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Does Recovery Mean Resiliency?

An Analysis of the Waterbury, Vermont Response to Tropical Storm Irene

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Introduction

Tropical Storm Irene brought widespread damage to Vermont in 2011, necessitating a massive recovery effort from local community and business leaders, volunteers, non-governmental organizations, and regional, state, and federal actors. [Waterbury, VT](#) was one of two municipalities to receive planning assistance from the Federal Emergency Management Agency (FEMA) Long-Term Community Recovery (LTCR) planning team. The partnership resulted in a plan of 22 projects guiding the community towards social, economic, and flood-resilient recovery. [Five years](#) after the storm, many recovery projects are coming to a close. How effective has the [recovery process](#) been, and how has it prepared Waterbury for future disasters? Analysis of Irene's impacts and Waterbury's response and recovery reveal dedicated efforts to make Waterbury stronger than ever before. However, ongoing vigilance to balance development pressures with resiliency planning remains critical.

A Devastating Storm

In 2011 Hurricane/Tropical Storm Irene affected parts of the Caribbean and several states along the United States' East Coast. It [reached Vermont](#) as a tropical storm on the evening of August 28, 2011. The Category 1 storm sustained winds between 40-60 mph and resulted in devastating riverine flooding across the state. On September 1, 2011, President Obama issued Major Disaster Declaration 4022-VT for Tropical Storm Irene. The flooding

resulted in six deaths¹ and the displacement of more than 1,500 families.² Of Vermont's 251 towns and villages, 223 were impacted, with 45 municipalities severely impacted.³ More than 7,000 households registered with FEMA for Individual Assistance.⁴ Following the storm, decimated [roads](#) left 13 communities isolated and many more with limited access points.

Tropical Storm Irene devastated [Waterbury](#), a small community in Central Vermont with a shared population of 5,000 between Waterbury Town and Village. The Winooski River inundated the community, resulting in power outages and property damages. Damages to private property totaled \$9 million, with 220 affected homes and businesses.⁵ Another significant loss was the destruction of the Waterbury Municipal Offices, Police Department, and as many as 49 historic buildings. Across Vermont, Irene damaged 17 mobile home parks; Whalley Park in Waterbury was one of two mobile home parks in Vermont to be permanently closed following the storm, displacing all 11 households. At the time of the flooding, the Vermont State Hospital and psychiatric mental health system were located in Waterbury. All 53 patients had to be relocated to other facilities across the state or correction facilities.⁶

¹ National Association of Development Organizations Research Foundation. 2012. *Lessons Learned from Irene: Vermont RPCs Address Transportation System Recovery*. Supported by the Federal Highway Administration, Center for Transportation Advancement and Regional Development, Washington, DC: NADO Research Foundation. <https://www.nado.org/lessons-learned-from-irene-vermont-rpcs-address-transportation-system-recovery/>.

² Nagy, Ross, Erica Bornemann, and Emily Hamlin. 2012. *Tropical Storm Irene After Action Report/Improvement Plan*. Draft, Waterbury: State of Vermont Emergency Management. https://gmunitedway.files.wordpress.com/2012/04/ts-irene-aar-ip-2012_0409_final.pdf.

³ *Ibid.*

⁴ Office of the Vermont Governor Peter Shumlin. 2014. "Vermont Gov. Shumlin Issues Final Tropical Storm Irene Report." *Insurance Journal*. August 29. <http://www.insurancejournal.com/news/east/2013/08/29/303326.htm>.

⁵ Waterbury Long-Term Community Recovery Steering Committee. 2013. *Tropical Storm Irene: Waterbury Long-Term Community Recovery Steering Committee After Action Report*. Waterbury, VT: City of Waterbury. https://www.waterburyvt.com/fileadmin/files/Town_clerk_files/LTCR_AAR_11_11_13.pdf.

⁶ Vermont Agency of Commerce and Community Development. 2013. *Vermont 2013 DCBG-DR Partial Action Plan*. State of Vermont. <http://accd.vermont.gov/sites/accdnew/files/documents/CD-VCDP-VT-CDBG-DR-2-PartialActionPlanRevised3.pdf>.

