

Climate Resilience Positions

I. Climate Resilience Principles

The League of Women Voters of Appleton recognizes the need to take action across all aspects of climate change preparedness: mitigation, adaptation, resilience and sustainability. The positions have a greater focus on resilience because it is a gap area missing at local and state levels. We studied the various concepts of resilience and focused on the principles developed by the Rockefeller Foundation because it provided the most robust framework based on the experience of hundreds of cities.

Position statements:

- A. Advocate for Socio-Economic Equity & Justice as a core goal and component of all Climate Mitigation, Adaptation, Resilience and Sustainability plans for our area, so all residents are uplifted, and no one is left behind.
- B. Assert that one of the core roles of a Chief Resilience Officer (CRO) is to engage communities and vulnerable populations impacted by climate disruptions and pollution to build trust, communication flow and implementation of community-driven planning processes. This is a role that is currently undervalued or under-resourced.¹
 1. Advocate that the position of CRO should be filled with a qualified professional with credentials in climate change preparedness and resilience including:
 - a. Bachelor's degree from an accredited four-year college or university; Master's degree preferred;
 - b. at least four to eight (4-8) years of work-related experience;
 - c. credentials in climate change preparedness and resilience, or be willing to obtain the credential while on the job, from organizations such as the Association of Climate Change Officers ACCO, Certified Climate Change Professional® (CC-P®) or the Resilient Cities Network, etc.;
 - d. strong interpersonal and communication skills to effectively interact and communicate with Emergency Management teams, government departments, public and private entities and communities within the region.
 2. Advocate to use communication expertise across all stages of resilience planning & decision-making to increase trust and participation among the public and vulnerable populations.¹
- C. Assert that the function of each County Emergency Management Director and team is critically important for strategic long-term preparedness planning. Therefore, they need to have unencumbered access to the highest level of decision-maker, such as designation as an independent department. The EM Director position needs to be filled with a qualified professional with years of EM experience and Director level certification from FEMA.
- D. Advocate for the establishment of an enabling policy governance framework that addresses barriers (legal, behavioral, financial and institutional) to the implementation of climate mitigation, adaptation and resilience interventions. The policy governance shall also provide mechanisms to review existing development plans and policies.²
- E. Advocate for aligning all policies with climate mitigation, adaptation and resilience goals for our region.²
- F. Encourage finding synergies across policy sectors in our region such as those related to water, energy, food, housing security and health.²

- G. Advocate institutionalizing ongoing resilience governance with a process that includes consistent baseline measures, data gathering and progress measurements towards the desired resilience goals.
- H. Collaborate with local government Task Forces and community grassroots groups that are working on Climate Change mitigation, adaptation, resilience and justice in the effort to educate themselves and the public about fast-moving information, science and technology.

Climate Resilience Principles Footnotes:

- (1) “Community-Driven Climate Resilience Planning: Framework Version 2.0” lead author Rosa Gonzalez, National Association of Climate Resilience Planners, May 2017. Website link: <https://www.nacrp.org/>
- (2) “Integrating Climate Resilience in Policy and Planning of Low Emission Development Strategies,” Sections 3.1.3 and 4.3 by Barbara C.P. Oliveira, et.al., EcoSynergy Working Paper, October, 2015.

II. Financing Climate Resilience

The League of Women Voters of Appleton understands that the urgency of financing climate resilience takes place on the global, national, regional and local level. A paradigm shift is underway that is changing societies' assumptions, values, policies and practices. This is moving forward-thinking communities to higher economic performance and resource efficiency, ultimately creating economically-thriving communities and long-term sustainability. These financial action statements help provide a vital framework for our climate resilient future.

Position statements:

- A. Advocate for funding of the Regional Climate Resilience Officer and their dedicated team, and continue to support their relevance in developing regional and private/public partnerships, facilitating accurate risk and investment assessments, prioritizing needs and identifying funding through traditional and new resources. Climate risk affects the entire interconnected economy and must be considered in all financial decisions.
- B. Advocate that all decision-makers balance transparent financial climate risks with opportunities and return on investment. We support funding assessment/measurement of:
 - 1. the financial risks incurred by failure to transition from fossil fuels and continuing to respond to climate change impacts reactively (e.g., with “bailouts”), as compared to...
 - 2. the opportunities from proactively investing to fund climate resilience and less expensive renewable energy, as well as important added value/returns on investment (e.g., green building and infrastructure are long-term assets in a city’s portfolio).
- C. Support and encourage major transitions to net-zero carbon economies and social equity goals. This requires a paradigm shift that has already begun and continues to increase in speed. Corporate profits and losses will be determined by sustainability decisions such as divesting of fossil fuels, investing in renewables, and fostering social justice and inclusion. This work requires a well-founded sense of urgency and a shared vision across all sectors of our economies at every level.
- D. Advocate for financing organizational and individual climate preparedness and resilience, both with traditional investments and financing plans (i.e., PACE and other private/government grants, tax revenue and tax incentives, issuing government, green and catastrophe bonds, and borrowing and buying reinsurance), as well as with creative, new funding resources (e.g. special reserve funds, value-capture, raising revenue through a carbon tax, performance contracts, pooling purchasing power, aligning shared goals with public utilities).
- E. Support dedicated budget funding for both hazard mitigation and resilience, as called for in the Phase One Position Statement.

