2021 – 2027 Climate Action Plan

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CITY OF LINCOLN NEBRASKA

Contents

Letter from Mayor Gaylor Baird

The coronavirus pandemic has shown all of us in Lincoln what it is like to face a global threat together. Times have been tough as we have encountered one unprecedented situation after another. Yet, amidst the disruption and uncertainty, we have found within us deep wells of resilience. We have designed solutions to new problems. We have developed new ways to help one another. We have discovered new ways to strengthen our community.

While it has not arrived as a distinct event like the pandemic, our planet's accelerated rate of climate change also poses a global threat and one of the greatest challenges humanity has ever faced. We now know that flooding, drought, extreme heat, and public health problems are some of the most significant climate-related risks Lincoln faces in coming decades and that the potential local impacts of these risks will affect everyone. We also know that embedded in these risks lie opportunities—opportunities to innovate and create new jobs and technologies as we strengthen our infrastructure, reduce our carbon footprint, and protect our quality of life.

With this in mind, one of my top priorities after taking office was to develop a Climate Action Plan so that, here in Lincoln, we would be well-informed of the challenges we face and be prepared to mitigate them and adapt. In short, the goal is to increase our resilience to climate change.

This plan is a reflection of our Lincoln values: we are collaborative, kind, innovative, and forward-looking. This plan will come to life as it is embraced by our community with a shared purpose and a shared sense of caretaking for our future. The plan presents a myriad of opportunities to increase our resilience—and even thrive—in the face of great adversity. The time to seize these opportunities is now.

While reducing greenhouse gas emissions and increasing resilience to the impacts of climate change are critical, these goals do not stand alone. Our city is an interconnected system comprised of our health, economic, educational, transportation, philanthropic, and social systems, all of which will be impacted by the climate crisis. We recognize the interdependency of these systems and the fact that the negative impacts of the climate crisis have a greater effect on the members of our community who are most exposed. As we plan and pursue this important work, we must keep social and environmental justice at the forefront of our minds, ensuring that all who call Lincoln home have opportunities to succeed and reach their full human potential.

Now is the time for a bold and achievable vision that will chart the course for the coming years. This plan contains an ambitious goal: to reduce Lincoln's net greenhouse gas emissions 80% by the year 2050. This goal will be instrumental in aligning the direction of municipal government going forward, yet my hope is that it will provide a vision for all of Lincoln. This is a plan for the entire community. Our energy providers, business owners, universities, institutions, and residents all will have an important role to play in achieving the goals of this plan by 2050. By working together, we can harness our collective energy for innovation, for problem-solving, and for a more just community to ensure that Lincoln is thriving into 2050 and beyond.

Leirion Gaylor Baird

Mayor Leirion Gaylor Baird

Introduction

This Climate Action Plan has come about from an understanding of the need to significantly reduce greenhouse gas (GHG) emissions to slow the pace of climate change and protect Lincoln residents' way of life. The changes in climate will result in several impacts to life in Lincoln. We will experience warmer, drier summers, wetter springs, more extreme rain events, more frequent drought, more frequent and intense floods, potential economic instability from impacts to the state's agricultural sector, and a range of climate-related health impacts, including heat-related illnesses, respiratory illnesses and increased insect-borne disease. To understand more about the nature of these impacts, Mayor Gaylor Baird commissioned the development of a Climate Action Plan in 2019 to assess climate risks and recommend strategies to increase our resilience and combat climate change out to the year 2050[1].

The achievement of any great undertaking begins with a vision. "Lincoln's Vision for a Climate-Smart Future" reflects what the city of Lincoln could become over the next 30 years. It is a vision of a city that is thriving with local businesses and verdant greenways; a city that uses both ordinary and innovative measures to reduce greenhouse gas emissions in transportation, electricity and buildings; a city that is inclusive, welcoming and fair.

The City of Lincoln has a solid foundation on which to build a more resilient city. In 2017, the City released its first environmental plan, the Lincoln Environmental Action Plan (LEAP). The plan called for energy efficiency improvements, more support of electric vehicles, transit and bikes, and increased rates of landfill diversion. The city consistently ranks well above national averages and peer cities when it comes to percentage of parks and green space. Lincoln's trail systems and bikeways are also recognized as some of the nation's best. For more than a decade, the Lincoln Electric System (LES) has demonstrated its commitment to protecting the environment and its commitment to continuous improvement by reducing its fossil fuel usage, helping customers improve energy efficiency, and offering a range of sustainable programs.

