



# NORTHEAST KINGDOM FOOD SYSTEMS RESILIENCE

## Impact from 2023-2024 flooding and severe weather

This snapshot is formatted to give an in-depth analysis of findings related to the impacts of the flooding and severe weather between 2023-2024 on the Northeast Kingdom's (Caledonia, Essex, and Orleans Counties) food system. The study included three focus groups (40 participants total); nine interviews with IRB<sup>1</sup> approval and informed consent across the Northeast Kingdom. Participants included community advocates, city and county government, farmers and food businesses, non-profits, schools, and state organizations. The Northeast Organic Farming Association of Vermont (NOFA-VT) supported the project through outreach for participation in interviews and focus groups.

Overall, community members shared a strong desire to ensure that efforts and funds directly benefit farmers in the most accessible and low-barrier way possible. They emphasized the need for a resilience fund that is easy to access, sustainable over time, and supports both immediate disaster recovery and long-term stability while also fostering social connection and coordination across the food system.

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*Special thanks to all the farmers, businesses, organizations, staff, and individuals that met and shared their stories with us throughout the past year. Thank you for your work and dedication to resilient food systems. We are humbled and grateful for your time.*

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<sup>1</sup> Institutional Review Boards and Protection of Human Subjects- study Exempt



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# IOWA STATE UNIVERSITY

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# NORTHEAST KINGDOM SUGGESTED PRIORITIES

Based on the snapshot, interviews, and focus groups, below are priority projects suggested for the food system in the Northeast Kingdom of Vermont, including Caledonia, Essex, and Orleans Counties. These are broad categories that relate to the ability to prepare and sustain during disaster and build back stronger. The report shares findings from the research conducted in December 2024 as well as updated priorities based on the action planning sessions in February 2025. For voting information from the action planning sessions, please see Appendix B. Additional notes from the session are available upon request.

The priority that will be acted on through funding from the Agricultural Marketing Resource Center will include three farmer convenings, each with more than 30 participants, combining financial education, emergency preparedness, and co-designing a farmer resilience fund. Farmers attending all three sessions will receive stipends of \$200 for participation in one meeting, \$450 for participation in two meetings, or \$725 for participating in all three meetings. Session 1 will introduce the project, resilience fund concept, and farm savings strategies. Session 2 will cover best practices for community funds, funding allocation, and emergency planning. Session 3 will finalize the fund structure, including an advisory board, application process, and financial partnerships (for full project report, see Appendix A).

This process was the top priority from action planning and integrates other community priorities by fostering social connection through farmer gatherings, improving coordination between service agencies by collaborating with similar initiatives, and ensuring the fund is designed as a replenishable resource rather than a one-time payment mechanism. Additionally, it prioritizes farming and financial equity, with the goal to make the funds accessible and beneficial to a diverse range of farmers. NOFA-VT and UVM's Institute for Agroecology will conduct participatory research on the best practices for fund management which will inform the funding allocation process and long-term sustainability plan. Additional support for evaluating the success of this initial project will be conducted by the Iowa State University Extension and Outreach Food Systems Team.

## Suggested Priorities

### 1. Business

- 1.1. Develop shared storage and aggregation system
  - 1.1.1. Store grain outside of flood zone
  - 1.1.2. Move food post-storm
- 1.2. Coordinate local food outreach and awareness campaigns
  - 1.2.1. Coordinate with fairs/marketing campaigns
  - 1.2.2. Connect to land and technical assistance
  - 1.2.3. Build social connection at meetings by incorporating shared meals, farm tours, or potlucks to strengthen relationships
- 1.3. Assess opportunities for utilizing closed dairies
  - 1.3.1. Research the potential for reallocating land, equipment, and infrastructure space for transition into other farming practices

### 2. Communications and Emergency Management

- 2.1. Provide emergency planning and risk reduction/mitigation

- 2.1.1. Develop flood response protocols and business continuity strategies that farmers and food businesses can implement
- 2.1.2. Update flood mitigation planning for on farm practices
- 2.1.3. Hold space for peer-to-peer learning on effective strategies for on-farm mitigation for flooding/drought
- 2.2. Identify organization/emergency response point of contact (POC)
  - 2.2.1. Create appropriate communication plans that can launch donations and volunteer activation
  - 2.2.2. Develop flow chart of who is in charge and how communication works
  - 2.2.3. Identify specific POC for farm or business – e.g. managing emails or phone calls
- 2.3. Improve coordination and communication between service agencies
  - 2.3.1. Create communication network
    - 2.3.1.1. Include real-time alerts on critical updates for the region, specifically road closures and funding opportunities
  - 2.3.2. Create an online platform or resource to help farmers and food businesses support each other during emergencies – e.g. equipment sharing, labor assistance, resource exchanges
  - 2.3.3. Identify resources and one-stop shop

### **3. Funding**

- 3.1. Contract with grant writer
  - 3.1.1. Identify and apply for relevant funding opportunities (local, state, federal) for farmers, food businesses, and community organizations
- 3.2. Develop resource and grant toolkit
  - 3.2.1. Create guides, application timelines, funding sources, and information on receiving assistance
  - 3.2.2. Offer workshops/webinars on grant writing and resource development tailored to the food system sector
- 3.3. Establish community fund for resilience-building
  - 3.3.1. Research and implement mutual aid funding streams
    - 3.3.1.1. Enhance Crop Cash and other options for organization to house recovery funds and be able to activate post-disaster
    - 3.3.1.2. Offer matching funds for new or existing climate resilience projects, such as grants for infrastructure upgrades or sustainable farming practices
  - 3.3.2. Create seed funding and micro-grants to cover immediate recovery costs – e.g. replacing damaged equipment, seeds, or tools

### **4. Host sessions for preparedness for different types of businesses and organizations**

- 4.1. Topics may include:
  - 4.1.1. Political discussion and advocacy on issues
  - 4.1.2. Food system councils to bring together farmers, food businesses, emergency responders, local leaders
- 4.2. Create subcommittees focused on specific areas of resilience – e.g. climate adaptation, disaster response, food security
- 4.3. Ensure participatory governance structures
  - 4.3.1. Rotate leadership models that provide opportunities for input from all stakeholders

- 4.3.2. Develop an online platform to share meeting notes, updates, and action items with the broader community
- 4.4. Coordinate and collaboratively plan flooding mitigation and food systems through regional watershed districts
- 4.5. Connect and collaborate for farming and financial equity through land trusts
  - 4.5.1. Create new incubator options for land-link programs for beginner farmers

# COMMUNITY OVERVIEW

This section reviews values and ways that community members participate and connect in community. Within interviews and focus groups, open-ended questions were asked about their community, like “How would you describe your community to someone else?” “What are the best parts about your community?” and “What are the worst aspects of your community?” Responses are reflected in the following pages.

The Northeast Kingdom is in the most northeastern corner of Vermont, and represents over 2,000 square miles across Caledonia, Essex, and Orleans counties. Caledonia County encompasses 649.2 square miles, Essex County encompasses 662.54 miles, and Orleans County encompasses 694.51 square miles. All three counties have an estimated growth in their population since 2020 of 1.3%, 1.5%, and 0.4%, respectively (United States Census Bureau, 2024). Estimated populations for each county in 2024 were:

- Caledonia County: estimated population of 30,535 (United States Census Bureau, 2024).
- Essex County: estimated population of 6,037 (United States Census Bureau, 2024).
- Orleans County: estimated population of 27,726 (United States Census Bureau, 2024).