- F. Advocate for the funding of more resilient designs for damaged/outdated infrastructure rather than simply replacing existing projects, even though they may initially cost more.
- G. Using the Collective Impact model, encourage private/public partnerships to help fund climate preparedness and resilience initiatives for the benefit of all stakeholders (citizens, employees, leaders, investors, etc.). Relationships between public and private organizations, as investors or philanthropists, are key because 80% of the nation’s resources are in the private sector¹ and private companies benefit from a resilient community and workforce.
- H. Encourage financial incentives to support new technology and renewable energy and job creation initiatives for individuals, as well as for local businesses and organizations in the transition to long-term sustainability. This is an investment in social and human capital, as in retaining our young people.
- I. Advocate for government policies that overcome market failures, for example putting a price on carbon.² Place accountability on governments, companies, financial institutions, and other organizations for disclosing/reporting accurate risk assessments, real costs and encouraging action to benefit the greater public good. Support corporations/businesses to advocate for needed regulations that will facilitate the transition to sustainability.
- J. Support education of individuals and organizations as consumers and investors. Make them aware of their decision-making power related to where they bank and where they invest their money. Also, encourage financial choices that support their climate resilience (e.g., purchasing flood insurance, using incentives and grants for upgrades to more efficient energy usage, retrofitting for using more clean energy to reduce their carbon footprint). People and organizations vote with their wallets.

Financing Climate Change Footnotes:

- (1) Patrick O’Connor, Director, Bureau of Response & Recovery, Wisconsin Emergency Management (WEM) – *Partnerships video* link: <https://dma.wi.gov/DMA/wem/resources/videos>
- (2) [Resolution #2018-06](#); passed at the 54th LWVUS National Convention in 2018

III. Vulnerable Populations

We advocate for the rehabilitation and building of a new supply of climate resilient green affordable housing, ensuring equitable access to all and prioritizing the needs of very low-income working families and other vulnerable populations. We encourage the use of collective impact partnerships across public, private and non-profits with common goals related to increasing climate resilience among vulnerable populations and fostering stronger socially-connected neighborhoods, such as Asset-based Neighborhood Organizing, the method of the Abundant Community Initiative in Edmonton, Alberta, Canada.

Position statements:

- A. Advocate to eliminate systemic social/racial barriers and make EQUITY a central principle in making basic need decisions for all residents in our tri-county area such as housing, health care, emergency services, community planning, land use, communication (including broadband).
 - 1. Support current and promote new legislation at Federal, State and local levels that: enables and guarantees the right to housing for all individuals; strengthens neighborhoods and community resilience; builds public climate resilient housing and invests in private climate resilient affordable housing.
 - 2. Advocate for:
 - a. Reforming systems, laws, policies and regulations that limit or delay the creation of affordable housing.