This plan could not have been possible without the commitment of so many in the community who served on the Mayor's Climate Resilience Task Force, the Sustainability Working Group, the Mayor's Environmental Task Force, and many more. Following the climate resilience planning and community engagement process from 2019 through 2020, the City identified 120 key initiatives that it will prioritize over the next six (6) years. This includes a focus on the decarbonization of City fleet vehicles, municipal facilities, and the city's energy generation portfolio. Strategies to secure a second source of water supply, to build resilience from flooding in the Salt Creek Watershed Basin, and to focus on impacts to vulnerable neighborhoods and businesses are also critical. In essence, adoption of the 2021 Climate Action Plan is a crucial step forward on Lincoln's path to address climate change. There is overwhelming reason for hope and optimism, and the Lincoln community has an unprecedented opportunity to meet this moment, together.

A Global Transition

The transition to a climate-smart, low-carbon way of life is well underway. Today, solar and wind provide the least expensive sources of new electricity in two-thirds of the world. Natural gas and coal generating plants are being replaced with less expensive electricity from wind and solar farms, which are connected to ever-more affordable and reliable battery storage. The fastest growing occupation in the United States is solar installers. The second fastest growing job is wind turbine service technicians.[2]

Changes are happening with companies, cities and consumers all over the world. Over 200 of the world's largest companies have announced commitments to use 100% renewable energy in their operations, and several have already reached that goal.[3] Many of them are influencing their suppliers to switch to renewables as well, creating a strong market force for change. According to the Sierra Club, over 160 cities, more than ten counties, and eight states across the U.S. have goals to power their communities with 100% clean, renewable energy.[4] The global market share for electric vehicles has grown at about 60% per year, reaching 2.1 million in 2018.[5] By 2040, it is estimated that over half of all passenger vehicles sold will be electric.[6]

Natural climate solutions cannot be overlooked. Through photosynthesis, plants naturally remove carbon dioxide from the atmosphere, and there is growing attention to the impact that practices like planting trees, cover cropping, managing forests and timber production, reconnecting tidal marshes and restoring seagrasses could have. A recent study found that managing most land in the U.S. for carbon reduction—both limiting new emissions and removing carbon dioxide from the atmosphere—could achieve the equivalent of cutting the country's emissions by 21%.[7]

Significantly, public opinion is shifting. In Lancaster County, 69% of people believe global warming is happening, 53% say it is caused mostly by human activities, and 59% say they are worried about it. [8]A national poll in June 2020 found that voters want climate action as part of the COVID-19 economic recovery plan. Seven in 10 (70%) voters say federal stimulus funding should prioritize the clean energy industry over the fossil fuel industry. [9]

It is clear that historic change is afoot, and that the time is ripe for Lincoln to take great strides toward a climate-smart future.

Lincoln's Future Climate

The ways in which Nebraska's climate is expected to change are significant.

5 degrees

warmer than now

The mean average temperature in Lincoln is projected to increase from 52°F (1990 average) to 57°F (2050 average).[10]

44 days

annually with a heat index over 100°F

Lincoln will see a 340% increase in the number of days where the air temperature and relative humidity will yield a heat index over 100°F. Of those, 26 days will be even hotter - they'll have a heat index over 105°F.[11]

10%-16%

winter and spring precipitation totals will increase

Winter and spring precipitation totals will be 10-16% higher than current conditions, while summer precipitation will decrease by 4%.[12]

15% to 30%

increase in heavy precipitation days statewide

Heavy precipitation days in Nebraska are projected to increase 15% to 35% by 2050. Furthermore, multi-day extreme precipitation events will increase in severity.[13]

Lincoln's Climate Risks

The planning process identified 12 main areas where the city is exposed to risk in the ways that climate impacts may intersect with existing social and infrastructure vulnerabilities.

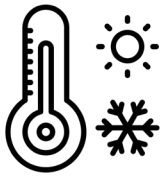
- Flooding
- Drought
- Single Water Source
- Public Health Risks
- Disproportionate Impacts on Vulnerable Populations
- Financial and Workforce Resources Not Aligned with Climate Risks and Opportunities
- City Policies Not Aligned with Climate Risks and Opportunities
- Auto-Reliant Transportation System
- Reliance on Fossil Fuels
- External Control Over Food Supplies
- Vulnerable Natural Resources
- Public Awareness

Strategic Vision

Three overarching directions form the vision for Lincoln's Climate Action Plan.

Lincoln will reduce net greenhouse gas emissions 80% by 2050 (relative to 2011 levels).

This ambitious goal will serve as a guiding target for municipal operations, the Lincoln Electric System, local businesses and institutions, and our entire community in the years to come. Lincoln joins scores of cities across the country who have set a similar "80x50" goal to reduce emissions. A myriad of strategies in the plan speak to achieving this target, from increasing energy efficiency, generating more electricity from renewable energy, switching to electric vehicles and active commuting modes, and employing natural climate solutions.
The goal is a *net* reduction in emissions because it will allow for an accounting of carbon sequestration activities—where plants or systems naturally absorb greenhouse gases—against the amount of greenhouse gases that are emitted into the atmosphere.