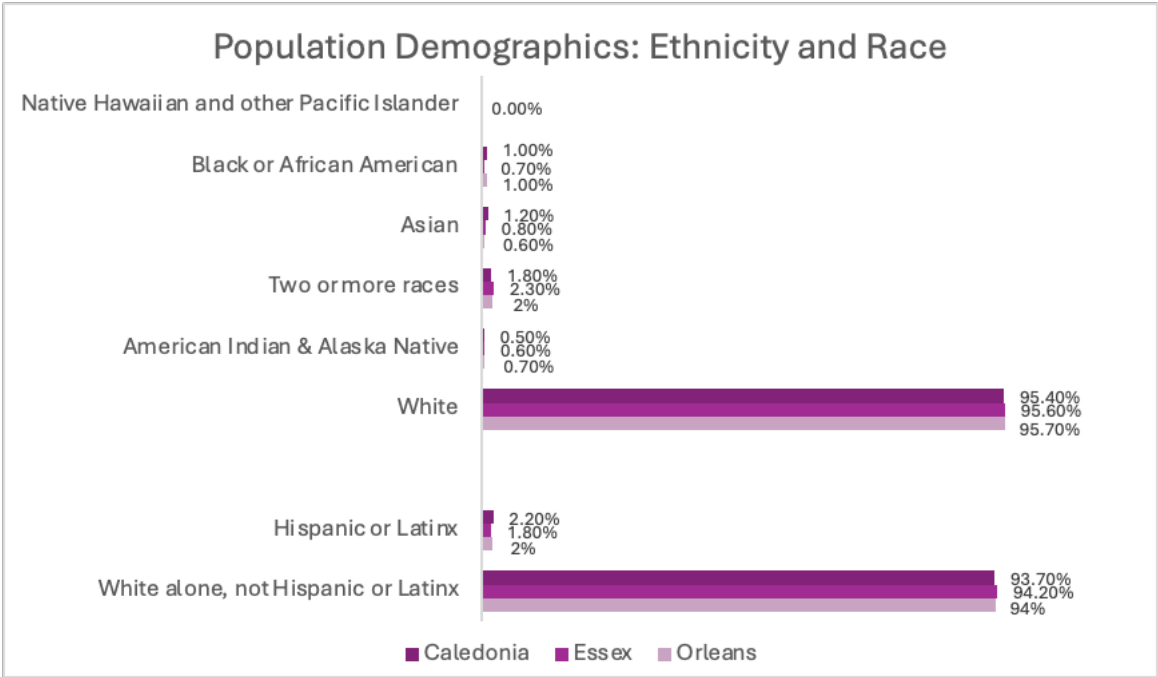


Figure 1: Population Demographics by Race and Ethnicity (United States Census Bureau, 2024).

It is estimated that County has a poverty rate of 12.6%, Essex County has a poverty rate of 14.3%, and Orleans County has a poverty rate of 10.8% - all three counties have higher poverty rates than the state poverty rate of 10.3% (United States Census Bureau, 2023). More detailed data about poverty in the Northeast Kingdom can be found in Appendix C.

## Livability

Personal health status is shown to be impacted by where one lives, works, and plays. According to the AARP Livability Index, Caledonia County, Essex County and Orleans County have an overall ranking of 53, 49, and 48, respectively (out of 100) for livability (AARP, 2024). This ranking is developed based on housing, neighborhood, transportation, environment, health, engagement, and opportunity. Table 1 showcases all three counties’ rankings in each livability category.

**Table 1: Livability Index Rankings; all definitions from AARP (AARP, 2024).**

	<b>Caledonia County</b>	<b>Essex County</b>	<b>Orleans County</b>
<i>Livability Ranking</i>	53	55	58
<b>Housing</b> Measured by metrics and policies that promote affordability, availability, and accessibility.	58	55	58
<b>Neighborhood</b> Measured by metrics and policies focused on proximity to key destinations, safety, and supporting mixed-use development.	32	31	30
<b>Transportation</b> Measured by metrics and policies related to convenience, safety, and options.	49	49	45
<b>Environment</b> Measured by metrics and policies related to air and water quality, as well as energy efficiency, and hazard mitigation plans.	64	64	64
<b>Health</b> Measured by metrics and policies that promote healthy behaviors including smoking cessation, and exercise opportunities.	55	40	41
<b>Engagement</b> Measured by metrics and policies that include voting rights, human rights, and cultural engagement.	72	65	58
<b>Opportunity</b> Measured by metrics and policies that capture job availability, government creditworthiness, and graduation rates.	40	37	42

Overall, each county compares to the average ranking of the United States communities (50). One of the lower rankings for both counties fell within neighborhood and opportunity. Caledonia County (183.5) also has a higher rate of crime per 10,000 people, compared to Essex County (30.8), Orleans County (130.7) and median U.S. score (171.7). Engagement scores across Caledonia (72), Essex (65) and Orleans (58) are all higher than the US average of 47 due

opportunity for civic engagement, voting rate, social involvement index, and cultural, arts, and entertainment institutions per 10,000 people (AARP, 2024).

Echoed throughout focus groups and interviews was the deep value placed on community support and collaboration. Many participants emphasized the importance of local organizations and mutual aid efforts in fostering a sense of belonging, especially during hardship. Access to shared resources - such as food and farmer assistance programs and community-led disaster response efforts - was frequently cited as a strength. Farmers and food businesses also spoke about the informal ways they support one another, whether through knowledge sharing, equipment lending, or coming together in times of crisis. While the presence of numerous organizations and businesses engaged in food systems work was seen as a valuable asset, some participants emphasized the need for more effective communication within the agricultural community, better coordination among small organizations with limited capacity, and greater awareness to prevent unintentional duplication of efforts. As one farmer put it, "There are so many missionaries running around hosting same stuff - NOFA is creating clearinghouses for information, NEKO in Northeast Kingdom, towns are competing for grants, the nonprofit dog eat dog world is competing." These dynamics were further complicated by the frequently mentioned challenges associated with rural isolation and apprehension toward newcomers. Some participants described how the close-knit nature of the region can create barriers for those without deep local roots, particularly in social circles and leadership roles. One interviewee who relocated to Vermont for work said, "Depending on the town, it can be challenging to work with [residents] because there's a lot of 'I lived here my whole life' - implication being, 'I know better than everyone else.'" Geographic distance and lack of reliable transportation further limit opportunities for connection, especially for older adults and residents with lower incomes. While growth and development have brought economic opportunities to the region, some expressed concerns about rising housing costs and shifts in the local economy - including an apprehension about an increase in seasonal residents and tourism driven businesses ("I worry that we're going to become a playground for wealthy people that want to come here and ski," one person shared), and how these changes might impact long term affordability and community character.

A double-edged sword in the region is the ongoing decline of dairy farms, a long-standing pillar of the local economy and identity: "...we're losing dairy farms at unbelievable rate," a dairy farmworker reflected. Many spoke about the struggles of traditional dairy operations, citing economic pressures, consolidation, and shifting consumer demands as key factors in their decline. One participant emphasized, "A lot of the dairy farms—especially the small and mid-sized ones—are closing. This is a significant concern. There's a possibility of mass raids on these farms that are employing immigrant labor." At the same time, the landscape of agriculture is changing, with new diversified farms emerging that focus on specialty crops, value-added products, and community engagement. Participants highlighted the promise of these newer farms - many of which are led by younger farmers committed to sustainable and regenerative practices - that are introducing innovative growing methods while strengthening local food networks and expanding market opportunities. One retired dairy farmer shared that the "...local availability of produce and meat is really exciting to see as people transition out of dairy," and this shift highlights broader tensions as the community navigates how to sustain its agricultural roots while embracing new opportunities.

