



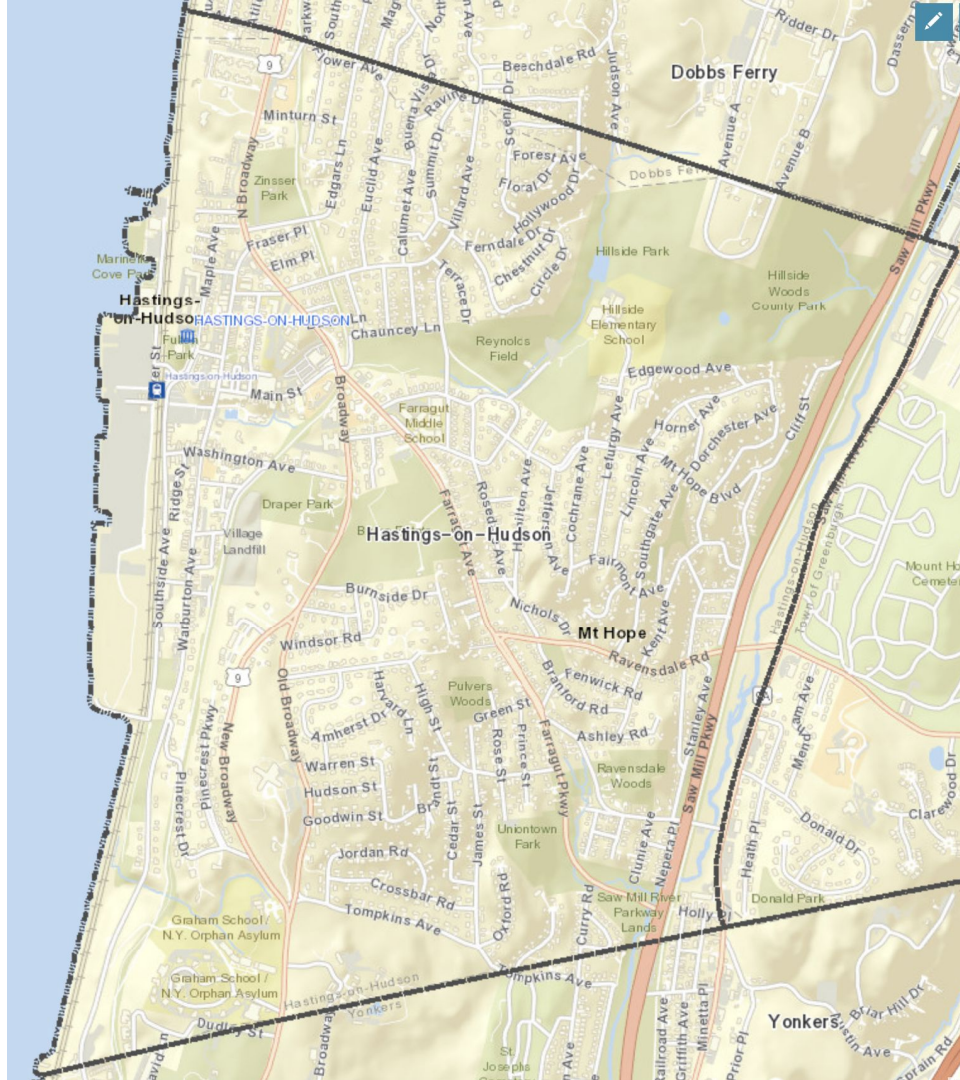
**Village of Hastings-on-Hudson  
Climate Smart Communities Task Force**

# **Climate Vulnerability Assessment Community Survey Results**

**June, 2020**

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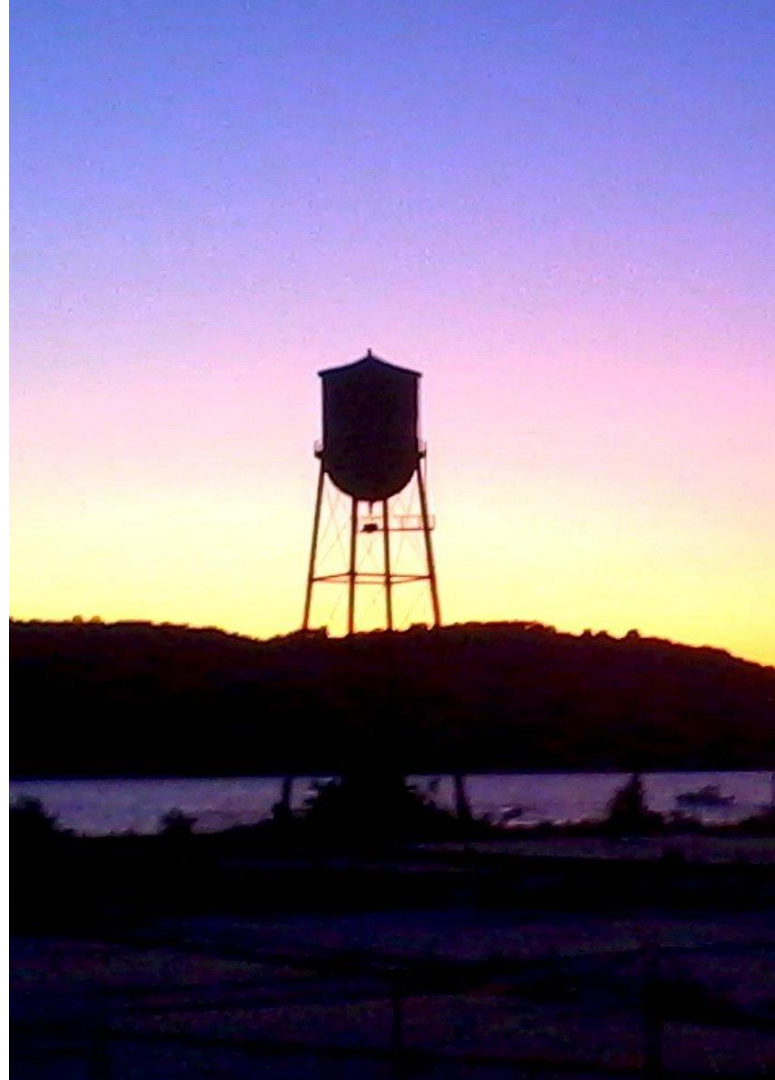
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# Background

In March 2020, the Village conducted a public online survey to gauge residents' concerns about the impact that climate change may have on our community. A total of 537 people completed the survey.