Lincoln will be resilient to the climate hazards it will face.

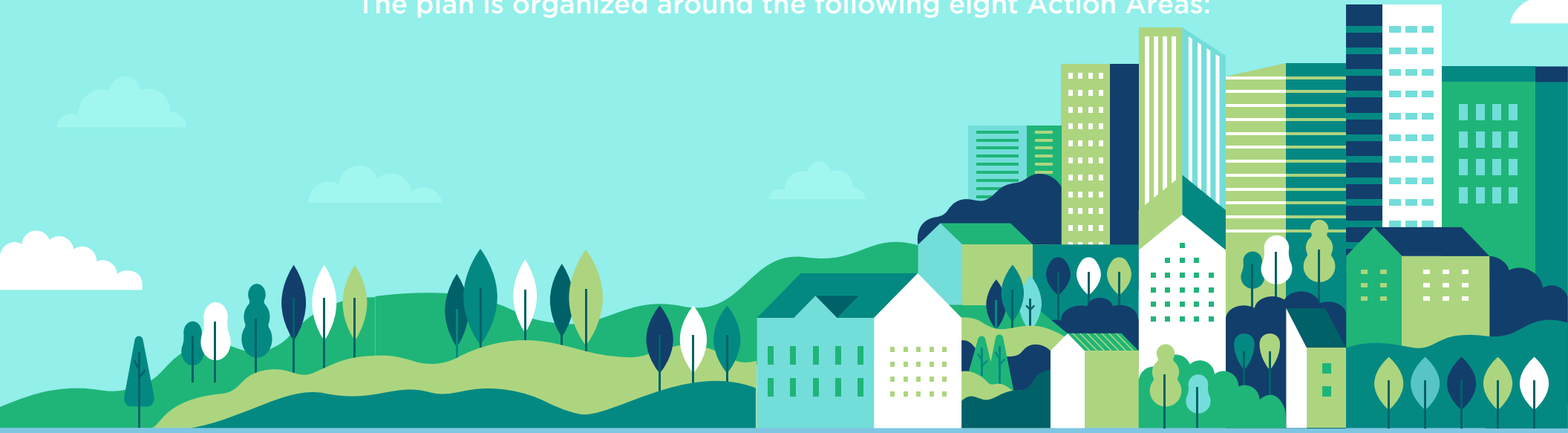
Increasing resilience to the impacts of climate change is a key outcome of this plan. While it is impossible to set a single, measurable goal that would encompass the wide range of resilience capacity the City should build across economic, demographic and infrastructure sectors, this strategic vision, like the first, will help to align actions across Lincoln to increase resilience.

Strategic climate directions and climate resilience will be integrated throughout City actions and ordinances.

Many of the strategies in this plan will be adapted into the next Comprehensive Plan. Beyond that important effort, climate resilience strategies will need to be adopted throughout municipal government in order to be truly effective.

Action Areas

The plan is organized around the following eight Action Areas:



- Transition to Low-Carbon Energy
- Build a Decarbonized and Efficient Transportation System
- Align Economic Development Goals with Climate Realities to Ensure a Thriving Economy
- Improve Protections for and with Lincoln Residents
- Build a Resilient Local Food System
- Maximize Natural Climate Solutions
- Reduce Waste
- Engage Residents in Co-Creating A Climate Smart Future

Key Initiatives

After receiving over 600 ideas from the community at the start of the climate action planning process, the draft plan incorporated 365 of those ideas for meeting the goal of reducing emissions 80% by 2050 and building resilience to climate change in Lincoln. The City's Sustainability Working Group then worked to review and assess all 365 strategies in the draft plan to determine if they were achievable in the next six (6) years (or the term of the City's capital improvement program). Following the Sustainability Working Group's efforts, and after consideration of feedback from the community, the draft list was narrowed down to 120 items in two categories: those that the City already does and will continue to do within approved authority, budgets, and resources; and new recommendations.

The City will establish an organizational structure for implementing these key initiatives including the development of relevant performance metrics. "C" indicates a continuing/ ongoing initiative that does not require additional funding or approval. "N" indicates a new initiative, most of which are supported by existing resources, funding, and authority. The remaining 20 light blue highlighted initiatives are funding dependent, regulatory-in-nature, or otherwise require additional approval from City Council.

