

LA CROSSE WISCONSIN



Proposal for Services City of La Crosse Climate Action Plan

Submitted By:



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Cover Letter

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Subject: Request for Proposal for City of La Crosse Climate Action Plan

Dear Lewis and Evaluation Team:

We are excited at the prospect of working with the City of La Crosse on this important undertaking that will not only shape a stronger future for the City, but serve as an example of leadership to the entire region.

We see a future that is authentically sustainable, carbon neutral, and that supports equity and a higher quality of life for all. We believe the challenges we face in making that transition are, in fact, powerful opportunities to enhance livability, economic vitality, and equity. We believe the path to that future is arrived at through a process of collaboration, inquiry, and creativity. Being a part of that future is paleBLUEdot's only mission. As a result, you will find this team to provide high quality, comprehensive service energetically delivered within a flexible fee structure.

A certified W/SBE firm, paleBLUEdot has one of the most extensive and recent portfolios of sustainability action planning, GHG assessments, and climate planning in within the Midwest. Ted Redmond, project manager and project lead, brings 28 years of experience working with municipalities, counties, and state agencies on significant public planning projects, including over 50 Community Sustainability and Climate Planning Projects as well as GHG inventory efforts for communities and NGO's in the United States, Canada, United Kingdom, and The Netherlands. Colleen Redmond brings a unique capacity for facilitating youth dialogue, and interactive "climate action design thinking" adult and youth workshops that provide the City with additional community engagement avenues.

We are grateful for this opportunity to submit on this exciting project. Should you have any questions about our proposal, or wish to explore options further, please feel free to contact me at any time at the phone number or email address to the right.

Sincerely
paleBLUEdot



Ted Redmond
Principal, Vice President



Our mission is to hasten the transition to an authentically sustainable, no carbon economy and to elevate the public discourse.

paleBLUEdot
Certifications/Affiliations



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About Our Name

It all started with the amazing words of Carl Sagan. After seeing the 1990 photo taken by the Voyager 1 spacecraft, Mr. Sagan penned his thoughts, both poignant and profound, that, for us, capture the essence of our seemingly vast and indestructible planet. In his memorable and moving words, Mr. Sagan tells us that, while we may feel omnipotent and universally superior, in the cosmic scheme of things, we are but, "...a mote of dust suspended in a sunbeam." These words, though, also give us hope and remind us how, even though our planet may be small and lost among the billions of other galaxies, it is still our home, our "pale blue dot".

Mr. Sagan's words continue each day to inspire us here at paleBLUEdot and move us into action. We know our planet is both immensely fragile and infinitely precious. A love and fear for this wondrous Earth has spurred us to create avenues of environmental and social change for individuals and to build awareness of our impact on each other and our tiny planet. We work to provide effective and practical ways for each of us to make a meaningful positive impact on our precious world. Carl Sagan called us all to "...preserve and cherish that pale blue dot...", and we believe, through the efforts of us all, we can do just that.



Firm Profile

The paleBLUEdot team has extensive consulting experience with relevance to the skill set and services required by the Town of Hartford Climate Action Plan project. Our team functions as a collaborative, interactive team with fluid cross-discipline engagement promoting creative exchange.



Lead Firm: paleBLUEdot, a Minnesota LLC and S/WBE Certified Business and listed as a State of Minnesota Targeted Group Business and a Metropolitan Council Underutilized Business. paleBLUEdot is a sustainability, climate action, carbon management, and renewable energy consultancy firm established in 2014. Our mission is to support the transition to a low-carbon economy through an array of sustainability assessment, consultancy, and planning services, and through education that increases awareness and enhances public dialogue.

Serving this dual mission of consultancy and education, paleBLUEdot's principals represent a unique blend of professional expertise: Colleen Redmond, President, is an accomplished educator, a curriculum designer, and Design Thinking consultant and leads the firm's education and awareness outreach programs. Ted Redmond, Vice President, is a registered architect with over 27 years of practice providing assessment, programming, sustainability, and design services for well over 100 local, state and Federal projects

paleBLUEdot has extensive climate, carbon, and renewable energy planning experience from the scale of individual sites to community-wide efforts. Within the last three years alone, paleBLUEdot has completed over 40 relevant community planning efforts in including sustainability plans, climate vulnerability studies, vulnerable population assessments, climate action and adaptation plans, renewable energy potential studies and master plans, heat island mitigation plans, and tree canopy and green infrastructure carbon sequestration master plans.



