

What elements of the City (physical, social, or otherwise) are most meaningful to you?



A word cloud generated at the virtual workshop

BEACON SUSTAINABILITY AND CLIMATE RESILIENCE VISION

DECEMBER 3, 2020

Cornell Cooperative Extension
Dutchess County



Background

Climate change continues to be a significant threat to the Hudson Valley, and the City of Beacon, with an expected increase in temperature, more extreme precipitation, and rising sea level over the next few decades. In preparation for these climate hazards, the City of Beacon took the initiative to reach out to residents and stakeholders to create a Sustainability and Climate Resilience Vision. A Sustainability and Climate Resilience Vision gathers community input on what a sustainable and climate-resilient city would look like in the future.

Over the course of three months, Cornell Cooperative Extension Dutchess County, the City of Beacon, and Green Beacon Coalition reached out to Beacon residents through a series of efforts including a virtual workshop, an online survey, and pop-up stands in an effort to reach a wide variety of stakeholders (See Appendix A for more details). These three outreach efforts all gathered the same information in a different way on climate hazards experienced by Beacon residents, and their vision for a sustainable, resilient city. In total, approximately 52 residents and stakeholders of Beacon gave input during this visioning process.

It is important to note that the visioning process took place during a global pandemic. While the pandemic likely limited participation, it helped highlight the importance of planning and visioning to build a sustainable and resilient community.

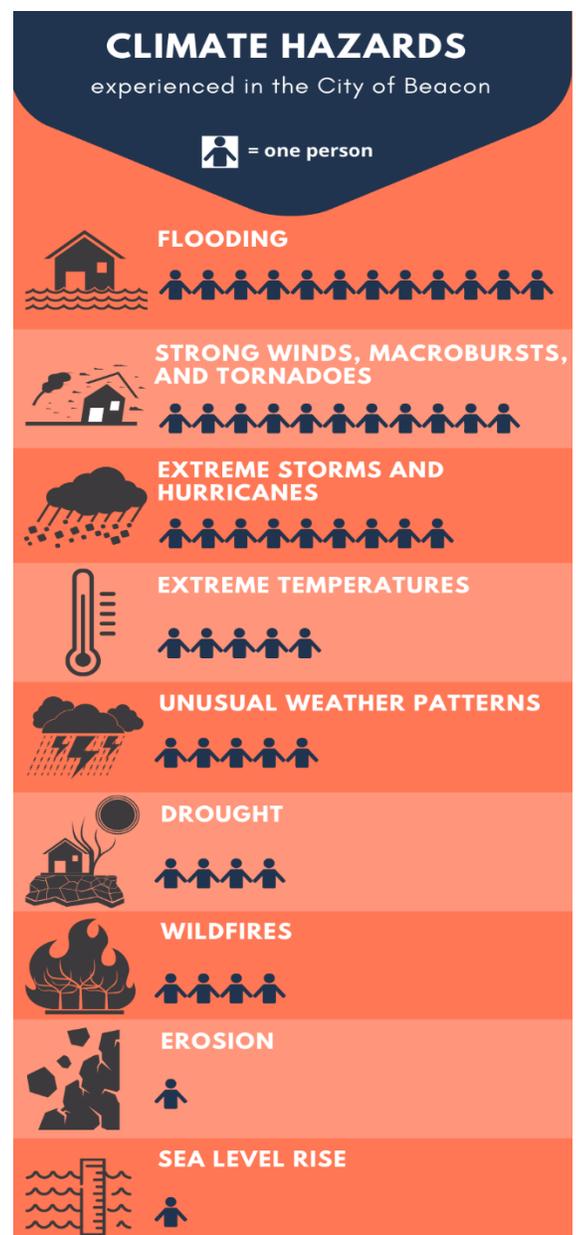
The following vision and guiding principles were created using the input gathered from the outreach efforts to ensure that sustainability and climate resilience progress is consistent with the community's desired outcomes.