Transition to Low-Carbon Energy		
1	Continue incentive-based (residential, commercial, or industrial) programs promoting the installation of renewable energy systems. Incentives may include offering rebates on purchasing equipment, attractive net metering pricing, tax incentives, height allowances, setback, and area-based incentives, expedited permitting, and others.	C
2	City (via Tax-Increment Financing (TIF) and Property Assessed Clean Energy (PACE)) and Lincoln Electric System (LES) (via Sustainable Energy Program (SEP)) will continue and expand incentive-based programs to promote energy-efficiencies in commercial and residential buildings.	C
3	Continue investigating the feasibility of public-private partnership that finance energy efficiency retrofits of existing buildings (i.e. PACE, Energy Service Company (ESCO)).	C
4	Continue green recognition program (via Health Department) that promotes and awards local businesses and leaders in energy efficiency who prioritize sustainable practices.	C
5	Conduct a carbon sink inventory.	N
6	Conduct an emissions-reduction analysis of key initiatives. Include an evaluation of net benefits of organic waste diversion from the landfill alongside the landfill gas alternatives analysis (referenced below).	N
7	Complete the Bluff Road landfill gas alternatives analysis and pursue implementation of the option that best reduces GHG emissions and optimizes City revenue of the gas stream.	N
8	Create relevant performance metrics for measuring progress toward the 80 by 2050 goal.	N
9	Calculate community Greenhouse Gas Emissions (GHG) emissions annually and report findings with other climate relevant performance metrics.	N
10	Investigate the return-on-investment potential associated with energy efficiency measures, renewable sources of energy, greenspace, and natural landscapes for major City facility projects, including the Central Library project, Multimodal Transit Center, and Bus Facility.	N

11	Increase energy efficiency and the use of renewable energy in municipal operations. Achieve 100% net renewable/ carbon neutral by 2035. • Complete a joint review of City, County and Public Building Commission (PBC) facilities to identify synergies in joint tenancy, sale or repurposing of aging structures; institute asset management planning including completion of facility condition assessments, focusing on opportunities for energy efficiency, energy conservation practices, financing tools, and funding mechanisms. • Establish energy efficiency and renewable energy goals and performance metrics for municipal buildings. • Create a policy that requires an evaluation of energy efficient investments as well as conversion to sources of renewable energy (including analyses for net zero energy buildings) when funding improvements to municipal buildings, on new municipal building construction, purchasing/replacing vehicle fleet, or enhancing municipal operations. Update operations and building plans to include energy efficient practices in municipal government. Designate a city team responsible for tracking and reporting energy use from municipal buildings	**N**
12	Pursue the LES Board adopted goal to achieve net zero carbon dioxide production from its generation portfolio by 2040. • Continue the decarbonization of LES' resource portfolio by (a) transitioning to new renewable and low-carbon sources, and (b) mitigating and reducing the carbon emissions from existing resources. • Prioritize the research, testing and funding of new low-emissions energy technologies, including energy storage, hydrogen, biomass, advances in wind and solar, grid optimization and all other future technologies that may be relevant for use in Lincoln. • Participate in carbon sink inventory, emissions-reductions analysis, and reporting GHG emissions in partnership with the City. • Expand and promote the community solar (Sunshares) program. • Broaden eligibility and increase marketing of the LES SEP. • Submit an annual report to the LES Board on progress toward the 2040 goal.	**N**
13	Engage Black Hills Energy about partnering with the City to create an incentive-based program for the installation of direct use high efficiency natural gas appliances for space and water heating, including gas absorption heat pumps, furnaces and water heaters in low income residential areas.	**N**
14	Convene City, LES, Community Action and other resource providers to develop a joint plan to address energy efficiency in low income and multi-family housing stock. Research federal, state, local, and private funding sources for low-income energy efficiency programs.	**N**
15	Explore opportunities to build or renovate a net zero affordable housing demonstration project in collaboration with University of Nebraska-Lincoln (UNL).	**N**

16	Adopt the 2018 International Energy Conservation Code (Commercial).	**N**
17	Update the Greater Nebraska PACE District (GNPD) program to provide a broader range of eligible applicants, facilities and equipment with a targeted outreach and marketing effort towards low income and multi-family housing support. Work with National Institute of Food and Agriculture (NIFA) and Nebraska Department of Environment and Energy (NDEE) to evaluate funding/low interest loan subsidy assistance. Utilize PACE proceeds to help fund Energy Efficiency (EE) in municipal operations and/or support low income EE.	**N**