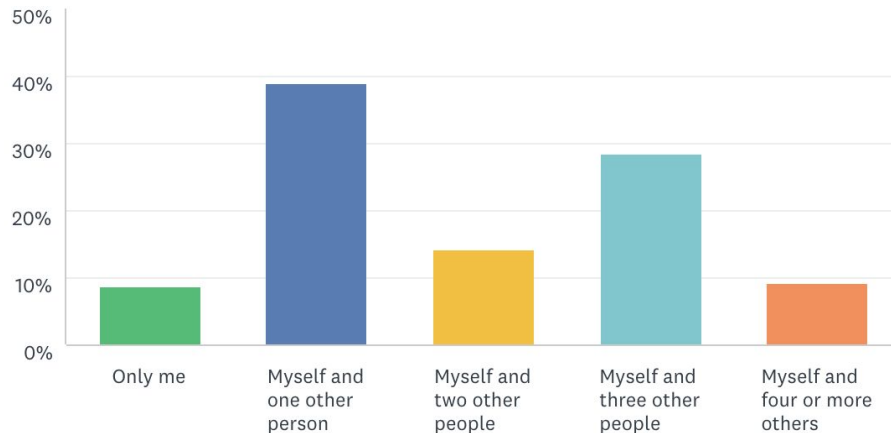
The results of the survey, which are detailed here, will be incorporated into the Village's Climate Vulnerability Assessment to identify the community assets in Hastings-on- Hudson that are most vulnerable to changing climate conditions so that action plans can be made to address them ahead of time.



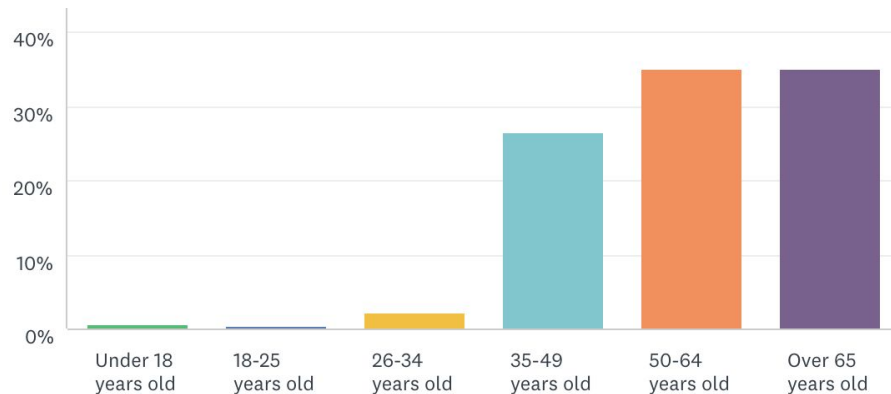
# Demographics

- The vast majority of respondents were over age 35.
- About 30% work full-time or part-time in the Village.

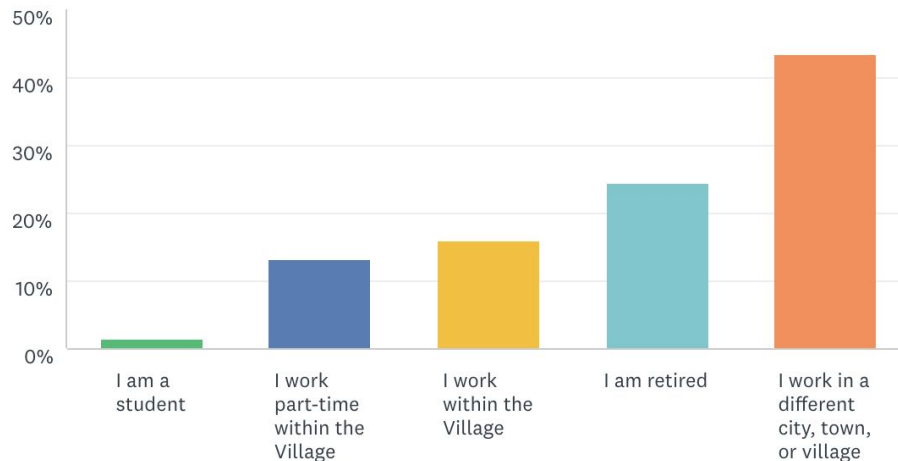
## How many people live in your household?



## What's your age?



## Where do you work?



# Food

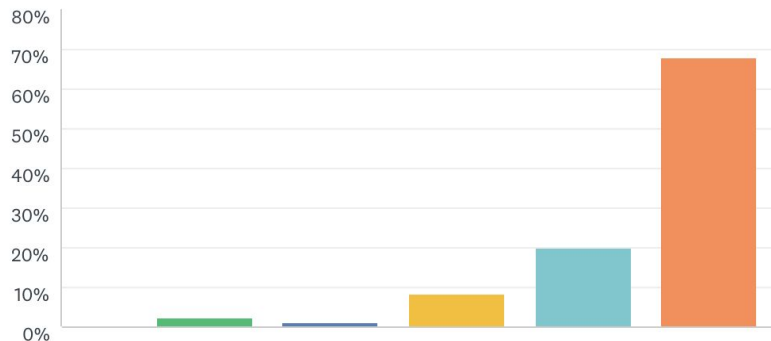
## Key Takeaways

Although a strong majority of residents say healthy, affordable food is available, more than one-third aren't sure whether our food supply would be able to adjust to extreme climate events.

Educating the public about the strengths and weaknesses of our food supply might help raise awareness and influence purchasing decisions.