The entire region has felt the impact of recurring flood events, which have repeatedly damaged farms, disrupted food production, and strained local food systems. Many participants shared firsthand accounts of losing crops, livestock, and infrastructure to rising waters, and expressed fear about the vulnerability of the region’s agricultural sector. Despite efforts to rebuild, the unpredictability of extreme weather and lack of external assistance has made long-term planning difficult. Yet, through all of these challenges, the connection to place that defines the Northeast Kingdom was present in every conversation. Participants consistently spoke about the beauty of the landscape, the strength of the people, and the sense of pride in calling this region home - whether for generations or just a few years. Even in the face of crisis and change, community members expressed a commitment to preserving the rural character, the history of self-reliance, and the relationships that bind people together that make the Northeast Kingdom unique. As one interviewee put it, “We can gather resources and make things work when the fertilizer hits the ventilator.”

## BUSINESS AND INDUSTRY

While the first section of the report took a broad look at community engagement and values, the next portion focuses on the business and industry, specifically related to food systems.

According to the Small Business Administration, there is a size standard that is used to understand the size of a business, therefore, leading to the definition of “small” changing by industry and business type (U.S. Small Business Administration, 2024). Standards are based on average annual receipts and the number of employees (ranging from 100 to over 1,500 employees) (U.S. Census Bureau, 2023). Table 2 displays employee numbers for businesses in the Northeast Kingdom.

Within Caledonia County, it is estimated that there are 913 small businesses, with an annual payroll of \$437,285,000 (United States Census Bureau, 2024). Within Essex County, there are an estimated 107 small businesses with an annual payroll of \$26,894,000 (U.S.); and within Orleans County, there are an estimated 782 small businesses with a total annual payroll of \$369,181,000 (United States Census Bureau, 2024).

**Table 2: Employee numbers based on Business Patterns in Caledonia, Essex, and Orleans County (United States Census Bureau, 2024).**

	<b>Caledonia County</b>	<b>Essex County</b>	<b>Orleans County</b>
<b>Less than 5 employees</b>	511	71	458
<b>5-9 employees</b>	183	21	142
<b>10-19 employees</b>	124	9	99
<b>20-49 employees</b>	69	5	57
<b>50-59 employees</b>	19	0	16
<b>100-249 employees</b>	3	0	7
<b>250-499 employees</b>	4	0	0

<b>500-999 employees</b>	0	0	0
<b>1000 or more employees</b>	0	0	0
<b>Total</b>	<b>913</b>	<b>107</b>	<b>782</b>

### Agriculture

According to the USDA, a farm is defined as “any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the year” (USDA NASS, 2025).

There are 1,130 farms in the Northeast Kingdom- Caledonia has 487 across 85,015 acres, Essex has 98 across 37,842 acres and Orleans has 545 across 121,559 acres. Of these, 178 farms participate in variable government programs across the Kingdom with receipts of \$1,353,000 (USDA National Agriculture Statistics Service, 2022).

The median size of a farm in Caledonia County is 85 acres, 125 acres in Essex County, and 100 acres in Orleans County (USDA National Agriculture Statistics Service, 2022). Tables 3-5 detail information on the number of farms by product type, farm value, and average number of acres. According to the USDA NASS statistics, 712 farms are making less than \$24,999 per year (which is 63% of the farms), and just 393 (~35%) are less than 50 acres, and 111 farms (9.8%) are NOP USDA Certified Organic. Lastly, 111 farms (9.8%) across the Kingdom are NOP USDA Certified Organic (USDA National Agriculture Statistics Service, 2022). Tables 3-5 detail information on the number of farms by product type, farm value, and average number of acres.

Of the sales by commodity (designated in bold), primary human food consumption farms account for \$159,702,000 in sales. Additional farms may also engage in the local food and farm system, by providing feed and other inputs for farmers.

**Table 3: Sales by Commodity (USDA National Agriculture Statistics Service, 2022)**

	<b>Caledonia County</b>		<b>Essex County</b>		<b>Orleans County</b>	
	Total # of Farms	Total Sales	Total # of Farms	Total sales	Total # of Farms	Total sales
<b>Crops</b>	<b>332</b>	<b>\$13,290,000</b>	<b>73</b>	<b>\$12,184,000</b>	<b>348</b>	<b>\$27,574,000</b>
<b>Grain</b>	<b>16</b>	<b>\$667,000</b>	<b>4</b>	<b>n/a</b>	<b>15</b>	<b>\$2,582,000</b>
<b>Corn</b>	<b>13</b>	<b>\$551,000</b>	<b>4</b>	<b>n/a</b>	<b>9</b>	<b>\$2,339,000</b>
<b>Wheat</b>	<b>3</b>	<b>\$39,000</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>Other Grain</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>\$242,000</b>
<b>Vegetables</b> (including seeds and transplants)	<b>44</b>	<b>\$2,010,000</b>	<b>6</b>	<b>\$844,000</b>	<b>6</b>	<b>\$1,122,000</b>
<b>Fruit and Tree Nuts</b>	<b>14</b>	<b>\$625,000</b>	<b>7</b>	<b>\$249,000</b>	<b>35</b>	<b>\$578,000</b>
<b>Berry</b>	<b>27</b>	<b>\$473,000</b>	<b>11</b>	<b>\$120,000</b>	<b>34</b>	<b>\$405,000</b>
<b>Horticulture</b>	<b>35</b>	<b>\$766,000</b>	<b>8</b>	<b>n/a</b>	<b>45</b>	<b>\$807,000</b>
Cut Christmas Trees	11	\$168,000	1	\$1,764,000	21	\$567,000
Field Crops, other, including hay	270	\$8,583,000	49	\$8,668,000	278	\$21,514,000
<b>Maple Syrup</b>	<b>104</b>	<b>\$3,671,000</b>	<b>27</b>	<b>\$7,180,000</b>	<b>148</b>	<b>\$9,950,000</b>
<b>Poultry, including eggs</b>	<b>82</b>	<b>\$3,394,000</b>	<b>17</b>	<b>n/a</b>	<b>79</b>	<b>n/a</b>
<b>Cattle, including calves</b>	<b>115</b>	<b>\$7,367,000</b>	<b>13</b>	<b>\$170,000</b>	<b>159</b>	<b>\$7,534,000</b>
<b>Milk</b>	<b>42</b>	<b>\$27,280,000</b>	<b>4</b>	<b>\$2,800,000</b>	<b>63</b>	<b>\$79,534,000</b>
<b>Hogs</b>	<b>33</b>	<b>\$442,000</b>	<b>2</b>	<b>n/a</b>	<b>33</b>	<b>\$159,000</b>
<b>Sheep and Goats</b>	<b>78</b>	<b>\$955,000</b>	<b>12</b>	<b>\$18,000</b>	<b>31</b>	<b>\$609,000</b>
Equine	9	\$52,000	4	\$61,000	5	\$19,000
<b>Aquaculture</b>	<b>4</b>	<b>\$350,000</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
Specialty Animals	20	\$24,000	1	n/a	17	n/a
<b>Commodity Totals</b> (including value-added)	<b>140</b>	<b>\$8,801,000</b>	<b>20</b>	<b>\$768,000</b>	<b>113</b>	<b>\$2,917,000</b>