The flooding in Waterbury had additional implications for the State of Vermont. As Tropical Storm Irene poured rain over Central Vermont, the [Waterbury State Office Complex](#) was flooded by the Winooski River, incapacitating IT and communication systems within the complex. Multiple departments and agencies lost email servers. The water damaged “systems relied upon by dispatch centers around the state, the disaster management software system for the State EOC, and servers that house important information for field offices and staff” and prompted the first-ever evacuation of the State Emergency Operations Center (SEOC).⁷ On August 28, 1,500 state employees from Human Services, Natural Resources, and other agencies were displaced, and the SEOC relocated to the Federal Emergency Management Agency (FEMA) Joint Field Office in Burlington, VT.

Waterbury Responds

In the storm’s aftermath, the Waterbury fire station proved the value of mitigation. Recently rebuilt with a flood-resilient design, the fire station became a “one-stop shop” for needed assistance and other community services in the months following Irene.⁸ It was used as a space to store donations of needed supplies, a disaster recovery office for FEMA, and a temporary location for municipal staff offices. The Thatcher Brook Primary School and St. Leo’s Congregational Church became central sites for coordinating volunteer efforts, distributing food and other relief aid, and for disseminating information. While a number of local and state reports summarize Irene’s impacts, little aggregate information exists on damages to critical

⁷ Nagy, Bornemann, and Hamlin, *Tropical Storm Irene After Action Report*.
https://gmunitedway.files.wordpress.com/2012/04/ts-irene-aar-ip-2012_0409_final.pdf.

⁸ Norris, Meaghan, and Kimberly Coleman. 2012. *Lessons Learned from Six Weeks of Research on the Response to Irene in Waterbury, VT*. The University of Vermont; Green Mountain College, Waterbury, VT: ReBuild Waterbury.
https://www.waterburyvt.com/fileadmin/files/Town_clerk_files/Response_Report_Final.pdf.

facilities such as fire stations, police stations, schools, and health facilities. It may be difficult to quantify for small municipalities where these functions are shared between towns or operate out of shared facilities. Waterbury's dependence on the fire station and school underscores the importance of tracking impacts to these facilities and locating them out of harm's way.

Other buildings did not escape the Winooski's floodwaters or subsequent debris. The totality of damages described above left Waterbury with daunting long-term recovery needs. It faced the potential permanent loss of a significant portion of local employment, the State Office Complex, in addition to the loss of its own municipal offices, pre-school and childcare facilities, and 9% of its housing stock. Replacing affordable housing options emerged as an important need, with the Central Vermont Community Land Trust citing growing waiting lists for many of its properties.⁹ The [Waterbury Long-Term Community Recovery Steering Committee](#) also identified the challenge of navigating insurance programs and "absorbing" all available resources, whether volunteer hours or state and federal funding sources.¹⁰

Communities across the State collectively faced additional long-term recovery needs regarding environmental planning and governing capacity. A State [report](#) found "82% of Vermont's stream miles do not have a mapped floodplain, and 25% of the state's National Flood Insurance Program claims are located outside of the 100-year floodplain."¹¹ The Vermont Law School Land Use Institute confirms two-thirds of flood damages occur outside of mapped floodplains and flood areas.¹² In addition to outdated and incomplete maps, the Vermont

⁹ FEMA Long-Term Community Recovery Team. 2012. *Waterbury: Long-Term Community Recovery Plan*. Waterbury, VT: State of Vermont. <https://www.scribd.com/document/93816244/Waterbury-LTCR-Plan>.

¹⁰ Waterbury Long-Term Community Recovery Steering Committee, *After Action Report*.

¹¹ Vermont Department of Housing and Community Development. 2013. *Report on the Viability and Disaster Resilience of Mobile Home Ownership and Parks*. State of Vermont. <http://www.leg.state.vt.us/reports/2013externalreports/295178.pdf>.

¹² Vermont Law School Land Use Institute. "Preparing for the Next Flood: Vermont Floodplain Management." 2009.