Climate Hazards in Beacon

The first step in the visioning process was to ask participants how they had seen or experienced climate hazards in the City of Beacon. *Climate hazards* are weather conditions or trends that are harmful to human health, livelihoods, or natural resources. The infographic "Climate hazards experienced in the City of Beacon" shows that flooding was the most popular answer among participants, with twelve people stating they had experienced flooding in Beacon. Likewise, erosion (one person) and sea level rise (one person) were the climate hazards least experienced by participants. In understanding the infographic, it is important to note that participants could state more than one climate hazard.

Effects of Climate Hazards

Community members have seen first-hand how these climate hazards have affected their city. About half of the participants mentioned power outages, surges, and/or brownouts with some stating that it made them unable to work or late for work. Approximately 28% of participants stated that they have experienced or seen trees or tree limbs fall on power lines, roads, houses, fences, cars, etc. Roughly 19% of community members mentioned blocked roads, cancelled and delayed trains, and/or having no way to leave or enter the City for 24 hours after a climate



hazard event which also effects whether or not people can get to work on time, or at all, and if they can get back home after work. Water shortages or concerns about the water supply (4 people) were also mentioned, as well as effects on the vulnerable sewer system (3 people) and effects on infrastructure (3 people). Community members also noticed that climate hazards are affecting wildlife, and specifically insects are coming out earlier (3 people). Some less common effects that were brought up by at least one community member include: effects on the food supply, effects on old homes in Beacon that are costly to heat and cool, inaccessible sidewalks after a climate event, damage in neighboring communities, increased frequency and intensity of storms, increased driving hazards due to flash floods, persistent large pools of water in neighboring yards, vulnerable populations can't move if necessary (ex. if they live in a floodplain), and the general feeling of vulnerability. Overall, approximately 95% of participants observed or experienced the effects of climate hazards, and only 5% of people said they did not.



A downed tree in a residential area of Beacon after a severe tropical storm in 2020. Photo by Eleanor Peck

Visions and Principles for a Sustainable, Resilient Beacon

Residents from the City of Beacon envision a community that is not only resilient to climate change but is also socially and economically resilient. A resilient and sustainable Beacon would preserve and enhance social, economic, and natural characteristics of the City while preparing for climate hazards that threaten these features. When participants were asked to complete these sentences, “A future climate-resilient Beacon would...” and “A future sustainable Beacon would...”, answers for both questions spanned similar themes, which were translated into the following guiding principles:

A future climate-resilient and sustainable Beacon would:

- 1) Be socially resilient
- 2) Invest in resilient infrastructure
- 3) Have an informed and educated populace and municipal staff
- 4) Be prepared for future climate hazards
- 5) Encourage local food and business
- 6) Mitigate and adapt to climate change
- 7) Encourage alternative transportation
- 8) Invest in renewable energy
- 9) Preserve natural resources
- 10) Have a resilient waterfront

A future climate-resilient and sustainable Beacon would... (a full list of responses can be found in Appendix B)

Be socially resilient

- [have] a community response system that provides appropriate, respectful care and support to all residents - before, during, and after disasters. Meaning, have the community fabric in place to actually be resilient to climate or any other crisis
- prioritize vulnerable residents first
- support neighborhood outreach groups
- ...make sure generators are easy to get (affordable)...
- keep wifi when power goes out, town-wide hotspots
- have robust mechanisms to communicate with the entire town easily and quickly

Invest in resilient infrastructure

- [have] home[s] retrofitted to withstand future hazards
- look like a successful public works project
- [have] better weatherization on homes, more heatpumps

- [have] buildings resistant to flooding
- [have] more storm water mitigation, creation of green spaces and thoughtful development practices with regard to density.
- have lots of parks and green spaces all across town where all residents, especially Black and brown families, feel comfortable, safe, respected, and included.

Have an informed and educated populace and municipal staff

- have an informed and engaged populace
- be educated about climate resiliency
- have extended education opportunities available to all residents on sustainable backyard and urban farming techniques and practices...
- include more education for the general public (it requires a LOT of education)
- somehow find a way to take the politics out of the idea of climate change...

- have more in place to prevent drought (education...)