**Table 4: Farms by Value (USDA National Agriculture Statistics Service, 2022).**

	<b>Caledonia County</b>	<b>Essex County</b>	<b>Orleans County</b>
<b>Sales</b>	# of Farms		
<b>Less than \$2,500</b>	122	30	161
<b>\$2,500 - 4,999</b>	64	12	55
<b>\$5,000 - \$9,999</b>	59	8	52
<b>\$10,000 - \$24,999</b>	91	6	52
<b>\$25,000 - \$49,999</b>	45	11	63
<b>\$50,000 - \$99,999</b>	31	4	54
<b>\$100,000 or more</b>	75	27	108

**Table 5: Size of Farms by County (USDA National Agriculture Statistics Service, 2022).**

	<b>Caledonia County</b>	<b>Essex County</b>	<b>Orleans County</b>
<b>Acres Operated</b>	# of Farms		
<b>1.0 - 9.9</b>	41	9	36
<b>10 - 49.9</b>	143	16	148
<b>50 - 179</b>	150	37	198
<b>180 - 499</b>	113	27	111
<b>500 - 999</b>	35	4	41
<b>1000 or more</b>	5	5	11
<b>Total # of Farms</b>	487	98	545

### **Focus Group and Interview Findings**

Participants in interviews and focus groups highlighted the shifting agricultural landscape of the Northeast Kingdom, where many farmers have opened, closed, or adapted their operations in response to erratic and extreme weather events, economic pressures, and ongoing crises. While the median farm size in the region falls between 85–125 acres, the vast majority of those engaged in this research were small-scale, diversified growers rather than these larger farms. In a region historically and currently dominated by dairies, there was a notable lack of participation from dairy and livestock producers in the focus groups and action planning sessions - “Where are these conventional dairy farmers? They should be here,” one farmer said at a focus group - which necessitated more intentional outreach to engage them through individual interviews for representation.

Participating farmers reportedly faced significant financial and structural barriers to long term farm viability. Many participants described challenges in accessing funding, citing slow and

unreliable government assistance - one farmer said “I vacated my property, lost a year of income, absolutely nothing from SBA or FEMA or anything. Nothing tangible... I have a BEGAP application in from 2023, nothing, I reapplied - the questionnaire online is ridiculous because it doesn’t address anything like this. It asks for receipts for what you replaced, but land is irreplaceable.” This sentiment was echoed by nearly all farmers and food systems stakeholders. Another financial challenge referenced many times was the difficulty of securing grants or loans due to capacity constraints and competition, one farmer noted and asked “Towns are going for grants and eating each other. How do we coordinate that?” A non-profit executive stated “...it’s time consuming for folks farming to apply for grant opportunities even for preventative grants.” and another farmer reflected that the “...Agency of Ag grants were big ones this summer and year that a ton of us applied for... but all those grants were incredibly, laughably competitive, but it shows that people are trying to innovate and do new things to try to increase production to make food more available.” Some also noted that recovery efforts and financial relief tend to focus on more populated areas of Vermont (specifically Chittenden County), leaving the Northeast Kingdom with fewer resources after disaster.

This results in farmers having to rely more heavily on small local networks, overburdened nonprofit organizations, and themselves, their families, and their neighbors to respond to crises without the financial security needed to invest in long-term adaptation strategies. At the same time, there is a growing recognition that these overworked and often isolated farmers need more opportunities to connect beyond tapping on one another in times of crisis. One farmer shared that “...our farm was flooded twice, the first time we lost 90% of our crops... almost losing our business seemed to be the worst thing that could happen, but shortly after we realized that the effects it has on children and families in the area is worse than what happened to businesses.” Conversations about revitalizing historic gathering spaces like granges emerged and reflect a desire to revive aspects of historic rural community life with a future oriented push for connection and collective problem solving. Many participants expressed a desire for spaces where farmers can exchange ideas, share meals, and find joy in their work together to strengthen the social fabric that has long sustained agriculture in the Northeast Kingdom. “Everybody used to belong to a church, to a club,” one interviewee shared. “It’s hard for people to be a part of a place. Vermonters - because of our local control ethos - I have hope for us, we’re wired for community in Vermont.” These desires fueled interest in a Farmer Resilience Fund, an initiative intended to provide more flexible and accessible financial support to producers in the region by offering direct aid, reducing bureaucratic hurdles, and ensuring that the unique social and financial needs of Northeast Kingdom farmers are not overlooked.

## **Food System**

The intent of this research is to understand the interest and ability to have a resilient food system. Primarily, the research seeks to understand the community’s interest in local and regional foods, and the community’s willingness to participate and purchase from farm and food businesses that operate within a local or regional geography.

Interviewees and focus group participants emphasized a strong interest in purchasing and consuming local foods - an unsurprising sentiment given that they are all farmers or work within the local food system. For those who prioritize and are able to buy local, participants noted that these local foods are procured through a mix of farmers' markets, community-supported

agriculture programs, farm stands and direct farm sales, food co-ops, and some small-scale grocery stores that prioritize regional sourcing. However, availability varies significantly depending on the town, with some areas experiencing limited access to locally grown products due to distribution challenges - "...we have trouble getting trucks to small farms, whether because it's difficult for trucks to get there or because it's too far off route or production isn't high enough to warrant an additional stop," one participant said. There is also an awareness that food producers sometimes struggle to meet demand consistently, particularly for staple crops and protein sources at scale. Additionally, infrastructure limitations, such as inadequate storage, processing facilities, and transportation networks create barriers to scaling up local food production and distribution - especially during the wintertime and due to flooding impacts to roads. Participants expressed potential and hope in expanding cooperative models and shared infrastructure investments, like regional food hubs, that could improve efficiency and broaden access.

Participants also acknowledged the challenges of sourcing local products. As one interviewee explained, "I'm pretty committed to eating local good vegetables as much as I can. It's hard here... Retail stores - it's hard to get local and organic at our supermarkets...from a meat perspective, local meat is not in the grocery store." Another participant, who works in the Kingdom but lives outside of the region, commented on the broader consumer landscape, noting, "Some people are really dedicated to local, but a majority of people are shopping at stores." This contrast demonstrates between interest in local food and the reality of accessibility and convenience in mainstream retail. Affordability was another significant concern, as one interviewee put it bluntly: "Shit's expensive, and people have to make hard decisions about the food they eat." Participants also observed emerging needs in the community, such as more culturally appropriate foods and "...a lot of need for prepared meals - people who don't have fridge space, prep space - there's a big need for healthy prepped meals." Food access was also named as a challenge in the region, with one interviewee sharing "...it's really hard to access food. Even though we have a lot of food pantries around, it's hard to get to them - especially for (the migrant farmworker) population." Overall, participants shared a nuanced perspective between interest in and availability of local food complicated by logistical constraints, affordability, and infrastructure limitations, which shows the need for investment and policy support to enhance equitable access to locally produced foods across the region for all residents.

## **NATURAL DISASTERS IMPACT**

Disasters impact all of community life, ranging from mild challenges for transportation and access to devastating loss of infrastructure and life. Caledonia, Essex and Orleans Counties have been involved in twenty-six designated disaster areas since 2011 according to FEMA (2024); Table 6 details each of these disasters that have impacted the counties.