Agency of Natural Resources and Environmental Protection Agency also cite erosion: “[[Fluvial erosion](#)], rather than inundation, causes the majority of damage in the state.”¹³

According to David Mears, Commissioner of the Vermont Department of Environmental Conservation, a long [history](#) of straightening, deepening, and installing berms along Vermont rivers and streams has caused floodwater to “move downstream faster, which increases erosion and results in the catastrophic movement of rivers that can occur during major flood events.”¹⁴ The [power of water](#) during Irene, likened to a stream from a firehose, is responsible for damaging roads, bridges, culverts, and for “sweeping” homes away.¹⁵ Increased precipitation at more frequent intervals due to climate change will only exacerbate the above issues, a reality addressed by [Vermont’s Roadmap to Resilience](#), a report published by the Institute for Sustainable Communities. Protecting development by manipulating the natural course of rivers—rather than restricting development from harm’s way—ultimately leads to massive damage. The need for well-informed town officials, public works staff, planners, and community members was shared across the state.

In Vermont, limited municipal staff and financial capacity can constrain the mass amount of planning and coordination needed during recovery. Decision making in many towns and villages rests on a few full- or part-time staff and volunteer boards who juggle many roles

http://www.vermontlaw.edu/Documents/VLS.065.09%20LAND%20USE%20PAPER_PFF.pdf.

¹³ U.S. Environmental Protection Agency Consultant Team. 2013. *Disaster Recovery and Long-Term Resilience Planning in Vermont: Policy Memo for the Mad River Valley*. State of Vermont.

<http://www.friendsofthemadriver.org/documents/Stormwater%20Resources/Vermont%20SGIA%20Policy%20Memo%20FINAL.pdf>.

¹⁴ Mears, David K., and Sarah McKearnan. 2013. *Rivers and Resilience: Lessons Learned from Tropical Storm Irene*. Vermont Law School Environmental Law Center, South Royalton: Vermont Journal of Environmental Law.

<http://vjel.vermontlaw.edu/files/2013/06/Rivers-Resilience.pdf>.

¹⁵ Pierre-Louis, Kendra. 2016. "Five Years After Hurricane Irene: Still Striving for Resilience." *Inside Climate News*. September 1. Accessed November 26, 2016. <https://insideclimatenews.org/news/31082016/five-years-after-hurricane-irene-2011-effects-flooding-vermont-damage-resilience-climate-change>.

and responsibilities. While not the case in Waterbury, in some communities, local emergency managers had either been appointed without their knowledge, received little to no training, or quit their post as requirements of the position grew to overwhelming proportions post-Irene.¹⁶ Additionally, there are no county governments in the state. Aligning a legacy of strong local rule with necessary regional, state, and federal resources—whether manpower or financial—was an additional need for long-term and effective recovery.

In Waterbury, proactive leadership from municipal leaders, community members, and business leaders fueled recovery efforts. The Waterbury Long-Term Community Recovery Steering Committee (the Committee) published an “After Action” [report](#), documenting steps taken and lessons learned throughout the process. Beginning the morning after the storm, the Select Board, the town’s decision-making authority, convened with community volunteers daily to coordinate responses to immediate recovery needs. Hand-delivered fliers and radio announcements became the primary method of communicating information on available resources (e.g., how to contact FEMA) and other important news.¹⁷

An existing non-profit economic development organization, [ReVitalizing Waterbury](#), helped create an initiative called [ReBuild Waterbury](#) to provide immediate financial assistance to families in need. ReBuild Waterbury became one of nine regional Long-Term Recovery Committees formed across the state to provide regional or local case management assistance to administer a combination of federal, state, and local funds to families with ongoing recovery

¹⁶ See Irene Recovery Coordination Team. 2012. *Community Recovery Partnership Report*. Montpelier: State of Vermont. <http://accd.vermont.gov/sites/accdnew/files/documents/CD/CPR/CPR-VERI-CRP-Report.pdf>. See also Nagy, Bornemann and Hamlin, *Tropical Storm Irene After Action Report/Improvement Plan*.