Build a Decarbonized and Efficient Transportation System

18	Continue to encourage mixed-use development in the Comprehensive Plan.	**C**
19	Establish a comprehensive travel demand management strategy.	**C**
20	Consider Transit Oriented Development policies in the update of the Comp Plan 2050.	**C**
21	Implement recommendations of the Lincoln Bike Plan. • Identify funding opportunities for investing in on-street bicycle infrastructure projects. • Where applicable, bundle on-street bicycle infrastructure projects with proposed/planned road projects. • Create safety and education campaigns to encourage and familiarize people with the benefits of bicycling and other forms of active transportation. • Encourage and assist businesses to become League of American Bicyclists, Bicycle Friendly Businesses. • Encourage large employers and public agencies to provide bike parking, lockers, and shower facilities.	**C**

22	Implement recommendations of the School Zone Standards. • Explore funding opportunities to implement the School Zone Standards at all public and private schools. • Reduce vehicular traffic at arrival and dismissal times by encouraging students to walk or bike to school. • Educate and familiarize students with school walking routes. • Implement appropriate treatments along the school walking routes to provide safe and accessible crossing locations. • Promote safety campaigns to reduce pedestrian and bicycle crashes.	**C**
23	Continue to strengthen the Complete Streets Policy by creating a robust framework that evaluates street projects using complete streets goals and criteria. • Provide adequate funding to support a myriad of complete street projects. • Update the Gap Analysis Study. • Create educational campaigns to familiarize people with complete streets and their benefits to Lincoln.	**C**

24	Continue implementation of the Green Light Lincoln initiative including tracking and reporting of time and fuel savings along with emissions reduction metrics attributable to the program.	**C**
25	Continue to support and plan for a transportation system that accommodates the safe operation of autonomous, electric, and connected vehicles.	**C**
26	Pilot dockless scooters.	**C**
27	Continue to support Lincoln Public Schools (LPS)/Health Department bicycle rodeos as well as helmet and bike lock drives.	**C**
28	Continue to transition City fleet to alternative fuels.	**C**
29	Convert City fleet to 100% electric/renewable by 2040 (technology will have to be available to support the goal). • Establish a policy to replace City vehicle fleet with cleaner, renewable fueled vehicles. • Initiate a comprehensive asset management plan for City fleet, to include an analysis of adequate funding levels and healthy replacement schedules. • Explore lease-to-own purchasing to help finance cleaner, renewable fuels when procuring all fleet assets. • Centralize the administration of City fleet services following a peer review and analysis of combined fleet systems. • Increase investment in alternative fuel vehicles and fueling stations. • Partner with the Nebraska Community Energy Alliance (NCEA) and LES to install additional charging infrastructure. • Share telemetry information for all City vehicles to gather data on usage patterns to analyze and inform decision-making; Drive cycles and usage patterns will also help determine alternative fuel vehicle targets. • Create a City-employee car and equipment sharing program populated with a variety of assets.	**N**

30	Strengthen Public Transit
	• Update the Transit Development Plan
	  o Evaluate expansion opportunities such as an on-demand shared ride service to fill gaps.
	  o Evaluate new technologies including driver assist, autonomous vehicle, and electric charging.
	  o Complete a financial analysis and model for fare adjustments, including "Fare Free" service.
	  o Continue analysis of service expansion, route efficiencies, multiple transfer stations.
	• Fund a public education campaign to increase bus ridership; partner with education campaigns that focus on alternative modes of transportation.
	• Transition transit fleet 100% to electric/renewable/alternative fuels by 2040.
		N

31	Establish a City of Lincoln teleworking policy.	**N**
32	Designate priority parking for alternative-fuel vehicles in all municipal parking areas.	**N**
33	Explore options for "City-Pass" that provides one app for access to all City services, including Transit, BikeLNK, Libraries, Parking, etc.	**N**
34	Electric Vehicles • Complete an inventory and create a public platform to inform citizens on where EV and alternative fueling stations are located across the City. • Investigate an Electric Vehicles (EV) carsharing program as a public-private partnership. • Pursue and promote grants that can be used for rebates to residents who purchase EVs and charging stations with partners such as Nebraska Community Energy Alliance (NCEA), Lincoln Electric System (LES) and the Nebraska Environmental Trust (NET).	**N**
35	Identify and evaluate, capture, and utilize additional sources for biogas production and expand Renewable Natural Gas usage in heavy fleet, garbage trucks, and buses.	**N**
36	Consider use of a Sustainability evaluation/decision support tool such as "Envision" for major infrastructure projects.	**N**