The funding allotment is shown for the entire region of impact, as specific county level data is not available. Each line details the name of the disaster, date, type of assistance and total amount allotted. While federally proclaimed disasters do not showcase the full extent of extreme weather on the region, this is one way to understand impacts from disaster, such as

infrastructure damage, debris, and damage to shelter and community areas. Types of disaster declarations include:

- DR: Major disaster declared
- EM: Emergency Declaration

**Table 6: Natural Disaster Declarations (FEMA, 2024).**

<b>Disaster Declaration</b>	<b>Type</b>	<b>Date</b>	<b>Assistance Type</b>	<b>Funding Allotted (full region)</b>
<b>Vermont Severe Storms, Flooding, Landslides, and Mudslides DR-4826-VT</b>	Flood	July 29, 2024-July 31, 2024	Individual Assistance Housing + Other	\$813,200.05 152 applications approved
<b>Vermont Severe Storm, Flooding, Landslides, and Mudslides DR-4810-VT</b>	Severe storm	July 9, 2024-July 11, 2024	Individual Assistance Housing + Other	\$7,300,226.77 1386 applications approved
<b>Vermont Tropical Depression Debby EM-3609-VT</b>	Tropical storm	Aug 8, 2024-Aug 10, 2024	N/A	N/A
<b>Vermont Severe Winter Storm DR-4770-VT</b>	Severe storm	Jan 9, 2024-Jan 13, 2024	N/A	N/A
<b>Vermont Severe Storms and Flooding DR-4762-VT</b>	Severe storm	Dec 18, 2023-Dec 19, 2023	N/A	N/A
<b>Vermont Severe Storm and Flooding DR-4695-VT</b>	Severe storm	Dec 22, 2022-Dec 24, 2022	Public Assistance Hazard  Mitigation Assistance	\$2,294,597.84  \$498,075.00
<b>Vermont Severe Storms, Flooding, Landslides, and Mudslides DR-4720-VT</b>	Flood	July 7, 2023-July 21, 2023	Individual Assistance  Housing + Other Public Assistance Hazard Mitigation Assistance	\$26,102,452.75 3614 applications approved  \$61,192,541.54 \$7,712,306.25
<b>Vermont Flooding EM-3595-VT</b>	Flood	July 9, 2023-July 17, 2023	N/A	N/A
<b>Vermont Tropical Storm Henri 3567-EM-VT</b>	Hurricane	Aug 22, 2021 and continuing	N/A	N/A
<b>Vermont Covid-19 Pandemic DR-4532-VT</b>	Biological	Jan 20, 2020-May 11, 2023	Individual Assistance	\$1,510,755.69 275 applications approved

			Housing + Other; Public Assistance; Hazard Mitigation Assistance	\$494,937,731.96 \$7,405,646.86
<b>Vermont Covid-19 EM-3437-VT</b>	Biological	Jan 20, 2020-May 11, 2023	N/A	N/A
<b>Vermont Severe Storm and Flooding DR-4474-VT</b>	Severe storm	Oct 31, 2019-Nov 1, 2019	Public Assistance Hazard Mitigation Assistance	\$23,429,014.12 \$1,339,281.07
<b>Vermont Severe Storm and Flooding DR-4380-VT</b>	Severe storm	May 4, 2018-May 5, 2018	Public Assistance Hazard Mitigation Assistance	\$3,246,787.21 \$169,020.79
<b>Vermont Severe Storms and Flooding DR-4445-VT</b>	Flood	15-Apr-19	Public Assistance Hazard Mitigation Assistance	\$8,717,864.28 \$846,745.12
<b>Severe Storms and Flooding in Vermont DR-4330-VT</b>	Severe storm	Jun 29, 2017-July 1, 2017	N/A	N/A
<b>Vermont Severe Storm and Flooding DR-4356-VT</b>	Severe storm	Oct 29, 2017-Oct 30, 2017	Public Assistance Hazard  Mitigation Assistance	\$5,296,752.57 \$122,528.55
<b>Severe Storms and Flooding in Vermont DR-4178-VT</b>	Flood	Apr 15, 2014-Apr 18, 2014	Public Assistance	\$1,824,522.67
<b>Severe Winter Storm in Vermont DR-4207-VT</b>	Severe storm	Dec 9, 2014- Dec 12, 2014	Public Assistance	\$3,949,092.78
<b>Severe Winter Storms in Vermont DR-4163-VT</b>	Severe ice storm	Dec 20, 2013-Dec 26, 2013	Public Assistance	\$6,342,340.95
<b>Severe Storms and Flooding in Vermont DR-4120-VT</b>	Flood	May 22, 2013-May 26, 2013	Public Assistance	\$1,914,682.79
<b>Severe Storms and Flooding in Vermont DR-4140-VT</b>	Flood	Jun 25, 2013-July 11, 2013	Public Assistance	\$6,296,981.81
<b>Severe Storm, Tornado, and Flooding in Vermont DR-4066-VT</b>	Severe storm	29-May-12	Public Assistance	\$1,017,761.39

<b>Vermont Tropical Storm Irene DR-4022-VT</b>	Hurricane	Aug 27, 2011-Sept 2, 2011	Individual Assistance Housing + Other Public Assistance	\$23,253,145.17 3,642 applications approved \$208,874,407.61
<b>Vermont Hurricane Irene EM-3338-VT</b>	Hurricane	Aug 26, 2011-Sept 2, 2011	N/A	N/A
<b>Severe Storms and Flooding in Vermont DR-4001-VT</b>	Severe storm	May 26, 2011-May 27, 2011	Individual Assistance Housing + Other  Public Assistance	\$1,428,515.82 390 applications approved  \$10,666,699.48
<b>Severe Storms and Flooding in Vermont DR-1995-VT</b>	Severe storm	Apr 23, 2011-May 9, 2011	Individual Assistance Housing + Other  Public Assistance	\$1,805,969.74 556 applications approved  \$13,353,019.85

### Extreme Weather: Flooding

Interview and focus group participants were asked to reflect on their experiences of natural disasters, and the impacts on families, farms, and businesses varied significantly. The catastrophic July floods of 2023 and 2024 were focused on in these spaces and were described as devastating to some and inconvenient to others, and caused severe soil erosion, crop loss, and widespread infrastructure damage on farms and throughout the Northeast Kingdom. For many, recovery has been slow and incomplete; some farmers reported, in winter of 2025, that they still hadn't regained stability after the losses suffered in July of 2023. This reality is due in part to the severity of the disasters, and to the fact that these floods are not isolated events but part of a relentless cycle of extreme weather occurring in the region. One participant reflected that these flood events are happening almost quarterly at this point "Two spring floods, two summer floods, December flood, flood that's going to happen in a couple of days..." and another participant emphasized the cumulative burden, saying, "Pieces of infrastructure are having critical damage and one storm ends up being the straw that breaks the camel's back after disaster after disaster." While the July floods definitely received the most public attention, the off-season flooding, prolonged drought, and erratic temperature shifts are disrupting operations year round and leaving farmers operating in a state of compounded crisis.

Economic challenges further complicate efforts to recover from these shocks. Many interviewees expressed frustration with traditional relief programs - namely FEMA and BEGAP, which were described as slow, unreliable, and difficult to navigate. One participant recalled, "a person can't live in their house, but the earliest they can get [FEMA] money from floods is 18 months" and a farmer shared that "...BEGAP is not tax free. We gave all the money back in 2023 when we got taxed \$20,000 - it screws up the farm books, giving money back to the state." As a result, community support from individuals and organizations was reported as an

essential lifeline. GoFundMe was specifically named as a means of raising money for farmers in need. “There were an inundation of farm GoFundMe’s,” one participant said, with one farmer reflecting that “Some people did better on GoFundMe’s than actually farming.” While these funds helped carry farmers through unthinkable hardship, one shared that “We can’t rely on volunteers to do this work. If volunteers do this work and we all do GoFundMe’s to fix the problem, eventually the people who donate to this will say ‘Oh, problem is solved, they GoFund-ed themselves.’ We need structures set up ahead of time because margins are very thin already.” While some farmers brought up the prospect of moving out of the floodplain, relocating was not thought of as a viable solution as desirable farmland is scarce and prices are high. The ongoing housing crisis further limits options and leaves many farmers with no choice but to rebuild in the same vulnerable areas, despite the risks. Without reliable avenues to rebuilding, though, the escalating pressures of extreme weather events and economic instability, coupled with public health concerns and political uncertainty have left many feeling drained and exhausted, and make long-term planning a challenge.