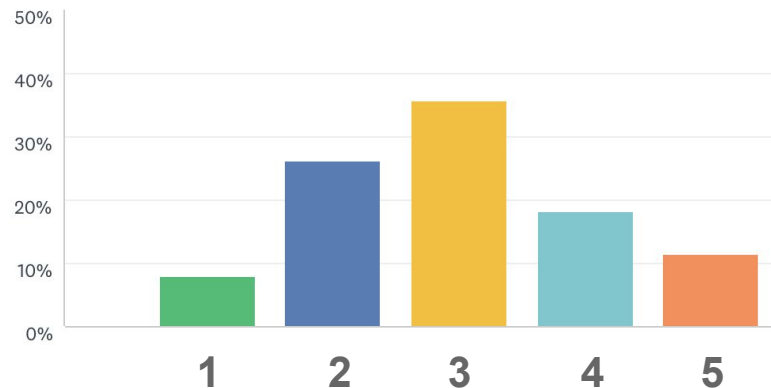
**I have sufficient access to healthy and affordable food.**

(1=Completely disagree, 5=Completely agree)



**How confident are you that your food supply can adjust and respond to extreme climate events?**

(1=Not confident, 5=Very confident)



# Comments on our Food Systems

- *Covid19 outbreak has been a good test of **food systems put under stress**, and the empty shelves that occurred in places certainly left me feeling less secure about potential climate related stressors that may arise in the future.*
- *It's possible that more people will suffer from **food scarcity due to low income** than we realize. We are basically an affluent society with poor people living somewhat hidden in our midst. We need to become more cognizant of this. Villagers with low incomes may have increasing difficulty affording food.*
- *There is a need for more affordable fresh produce.*
- *Many people have vegetable gardens, but my impression is that **many resident lots are not suitable for gardening**. This can be a problem if we need to resort to cultivating more foods at home.*
- *In Hastings, we grow virtually none of our own food and our **small gardens** cannot sustain us. We are dependent on the rest of the County and country. I am not so worried about climate events here, but in the places where our food comes from.*
- *It will be important to ensure the health of the **farmers market** - lower impact than industrial food distribution, stimulates local economy, and has the potential to serve as a gathering place for community. Embrace this.*

# Water

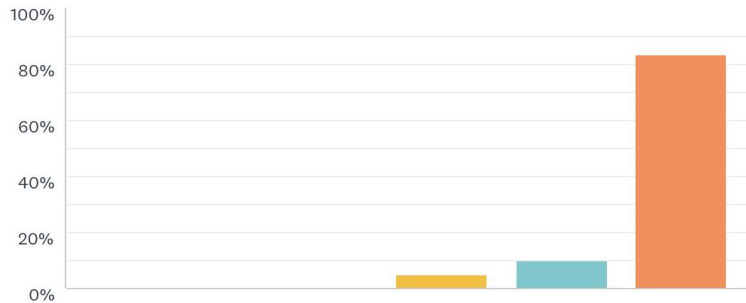
## Key Takeaways

Nearly all residents say clean water is available, but many are non-committal about their water conservation habits and their confidence in our water systems during an extreme event.

A public awareness effort focused on water use and our municipal water systems might help increase water conservation efforts in the Village.

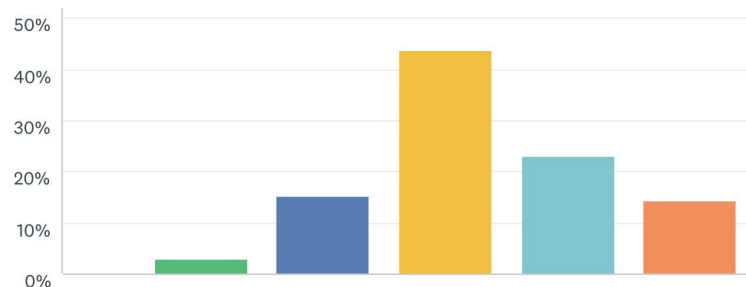
**My household currently has enough clean water to meet its basic needs.**

(1=Completely disagree, 5=Completely agree)



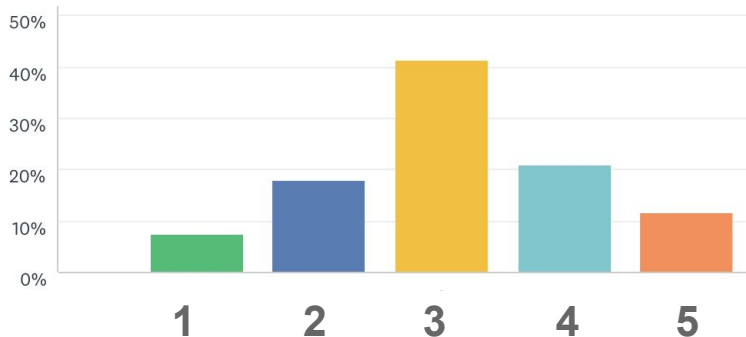
**My household conserves as much water as possible.**

(1=Completely disagree, 5=Completely agree)



**How confident are you that our water systems can adjust and respond to extreme climate events?**

(1 = Not confident, 5 = Very confident)



# Concerns about our Water Systems

- *Water systems will be put under significant stress. Wider efforts to **reduce water consumption** and instill best-practices should be in place now. Strategic planning for worst-case scenarios around water, which is critical to all life, need to be thought out. There's no way to predict what water shortage/crisis we may face.*
- *Our Village is not equipped to handle **green infrastructure solutions** needed to mitigate the inundation we create in part due to our natural topography and the impervious structures (buildings!) and materials (asphalt and compacted soils!) that exist in our landscape. Redoing the sidewalks with **bioswales** incorporated would be a no-brainer to make our Village and our planet more resilient.*
- *There needs to be **less hardscaping** - i.e. parking lots with all asphalt. We should encourage absorption of rainwater and runoff to reduce heat islands.*
- *As our water comes from **Suez Water**, how would we really know how secure/adequate, etc. it is? **Suez Water** has shown no consistent ability to manage our water quality nor to keep residents well-informed of its activities. Our water comes from NYC's abundant supply, but the system is owned by a French conglomerate. Where are resource allocation decisions made? Can we have our own water system?*
- *Our water supply is not a local issue, but a regional, state, and even a national issue.*
- *We don't know about the **integrity, age or upkeep of the infrastructure**. We have experienced poor communications and slow responses to local leaks. Our pipe infrastructure is old which may be a concern.*
- *As a society we are used to "letting the tap run." A lot more can be done to educate local residents about water conservation. Could **rainwater storage for irrigation be mandated in the Green Building Code**?*



# Energy

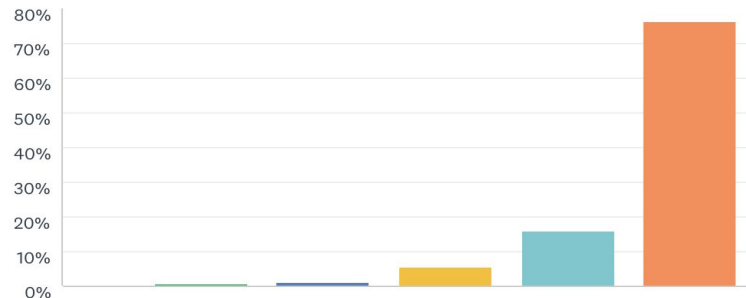
## Key Takeaways

Like food and water, most residents say our energy supply is good — but also many are non-committal about their energy usage habits and their confidence in our power systems during an extreme event.

