Village of Athens Climate Resilience Vision

DRAFT for public comment

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Background

Climate change is an ever-present threat, and brings an expected increase in temperature, more extreme precipitation, and rising sea level over the next few decades. These factors are of special importance to the Village of Athens, which is located directly on the waterfront of the tidal Hudson River. In recognition of these climate hazards, the Village of Athens has taken the initiative to gather input from residents, stakeholders, and municipal leaders to create a Climate Resilience Vision.

A Climate Resilience Vision gathers community input on what a climate resilient community would look like in the future. The Village of Athens, with assistance from Cornell Cooperative Extension of Columbia and Greene Counties and in conjunction with the Village and Town of Athens Comprehensive Plan Steering Committee outreached to over 500 community members through various methods over a period of five months to gather input on these topics (Appendix A). From this input, the following vision and guiding principles were created to ensure that climate resilience progress is consistent with the community's desired outcomes.

Visions and Principles for a Climate Resilient Athens

The Village of Athens envisions a community that strives for resilience while maintaining the historic, "small town", and waterfront characteristics that make it special. A resilient Athens would be prepared for climate hazards that threaten these features. The following principles, developed with public input in mind, serve to conserve, promote, and enhance resilience in the community.

A future Climate resilient Athens would:

1. Be prepared for future climate hazards
2. Mitigate and adapt to climate change
3. Protect natural resources, water and air quality
4. Foster a resilient Hudson River Waterfront to serve community needs
5. Conserve open space and scenic views
6. Invest in resilient infrastructure and services
7. Encourage alternative transportation
8. Increase energy efficiency and use of renewable energy
9. Encourage local food systems

Be prepared for future climate hazards

The Village and all residents are aware of future climate hazards. Planning efforts for hazard mitigation and disaster preparedness have been developed and are communicated to residents. These efforts are considerate of vulnerable populations. The community is aware of emergency notification systems, evacuation routes, flood zones, and shelters.

Mitigate and adapt to climate change

The Village will promote programs and policies that support climate resiliency and sustainability. The community will work to reduce emissions, minimizing the root of climate change. Actions will be taken to mitigate current and predicted climate hazards. Responses to climate hazards will be adaptive.

Protect natural resources, water and air quality

The environment is protected from degradation and sustains the quality of natural resources, the rural landscape, habitat quality, and biodiversity. Environmental assessments and management tools are utilized to accomplish this. Air and water quality are protected from pollution. Opportunities to clean up formerly polluted or degraded sites are explored and perused when appropriate.

Maintain a resilient Hudson River Waterfront that serves community needs

The Hudson River Waterfront is regarded as a prized community resource. It serves as a centerpiece for recreation, social, cultural, and economic activities in Athens. Expanded use and any new development on the Hudson River Waterfront are resilient to sea level rise and flooding. New industrial uses on the waterfront are limited.

Conserve open space and scenic views

Scenic views of the rural environment, the Hudson River, views of the Catskill and Berkshire Mountains, open spaces and other important physical features in Athens are preserved. Open space and wetlands serve to aid in the Village's resilience to climate hazards.

Invest in resilient infrastructure and services

Sewer, water, and stormwater infrastructure will be updated, effective, and preserve water quality, and critical infrastructure will be resilient to climate hazards. Services will be in place support recycling and composting needs of residents. The Village will be connected by safe and walkable streets. Re-use and rehabilitation of structures will be adaptive to climate hazards. Codes related to infrastructure and services will be updated to meet community need and will be enforced.

Encourage alternative transportation

The Village fosters a safe and efficient transportation network that addresses community needs. Existing streets are safe, walkable, and establish community connectedness. Pathways for walking, cycling, and other outdoor activities are established in appropriate areas throughout the area. The community is accessible to all through improved streetscapes and signage. Public Electric Vehicle charging will be available

Focus on energy efficiency and renewable energy

Municipal, commercial and residential buildings will be energy efficient and utilize small-scale renewable energy where appropriate while maintaining the character of the Village's historic structures. Renewable energy development will be consistent with Village goals as established in the Comprehensive Plan.

Encourage local food systems

Existing productive farmlands or potentially productive farmlands and working landscapes will be conserved where appropriate. Local foods, agriculturally-related businesses, niche farming will be promotes. Opportunities for and access to local food production and food processing will be advanced.