## **Recovery**

When asked about their perceived recovery, many struggled to answer because disaster impacts were so uneven across the Kingdom; some were relatively unscathed but reported that their neighbors lost everything and have yet to recover. Beyond individual farms, essential infrastructure like roads, culverts, and bridges suffered extensive, expensive damage and made transportation and supply chain recovery even more complicated. While many local organizations stepped up to provide funding and manual assistance - NEKO, CAE, and NOFA, to name a few - participants reported that there are still gaps in funding, particularly when it comes to quick, low-barrier financial relief. The wide variety of disaster impacts and the patchwork reality of disaster recovery resources in the region has deepened the divide between those who weren’t as heavily impacted/those who were able to recover quickly and those who still have not.

Participants overwhelmingly found themselves, their neighbors, and their fellow community members to be the most helpful resource when enduring and responding to these repeat flood events. When asked about organizational usefulness, local and regional organizations were the most effective in disaster response, specifically those with deep connections to the Northeast Kingdom and to Vermont’s agricultural community. This list included NOFA-VT, local food hubs, the Center for an Agricultural Economy (CAE), and Northeast Kingdom Organizing (NEKO), who were all frequently praised for their direct support to farmers and the broader community post-flood. These organizations played crucial roles in providing immediate assistance: financial, logistical, technical, and manual labor-based. County NRCD’s were also viewed positively with the understanding that “Conservation districts in Vermont are historically underfunded and understaffed.” In contrast, larger entities such as FEMA, the Small Business Association, crop insurers, and state emergency agencies/funding sources like BEGAP were seen as slow to respond, disconnected from rural realities, or focused on statewide recovery efforts that did not correspond to the unique needs of farmers in the NEK. Some local governmental entities, like town clerks, were viewed as helpful while others were not, with one interviewee remarking that “Flooding made it obvious that towns don’t have the capacity to deal with climate change”

because of their limited capacity (with some only being part-time), varying expertise in agricultural needs, and wide range of responsibilities

The focus groups and action planning session were valuable in helping farmers realize the full scope of services available to them, while also giving service providers a clearer understanding of farmers' needs. For example, NRCD clarified that they could assist with grant writing, a challenge often mentioned by farmers, while farmers emphasized that post-disaster, they needed help with food distribution rather than frequent safety checks and emails about resources. One farmer shared, "We were directly affected by the flood, for the whole week we were in crisis mode, in shock. Then we were bombarded by hundreds of emails from organizations that I didn't even know existed. I feel like 'oh I need to respond to flood stuff,' it was so extremely overwhelming to me." These conversations helped begin to bridge the gaps between farmers and service providers and set the stage for a priority project that addresses immediate financial needs of farmers while also creating further opportunities for in-person meetings to enable more regular communication and deeper understanding of ongoing needs.

## Future

To understand future needs for natural disaster response, a review of FEMA's National Risk Assessment for Caledonia, Essex, and Orleans Counties was taken into consideration. Despite recent events, Caledonia County has a very low risk of 22.84, Essex County has a very low risk of 3.05, and Orleans County also has a very low risk of 26.57. The risk assessment considers expected annual loss, social vulnerability and community resilience based on datasets from 18 natural hazards (Department of Homeland Security, 2024). The formula utilized to assess risk is as follows:

*(Expected annual loss × social vulnerability) ÷ community resilience = Risk Index*

- Expected annual loss: "natural hazards component that represents the average economic loss in dollars resulting from natural hazards each year"
- Social vulnerability: consequence enhancing risk component and community risk factor that represents the susceptibility of social groups to the adverse impacts of natural hazards
- Community Resilience: consequence reduction risk component and community risk factor that represents the ability of a community to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions
- Risk Index: represents the potential for negative impacts resulting from natural hazards

A comparison of the Expected Annual Loss overviews from various climactic events between Northeast Kingdom counties can be seen in Table 7. According to the index, riverine flooding, cold wave, and winter weather have a relatively high-risk rating.

**Table 7: Economic Impact of Storms (FEMA, 2024).**

Disaster	Caledonia County		Essex County		Orleans County	
	Risk Index Rating	Expected Annual Loss	Risk Index Rating	Expected Annual Loss	Risk Index Rating	Expected Annual Loss
<b>Riverine Flooding</b>	68.9 - relatively low	\$921,391	37.6 - relatively low	\$213,456	79.0 - relatively moderate	\$1,537,180
<b>Cold Wave</b>	71.7 - relatively moderate	\$209,859	54.4 - relatively low	\$ 68,304	70.0 - relatively moderate	\$194,110
<b>Winter Weather</b>	64.1 - relatively moderate	\$83,849	34.2 - relatively low	\$23,634	70.3 - relatively moderate	\$109,232

At the national level, Caledonia County, Essex County and Orleans County have varying rankings for community resilience at 66.9 (relatively high), 35.5 (relatively low), and 72.2 (relatively high) respectively (FEMA, 2024). This means that these communities are measured to have both high and low ability to prepare, adapt and withstand disruptions compared to other areas across the country. Improvement potentials are shown below.

### **Additional Findings: COVID-19 Impact**

Mentions of COVID in the focus groups and interviews highlighted both its lasting impacts in the region and the ways it shaped disaster response efforts. Farmers and service providers reflected on how the pandemic exposed vulnerabilities in the food system while also strengthening local networks and mutual aid efforts, which proved critical during the floods. One farmer noted, “If this flooding would’ve happened pre-pandemic, we would’ve been in much worse shape. Food pantries have popped up and grown in so many communities, mutual aid organizing already existed because of the pandemic, and we were able to pivot in different ways.” Service providers also recognized that lessons from COVID helped refine emergency planning, with one explaining, “There was a lot of comprehensive pandemic response work-a 10-page PowerPoint plan- this is kind of the template we’re looking to replicate.” Additionally, economic challenges stemming from the pandemic, including rising credit costs and shifting market demands, compounded the financial strain of flood recovery. One farmer explained, “...the year after COVID is when rates went up... Farm rates went from 7% to 8.5%. Not great.” In the NEK, the pandemic served as a warning and as training ground for the floods that came in 2023 and 2024 by revealing gaps and equipping farmers and service providers with networks and strategies that proved invaluable when responding to floods.

### **Natural Disaster Resilience Next Steps**

Moving forward, Iowa State University Extension and Outreach, NOFA-VT, and UVM’s Institute for Agroecology, together with participating Northeast Kingdom farmers and food system stakeholders, will launch a series of three educational convenings designed to support farmers in financial planning and emergency preparedness while co-developing a community-driven Farmer Resilience Fund. Each session will bring farmers together and compensate those who

attend all three. The sessions will take place in person across the Northeast Kingdom through late summer 2025. This participatory approach ensures the fund is rooted in local knowledge and farmer priorities and is built to strengthen long-term resilience across the region. It also directly responds to calls for ensuring that available funds go straight to farmers - and for creating more regular, meaningful opportunities for farmers to connect and collaborate outside of crisis.