Again, a public awareness effort focused on energy use and our power supply might help address this.

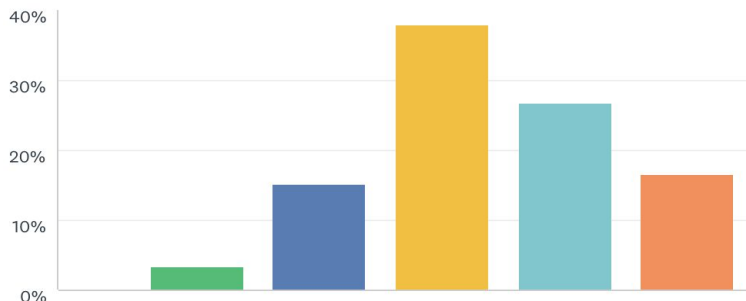
**My household currently has enough energy to meet its basic needs.**

(1=Completely disagree, 5=Completely agree)



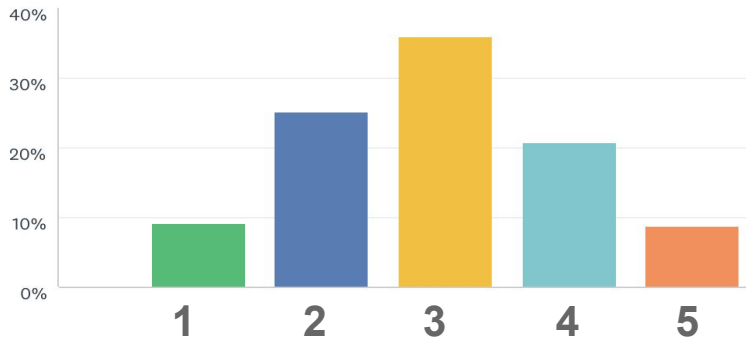
**My household conserves as much energy as possible.**

(1=Completely disagree, 5=Completely agree)



**How confident are you that our energy supply can adjust and respond to extreme climate events?**

(1=Not confident, 5=Very confident)



# Concerns about our Energy Systems

- *Storms and downed trees seem to make Hastings vulnerable to power disruptions. I would love to see the Hastings grid become more **decentralized** and **local**.*
- *I have experienced **long outages** of power during storms, up to a week or more. These could occur more frequently as climate change effects come into play. Blackouts are frequent. **Power lines are above ground**, which is a huge liability. Transmission lines should be underground.*
- *We use far too much energy. Typical Hastings lifestyles are simply **not sustainable**. Hastings needs to continue to move towards more **sustainable energy sources**.*
- *Practical **energy guidelines** would be helpful. **Solar panels** should be a prioritized consideration where possible.*
- *We need **full-scale advocacy** to ensure that we're on track toward 100% renewable in the fastest amount of time possible. The more information sent out via Mayor's messages and emails blasts, the better.*
- ***Solarize Hastings** - among other programs - is certainly a great start. Nothing will **increase adoption** like **decreasing costs**, even in a well-heeled community like Hastings.*
- *The elderly are having a lot of trouble affording **insulating upgrades** (walls, windows), and not everyone can afford **new heating/cooling** equipment either. **Electrical systems** are also old and re-doing them to accommodate things like electric vehicles is very costly.*
- *A **microgrid system** to serve any **waterfront development** should be considered.*

# Concerns about our Energy Systems, cont.

- *Am concerned ConEd will lay **catastrophic costs** onto the public without fundamental changes to **mitigate & prevent risk**. I have little faith that ConEd will be able to **supply continuous energy** during extreme climate events.*
- *Con Edison is **unreliable** and **expensive**. They charge enormous energy "delivery" fees while providing barely competent service in anything other than ideal circumstances. I'm fine with my basic electric/gas costs per unit used -- but over 80% of my energy cost is paid to Con Ed to deliver it and most of the rest is **taxes/surcharges** rather than the "energy" itself.*
- *Am extremely concerned about the future impact of the **Indian Point** nuclear plant during operation, decommissioning, and nuclear waste storage.*
- *We need **more affordable solar solutions**. There are lots of opportunities for solar panels. Let's get that going!*
- *Incentives to **replace furnaces and hot water** would motivate replacement with much higher efficiency ones, but **construction costs** are a major deterrent. It's just too expensive to improve your house.*
- *HoH solar and **heat pump collaborative initiatives** are truly great. Using our **waterfront as a place to generate power** for the whole village would be my vote. We need to make **smaller, localized grids**. We should continue to push for as many households as possible to use **solar electric and solar thermal (hot water)**.*
- *The Village should support and subsidize the availability of **ground source energy sources** and **photovoltaic panels**, as well as any other sources of **distributed renewable energy**. The mindset should shift from 'wear sweaters' to generate energy from home that we can sell.*

# Housing & Transportation

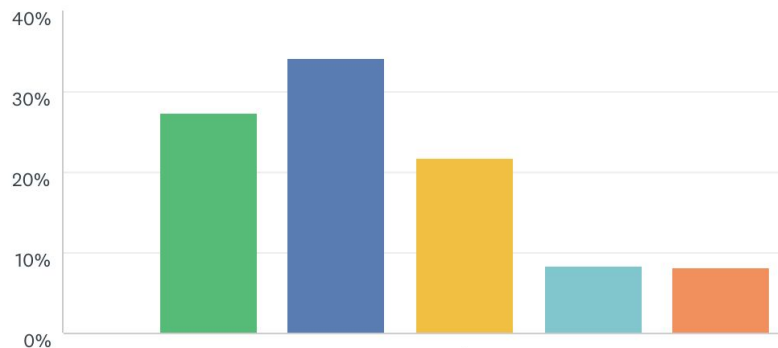
## Key Takeaways

A significant majority believe affordable housing in Hastings is not sufficient. This may strain the household finances of some of our vulnerable populations, especially after a climate-related event.

Residents are non-committal about whether they believe transportation systems will adjust to extreme events.