Climate Hazards in Athens

Community Climate Hazard Concerns

Community members have seen first-hand how climate hazards have affected the Village. This vision considers how participants of public input gathering view the future impacts of climate hazards. The following climate hazards rose to the surface of public input gathering efforts.

Flooding: Flooding from sea level rise due to climate change was noted in every input gathering effort. Participants of two separate SWOT analyses noted that flood susceptibility on the Hudson River waterfront was a community weakness. The public survey found that 35.39% of participants regarded flooding as a very important issue, and 42.36% believed that flooding was important. In the open-response section, a survey respondent noted that flooding from climate change could also adversely impact local farms.

Sea level rise: In the public survey, 34% of respondents felt that the impact of climate change on the community including sea level rise was very important, while an additional 37% of community members believed that it was important. A SWOT participant also noted that planning was necessary for potential sea level rise.

Storm surges: Storm surges due to climate change were also a community concern. In the public survey, 34% of respondents felt that the impacts of storm surges were very important, and 37% indicated that it was important. In the open comment section of the survey, a respondent noted that storm planning and disaster preparedness efforts were necessary.

Air and water Quality: Community members expressed concerns with the current air and water quality in the Village, and seek to preserve the quality of air and water in the future. They note that aging infrastructure may impact water quality, and believe that repairing these systems may be an opportunity for community resilience. Of particular concern are emissions and pollutants that are at the root of climate change and environmental health.

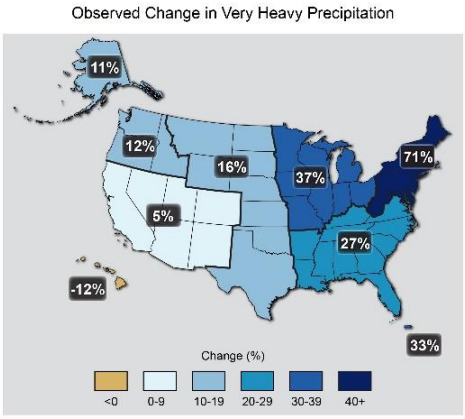
Local Climate Hazard Projections

Sea level rise: The mid-range projections for sea level rise along the Hudson River is approximately 10 to 20 inches by mid-century and as much as 50 inches by 2100. However, it is possible that Hudson riverfront communities could experience as much as six feet of sea-level rise by the end of the 21st century if rapid ice melt occurs.

SEA LEVEL RISE PROJECTIONS FOR THE HUDSON

	Baseline 1971-2000	2020s	2050s	2080s	2100
Low estimate of rise in sea level	-	1 - 2"	5 - 8"	10 - 13"	11 - 15"
High estimate of rise in sea level	-	9 - 10"	27 - 30"	54 - 58"	71 - 75"

Increased precipitation: Precipitation in the northeast has become more variable and extreme. Projections indicate total annual precipitation should increase as much as 11% by mid-century and 18% by 2100.



PRECIPITATION PROJECTIONS FOR WEST OF THE HUDSON

	Baseline 1971-2000	2020s	2050s	2080s	2100
Total annual precipitation	48"	48.5" - 52"	49.5" - 53.5"	51" - 54.5"	48.5" - 56.5"
% Increase in annual precipitation	-	1 - 8%	3 - 11%	6 - 14%	1 - 18%
Days with precipitation > 1"	12	12 - 13	13 - 14	13 - 15	*
Days with precipitation > 2"	2	2	2 - 3	2 - 3	*

Conclusion

Residents, businesses, stakeholders, and municipal leaders in the Village of Athens value their waterfront, historic community that features beautiful green spaces and plentiful natural resources. These values, in combination of what community members viewed as climate hazards guided the creation of a strong vision of what a climate-resilient Athens would look like. This vision will help guide the creation of a resilient Village that preserves the foundational characteristics of the community. Each guiding principal included in this resilience vision should be considered in future planning efforts in the Village of Athens. Considering these principals will ensure that progress will be consistent with the community's vision of a home that is resilient to the threats of climate change.

Appendix

Appendix A: Outreach Efforts

Outreach efforts for the Climate Resilience Vision were conducted in conjunction with the development of the Village of Athens Comprehensive Plan. This vision was built upon public consensus on key issues and common goals by receiving feedback from appointed leaders, business owners, and residents. Two different methods were used to gather input: targeted SWOT analyses and a public survey. While these methods included input gathering for many aspects of the Village and Town, questions related to climate resilience were included to develop this vision specifically, as well as inform the Comprehensive Plan process.