Vulnerability and Adaptation Consultant: ECOADAPT

Founded in 2008, EcoAdapt is the first 501(c)(3) non-profit organization created to assist in the development and implementation of climate change adaptation to foster better outcomes in all facets of society. Our staff bring over 60 years of climate science and policy experience combined, including two decades of active engagement in the field of climate adaptation. We provide support, training, and assistance to help make the connections between climate change and consequences for people, assets, and natural resources. We recognize that the burdens and benefits of climate change are not distributed equitably, that solutions will require the broadest, most inclusive coalition and that our actions today influence the opportunities of tomorrow.

EcoAdapt provides assistance throughout the entire climate adaptation process, from assessing the effects of climate change and developing adaptation strategies to implementing and evaluating on-the-ground actions. We bring together diverse stakeholders – scientists, planners, policy makers, community organizations, citizens – to reshape planning and management in response to climate change. Recognizing the unique challenges and experiences of our partners, we customize our process to better fit their individual situations and needs. Our core objective is to help people make the best decisions possible regarding their investments in a changing climate.

Overview

Project Understanding

The City of La Crosse has established visionary goals to address community-wide greenhouse gas (GHG) emissions reductions. The purpose of the City of La Crosse Climate Action Plan Project is to create a comprehensive, robust, and innovative plan to guide decision making, policy, and program development to meet these robust GHG reduction goals as well as adaptation actions addressing climate change in La Crosse. The Climate Action Plan will benefit from and will need to appropriately integrate and coordinate with the City's on-going General Plan Amendment planning, Flood Hazard Mitigation Planning, and Partners in Energy projects as well as existing plans including the Strategic Plan for Sustainability, Bicycle & Pedestrian Master Plan, and Parks, Recreation, and Forestry Strategic Plan.

As noted in the Executive Summary of this proposal, delivering services in support of innovative Climate Action Plans is paleBLUEdot's sole mission. Our project approach has been designed through our numerous community-wide climate and energy planning efforts to deliver robust and effective Climate Action Plans. The following are some of the key aspects of our approach based on our project understanding forged through our extensive project experience:

Collaborative Planning:

The paleBLUEdot climate planning effort is characterized by a strong collaborative approach in which the ultimate plan is co-developed by our team, the City and representatives from the community. We've found this highly collaborative approach to be key in developing plans which are more readily embraced and implemented to make progress on community climate goals. Our team continuously review and draw inspiration from climate plans produced around the country. Our ACTIONFinder tool enables that inspiration and best practice exposure inform the collaborative development of each of our climate plans (please see "Performance of Services" section of this proposal for more).

Understanding Existing Conditions:

The paleBLUEdot team believes the best Climate Action Plans must begin with a clear understanding of the community's existing sustainability and climate indicators, vulnerabilities, and opportunities. With a strong understanding of a community's "baseline" conditions, effective and meaningful goal setting can occur, rooted not only in a vision for the future, but also an understanding of the present. Once clear goals are established, action planning can take place to establish over arching strategies and detailed actions to achieve those goals. Please see "Scope" section for more.

Boundary:

The boundary of a Climate Action Plan should include a framework designed to achieve community-wide goals for greenhouse gas reduction and climate adaptation and action. Successful climate action plans are organized around a unifying framework organized by both mitigation and adaptation sectors. Each sector has over-arching Strategies established to meet plan goals and detailed Actions for implementation. Sector actions have primary focus on Climate Mitigation, Climate Adaptation, or both.

Addressing Social, Economic, and Environmental Aspects of A Sustainable Future:

As illustrated by the common sustainability venn diagram, a wholistic climate action plan for the future of La Crosse will integrate social, economic, and environmental considerations. The climate action planning effort should take the opportunity to assure each of these aspects are appropriately addressed, and synergized, in the final plan.