Be prepared for future climate hazards

- put aside money for climate, because there are going to be costs
- check tree branches close to homes and wires [and educate the public on who to call]
- [have] mindfulness of city water use and overdevelopment, currently not enough water resources to keep up with rapid expansion of population growth in the city.
- have clear disaster plans that everyone contributes in creating and understands.
- include planning for the long term, including urban planning and infrastructure as well as sustainability.

Encourage local food and business

- take into account agriculture and how climate hazards impact local food supplies
- have to go more natural, be more sustainable, we have to grow our own food, plant more, anywhere there's space, we have to involve the community, we have to show people how to grow food
- ... [have] more locally grown food using sustainable methods
- eat more locally and shop more locally
- encourage buying and utilizing (sourcing) local products (not sourcing from far away)

Mitigate and adapt to climate change

- ensure we minimize our contributions to the root of the climate change problem - mitigate our own emissions
- be responsive and adaptive to environmental changes and threats.

- focus on areas of most flooding risk ie lowlying areas - for reinforcing / making more resilient.
- make sure that we are not at increased risk for weather changes and major weather events like floods
- have more in place to prevent drought (...redundancy in systems)

Encourage alternate transportation

- encourage other modes of transportation
- de-emphasize the necessity for car traffic, and promote both more extensive public transportation including electric bus service, much more prominent emphasis on biking (high-visibility bike lanes, if not bike-only routes) and walking about town, while also providing for accessibility for less-abled persons, simultaneously
- [have] free, electric, public transit
- [have] more pedestrian paths everywhere (sidewalks, walking paths through Memorial Park) safe flow of pedestrian traffic and bike traffic
- ...[have] more frequent public transportation including to Newburgh, Poughkeepsie, Cold Spring, Wappingers...

Invest in renewable energy

- [have] Community/utility scale solar/wind/geothermal
- have solar panels on more houses and have more geothermal and make it free/affordable for residents
- implement renewable energy that is not tied to the grid
- have more storage for local renewable energy
- be self-contained with public power from entirely local, renewable sources

like solar, wind, and even hydro, if that's a local possibility

Preserve natural resources

- preserve as much open green space and have more parks
- have cleaner, better air, water, better use of land.
- ...[have] Fewer grass lawns and field, more pollinators and trees and vegetables etc.
- seek to decolonize and re-indigenize the land, the resources, and the processes by which we interact with them.
- ...value green space and put the natural environment as the focus over profits.

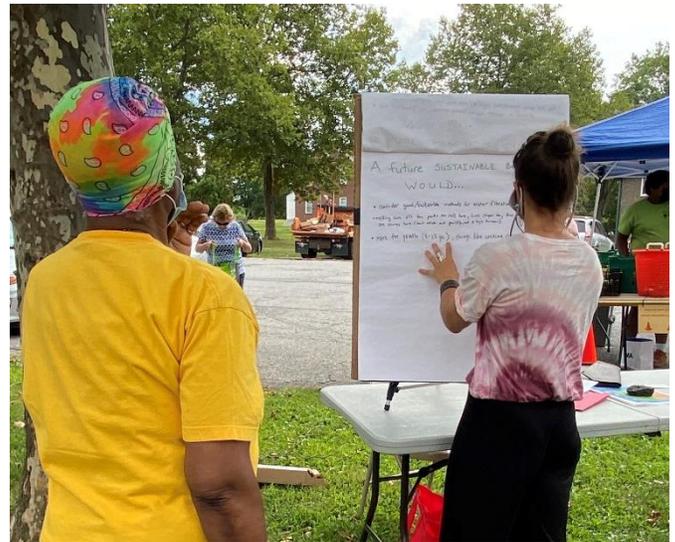
Have a resilient Waterfront

- have a coastline built to better process floods and water surges
- [have] a protected/fortified waterfront to protect train, homes and businesses
- have a waterfront that can hold storm water and shield people, roads, and buildings from flooding using a combination of public parks and natural areas such as wetlands
- [have] Long Dock shored up so we don't lose that park
- clean up invasive species (water chestnuts)

Appendix A: Outreach Efforts

Cornell Cooperative Extension Dutchess County, the City of Beacon, and Green Beacon Coalition collaborated to engage residents and stakeholders of the City of Beacon in this process. Since the outreach stage occurred during a global pandemic, three different types of outreach efforts were conducted over the course of three months in an effort to reach a wide variety of stakeholders. The three outreach efforts included a virtual workshop, an online survey, and pop-up stands. In total, approximately 52 residents and stakeholders of Beacon gave input to this vision.