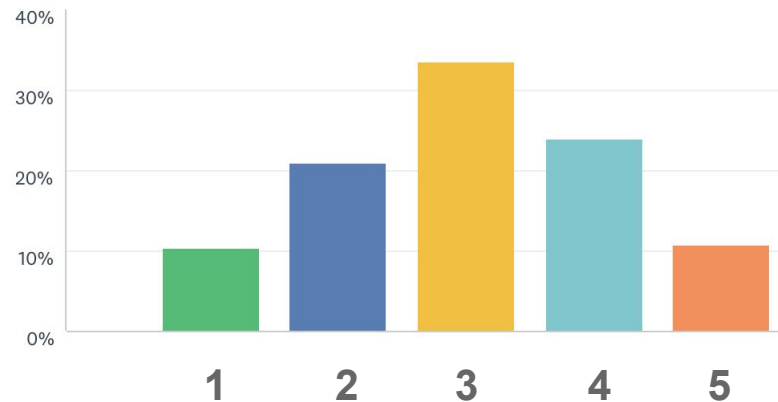
**There are sufficient options for affordable housing in Hastings.**

(1=Completely disagree, 5=Completely agree)



**How confident are you that the transportation systems on which you rely can adjust and respond to extreme climate events?**

(1=Not confident, 5=Very confident)



# Comments on Transportation

- We need **more buses**, and those buses need to **be EVs**. The **bus service** is terrible. If the **Beeline** had better routes/ more service I'd **drive less**. Especially having better bus routes to the north end of the subway would be useful. The bus service does not suit many needs.
- There is **no public transportation from the west to east side of Westchester**. Also serious lack of **cross county connections**. The bus system should be expanded to provide better service for people without cars. **Public transit** is not sufficient or cheap enough to allow people to give up cars. No one takes the bus!
- The Village should make changes to its **streets and sidewalks to encourage walking and biking: slower traffic speeds, traffic calming with speed humps, bump outs and chicanes, reduced number of lanes, safer crosswalks, bike lanes and more sidewalks**. Hastings' hills make biking difficult but not impossible.
- Not enough **public transportation** here. This is less a climate issue than a **livable community** issue. I am a senior and I have **no public transit** near my house and must depend on driving.
- Many jobs are not local. Local transportation **does not run frequently enough**, therefore people are not incentivized to use public transportation. The **lack of off-hour transportation** makes it extremely difficult. Thus, after a few years of living in Hastings feel they **have to buy a car**. All kids should **walk to school**.

# Concerns about MetroNorth

- *Rail is very **sustainable** (I use it daily to commute to work) it is a good option going forward, but sea level rise will be a threat.*
- *MetroNorth service is **frequently insufficient** due to extreme weather: **fallen trees, flooding, icing of 3rd rail**. How can we rely on MetroNorth which **struggles to maintain service** in storms or flooding situations? The tracks are located **right on the river**. Some day, these tracks may be **under water** and are **vulnerable to sea level rise flooding and erosion, mud slides, and severe storm events**. That infrastructure should be better protected.*
- *Otherwise, MTA is pretty gosh darn good at responding to downed trees and getting trains back on schedule when there is an event, but Metro North is the **big vulnerability** with its tracks next to the river. Worried about the Hudson line getting flooded and leaving us **cut us off from NYC**. Losing faith that Metro North is **preparing for coastal flooding**. Train tracks 5 feet above the river = first to go. If the mean high tide level of the Hudson River rises the predicted six feet by the year 2100 the MTA may have to **abandon the Hudson Line tracks**.*
- *The biggest vulnerability in HoH is to disruptions in Metro North service. What is Metro North's plan for **protecting the Hudson Line** from river rise due to climate change? How / **when might those improvements be pursued**? Not sure Metro-North is equipped to handle flooding from the Hudson. While the train tracks may not flood in Hastings, they may along **other parts of the Hudson line**. The track runs through **flood zones in Yonkers**. Metro North running along the Hudson is a major risk.*
- *Metro North could be disastrously affected by sea level rise.*

# Additional Concerns: Housing, Infrastructure

- Some hard working locals need **more affordable housing**. We need more affordable housing everywhere. School taxes are too high for those of us who have lived here forever. What about allowing **residential use of accessory buildings** to solve affordable housing shortages?
- We need **better sidewalks** and/or **safe pedestrian paths** on Broadway south of Olinda. Walking is unsafe on Broadway and needs to be improved. We cannot **walk into town** from the Tompkins/Jordan area because there are no sidewalks!
- Bring back the **trolley** or some kind of **electric jitney** that can transport people to the station and to schools. Of course, this might not be possible with Covid. So maybe **electric bikes** would be a solution.
- **Lack of sidewalks** make walking to public transportation extremely difficult.
- **Assisted transportation** in Hastings is a challenge. This is a problem for the **elderly**. Even if you get certified for the bus to pick you up, it brings you to a bus stop where you are on your own. Rides to the bus stop don't help when you are 90 and alone. **More public transport to safer transit points** would help. **Older people** or those **physically compromised** can't easily access public transportation.
- Hastings is **pedestrian and cycling unfriendly**. Bike and pedestrian infrastructure is needed to make Hastings walkable and bikeable, and a systemic Village policy that implements the placement of **traffic calming measures**.
- We need to invest more in **sidewalks** and **bicycle infrastructure**.
- Hastings should be one of the most celebrated walking villages in the country, but we cannot promote eliminating vehicle usage without **sidewalks and proper crosswalks**. It is simply not safe.

# Jobs & Business

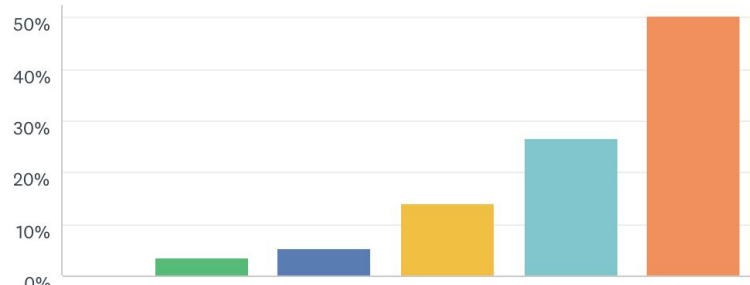
## Key Takeaways

75% of households have sufficient and sustainable incomes, but in an extreme climate event, many believe their finances would be strained and lack confidence in the Village's ability to protect the local economy.

An opportunity exists to develop more strategies to aid local businesses to help mitigate this concern.