¹⁷ Norris, Meaghan, and Kimberly Coleman. 2012. *Lessons Learned from Six Weeks of Research on the Response to Irene in Waterbury, VT*. The University of Vermont; Green Mountain College, Waterbury, VT: ReBuild Waterbury.

needs. According to a state [report](#) from the Agency of Commerce and Community Development, ReBuild Waterbury served 104 households, logged 9,500 volunteer hours, and raised between \$950,000-\$1,000,000 in 16 months.¹⁸ ReBuild Waterbury “bridge[d] the gap between the cost to rebuild and the assistance provided by insurance and FEMA,”¹⁹ showcasing the willingness and capability of Vermont residents to address community needs at the local level, even without compensation. Their efforts lessened the burden on municipal staff, allowing town officials to shift focus from relief to recovery, specifically regarding efforts to retain the State Complex in Waterbury and address zoning issues.²⁰

Yet local leaders were still compelled and willing to ask for help, a strength noted by researchers [compiling lessons](#) to take away from Waterbury’s early recovery efforts.²¹ FEMA had ten staff members supporting the local emergency operations center, two staff advising ReBuild Waterbury, two working on outreach, two working on media, in addition to others.²² Rebecca Ellis, a local community member, former Waterbury Planning Commission member, and State Legislator, advocated for Waterbury to receive assistance from FEMA’s Long-Term Community Recovery program. As early as November 15, 2011, the Town of Waterbury Select Board and the Waterbury Village Trustees convened and voted unanimously to pass a resolution accepting FEMA planning assistance.

¹⁸ Vermont Agency of Commerce and Community Development, *Vermont 2013 DCBG-DR Partial Action Plan*.

¹⁹ Norris and Coleman, *Lessons Learned*.

²⁰ *Ibid.*

²¹ *Ibid.*

²² Waterbury Long-Term Community Recovery Steering Committee, *After Action Report*.

The Waterbury Long-Term Community Recovery Plan

Beginning in November, a team of approximately eight FEMA LTRC staff were on the ground in Waterbury to develop a plan for a five-to-ten-year recovery process. The [Waterbury Long-Term Community Recovery Plan](#) (the Plan or Recovery Plan) took five months to complete and incorporated community input from a series of public meetings. Two weeks after the resolution to partner with FEMA, the participatory process kicked off with a Community Visioning session. Seventy-five residents identified five primary themes to address in Waterbury's recovery: 1) Community Planning and Capacity Building; 2) Economic Development; 3) Energy, Efficiency, and Transportation; 4) Housing and Human Services; 5) Infrastructure and Hazard Mitigation. Attendance grew rapidly: after another two weeks, 120 residents attended a "project brainstorming session" to attach potential projects to each theme and assigned a "champion" to each project. Over the next two months, "Champions" met together to develop their projects before unveiling 19 projects to 400 Waterbury residents at the Community Recovery Fair in mid-February. Community members voted to prioritize projects "according to their importance to Waterbury's recovery."²³

A number of projects addressed capacity, a major need for long-term recovery. Projects included proposals for hiring an Assistant Municipal Planner, Economic Development Director, Business Case Manager, and Grant Writers/Administrators. In general, proposals were innovative and contextualized, taking advantage of Waterbury's unique features and assets. A [budding arts scene](#) was formalized into a coalition and proposal for a regional arts space. The presence of several large employers (e.g., Ben and Jerry's and [Green Mountain Coffee Roasters](#))

²³ FEMA Long-Term Community Recovery Team, *Waterbury: Long-Term Community Recovery Plan*.

became an opportunity to explore car-sharing and other quasi-public transit options. Some projects were common sense, like plans to continue support of ReBuild Waterbury. Others were a blend of recovery need and good planning: The development of a local food system could reduce the risk of losing vital resources in the event of disaster, and the disaster itself had already brought food producers and suppliers into conversation about how to collaborate. Developing a local food culture supported economic development recovery goals as well.