- b. Dismantling racial discriminatory practices, zoning impediments (e.g., redlining) and other barriers to ensure equitable access to rental housing and home ownership.
 - c. Strengthening the protection of tenant and landlord rights including new ways of enforcing social/racial equity such as:
 - i. Housing Choice Vouchers (HCV).
 - ii. Increase numbers and broad acceptance of HUD Section 8, safe ways for tenants to report complaints related to violation of their rights or any harassment by landlords or neighbors.
- B. Advocate for incorporation of climate resilience and green¹ building principles in all urban and rural land use plans.
1. Press for prioritization of the needs of all vulnerable populations, with special emphasis on rehabilitation and new affordable housing for very low-income (VLI)², extremely low-income (ELI)³ working people, and communities of color. They must be given the opportunity to communicate their own needs during the planning process.
 2. Support legislation such as directives to design, build and operate units using the latest standards of environmental sustainability, stewardship of land and renewable sustainable energy.
 3. Advocate for updating of State and local Building and Zoning Codes to include principles of climate resilience with higher mandatory standards of energy efficiency and minimum green standards.
 4. Advocate for the requirement that a climate/environmental risk assessment of primary and secondary hazards be conducted on proposed sites for new housing and rehabilitation projects to better inform location selection. This will ensure a more holistic approach to incorporate latest mitigation/resilient, land use and green infrastructure measures.
 5. Encourage use and expansion of federal, state tax credits such as the construction of housing developments using the ‘Zero Energy Multi-Family’ Low Income Housing Tax Credit (LIHTC).⁴
- C. Advocate for provision of a variety of funding sources, incentives, flexible financing, and educational support across the network of lenders, builders, developers, real estate, landlords, and communities.
1. Advocate for new funding mechanisms, including collective impact partnerships among local, regional public, private and non-profits groups with common missions and goals related to climate change resilience and the intersections with vulnerable populations, housing, and health.
 2. Educate and promote the benefits and long-term value of resilient, green affordable housing and infrastructure projects. Promote using Life-cycle Costing in which both capital and operating costs are considered over the expected life to better reflect the full project economics.⁵
 3. Promote and advocate for state and local grants to incentivize new production and retrofit/rehabilitation of green affordable housing.
 4. Advocate for the LWV-Wisconsin State Housing position⁶ related to support of the Housing and Rehabilitation and Conservation program, which made deferred payment and low-cost loans available for rehabilitation of deteriorating housing; creation of a Migrant Labor Council to regulate employment and housing; group homes, supported under Administration of Justice and Social Policy positions.
 5. Advocate for the urgent need to increase the state minimum wage to provide income sufficient to afford the Fair Market Rent⁷ in the area without exceeding 30% of median income to avoid being

in the cost burdened classification.

6. Support awarding grants to homeless and very/extremely low-income people.
 7. Advocate for, and support creation of, new state and local partnerships to offer small amount mortgage loans (e.g., below \$75,000) at reasonable interest rate to enable more home ownership.
 8. Advocate for a greater number of income supplements (e.g., Housing Choice Vouchers, grants) to improve access to safer resilient rental housing for all.
 9. Support Federal and State Low Income Housing Tax Credit (LIHTC)⁸ programs which serve Very Low Income and Extremely Low Income tenants.
 10. Encourage state and local governments, planners, and builders to reach out to experts in green and climate resilient building (e.g., The Urban Land Institute, New Ecology, Inc., and Green Home Institute).
 11. Educate communities, organizations, lawmakers and all residents about the many benefits of having mixed-income, mixed-use housing developments and diverse neighborhoods. Message repetition will be needed to dispel the negative concepts created by the old-school public housing income segregation of decades past.
- D. Encourage the use of the five-step Building Resilience Against Climate Effects (BRACE) framework to identify likely climate impacts in our communities, potential health effects associated with these impacts, and the most at-risk populations and locations so that the health care department, emergency management systems and regional chief resilience officer can develop mitigation, adaptation and resilience plans to address critical gaps.
1. Advocate for establishment and use of location databases of vulnerable people and their relocations.
 2. Advocate for and promote systems and emergency plans that:
 - a. Include key factors affecting communication and evacuation plans across different vulnerable populations such as language (Spanish, Hmong, etc.), hearing, sight or mobility impaired needs.
 - b. Provide information, money and other support when and if relocation is needed.
 3. Advocate for frequent community and neighborhood educational and emergency simulation exercises including vulnerable communities. Foster the opportunity of re-galvanizing neighborhoods around the common need of improved social connectedness, health and climate resilience. Among recommended strategies are the following:
 - a. Create partnerships among community-driven groups, local government health programs, emergency response programs and private organizations with common goals (for-profit and non-profit).
 - b. Increase education about poor air quality and what can be done to minimize health impacts from hot weather air pollution days.
 - c. Develop procedures to identify, communicate and provide cooling services to heat-stressed vulnerable populations.
 - d. Reduce the number of mosquito breeding sites found in urban and rural communities and at individual homes, while also protecting and expanding wetlands. Provide pest and disease education to recreational land users. Monitor tick and mosquito populations.
 - e. Restrict building and chemical storage on floodplains.
 - f. Identify and test wells that are at risk of contamination from natural runoff and flooding.