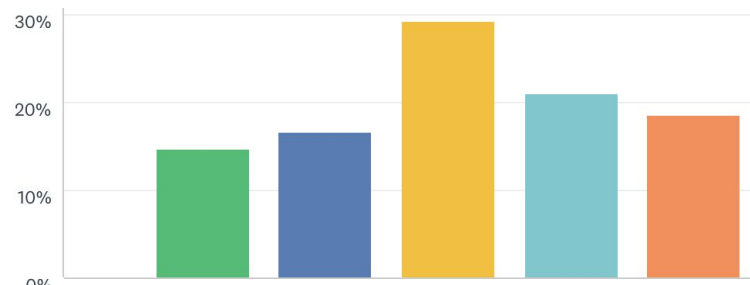
**My household currently has access to sufficient income to sustain itself.**

(1=Completely disagree, 5=Completely agree)



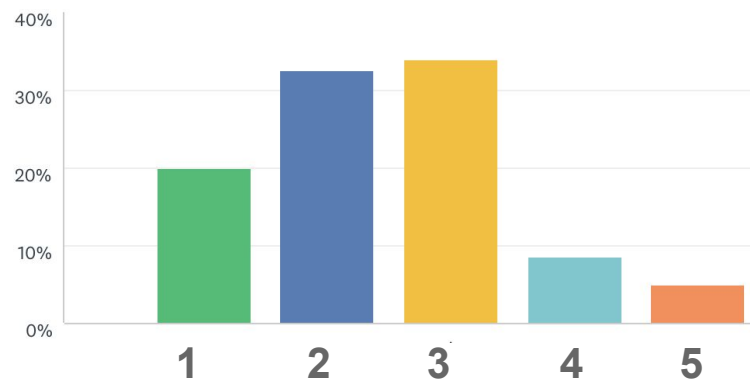
**Extreme climate events are likely to interrupt my job or put a strain on our household finances.**

(1=Completely disagree, 5=Completely agree)



**How confident are you that strategies are in place to promote local businesses and protect the local economy from extreme climate events?**

(1=Not confident, 5=Very confident)





# Economy and Jobs

- *Local businesses* are facing immediate and gigantic challenges. Recent local business **support initiatives** have been great. But we remain vulnerable to climate change impact. Hastings could do more to **promote or recruit local businesses** that provide a wide range of goods and services, and **jobs** for people in Hastings and neighboring towns who are **unemployed or underemployed**.
- I think HOH does a great job of trying to promote and support local businesses, but there are many factors out of its control. As a **small town** we cannot possibly expect to be able to **protect our small businesses & our local economy** - we need **county/state & federal programs** to do that. Our local and bio-regional economies need to shift from being overly consumptive to **cooperatively becoming regenerative**.
- After experiencing **COVID 19**, I no longer have faith that **my future will be protected** from a climate emergency or significant disruption unforeseen events. Covid 19 is **drastically affecting income**. I'm completely **unemployed** for the next 2-6 months.
- Hastings should **encourage growth** in the village population by up to 20% to lessen tax burdens, and improve **viability of local businesses**. Taxes are **too high to be sustainable**. There are few if any **protections** for local economic downturns let alone climate change. it's not a **robust locally self-reliant** sort of system.
- We are all for saving the environment, but the old old are having **trouble keeping up with taxes and cost of living**, so increasing taxes to help the environment is hard for us. Why not consider **school tax breaks** for those who have paid these taxes for 30 years?
- Thank you to our **Mayor** and our **Conservation Commission** and everyone who is thinking about these questions with clear vision.

# Natural Resources

## Key Takeaways

Most residents believe our natural resources are sufficient and the community does its best to protect them, although over 50% lack confidence those resources will adjust to climate change.

The Village should review the Natural Resources Inventory to ensure the long-term protection of our natural environment.

**Hastings has sufficient access to natural resources and open spaces.**

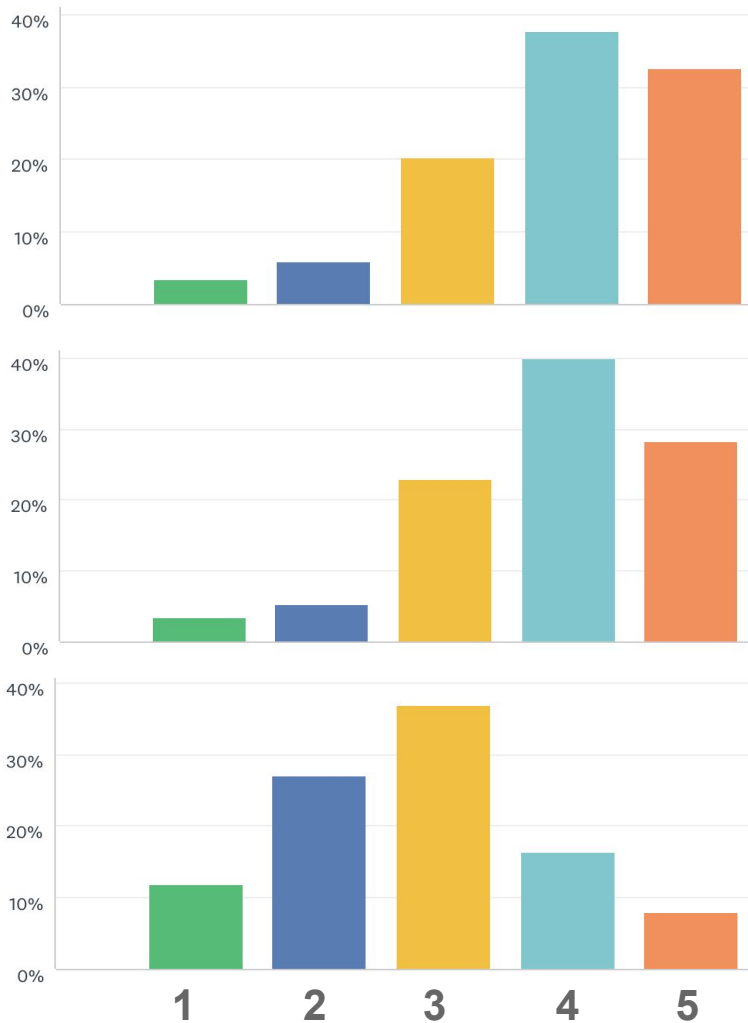
(1=Completely disagree, 5=Completely agree)

**Our community strives to protect our natural resources.**

(1=Completely disagree, 5=Completely agree)

**How confident are you that our natural resources will adjust to extreme climate events?**

(1=Not confident, 5=Very confident)



# Vulnerable Populations

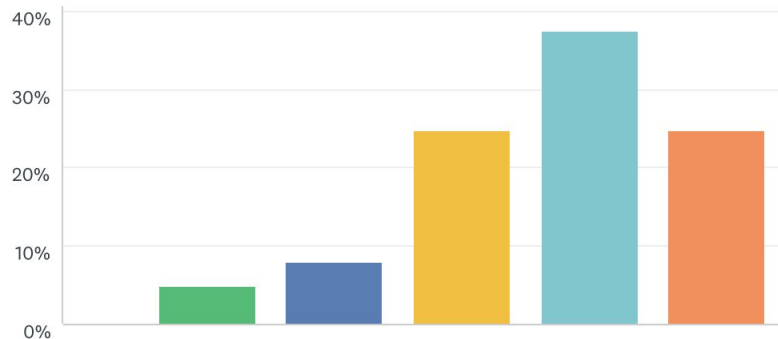
## Key Takeaways

Most of our residents believe we strive to protect vulnerable people, but are non-committal about the Village's ability to support them during climate events.