While other projects appeared to be opportunistic, they failed to take advantage of this [multi-objective](#) approach to recovery planning. For example, after receiving public input from the Community Recovery Fair, town officials decided to add three projects to the Plan under a new category, “Parks and Recreation.” The additions included hiring a Parks and Recreation director and completing a Parks and Recreation Master Plan. Waterbury, like many towns in Vermont, attracts tourists for skiing and other activities, yet they have no dedicated staff for directing recreational activities. The new projects’ inclusion thus had an economic justification; better recreational amenities would spur economic activity. However, these projects could easily have been incorporated as flood resiliency measures. Open space preservation and recreational usage can be an important ‘carrot’ to steer development away from floodplains and other critical natural resource areas, rather than relying only on the ‘stick’ of floodplain development restrictions. The last-minute addition of the projects missed an opportunity to build vision and community support for an innovative and multi-benefit approach to floodplain restoration and protection. It is therefore not surprising they were later put on hold.²⁴

²⁴ Waterbury Long-Term Community Recovery Steering Committee, *After Action Report*.

This points to the central weakness—and simultaneous strength—of the plan: It is a list of projects with high potential for implementation yet little planning framework, calling into question the meaning and scope of “long-term recovery.” The FEMA LTRC team compiled the 22 projects and supporting information into the final plan. Each project has its own devoted section highlighting between four to six elements, with details varying by project:

- a general justification for and description of the proposed project;
- action steps necessary for implementation (some projects include deadlines)
- disaster resilience benefits of implementation and/or necessary considerations;
- cost estimates;
- project champions and/or sponsors.

These components—particularly the identification of a committed and knowledgeable champion—increase the chances of actual implementation. The plan situates itself within a limited timeframe, making project implementation the end goal and means of recovery. While many projects, especially those with ‘study’ components (e.g., the proposed housing market study and extensive flood study), may produce policy recommendations in the future, the plan itself is light on policy.

Despite its name, the plan does not provide much long-term guidance for the development of floodplain regulations, land use planning, building code adjustments, or other policy considerations. For example, projects involving the relocation and construction of critical facilities are not included under a cohesive effort to divert development away from some areas and towards others. The municipal complex project does acknowledge the need to locate outside the floodplain and/or mitigate the building, but the project description for childcare and pre-school facilities does not include consideration of site location. Perhaps a plan could

have helped avoid the drawn-out process of relocating the police department. Until 2015, the department did not have a permanent location. Along the same lines, the “Flood Mitigation” section includes important projects—developing a back-up power system, repairing damage to the Dac Rowe recreational area—but does not provide a framework to shape future decision making regarding floodplain development or other flood mitigation measures. As was the case for the late-addition recreation projects under “Parks and Recreation,” the Dac Rowe project within the “Flood Mitigation” section includes ‘flood-proofing’ but does not acknowledge how the space could serve multiple functions, both recreational and restorative for the floodplain.

Intriguingly, the recommendation to repurpose Dac Rowe for “multi-use recreation activities and floodplain restoration” is found in Waterbury’s Hazard Mitigation Plan (HMP), updated in May of 2012, the same month the Recovery Plan was adopted. Several projects from the Recovery Plan are found in the HMP, showing efforts to integrate the two plans. Unfortunately, like the Recovery Plan, the HMP lacks recommendations for locating critical facilities. Perhaps if these and other considerations had been included the Recovery Plan, the HMP would have included them and/or built on those recommendations.

Ultimately, time proved to be of the essence to the plan, with positive and negative outcomes. Adopted only nine months after Irene, the Plan harnessed support for recovery efforts from all levels of the community, from informal resident input, to town official buy-in, to dedicated project champions and sponsor organizations. The plan handed off a collection of well-developed projects to people who could and did run with them. Yet by taking a project-by-project approach, the plan may have missed the opportunity to educate the community about zoning changes, building code changes, and other legally-binding policy options for progressive

restrictions on floodplain development. Discussed below, disaster recovery must acknowledge human propensity to forget. Addressing policy at a time when people are willing to confront the devastating potential of flooding—which is reoccurring based on geography and climate, not chance—could have acted as a strong and long-term counterbalance to development pressures that increase as successful recovery continues.