Align Economic Development Goals with Climate Realities to Ensure a Thriving Economy		
37	Maintain AAA bond rating through disclosure of annual GHG emissions.	**C**
38	Support commuter bus service between Lincoln and Omaha.	**C**
39	Incorporate climate considerations in Comprehensive Plan.	**N**
40	Research investments in renewable energy (rather than fossil fuels).	**N**
41	Investigate the use of Climate Resilience Bonds.	**N**
42	Assess the feasibility and cost of a dedicated electric shuttle circulating between college campuses or other areas in Lincoln.	**N**
43	Develop a strategy to secure a second source of water supply.	**N**
44	Develop a pilot program on City-owned property that is currently in row crop production for regenerative agriculture production. Identify a partner to act as land manager and/or consider reduced lease rate for local food producer that uses sustainable, regenerative agriculture practices to produce local food and products.	**N**
45	Ensure businesses located in the floodplain are aware of risks and options.	**N**
46	Workforce Development (American Job Center) • Update the four (4) year local plan to include climate considerations. • Increase wage subsidies through on-the-job training for green employers from 50% to 75%. • Work to build and support career ladders/create training programs at Southeast Community College (SCC) in this sector. This includes paying tuition, books, and supportive services for eligible students to acquire training for clean occupations. • Promote taking public transit to work, as well as pay for public transportation when eligible. • Work with our American Jobs Center (AJC) partner, National Able Network, to expand job opportunities for individuals over 65. • In general, promote and support opportunities for individuals with barriers to employment by providing education, training, and career counseling.	**N**

Improve Protections for and with Lincoln Residents		
47	Maintain the Community Rating System (CRS) rating that allows for a 25% reduction in flood insurance premiums for property owners in floodplains.	**C**
48	Continue to provide grants and incentives to developers, homeowners, and business owners for the emplacement of green infrastructure.	**C**
49	Continue implementing green infrastructure strategies such as rain gardens, bioswales and permeable pavement to reduce stormwater runoff. Expand guidance/resources, incentives, and implementation.	**C**
50	Coordinate with Lincoln Transportation and Utilities (LTU) Street Maintenance, Parks, or other Departments to procure appropriate equipment to manage permeable pavement.	**C**
51	Continue working with Lower Platte South Natural Resources District to identify and implement flood risk mitigation strategies.	**C**

52	Implement recommendations of the Salt Creek Resiliency Study • Increase minimum stream corridor requirements along creeks and rivers providing additional flood damage prevention, preserving riparian / other critical habitat, and contributing to improved water quality. • Account for proper management of projected stormwater runoff based on updated precipitation data (NOAA Atlas 14) (currently in-development). • Amend regulatory standards for freeboard (the amount of space needed to raise a building above projected floodwater elevation level) based on updated precipitation data (NOAA Atlas 14); restrict the development of critical infrastructure like schools, hospitals, emergency and communication infrastructure within flood-prone areas. • Amend the requirements of the Drainage Criteria Manual while preserving the engagement and adoption process to include these recommendations.	**N**
53	Prepare for federal adoption and make publicly available an updated floodplain map for Lincoln that reflects increased precipitation and streamflow projections based on precipitation data from NOAA Atlas 14 data. • As floodplain maps are updated, identify specific vulnerabilities related to Salt Creek levees and include prevention, protection, mitigation, response and recovery strategies in the Lancaster County Local Emergency Operations Plan (LEOP), the county's Hazard Mitigation Plan, and the Lower Platte South's Hazard Mitigation Plan. • Together with the Lincoln-Lancaster County Emergency Management Office, the City Urban Development Department, City Stormwater management experts and neighborhood leaders, develop a comprehensive Salt Creek levee breach and overtop scenario analysis and communications plan to affected residents.	**N**
54	Continue and enhance current outreach and education efforts with landowners and business owners located in the revised floodplain about their flood risk. Develop a comprehensive outreach and education strategy with residents in the revised floodplain about their flood risk.	**N**
55	Implement the Recommendations in the Affordable Housing Plan.	**N**
56	Consider increasing the types of allowable Accessory Dwelling Units (ADUs) beyond duplexes in the zoning ordinance.	**N**
57	Continue to support and fund the expansion of disease-outbreak (human, plant, animal, agricultural) management planning.	**C**
58	Continue air monitoring system to include additional real time monitors for PM2.5 in multiple areas of City and County.	**C**
59	Continue educational programs for childcare providers on climate-related health issues for young children.	**C**