Creating meaningful response plans that anticipate various climate-related scenarios might help this issue.

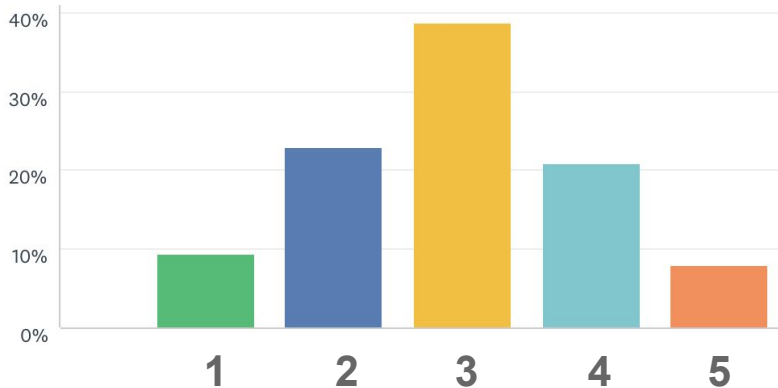
**Our community strives to protect our vulnerable populations.**

(1=Completely disagree, 5=Completely agree)



**How confident are you that Hastings will be able to take care of vulnerable populations in the face of an extreme climate event?**

(1=Not confident, 5=Very confident)



# Climate Threats

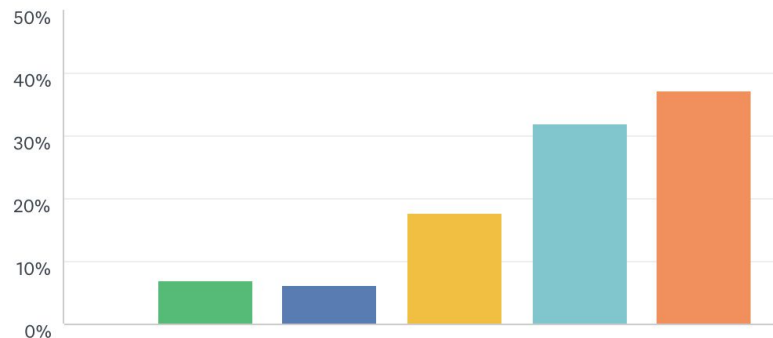
## Key Takeaways

A solid majority believe climate change threatens our Village and should be a strong focus for our community.

The Climate Vulnerability Assessment will advance our adaptation effort as it will identify which community assets are most at risk so that action plans can be created to address them.

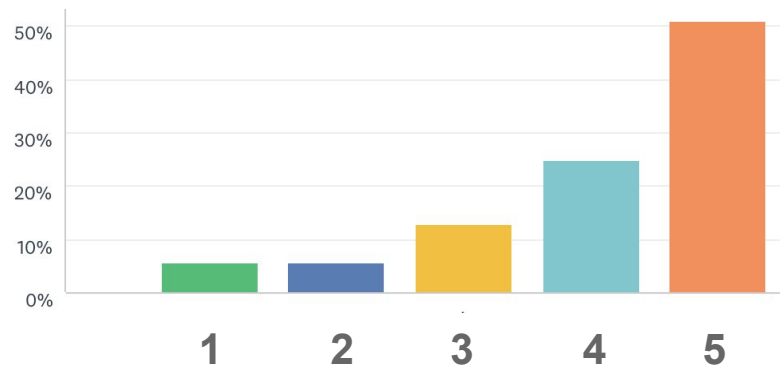
## How much of a threat is climate change to Hastings?

(1=Minimal threat, 5=Significant threat)



## How much focus should our community give to sustainability and adaptation to climate change?

(1=Minimal focus, 5=Significant focus)