While each outreach method was different, they all had a similar approach in gathering the same information from participants. First, an explanation was given on who we were, what we were doing, and what will happen with the information that is collected. Second, background information was given on climate hazards and climate vulnerability in order to ask participants how they had personally been affected by climate hazards in the past. Third, the concept of climate resiliency was explained and participants were asked to give input on what a future climate resilient Beacon looks like to them. Finally, the concept of sustainability was discussed and participants were asked to give input on what a future sustainable Beacon looks like to them.



*A volunteer recording answers at one of the pop-up stands
Photo by Ron Donofrio*

Virtual workshop

The first information gathering effort from the residents of the City of Beacon was an online Zoom workshop that occurred on June 10, 2020. Outreach to invite the community to this event was largely via social media, however, there was also a press release in the Beacon Free Press, and the event was shared at public meetings. On the day of the event there were 51 people registered and 25 people in attendance, including the facilitators, however only about 12 participants were residents or stakeholders from the City of Beacon. In this format, as participants entered the meeting, they were asked in one word, to write the elements of Beacon (physical, social, or otherwise) that are important to them. After an explanation of each section, participants were sent into breakout groups of approximately 3-4 people, including a facilitator, so they could discuss the questions in a small group setting. Facilitators took notes and reported what their group discussed.

Online Survey

In an effort to be more accessible for people who weren't able to join an online workshop, an online survey using the Qualtrics platform was launched the same day. The anonymous survey was in English and Spanish, and live and open to receiving input for approximately three months. The link to the survey was shared at the virtual workshop and promoted on social media. In total, 28 people looked through the questions and 10 participants gave responses.

Pop-Up Stands

Throughout the week of August 16-August 23, the final phase of outreach took place in the form of pop-up stands at specific Beacon locations. The pop-up stands included one or two volunteers standing at a table outdoors with a large flip chart pad and markers, wearing masks, and social distancing. Volunteers engaged

passersby in conversation and asked for input on the three questions in the manner described above. Volunteers conducted outdoor outreach at Memorial Park, Green Street Park, the Green Teen Farm Stand at the Beacon Recreation Center, and the Beacon Farmer's Market and were able to gather input from approximately 30 people.

Public Comment Period

Once the information was gathered from each of the three different outreach efforts, a draft sustainability and climate resilience vision was created. CCE staff launched the public comment period for the draft vision at a City Council Workshop meeting, leaving the public comment period open for three weeks. The public comment period for the draft vision was highlighted on the City of Beacon's website's homepage, announced on social media, and sent to Beacon residents in the sustainability newsletter.

Questions about the vision document or process can be directed to Danielle Salisbury, Cornell Cooperative Extension Dutchess County: ds778@cornell.edu

Appendix B- All responses from “A future climate resilient Beacon would...” and “A future sustainable Beacon would...”