Two SWOT (strengths, weakness, opportunities, and threats) analyses were conducted with different audiences. The first included input from members of the Comprehensive Plan Steering Committee. Despite being an appointed committee, they were made up of residents, stakeholders, and business members with the intent to represent the community. The second was conducted at an input gathering workshop for Village and Town municipal leaders.

A survey of the general public was also conducted. Efforts to encourage participation were made by mailing a postcard with information about the survey to all residents and businesses, posting on the Village's social media and website, and announcing it in the monthly community newsletter. The survey was available on the Village of Athens Website and paper copies were available at the Village's municipal offices. The survey was open from July 20th until August 12th. 497 people responded to the survey, which addressed climate resilience in the "Environment, Open Space, and Scenic Views" section. This section featured 13 specific questions which respondents could rank as "Very Important, Important, Not Important, or No Opinion." Respondents were also invited to provide additional comments related to the environment in an open-response section.

Appendix B: SWOT Analysis

The following strengths, weaknesses, opportunities, and threats as they relate to climate resilience were identified by two groups of residents, stakeholder, and municipal leaders.

Strengths

- Waterfront
- Open space and rural character
- Hudson River
- Mix of density
- Commitment to climate smart and clean energy initiatives in the Village

Weaknesses

- Aging infrastructure- sewer is bad, and every storm has a Riverkeeper alert.
- Flood susceptibility –impacts waterfront
- Air quality
- Water quality
- Climate changes
- Water and sewer are again and in need of repair
- Lack of clear vision for waterfront
- Truck traffic in the village has been increasing.
- Potential rise in Hudson River water level –must plan for this
- Peckham –trucks, barges, pollution

Opportunities

- Upgrade sewer and fix water infrastructure in Village
- Pursue brownfield grant to improve former industrial/polluted areas
- Initiate community choice aggregation for electricity to lower bills
- Implement clean energy community and climate smart community initiatives
- Use solar development in to support park and recreation opportunities
- Zoning change to allow residential and appropriate waterfront uses instead of industrial

Appendix C: Survey Results

The following issues and needs were identified through preliminary public input. Each issue was rated as very important, important, not important, or no opinion. Responses are as follows:

Viewshed impact from large solar farms

Very Important: 39.91%
Important: 28.99%
Not important: 31.65%
No opinion: 7.45%

Adverse effects from industry (truck traffic, barges, pollution, and vacant industrial buildings)

Very Important: 59.32%
Important: 28.61%
Not important: 10.23%
No opinion: 1.84%

Impact of climate change on the community including sea level rise and storm surges

Very Important: 43.30%
Important: 37.47%
Not important: 22.96%
No opinion: 5.28%

Impaired air quality

Very Important: 47.37%
Important: 36.47%
Not important: 13.16%
No opinion: 3.16%

Impaired water quality

Very Important: 62.33%
Important: 31.83%
Not important: 3.71%
No opinion: 2.12%

Flooding

Very Important: 35.39%
Important: 42.36%
Not important: 16.09%
No opinion: 6.17%

Conservation of air quality and drinking water quality

Very Important: 52.25%
Important: 34.48%
Not important: 9.81%

No opinion: 3.45%

Conservation of natural resources (streams, lakes, other surface water bodies, groundwater, wildlife habitat health, and biodiversity)

Very Important: 54.76%
Important: 35.71%
Not important: 6.08%
No opinion: 3.44%

Scenic views of the rural environment, the Hudson River, and views of Catskills and Berkshires

Very Important: 56.88%
Important: 33.07%
Not important: 8.47%
No opinion: 1.59%

Energy conservation and use of more renewable energy

Very Important: 42.18%
Important: 39.53%
Not important: 14.59%
No opinion: 3.71%

Protection of the Hudson River Estuary and its associated natural resources

Very Important: 63.06%
Important: 31.93%
Not important: 3.43%
No opinion: 1.58%

More recycling and composting is needed to reduce solid wastes

Very Important: 42.40%
Important: 39.20%
Not important: 12.80%
No opinion: 5.60%

Promote green economic development and a greener community

Very Important: 39.73%
Important: 33.87%
Not important: 20.80%
No opinion: 5.60%