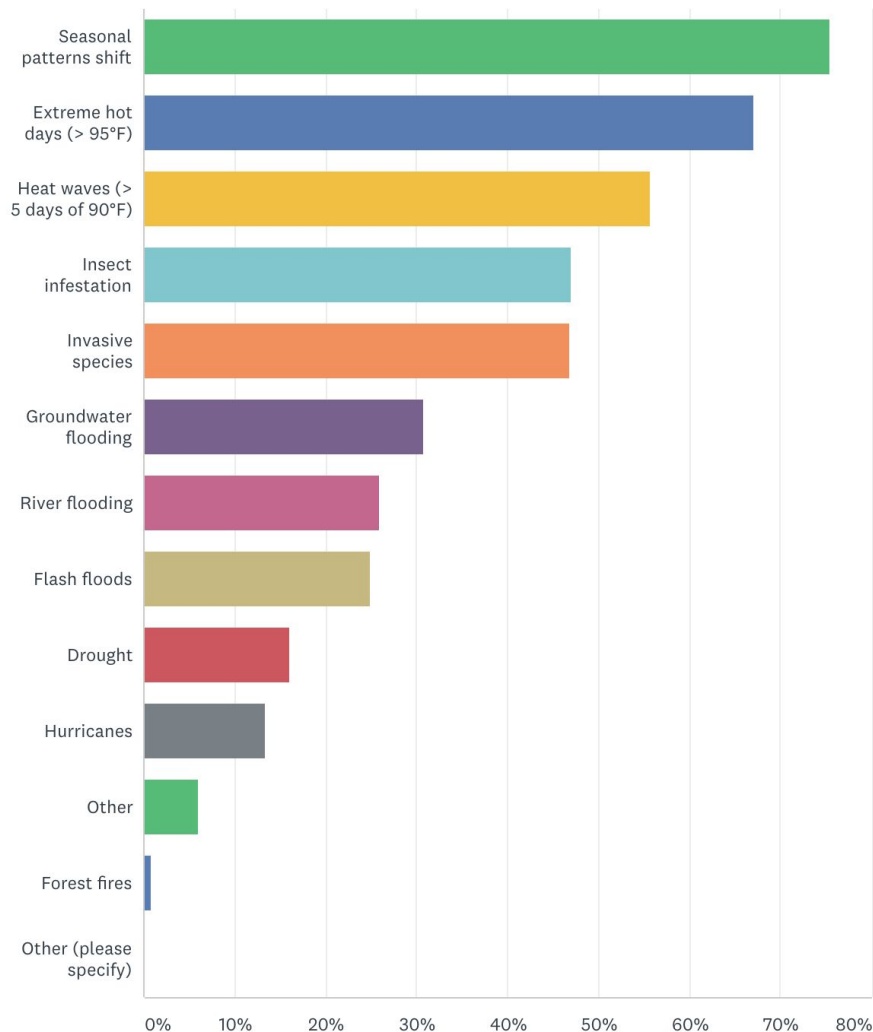


# Climate Threats

**Question: “Over the past 3 years, have you experienced or observed any of these hazards occurring directly within Hastings?”** (Click all boxes that apply.)

## Key Takeaways

Our residents have observed every climate-related hazard on the list, with a strong majority having experienced changes in seasonal patterns (shifts in snowfall, plant and animal lifecycles, etc.) and unusually hot weather, which includes more days over 95°F, as well as more heat waves (5 or more days in a row hotter than 90°F). Close to 50% have also observed or experienced Insect infestation and invasive species.



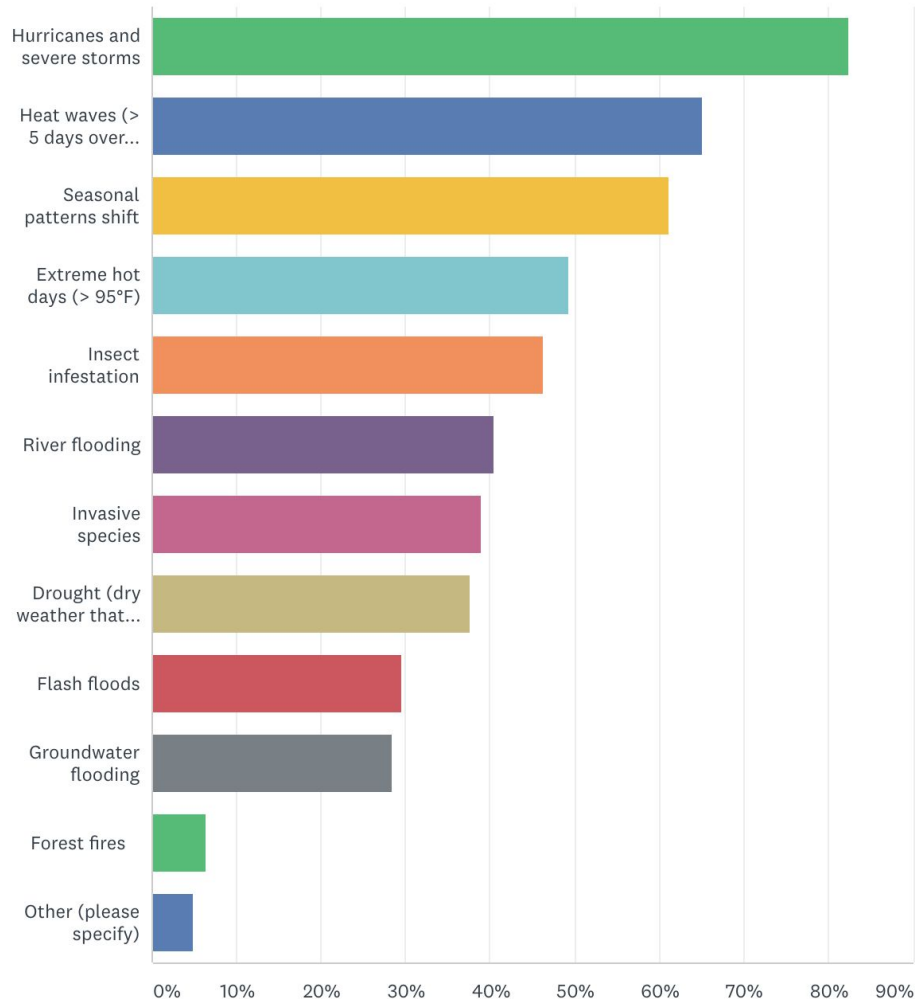
# Climate Threats

Of the below climate hazards, choose the top 5 that you believe will be most likely to have a future negative impact on our community?

## Key Takeaways

Except for forest fires, every climate-related scenario is a concern to a significant percentage (more than 25%) of our residents, with severe storms and heat waves at the top of the list. Overall, the major concerns can be categorized as:

- **Severe storms and flooding**
- **Extreme heat and heat waves**
- **Insect infestation and invasive species**



# Climate Threats

**Is there a pressing question related to climate vulnerability and adaptation that we missed and that you would like to share?**

## Key Takeaways

There were over 60 responses to this question. The Hastings community is thoughtful, opinionated, and engaged when it comes to climate change. Further opportunities exist to educate and involve the community to help mitigate and adapt to climate change. Cost, prioritization, equity, and transparency are particularly important issues to the community.

- Hastings is small and interconnected, but highly dependent. What more can we do to partner and influence others who have more control?
- Our above ground electric supply is highly vulnerable to wind / rain / storm - what could be done to improve the resilience of the electric grid?
- Where will people go who are forced to leave their homes due to climate change?
- How do emissions generated by lawn crews affect climate change?
- What can we do during the waterfront redevelopment (Renewable energy? Water conservation? Natural shade?) to set a great example for other communities?
- What can we do to encourage green economy programs like those found in the 30's New Deal, such as the Civilian Conservation Corps (CCC) or Public Works Administration (WPA)?
- What more can we do in the community as individuals to mitigate climate change?
- How much would you pay to mitigate climate risks?

# Conclusions

This community survey is a central component of the Village's Climate Vulnerability Assessment. Our residents not only identified the climate events they are most concerned about, they also described their confidence — or lack of confidence — in the Village's ability to address these problems.

The Climate Smart Communities Task Force will incorporate these results into the Climate Vulnerability Assessment that it intends to submit to the state in July 2020. This report will serve as a roadmap of community assets that are most vulnerable to changing climate conditions so that action plans can be made to address future concerns.

