emergency."

"Places to go if there is no power for prolonged periods of time for people to cool down and charge devices would be helpful."

Community survey respondents most frequently cited communications and timely updates as helpful services during the event, as well as the bottled water distribution and rapid work to restore services.

- Improvements were suggested in the clarity and timeliness of information about road closures, power outages and water safety.

- Recommendations included dedicated cooling and charging centers and proactive outreach to vulnerable locations.

Post-Event Surveys

The top cited priority of community survey respondents was strengthening critical infrastructure, followed by improvements in real-time communications and better long-term planning for resiliency.

"Citizens' Volunteer Disaster Response Corps … the town would train teams to respond to disasters and help with remediation efforts."

"Improving the wastewater treatment infrastructure to prevent the flooding and subsequent untreated waste from discharging into the environment."

"Better communication. I was receiving it, but many neighbors were unaware of communication channels."

"Coordinating with mutual aid groups … volunteer coordination … educate the public about flood vulnerabilities and insurance options."

Post-Event Surveys

Community survey respondents were generally appreciative of the town's response to the storm, while indicating concerns with restoration of amenities, long-term planning and emergency communications.

"I trust our town staff and am grateful for their devotion to this community."

"I would give the town an ABOVE 'Very High' rating for the post-storm response."

"We miss the parks. Have been watching for an update on when they might be reopened."

"The town and the Planning Department need to start taking the watershed impacts of uncontrolled development into consideration."

"Please please please get the Riverwalk and connecting trails back up and running asap."

Next Steps

Based on the internally identified after action review items, the proposed resolutions, and the gaps and priorities identified in the post-event surveys, the town has a number of follow-up steps to consider and pursue revolving around three main themes:

- Preparedness and Community Support

- Emergency Communications

- Resilient Infrastructure

Next Steps

Preparedness and Community Support

- Clarify and solidify Emergency Management Team roles, reporting chains and staff expectations during emergency operations.

- Schedule future tabletop or other planning exercises — some internally focused, some including broader partner agencies, and potentially a community planning exercise.

- Explore creation or facilitation of community volunteer disaster response cohort for engagement before, during and after emergency events.

- Train staff on damage assessment procedures to improve timeliness and reporting for future events.

Next Steps

Emergency Communications

- Explore implementation of town-owned, opt-out emergency notification system or changes to OC Alerts to better facilitate emergency communications.

- Update town website capabilities for responsive emergency banners and real-time updates.

- Standardize templates for boil water, road closures, damage reports and emergency briefing materials.

Next Steps

Resilient Infrastructure

- Explore feasibility of flood-mitigation measures for water plant, continue to pursue funding to execute relocation of vulnerable sewer pumping station and secondary water-supply interconnection with Orange Water and Sewer Authority.

- Identify and prioritize known flood-prone areas and plan for capital projects to address causes of flooding.

- Work with Orange County on establishing designated cooling and charging center locations for future emergencies.

- Reevaluate planning and development regulations to prevent worsening flooding or drainage issues.

Summary

Focus Areas for Post-Chantal Improvements

- Communications (internal and external)

- Incident Command (structure, staffing, key assignments, backups, training)

- Operations

- Facility and infrastructure protection

- Post-Event — Damage assessments, wellness checks, search and rescue, reporting dashboard, resource connections, volunteer and donation coordination

Questions and Comments?