Vulnerable Populations Footnotes:

- (1) Green building practices have been established after several decades of practice around five principles:
 - Sustainable Site—this approach optimizes land use and development to reduce adverse impacts and minimize the building’s ecological footprint.
 - Energy Efficiency—this technique focuses on the establishment of performance targets that account for intended use, occupancy and other energy operations for new construction and renovation projects.
 - Water efficiency— this technique emphasizes the value of decreasing demands for fresh water and reducing the generation of wastewater through optimized landscaping, integrated rainwater catchments, gray water recycling, and wastewater treatment systems.
 - Building Materials—by using sustainable construction materials and resources, green building materials have aided the reduction of volatile gases, extraction, processing, transportation, solid waste, and consumption.
 - Healthy Indoor Environmental Quality—these processes have enhanced the sustainable communities through ventilation and thermal comfort, moisture control, daylighting, environmental tobacco smoke control, and protecting indoor air quality during construction.
- (2) Very Low Income (VLI) is defined by HUD *1998 Public Housing/Section 8 Income Limits* as 50 percent of the median family income for the area, subject to specified adjustments for family size and areas with unusually high or low incomes.
- (3) Extremely Low Income (ELI) definition was modified by HUD in 2014 to cover families whose incomes do not exceed the higher of: Federal Poverty Level or 30 percent of Area Median Income.
- (4) A recent study from Myers-Lawson School of Construction, Virginia Tech, USA, demonstrated the feasibility of Affordable Housing Developments using Zero Energy Multi-Family Low Income Housing Tax Credit (LIHTC).
- (5) 2005 “The Cost & Benefit of Green Affordable Housing” by Bradshaw, et.al., New Ecology, Inc.
- (6) League of Women Voters of Wisconsin – Position Papers Updated 2016, Housing Section under Equal Rights, page 61.
- (7) National Low Income Housing Coalition, Out of Reach (OOR) Wisconsin report which is issued annually.
- (8) Low-Income Housing Tax Credit (LIHTC) program is administered by the Internal Revenue Service (IRS). Pursuant to an IRS revenue ruling, participating properties base their rents on the income limits that HUD is mandated to publish. However, HUD has no control over how LIHTC rents are set and has not required or suggested rent increases.

IV. Water Quality

The League of Women Voters of Appleton supports actions including education, personal and collective, and budget decisions and legislation that support protection or improvement of water quality now and into the future. These actions will recognize water as an interconnected hydrologic system and common resource essential to life and all facets of wellbeing.

Position statements:

- A. Advocate to reduce Lake Winnebago levels further in the winter and delay fill by several weeks to account for increased rainfall and runoff, especially on frozen ground in the spring. This will not only prevent high flows and flooding in the lower Fox, but will also enhance beneficial wetlands in lakes Butte des Morts, Winneconne, and Poygan.
- B. Advocate for development of a new control plan for the Lake Winnebago system which prioritizes water quality, in addition to addressing flooding and navigation. To address declining water quality, the Linde Plan, which prominently emphasizes the importance of wetlands as nutrient and sediment filters, should be

an important component, as well as climate change factors, in developing a replacement for the currently used 1886 Marshall Order. Enhanced wetlands will serve as filters for sediment and nutrients (like nitrogen and phosphorus), which are reducing the lakes' water quality to an unsustainable state.¹ The new plan should include the following:

1. Safeguard drinking water by reinvigorating water quality protections and the healthy ecosystems that provide it.
 2. Increase testing and treatment of drinking water supplies to detect and treat naturally occurring and human-made pollutants such as nitrates, cyanotoxins, and other harmful pollutants such as Per- and Polyfluoroalkyl Substances (PFAS)² and other endocrine disruptors.
 3. Regulate land-based and surface-water sources of pollution in sensitive aquifers, such as karst regions.
- C. Encourage and support adequate funding to monitor recreational bodies of water for cyanotoxins produced by blue-green algae. If safe levels are exceeded, warning signs must be posted at public access points.
- D. Encourage and support funding for training programs for farmers to implement sustainable and eco-agriculture³ farming practices.
- E. Advocate for training and funding assistance to secondary schools and institutions of higher learning within Wisconsin to integrate sustainable and eco-agricultural principles into curricula.
- F. Encourage collaboration among municipal, regional, and state planners to promote the protection and improvement of water quality.
- G. Advocate for public education campaigns on the following:
1. Sources of our drinking water.
 2. Personal actions that can be taken to protect and improve water quality.
- H. Advocate for adequate funding for expedited removal of lead pipes in the water supply infrastructure in support of LWV-WI water position related to eliminating contaminated sources of water for humans and wildlife.⁴
- I. Support planning and funding for control structure improvements in the Fox-Wolf River watershed, reflecting a wetter climate regime.
- J. Advocate for improved farming and urban practices that reduce chemical, sediment and nutrient loadings into water resources, as well as:
1. Provision of increased and adequate funding to enhance advising, participation, and compliance with sustainable agricultural practices that improve conservation and reduce water and sediment runoff.
 2. Facilitation of cost-sharing and equipment loan programs to expand the number of farms utilizing conservation tillage and regenerative cropping practices.
- K. Advocate for use of renewable sources to become the dominant resources for both transportation and energy production in order to lower pollutant levels, mitigate climate change acceleration, and lower airborne nutrient inputs.