Be socially resilient

- [have] a community response system that provides appropriate, respectful care and support to all residents - before, during, and after disasters. Meaning, have the community fabric in place to actually be resilient to climate or any other crisis
- support all residents in bouncing back from natural disasters
- prioritize vulnerable residents first
- ensure ability to protect the most vulnerable population...
- [collaborate] with local schools, universities, community organizations and nonprofits to ensure the needs of all residents are always top of mind
- support neighborhood outreach groups
- continue the “good neighborhood community”/checkup [where neighbors check on neighbors]
- [be] focused on the outliers, it makes the design better, and in terms of resiliency, it strengthens our position...
- ...make sure generators are easy to get (affordable), and that people lose power for less time
- [have a] program that offers subsidies for people to get generators
- keep wifi when power goes out, town-wide hotspots
- promote a municipal wifi service (perhaps one that could be shared across the river, as well), so that folks could move freely about the city, or stay in their own homes, and be able to have access to information and future work opportunities that are online
- have better communication for when a drought is coming
- increas[e] budget and manpower to police, fire and ems to better serve the community
- ... [have] protection for businesses as well as residents...
- defund the police and prioritize funding children/youth, climate resiliency, and equity for low income and working class people
- place a much greater emphasis on the co-existence and co-habitation of its sister city of Newburgh, ideally returning much more regular ferry service between communities and allowing for a much more fluid connection and collaboration of communities, sharing of resources, and mutual aid networks across the river
- have robust mechanisms to communicate with the entire town easily and quickly
- [have] social justice... be front and center
- [be a community] where community comes first, science is respected in decision making and cooperation valued to create regional networks of support
- have more for youth (8-12 y.o.), things like cooking classes, art , painting/ crafts
- [have] a social contract between the residents and the city on sustainability, which starts with social consciousness...
- help the homeless
- keep the community clean
- [have] block parties so people get to know each other
- strengthen neighborhood/community tie-city support for mutual aid
- [have] more mental health resources
- [have] community health support
- be ready to have compassion when you bring uncomfortable ideas to the forefront (ex. switching lawns to meadows, making the car not king- more bikes) and having compassion for the people who can't walk as much
- be ready to bring radical cultural change
- [have] more dancing! And more opportunities to get silly with each other
- [have] more community space in a central location
- ensure everyone has affordable housing (even free / heavily subsidized in some cases), and quality healthcare services. This needs to be a wonderful place to live not just for affluent white people but ALL people.
- advocate to raise taxes on the very wealthy so we could invest more in our community and the services people need: healthcare, education, art, green space, emotional

support, community gatherings, free childcare, public transit, etc. We would spend a lot less on police and lot more on schools, arts, community health, and the environment.

- look at interlinkages between social and environmental tipping points we are at. Prioritize the aspects of climate change and other environmental protection that respond to needs of Black Beaconites and other people of color in our community, as a first phase. Look at data on who lives closest to sources of air pollution.
- [have] rent stabilization (Main St. in particular)
- [have] no more luxury rental units/housing-need more affordable housing
- [have] more creative places... and continue community events...
- market "BeaconBold" and be more BOLD about climate change- let's figure out how to do things and make it work, not be defeated by lack of funds

Invest in resilient infrastructure

- include that infrastructure would be retrofitted to not face damage
- [have] home[s] retrofitted to with stand future hazards
- [have] housing that is resistant to rising waters or shifting land from erosive damage.
- look like a successful public works project
- [have] better weatherization on homes, more heatpumps
- have independent power sources and better infrastructure for power delivery
- mov[e] power lines underground to protect infrastructure from weather hazards
- maintain roadway surfaces throughout the year
- ... protect critical infrastructure
- provide citizens with instructions and incentives to make their homes and properties more beneficial for the planet (sustainable lawn practices, gardening, and efficiency improvements)
- [have] buildings resistant to flooding
- [have] more storm water mitigation, creation of green spaces and thoughtful development practices with regard to density. We have a lot of asphalt municipal

parking lots to mitigate here, some co owned with the county, so cooperation will be important

- have rain catchment systems instead of letting it all flow into the sewer. We'd have plantings to secure topsoil.
- [have] more large street trees, ... more permeable cover pocket parks to catch runoff
- creat[e] more shade in parks and throughout Beacon through planting of trees and/or building of shade structures (Then had a conversation about how Memorial Park has little shade)
- have lots of parks and green spaces all across town where all residents, especially Black and brown families, feel comfortable, safe, respected, and included.
- retrofit infrastructure to be more impermeable (sidewalks, roads, etc.)
- only support serious ecologically sustainable building methods including materials and waste management.
- scale back new development and focus on renewal of old systems. Limit tax breaks and incentives in order to increase city budget for protection of community assets and investments Limit variances in city code in regards to development.
- consider good/sustainable methods for water filtration (for Hudson and reservoirs)
- have more green space, limited density, more green infrastructure.