60	Continue to implement public accommodations to vulnerable people to a participatory decision-making process that results in better care for groups such as non-English speaking people, residents living in poverty, and elderly residents.	**C**
61	Continue to adapt the "MyLNK" app to best communicate emergency management situations and updates to residents and visitors.	**C**
62	Continue and adapt the NeighborLNK program beyond the COVID-19 pandemic to cultivate social cohesion throughout the City.	**C**
63	Ensure emergency operations plans to reflect responses to climate related risks, such as extreme heat.	**C**
64	Continue Workplace Heat Alert Program (WHAP): Follow guidance from National Institute for Occupational Safety and Health (NIOSH), which describes a process for making indoor and outdoor work environments safer for employees during extreme heat events.	**C**
65	Include enhanced provisions in caring for non-English speaking people, residents living in poverty and elderly residents (in-progress through the June 2020 update of the Hazard Mitigation Plan).	**C**
66	Coordinate with local National Weather Service & meteorologists, to provide heat index health warnings, etc. Heat wave early warning systems can protect people by communicating heat wave risks and suggesting protective actions.	**C**
67	Identify public cooling centers for extreme heat days or public warming centers for extreme cold days.	**C**
68	Assess health equity impacts of climate change in Lincoln. Utilize Center for Disease Control's (CDC) Building Resistance to Climate Effects model to develop strategies to reduce impacts on human health.	**N**
69	Assess the heat island impacts in Lincoln and map results. Create and share data via a publicly accessible website. If heat islands are identified, develop and implement strategies to reduce the effects of excess heat and associated health risks.	**N**
70	Develop a public health heat response plan following guidance from CDC.	**N**
71	Expand disease reporting system and integrate with animal disease reporting systems to monitor zoonosis, vector borne illness, animal illness, and potential vectors of concern.	**N**
72	Consider developing a tick surveillance program in collaboration with the Nebraska Department of Health and Human Services and UNL.	**N**

73	Enhance current mosquito surveillance programs to be prepared for new mosquito-borne illnesses; update the Public Health Mosquito Action Plan and expand to other vectors, such as ticks.	**N**
74	Add additional low cost, real time monitors for PM2.5 in multiple areas of City and County.	**N**
75	Consider enhancing capacity to forecast the Air Quality Index (AQI).	**N**
76	Conduct a self-assessment of information for communicating risks from flooding, including immediate and longer-term risks. Involve LPD, LFR, Emergency Management, NRD, WSM, and City Communications. Develop a cohesive strategy for public communication.	**N**

Build a Resilient Local Food System

77	Continue funding support of community gardens through Community Development Block Grant (CDBG) grant.	**C**
78	Continue partnerships with organizations such as LPS and community crops for the development of community gardens.	**C**
79	Continue support of native plantings, creation of community gardens, expansion of pollinator habitat by the Parks and Recreation Department.	**C**
80	Maintain database of City-owned property within the three-mile jurisdiction potentially available for community gardens / urban agriculture.	**C**
81	Conduct 128a brownfield site assessments on vacant lots for use as community gardens / urban agriculture.	**N**
82	Evaluate City farm management contracts to require sustainable, regenerative agriculture practices (no till, multispecies cover crops, reduction in use of synthetic chemicals, toxic pesticides, and Genetically-modified Organisms (GMO)) to increase crop yield, lower production costs, and sequester carbon.	**N**
83	Evaluate opportunities on City-owned property that is currently in row crop production for potential urban agriculture production. Identify a partner to act as land manager and/ or consider reduced lease rate for local food producer that uses sustainable, regenerative agriculture practices.	**N**

Photo courtesy of Sunday Farmers Market

Maximize Natural Climate Solutions		
84	Meet the community water usage goal of 110 gallons of water per day per person or less.	**C**
85	Continue implementing and enforcing building codes that require water efficiency standards.	**C**
86	Continue to fund water main replacements to avoid water loss from the system.	**C**
87	Re-charter the Mayor's Environmental Task Force to align with the Climate Action Plan Vision.	**N**
88	Create a "One Water" subcommittee for the protection of water resources. Utilize this group to: • Identify and evaluate strategies to reduce peak water demand (e.g. incentive based programs). • Evaluate water re-use programs. • Identify and evaluate water quality improvements strategies.	**N**
89	Continue and promote the Two (2) for Trees program.	**C**
90	Continue to replace threatened and diseased Ash trees on a 1:1 basis as per the City of Lincoln Emerald Ash Borer Response and Recovery Plan. • Ensure adequate funds are budgeted to complete the replacement program. • Continue to track and report the number of public ash trees removed annually and the number of new public trees planted to replace removed ash trees annually. • Continue to provide vouchers to neighbors near removed trees to purchase replacement trees.	**C**
91	Continue following recommendations of the Community Forestry Advisory Board (CFAB) that one tree genus will not represent more than 10% of the street tree population. Consider selection of appropriate street tree species in new climate scenario.	**C**
92	Continue to monitor emerging pests and diseases that may have implications on Community Forestry.	**C**
93	Change the subdivision ordinance to require an intended list of street trees in preliminary plats. Consider selection of appropriate street tree species in new climate scenario.	**N**