As climate disruptions grow more frequent and financial pressures mount, the strength of the Northeast Kingdom's food system will depend on its ability to invest in farmer-led solutions, build trust across sectors, and prioritize equity in both process and outcome. The momentum from this work offers a foundation for long-term, place-based resilience that reflects the values and determination of the region's agricultural community.

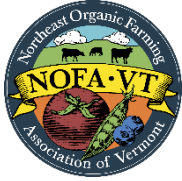
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# APPENDIX A: NOFA REPORT

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## COMMUNITY INITIATIVE OVERVIEW



### Kevin Haggerty

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Over the course of the 2024-2025 winter, Iowa State University (ISU) Extension and Outreach, in partnership with the Northeast Organic Farming Association of Vermont (NOFA-VT), led a multiphase resilience planning process with food system stakeholders from the three counties that compose Vermont's Northeast Kingdom (NEK).

At the conclusion of this planning process, community members identified the following priority areas for the use of available implementation funds:

1. Explore strategies to strengthen farm financial resilience
2. Build community connectivity and social resilience
3. Support farmers directly through financial resources and skill development

Guided by these community priorities, a scope of work was developed for the second stage of the project, in which NOFA would host and facilitate three educational sessions covering the following topics:

- Session 1 - Farm financial resilience and farm resilience funds
- Session 2 - Rural community organization development and emergency planning
- Session 3 - Self Organization and Identifying next Steps

Through these three sessions, NOFA-VT would provide education on farm finances and emergency preparedness, facilitate dialogue on developing a resilience fund, and identify best practices for establishing and maintaining resilience funds and mutual aid organizations.

To maximize farmer engagement and align the second phase of the project with ongoing state and regional efforts, NOFA-VT framed the three educational sessions as a three-part farmer resilience cohort running through the summer of 2025. The cohort consisted of three educational gatherings each addressing a different component of holistic resilience: financial, social, and ecological. The program design and curriculum was intentionally structured to meet the community's three prioritized goals, while at the same time facilitating the farmers through a second planning process to prepare the group to carry forward a community initiative after the end of the program. Topics were facilitated intentionally to ensure farm financial resilience, rural community organizing, and emergency planning were explored in depth, while allowing space for the voices and emerging needs of the expanded participant farmer group to shape the programming.

To support the facilitation of the cohort, NOFA-VT contracted with Katie Horner, a member of the University of Vermont's Institute for Agroecology.

### Cohort Recruitment and Composition

Prior to launching the cohort, NOFA-VT held meetings with key regional partners from the Northeast Kingdom who had participated throughout the earlier action planning process, including the Essex,

Caledonia, and Orleans County Natural Resource Conservation Districts. Based on these conversations, cohort outreach and programming was primarily focused in Orleans and Caledonia Counties.

Recruitment for the NEK Farmer Resilience Cohort occurred through July 2025 in collaboration with the three NEK Conservation Districts, the Connecticut River Watershed Farmer Alliance, the Vermont Pasture Network, the Vermont Vegetable and Berry Growers Association, and through targeted contact lists for certified organic farms and farms that received financial support through NOFA-VT's Farmer Emergency Fund. (See Appendix 1 for marketing material.)

NOFA-VT received interest from 26 farms to participate in the NEK Farmer Resilience Cohort. All of which were accepted into the program. Of those farms:

- 10 were located in Orleans County
- 15 in Caledonia County
- 1 in Orange County

Nine of these farms participated at some level in the earlier resilience planning led by Iowa State, while 17 were new to the initiative. The cohort membership consisted of a wide range of farm businesses, including dairy, maple, diversified vegetables, grain, livestock, and mushrooms.

Farms were financially supported to participate in the cohort. Stipends were calculated based on number of meetings attended, following the following structure:

- One Meeting - \$200
- Two Meetings - \$450
- Three Meetings - \$725

## Summary of Cohort Gatherings

Below are summaries of the three cohort gatherings held during August and September of 2025.

Each gathering followed a consistent structure designed to foster farmer-to-farmer learning, build community connectivity, and scale discussion from the farm to the community level. Sessions included a welcome activity, collaborative topic framing, a farm tour, interactive exercises, a shared meal, and facilitated breakout and full-group discussions. Outside facilitators with topic expertise supported dialogue and worked to create intentional, safe, farmer-led learning environments.

### COHORT GATHERING 1: FARM FINANCIAL RESILIENCE

The first cohort gathering was held Wednesday August 6th, 2025, at Sweet Rowen Farmstead in West Glover. This session focused on farm financial resilience and included facilitation from Reid Miller and Bill Cavanaugh of NOFA-VT's Farm Business Development Program. (See Appendix 2 for the full agenda.) 24 cohort farms attended this inaugural meeting with a total attendance of 36 participants.

During this session, participants collectively defined financial resilience and assessed their familiarity and comfort level with 12 financial management tools used to cultivate financial viability. Through small group discussions, the cohort members discussed approaches to building financial resilience on their own operations.

At the end of the gathering, the cohort members reconvened to share key insights and identified important takeaways from the session. The cohort highlighted the following:

- It is important to prioritize your own value and personal needs in farm budgeting
- Farmers need support in learning how to plan for retirement
- There is a need for farmer cooperatives that meet the needs of small farms
- Overproduction is a tool to drive farm sales

The group also identified an aspirational goal of having a **farm financial "HSA"** type mechanism that supports farmers in developing rainy day funds for use during emergencies.

## **COHORT GATHERING 2: SOCIAL RESILIENCE**

The second cohort gathering was held on Wednesday September 3rd, 2025 at Breadseed Farm in Craftsbury. This session focused on building social resilience and was co-facilitated by Meghan Wayland from Northeast Kingdom Organizing (NEKO).

A total of 30 participants attended, representing 21 cohort farms.

Like the first session, this gathering began with cohort members collectively defining what social resilience means to them within the context of rural farm communities. Meghan Wayland then guided a discussion linking farm viability with rural community resilience, emphasizing the foundational role farm business plays in the vitality of rural society.

The cohort then broke into small groups to discuss four different dimensions of social resilience: Localized Economies, Social Cohesion, Governance and Community Organizing, and Social Safety Nets. Afterwards, the cohort came back together and discussed the key takeaways from their discussions. The following was highlighted by the group:

- The loss of third spaces, like granges, is directly weakening community connection.
- Revitalizing rural gathering spaces needs to be a priority for the region.
- Collective power and organizing is needed to create systemic change in the NEK.
- Continued Conversation and coordination around community resilience is needed.

## **COHORT GATHERING 3: CLIMATE RESILIENCE**

The final cohort gathering was held on Wednesday September 17th, 2025 at Joe's Brook Farm in Barnet. The first half of this session focused on climate resilience and was facilitated by Kevin Haggerty from NOFA-VT's Organic Practices Program. The second half of the session centered on identifying the cohort's next steps for advancing their collective goals.

A total of 30 participants attended, representing 21 cohort farms. Representatives of Iowa State Extension and Outreach, Caledonia Natural Resource Conservation District, and NOFA-VT were also present.