Have an informed and educated populace and municipal staff

- have an informed and engaged populace
- be educated about climate resiliency
- have extended education opportunities available to all residents on sustainable backyard and urban farming techniques and practices, even as climate standards begin to shift, so that folks can continue to be self-reliant and subsist despite shifts in climate and socio-economic turmoil
- include more education for the general public (it requires a LOT of education)
- somehow find a way to take the politics out of the idea of climate change. Before we can actually address trying to solve or adapt to climate change, we must all believe it is

happening and not feel it's part of an "agenda" for one "side" or the other.

- study impacts of temperature rise, air pollution on our natural assets (to give residents information about the consequences of climate change on their immediate lives)
- have more in place to prevent drought (education...)
show people how to reuse what they have instead of buying new things. I filter my water, I don't buy water
- ...show people how they can be more sustainable. EDUCATION! Show people how to finance green projects and get tax credits
- integrate [sustainability] into the education system to educate residents
 - Utilize educational programs to provide services for residents
- prioritize education for our young people
- If NYSERDA included a analysis for climate related risks when it did weatherization audits maybe people would be more aware of flooding risks, overhanging trees, or other predictable climate related physical threats
- be environmentally progressive in our thinking. The community needs to be educated to demand that.
- pay for the expertise which informs policy... A lot has to happen at the government level, and they need experts to inform their thinking. They are not experts on green infrastructure, etc.
- [have] community training/employment for pro-active measures
- ... [have] more education farms closer to the City...

Be prepared for future climate hazards

- put aside money for climate, because there are going to be costs
- having a plan is important. Public space is useful to have in this situation, people need somewhere to go and congregate. Dedicated space to house people in a climate hazard/disaster
- plan ahead
- be prepared for extreme storms, winter weather in general

- Reallocate funds into school buses and public transportation to make sure they can be up and running
- Volunteer and emergency services are ready to go
- have no downed trees after storm...
- check tree branches close to homes and wires [and educate the public on who to call]
- be prepared to help and get going as fast as possible when wires come down and power goes out
- do more to check on the health of trees preemptively
- [have] solar traffic lights for emergencies
- [encourage residents to] keep flashlights around the house
- continue services from Central Hudson and the City [on pre and post climate hazard prep]
- have better management of our city trees, regular pruning for safety and health of the trees.
- [have] mindfulness of city water use and overdevelopment, currently not enough water resources to keep up with rapid expansion of population growth in the city.
- have clear disaster plans that everyone contributes in creating and understands.
- include planning for the long term, including urban planning and infrastructure as well as sustainability.

Encourage local food and business

- take into account agriculture and how climate hazards impact local food supplies
- have to go more natural, be more sustainable, we have to grow our own food, plant more, anywhere there's space, we have to involve the community, we have to show people how to grow food
- ... [have] more locally grown food using sustainable methods
- [have] community gardens all across town that provide residents with fresh, organic produce
- have more food grown in and around Beacon to be distributed to Beacon residents in need
- encourage buying and utilizing (sourcing) local products (not sourcing from far away)
- [have] Local food support and help make it more affordable

- eat more locally and shop more locally
- [have] even more robust local food system that can feed and support all the residents
- be more self-sustaining. We would have our own, local internet provider that is free/affordable, fast, and reliable. We would grow more local food and distribute it. Local businesses would work collectively to reduce waste and carbon pollution; hire and respect BIPOC staff; and pay all of their staff equitably
- make sure all the local shops are still here, keep them so they are always here (don't rotate out too quickly, not a high turnover)
- [have] eco/sustainable tourism. People can enjoy it without destroying it. There can be a balance.
- ... [have the] trolley on Main street [restored] (charm, property values, reduce traffic)
- bring more jobs (local jobs)
- [have] more...urban farms...community farms...larger farmers market