Waterbury Long-Term Recovery

After the FEMA LTR team left Waterbury, the Town Select Board and Village Trustees appointed the Waterbury Long-Term Community Recovery Steering Committee (referred to throughout as “the Committee”) to oversee efforts to carry out the 22 recovery projects. Town officials developed guidelines and an 18-month term for the committee. It functioned as a municipal commission, with agendas, meeting minutes, and municipal staff support present at regular meetings. The Committee met as often as weekly and bi-weekly in the early months of its term, meeting monthly after one year had passed. The Committee also hosted “All Champions” meetings for the first year to facilitate the sharing of experiences, progress, and navigating funding resources, particularly federal Community Development Block Grant funding.²⁵

While not included in the Recovery Plan, the committee determined to find funding to bring in a full-time Recovery Director and AmeriCorps VISTAs support staff, both important contributors to recovery success.²⁶ Even before the Recovery Plan had been adopted, town officials had begun drafting a grant application for \$122,000 from the Economic Development

²⁵ Waterbury Long-Term Community Recovery Steering Committee, *After Action Report*.

²⁶ *Ibid.*

Administration, with \$18,000 in matched funds from local sources. The EDA grant was awarded in September 2012, with the committee overseeing the RFP, interview, and hiring process. Barb Farr, former director of the Vermont Emergency Management Agency and planning consultant, was hired and began working in January of 2013. The town manager, town planner, committee and chair Rebecca Ellis, project champions, and volunteers had initially led the recovery effort.

The plan laid out Farr's objectives as she took over her new role as Recovery Director, with the municipal office complex project taking top priority. According to Farr, the community "needed someone who knew how to write grants and manage money."²⁷ Her past experience as a regional planner and State Director of Emergency Management meant she was familiar navigating planning efforts and a complex web of funding sources. The \$5-million project required voters to approve a \$2.5-million bond; ultimately the project was pushed through following the formation of a partnership with the town library and historical society to share funds and space. The building's grand opening was in February 2015, while the study to determine a use for the old municipal complex is ongoing.²⁸ While not one of the Recovery Plan projects, the reconstruction of the State Office Complex was also completed in 2015. As of May 2015, 850 state employees had [returned to Waterbury](#).

However, Economic Development Director for Waterbury Zoe Gordon commented that while the original loss of the workers was a huge loss to the community, their return was hardly the main driver of economic recovery. In part due to the implementation of a plan project involving community image, marketing, and branding, Gordon states, "Our brand, our

²⁷ Farr, B. (2016, December 02). Long-Term Community Recovery Director. (E. Seiple, Interviewer).

²⁸ Gordon, Z. (2016, December 02). Economic Development Director. (E. Seiple, Interviewer)

popularity, has skyrocketed over the past five years. We have more businesses, a better reputation, and a higher tourism level than before Irene.”²⁹ She credits business attraction to Waterbury’s “cultural renaissance” as evidenced by a budding [craft beer scene](#), recreational opportunities, and arts community. Gordon took over economic development after working as one of three AmeriCorps VISTAs on grant writing efforts for Recovery Plan projects.

With past experience in recovery efforts following Hurricane Katrina and Hurricane Sandy, Gordon has a meaningful perspective on what separates Vermont recovery efforts from the others. She credits Vermont, and Waterbury, with a “distinctly unique” tenacity: communities care about recovery and do not let projects fall by the wayside. They provide the volunteer support and capacity required for communities to go after “big picture” projects.³⁰ Barb Farr, the Recovery Director, also credited the community’s “proactive” and “uplifting” attitude with the recovery’s success.³¹

In general, success stories abound for Waterbury. Appendix C of the committee’s [After Action Report](#) provides a progress report on the status of each of the 22 projects as of November 2013. With few exceptions, substantial progress had been made on nearly every project, and a few initiatives had been added as the need arose from other project efforts. Many large-scale facility projects, like renovations for the Hunger Mountain Children’s Center, included renovation and reuse of damaged historic buildings and depended in large part on Community Development Block Grant-Disaster Recovery funds. The Central Vermont Community Land Trust completed a 27-unit affordable housing project in a vacated historic

²⁹ Gordon, Z. (2016, December 02). Economic Development Director. (E. Seiple, Interviewer).