Following breakout group work in which cohort members discussed how to address the resilience needs identified throughout the cohort, the farmers shared the following ideas:

- Develop a collectively controlled regional brand
- Participate in holistic management trainings
- Cooperatively purchase land and develop a multipurpose farm to support community building and shared marketing
- Form a farmer cooperative
- Establish a regional work brigade system

The group did not reach a consensus project to prioritize in the moment, but agreed to continue to gather and focus their effort on defining the structure, goals, and governance of an ongoing NEK farmer resilience group.

## **Successes and Challenges**

### **COHORT SUCCESS**

Overall, the NEK Farmer Resilience Cohort was a resounding success. The program achieved robust farmer engagement, particularly for a program offered during the peak growing season. Participation remained consistent throughout, indicating the curriculum resonated with the needs and goals of the group.

Feedback from cohort members was overwhelmingly positive. Participants described the learning environment as uniquely supportive, allowing them to be vulnerable, share openly, and feel heard by their peers in a way that is not possible in more traditional farm workshop environments. The exclusive farmer audience and regional specificity were identified as key factors contributing to this success.

Finally, there is real excitement by participants to stay engaged and continue the work of this group beyond the timeline of the implementation funding. There is real momentum and interest in formalizing the farmer group moving forward.

## **PROGRAMMATIC CHALLENGES**

Despite the program's overall success, several challenges emerged that can inform future iterations. The hand-off from the Iowa State led action planning and prioritization process to implementing a community priority project proved challenging. After the prioritization phase, there was a lack of NEK-based organizations with the bandwidth or willingness to take ownership of the next step of the project.

Although NOFA-VT had originally intended to only serve as the community partner through the action planning phase, due to the lack of community readiness, NOFA-VT stepped in to support implementation. At the same time, farmer participation during the initial prioritization phase of action planning was limited. As a result, most cohort members had not participated in that earlier conversation, raising concerns that some tangible projects identified through that phase (i.e. regional resilience fund) might not be representative of the farmers in this next phase of the work. Because of this, facilitation of another prioritizing process was incorporated into the cohort experience.

Finally, upon reflection three cohort gatherings was insufficient to discuss financial, social, and climate resilience strategies in depth, while also leaving enough time to collectively identify next steps for the farmer group. The prioritization and planning discussions in the latter half of the third meeting felt rushed. In retrospect, adding a fourth meeting to the cohort design would have allowed a deeper discussion around climate resilience and supported more successfully collective goal setting and next steps.

## **Next Steps and Future Plans**

With the completion of the formal NEK Farmer Resilience Cohort Program, the group has identified next steps to maintain the momentum developed over the past year.

The cohort will continue to meet on a monthly basis going forward, with this winter's meetings, focused on defining internal structures and establishing both near-term and long-term goals. The following summer, the group will continue to hold on-farm gatherings to explore wider resilience topics and make progress towards the aspirational goals identified over winter planning. These ongoing meetings will continue to be supported and facilitated by NOFA-VT, with the long-term aim of transitioning leadership to a local organization or the cohort itself within the coming year.

To support ongoing communication, knowledge sharing, and connection, the NEK Farmer Resilience Cohort has launched a listserv. They will also present at two local conferences in the coming months, sharing the cohort results, lessons learned, and key takeaways with the broader farming community.

# APPENDIX B: ACTION PLANNING VOTING

Action Planning Session – Northeast Kingdom, VT

Feb 25<sup>th</sup> 2025, 5-8pm

St. Johnsbury Athenaeum

**Prioritization Activity – Sticky dots for suggested priorities. Vote numbers are highlighted yellow.**

## Business

- Develop shared storage and aggregation system (2)
  - Grain storage outside of flood zone
  - Move food post storm
- Coordinate local food outreach and awareness campaigns (6)
  - Coordination with fairs/ marketing campaigns
  - Connect to land and technical assistance
  - Build social connection at meetings by incorporating shared meals, farm tours, or potlucks to strengthen relationships
- Assess opportunities for utilizing closed dairies (land/ equipment) (1)
  - Research the potential for reallocating land, equipment and infrastructure a space for transition into other farming practices

## Communications and Emergency Management

- Provide emergency planning and risk reduction/ mitigation (0)
  - Develop flood response protocols and business continuity strategies that farmers and food businesses can implement
  - Update flood mitigation planning for on farm practices
  - Hold space for peer-to-peer learning on effective strategies for on-farm mitigation for flooding/ drought/
- Identify organization/ emergency response Point of Contact (0)
  - Create appropriate communication plans that can launch donations and volunteer activation
  - Develop Flow chart of who is in charge and how communication works
  - Identify specific POC for farm or business - (e.g., managing emails or phone calls)
- Improve coordination and communication between service agencies (5)
  - Create Communication network
    - ♣ Include real-time alerts on critical updates for the region, specifically road closures and funding opportunities
  - Create an online platform or resource to help farmers and food businesses support each other during emergencies (e.g., equipment sharing, labor assistance, resource exchanges)
  - Resource identification and one-stop shop

## Funding

- Contract with grant writer (5)
  - Identify and apply for relevant funding opportunities (local, state, federal) for farmers, food businesses, and community orgs
- Develop Resource and grant toolkit (0)
  - Create guides, application timelines, funding sources, and information on receiving assistance
  - Offer workshops/webinars on grant writing and resource development tailored to the food system sector
- Establish Community/farm & food fund for resilience-building (12)
  - Research and implement mutual aid funding streams
    - ♣ Enhance Crop Cash and other options for organization to house recovery funds and be able to activate post disaster
    - ♣ Offer matching funds for new or existing climate resilience projects, such as grants for infrastructure upgrades or sustainable farming practices
  - Create seed funding and micro-grants to cover immediate recovery costs (e.g., replacing damaged equipment, seeds, or tools)

## Policy and Protocols

- Host sessions for preparedness for different types of businesses and organizations (0)
  - Topics may include:
    - ♣ Political discussions and advocacy on issues
    - ♣ Food system councils to bring together farmers, food businesses, emergency responders, and local leaders
  - Create subcommittees focused on specific areas of resilience (e.g., climate adaptation, disaster response, food security)
- Ensure inclusive governance structures (0)
  - Rotate leadership models that provide opportunities for input from all stakeholders
  - Develop an online platform to share meeting notes, updates, and action items with the broader community
- Coordinate and collaboratively plan flooding mitigation and food systems through regional watershed districts (1)
- Connection and collaboration for farm and financial equity through land trusts/organizations (4)
  - Create new incubator and options for land-link programs for beginning farmers

# APPENDIX C: POVERTY DATA

Table 8: Income and Poverty Thresholds for the United States (United States Census Bureau, 2023).

Age	Caledonia County	Essex County	Orleans County
Under 18	16%	17.6%	14.4%
18 to 64	13.5%	15.5%	10.7%
65+	7.2%	9.6%	8.2%
Overall	12.6%	14.3%	10.8%

## SNAP Participation

It is estimated that 1,978 households in Caledonia County received SNAP in 2023, or about 15.4% of the total households within the county. About 32% of those households had not worked within the past 12 months, ~42% had one worker in the family, and ~26.4% had two or more workers in the family (U.S. Census Bureau, 2023).

It is estimated that 515 households in Essex County received SNAP in 2023, or about 18.9% of the total households within the county. About 24.2% of those households hadn't worked within the past 12 months, 60.5% had one worker in the family, and 15.2% had two or more workers in the family (U.S. Census Bureau, 2023).

In Orleans County, it is estimated that 1,651 households received SNAP in 2023, or about 14% the total households within the county. About 21% of those households had not worked within the past 12 months, 53% had one worker in the family, and 26% had two or more workers in the family (U.S. Census Bureau, 2023).