Mitigate and adapt to climate change

- work to mitigate climate change
- ensure we minimize our contributions to the root of the climate change problem - mitigate our own emissions
- be responsive and adaptive to environmental changes and threats.
- focus on areas of most flooding risk ie lowlying areas - for reinforcing / making more resilient.
- ...[encourage] land trusts, Sea level studies, Air quality studies,
- make sure that we are not at increased risk for weather changes and major weather events like floods
- have more in place to prevent drought (...redundancy in systems)
- protect the mountain from overuse (ATVs and hikers)
- ...[have] carbon-absorbing buffers along the edges of Rt 84
- include composting, a system for residents and business to compost within the City
- ...[have] composting in cafeterias, less disposables
- plan in regards to understanding compost and making compost. We could use

cardboard, we could shred many things and make soil. Reusing plastic, for ex. seedling trays, so many ways we can reuse!

- every parking spot in the city has a voluntary meter w/ message saying "parking is free, but can you contribute to a Sustainable Beacon?"
- set up more recycling bins. Only garbage cans on Main St. but there should be recycle bins next to them. Recycling bins in the schools too!

Encourage alternate transportation

- include bike lanes
- encourage other modes of transportation
- de-emphasize the necessity for car traffic, and promote both more extensive public transportation including electric bus service, much more prominent emphasis on biking (high-visibility bike lanes, if not bike-only routes) and walking about town, while also providing for accessibility for less-abled persons, simultaneously
- [have] free, electric, public transit
- [have] more pedestrian paths everywhere (sidewalks, walking paths through Memorial Park) safe flow of pedestrian traffic and bike traffic
- ... [have] bike lanes and racks...
- ...[have] more frequent public transportation including to Newburgh, Poughkeepsie, Cold Spring, Wappingers...
- have Amtrak and MetroNorth not running on diesel
- have fewer cars, bikeable streets, ...electric busses...
- ...make possibly travel by walking, biking, and mass transit more viable (bike paths, bike racks, more frequent service on the beacon loop)
- have less cars...
- encourage bike use

Invest in renewable energy

- [have] Community/utility scale solar, wind, geothermal
- have solar panels on more houses and have more geothermal and make it free/affordable for residents
- implement renewable energy that is not tied to the grid

- have more storage for local renewable energy
- be proactive! Specifically about power (and invest in being proactive, invest in solar)
- be self-contained with public power from entirely local, renewable sources like solar, wind, and even hydro, if that's a local possibility
- run off of energy that is sustainable and renewable and does not rely in a major way on "the grid"
- [have] more green energy- normalize it
- provide and communicate incentives for energy efficiency and green energy
- [have] green energy- creating jobs, transitioning off coal
- [consider a] windmill along river?
- have less cars and more renewable energy sources
- use green energy...
- ...[have] more renewable energy sources
- have schools with solar panels on roofs...
- solar ferry services
- work with neighboring communities and the broader region to invest in more renewable energy...

Preserve natural resources

- preserve as much open green space and have more parks
- [have] Clean air and clean water for all residents
- have cleaner, better air, water, better use of land.
- ...[have] Fewer grass lawns and field, more pollinators and trees and vegetables etc.
- seek to decolonize and re-indigenize the land, the resources, and the processes by which we interact with them.
- ...value green space and put the natural environment as the focus over profits.
- make sure all the parks are still here,
- have less pollution in the Hudson
- [maintain/improve the] railtrail
- [have] CLEAN PARKS!
- [have] more garbage containers in parks and public spaces
- [have] the mountain railway restored...
- empty the prison to save water (and it's humane)

- have no more construction- no more new buildings

Have a resilient Waterfront

- have a coast line built to better process floods and water surges
- [have] a protected/fortified waterfront to protect train, homes and businesses
- have a waterfront that can hold storm water and shield people, roads, and buildings from flooding using a combination of public parks and natural areas such as wetlands
- [have] Long Dock shored up so we don't lose that park
- clean up invasive species (water chestnuts)
- [have] A sea wall on the entire waterfront!
- ...[have] an active waterfront with sailboats and kayaks