³⁰ *Ibid.*

³¹ Farr, B. (2016, December 02).

building near downtown, bringing affordable housing to the community and supporting economic activity. Many of the projects included reference to either substantial local dollars from municipal budgets, funding from sources administered by the Town Select Board and/or Village Trustees, or regional/local in-kind support, evidence that support was top-down *and* bottom-up throughout the recovery. As 2016 draws to a close, Farr reflected there is a sense that a soon-to-be-published town report will be the “last recovery report.”

Farr credits the plan as being “critical for focus” for her own work, for the committee, and for volunteers. Beyond providing focus in terms of the 22 projects, the plan and its implementation facilitated ongoing community engagement involving flood resilience. In fact, one of the recovery “additions” was an effort by many committee members to organize a Floodplain Management Working Group (referred to as the Floodplain Management Program in the Committee’s report).³² The group sought to address rising insurance premiums under the National Flood Insurance Program by exploring ways to advance flood mitigation by engaging Waterbury in the national [Community Rating System](#) program. They have applied for FEMA funding to elevate homes and continue to assist with Hazard Mitigation Plan updates and implementation.³³ The group also monitors emerging studies and resources with implications for Waterbury, such as new data made available to communities regarding fluvial erosion.

Too Much Success?

How successful has the recovery process been for Waterbury? Differentiating between a successful community, a successful Recovery Plan, and a successful community recovery after

³² Farr, B. (2016, December 02).

³³ Waterbury Long-Term Community Recovery Steering Committee, *After Action Report*.

five or ten years have elapsed may beg different answers to that question. As a community, Waterbury has harnessed the past few years to develop strong social networks, cohesive community identity, and a sustainable economic recovery. As a planning document, the Recovery Plan has proved an obvious success. Implemented almost “to a T,”³⁴ it helped garner strategic investment in the Waterbury community and helped attract and retain talented and committed municipal staff. Both will serve the community’s needs for many years to come. But will Waterbury’s recovery process leave the community “better prepared for and able to more effectively manage and bounce back from natural disasters and climate-related shock,” or committed to “continually strengthening [its] resilience”?³⁵

As time passes, it becomes more difficult to differentiate between “resilient” and “recovered.” The more successful the comeback, the more difficult to plan for the next crippling event. Through 2016, Waterbury’s planning commission steered the community through a long education process and some, at times, contentious debate regarding how high buildings should be elevated out of the floodplain. Zoe Gordon recounts her personal struggle between advocating for less cost-prohibitive development and protecting the community. She ultimately pushed for adopting the State’s regulations, which were restrictive but less so than the commission’s proposal. They required new construction to be built two-feet above the 100-year flood plain, with “no net rise”³⁶ of the floodplain. “My gut feeling is that had the discussion been closer to 2011, people might have fought harder for stricter building regulations.”³⁷ Barb

³⁴ Gordon, Z. (2016, December 02).

³⁵ Resilient Vermont. 2013. *Roadmap to Resilience*. Montpelier, VT: Institute for Sustainable Communities.

³⁶ Gordon, Z. (2016, December 02).

³⁷ *Ibid.*

Farr agrees, “complacency really does come into place.”³⁸ When identifying challenges to long-term recovery, the passing of time “hits the nail on the head.”³⁹

This is where long-range planning plays its most crucial role in securing the health, safety, and welfare of communities—particularly those vulnerable to disasters. Continued vigilance from groups like the Waterbury Planning Commission and Floodplain Management Working Group ensure adequate attention is paid to the policies, zoning regulations, and building codes that compel people unable (or unwilling) to envision future disasters to act with the caution deemed necessary by past disasters and future predictions. In the near future, a task for such a group—among other stakeholders—may be to oversee the inclusion of a new “Flood Resilience” element in Waterbury’s next comprehensive plan; the most recent update, adopted in 2013, was adopted before State Act 16 required all town plans to include such an element. The potential loss of limited-term hires, such as the Recovery Director, makes community commitment to flood resilience and disaster planning all the more important. The extensive documentation of the recovery process by the committee and municipal staff will help stem the loss of knowledge as people leave the community. While Barb Farr does not believe the end of recovery signals an end to mitigation efforts, Waterbury must sustain its proactive attitude for this to hold true.

³⁸ Farr, B. (2016, December 02).

³⁹ *Ibid.*

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