94	Assess baseline tree canopy with emphasis on low-income neighborhoods and prioritize tree plantings to reduce heat island effect, increase stormwater management, and reduce utility bills.	**N**
95	Increase funding resources to meet recommended tree replacement goal of 1:1 and to reduce pruning cycle of street trees from 25+ years to under 10 years.	**N**
96	Establish an emergency response program for downed trees from storm damage.	**N**
97	Expand and develop partnerships to provide additional private funding and volunteer time for planting trees and establishment of young trees.	**N**
98	Evaluate and update our collective policies regarding trees in the right-of-way (ROW).	**N**
99	Continue to support prairie restoration and protection of natural resources.	**C**
100	Continue supporting native plantings on municipal and development projects.	**C**
101	Reduce irrigation needs by incentivizing conservation practices and native planting.	**C**
102	Encourage conversion of lawns to native grasses, vegetable gardens, and/or drought-tolerant landscaping.	**C**
103	Expand native prairie plantings through strategies such as requiring the addition of native prairie plantings to detention ponds and runoff areas.	**C**
104	Continue to use a Rain-to-Recreation model to utilize floodplain for appropriate recreational activities.	**C**
105	Continue to support the Lincoln Parks Foundation and Parks and Recreation Department Land Trust initiative, working in partnership with landowners to preserve native prairie, wetland areas, and other natural resources.	**C**
106	In response to the findings of the Salt Creek Resiliency Study, assemble key partners and leaders in the City and County to develop comprehensive strategies that reduce flooding risks, improve soil health, sequester carbon, and maintain natural systems within the City and County, to include the Parks Foundation Land Trust initiative.	**N**
107	Reduce irrigation needs by incentivizing conservation practices and native planting.	**N**

108	Expand native prairie plantings through strategies such as requiring the addition of native prairie plantings to detention ponds and runoff areas.	**N**
109	Work with weed authority on weed abatement policy to allow for native plants to be grown on private property with less restrictive height guidelines.	**N**
110	Create a Carbon Sequestration Plan. This plan would involve an analysis of Lincoln's tree canopy, parks and greenways, open lands, composting activity, open water areas, impervious surfaces, grasslands, and native prairie.	**N**
111	Designate stormwater bond dollars to flood control, streambank stabilization, erosion, and sediment control projects.	**N**

Photo courtesy of Lincoln Parks and Recreation

Reduce Waste		
112	Update and implement the recommendations of the 2040 Solid Waste Plan.	**N/C**
113	Continue conducting periodic waste characterization studies.	**C**
114	Encourage reduction of single-use plastics.	**C**
115	Reduce the amount of readily recyclable materials currently being landfilled by 80% by 2040.	**N**
116	Establish an Environmentally Preferable ("Green") Procurement Policy to minimize negative environmental impacts of the City's operations by ensuring the procurement of products and services that, to the extent practicable: • Conserve natural resources, materials, and energy. • Reduce toxicity. • Reduce the amount of material sent to landfills. • Maximize recyclability and recycled content. • Increase the use and knowledge of environmentally preferable products that protect the environment.	**N**
117	Establish a municipal "green team" to recommend strategies for waste reduction from municipal operations, to include education and training programs.	**N**
118	Work collaboratively with private sector businesses to understand the GHG emissions attributable to the collection of waste, recyclables, and organics in Lancaster County.	**N**
119	Assess waste diversion programs at multi-family dwellings to enhance access to sustainable materials management programs.	**N**

Engage Residents in Co-Creating a Climate Smart Future

120	Following an assessment of current City environmental education programs, create a "Climate-Smart Future" education and community relations program. Consider the following: • Create an online and social media forum for a community conversation on climate change. • Focus on residents and businesses most impacted by climate related risks, including vulnerable neighborhoods. • Demonstrate the emissions impact of consumer behaviors and how to reduce energy consumption. • Educate residents and businesses on how to reduce energy consumption and connect them to programs and services that provide funding assistance such as the Sustainable Energy Program and Low-Income Home Energy Assistance Program (LIHEAP). • Educate childcare providers on climate-related health issues for young children. • Promote climate smart practices such as, use of electric vehicles, conversion of lawns to native grasses, vegetable gardens, and/or drought-tolerant landscaping. • Create an education program about holistic, multimodal transportation choices. • Continue to promote EV education and incentives to encourage the adoption of EVs. • Encourage and promote public tree planting and care. • Work with homeowner associations to increase use native plants and prairie in landscaping. • Deploy an education program on Sustainable Materials Management. • Develop public health information for properties impacted by flood on how to address mold, materials reuse, clean up and disinfection. • Continue education and promotion of water conservation. • Convene various stakeholders (UNL Extension, Lincoln-Lancaster County Food Policy Council (Lincoln-Lancaster FPC), Community Crops, Local producers, etc.) to host community conversations, expanding education, awareness, and support for local food and regenerative agriculture.	**N/C**

Endnotes

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