- L. Develop legislative support for regional community policies that promote better land use planning and zoning processes that protect and improve water quality.

Water Quality Footnotes:

- (1) Winnebago Waterways Recovery Plan, Fox-Wolf Watershed Alliance (fwwa.org)
- (2) Basic information on PFAS, www.epa.gov/pfas/basic-information-pfas
- (3) McNeely, Jeffrey A.. **Farming with Nature: The Science and Practice of Ecoagriculture**. United States: Island Press, 2007
- (4) League of Women Voters of Wisconsin – Position Papers Updated 2016, Water Section page 54.

V. Resilient Infrastructure

The League of Women Voters Appleton supports efforts by communities and individuals to make conservation and resource protection changes in infrastructure projects in order to support climate resilience.

Position statements:

- A. Support efforts by communities and all units of local and state government to plan and implement changes to community infrastructure that will move municipalities toward climate resilience.
- B. Encourage and ask all communities and units of government to complete baseline performance assessments of energy use, vulnerability assessments and assessments of the risk of energy loss in governmental buildings followed by continual and regular reassessment and implementation of conservation and sustainability plans.
- C. Encourage all communities and units of government to utilize a public health and climate resilience lens when developing all policies.
- D. Support plans and efforts to make the following examples of community infrastructure systems more resilient and sustainable:
 - 1. Transportation, including support for public transportation, alternative modes of transportation and limits to expanding highways
 - 2. Water treatment systems, water conservation efforts and storm water control systems
 - 3. Energy generation and transport systems and energy conservation efforts
 - a. Including the development and implementation of a coordinated energy delivery system
 - b. including promotion of creating sustainable energy systems in individual homes and businesses
 - 4. Housing and industrial development, land use and wetland planning and zoning processes
 - 5. Communication systems, including broadband, that are accessible and affordable to all
- E. Advocate for accelerating the pace of actions that can be taken now to enhance energy security, reliability and resilience using the latest climate science to anticipate future extreme weather in our region and plan for it.² Actions should include:
 - 1. Improvement of data collection, modeling, and analysis to support resilience planning.²

2. Private and public-private partnerships supporting coordinated action.²
 3. Both development and deployment of new, innovative energy technologies for adapting energy assets to extreme weather hazards.²
 4. Ensuring energy security and reliability for all area hospitals and emergency shelters such as renewable energy battery back-up power and the capability/flexibility of receiving power from near-by external source(s).
- F. Advocate for a broader overhaul plan of all components of the energy systems to improve overall climate resilience, security and reliability to withstand a variety of severe hazard events (such as heat waves, droughts, heavy rains, strong winds, and prolong deep freeze/ice)³ and build greater flexibility on both energy supply and demand sides.⁴ Build flexibility in three areas:
1. Power Generation – from a variety of resilient, sustainable sources including micro-grids, renewable technologies such as solar and wind which are now less costly than fossil fuel.
 2. Power Distribution – develop an open system capable of distributing and receiving energy within and outside our area.
 3. Power Demand – e.g., implementing data collection and smart control systems to detect and moderate increasing energy demand, especially of large buildings that represent a large proportion of energy consumption.⁴
- G. Support sustainable use of community resources.
- H. Encourage conservation and sustainability by individuals, families and industries, as well as by the community as a whole.

Resilient Infrastructure Footnotes:

- (1) New York Times: “**A Glimpse of America’s Future: Climate Change Means Trouble for Power Grids**” by Brad Plummer Published Feb. 16, 2021 and Updated Feb. 18, 2021.
Link: <https://www.nytimes.com/2021/02/16/climate/texas-power-grid-failures.html?searchResultPosition=1>
- (2) U.S. Global Change Research Program (USGCRP), **2018: Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II: Report-in-Brief - Section 4 Energy Supply, Delivery and Demand**, pages 70-72 [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock and B.C. Stewart (eds.)]. Washington, DC, USA, 186 pp. doi: 10.7930/NCA4.2018.RiB Link: <https://nca2018.globalchange.gov/downloads/>
- (3) Scientific American: “**Texas Power Outage Underscores Looming Climate Tests**” by Benjamin Storrow, Chelsea Harvey, E&E News Feb 17, 2021.
- (4) Applied Energy Journal Vol. 281. “**Using Collective Intelligence to Enhance Demand Flexibility and Climate Resilience in Urban Areas**” by Vahid m. Nik, et.al. January, 2021, 116106.
<https://doi.org/10.1016/j.apenergy.2020.116106>