Overview

Framing:

Traditional planning is methodical and long range. Successful climate action planning works best when it employs a long term view that is linked to shorter term goals in order to allow for ongoing performance monitoring. Climate action planning also involves venturing out into topics not traditionally addressed by planners. Successful communities take risks in addressing these new concepts, and aren't hesitant to address improvements during phases of performance monitoring. As such, the final climate action plan should be viewed as a living document with goals and action strategies flexibly adjusted based on the success of strategies implemented as determined through the on-going monitoring which should be laid out in a climate action implementation matrix – a simplified implementation document enabling strategy monitoring.

SMART Goals Development:

According to the US Department of Health and Human Services, ICLEI, and the American Planning Association, the most effective climate action planning goals and strategies follow SMART Goal principals. This means they are Specific, Measurable, Attainable, Relevant, Time based. By Setting SMART goals a climate action plan can clarify community ideas, focus the City's efforts, use the City's resources productively, and increase the City's chances of success at achieving its climate action goals. The final climate action planning effort should ensure that all final goals are SMART goals.

Implementation:

As noted above in the Framing section, successful climate action plans are long-range documents which need to guide action over time and through an evolving "landscape" of policies and community conditions. As such, the final climate action plan should be viewed as a living document with goals and action strategies flexibly adjusted based on the success of strategies implemented. This requires on-going monitoring of progress and effectiveness. The paleBLUe dot team recommends the creation of a climate action implementation matrix within the final climate action plan document. This matrix is a simplified implementation document enabling strategy monitoring by gathering all strategies "in one spot" and outlining for each goal/strategy the timeframe, responsible party/implementation partners, actions underway, and completion.

Deliverables:

Our project approach, detailed in the "Scope" section of this proposal includes a suite of deliverables we have determined to be necessary to achieve a comprehensive, robust, and innovative plan. Those deliverables include:

Deliverable Establishing a Solid Project Foundation:

- Vision and Goals Statements
- Public Engagement Plan
- Risk and Vulnerability Assessment Report (draft and final)
- GHG Inventory Review and Business-as-Usual Forecasting
- Community-wide Renewable Energy Potentials Study
- Community-wide Ground Cover, Heat Island, and Carbon Sequestration Study
- Climate Action Baseline Assessment and Draft Strategic Goal Recommendations

Deliverables Supporting Community Engagement

- Social Media / Promotional Packages
- Climate Action Infographics
- Community Survey Summary Report(s)
- Community Engagement Summary Report/Presentation

Deliverables In the Creation of the CAP

- CAAP Brand Guide
- Climate Action Plan (draft and final)
- Climate Action Plan Executive Summary (draft and final)
- Final Climate Action Plan presentations

Deliverables Supporting Plan Implementation

- Supporting and process documents like Meeting Agendas and Minutes
- Implementation Matrix and Annual Reporting Template
- Example Municipal Policies and Ordinances
- Net Zero Energy Building Guide
- Solar Ready Guide
- Electric Vehicle Ready Guide
- Climate Action Toolkit



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Scope

Kick-Off and Progress Meetings

Project Kickoff

Successful project launch through a kick-off meeting to confirm relevant past and current studies and data from the City; reaffirm project goals and objectives; confirm project scope, methodology, and schedule; and identify respective project contacts. Initial data to be collected from the City will focus on identification of existing City of La Crosse policies and ordinances which may relate to the potential Climate Action Plan goals, strategies and Actions. paleBLUEdot will issue a brief Climate Action Plan Project Initiation Questionnaire to organize and simplify this initial data collection process. Following the completion of the Questionnaire, collection of some key City policies and ordinances may be desired and will be identified by paleBLUEdot. The kick-off meeting will also provide the Team the opportunity to begin identifying engagement groups as outlined in the engagement section of this proposal.

City Staff Interaction: Kick-off meetings attendance, Climate Action Plan Project Initiation Questionnaire completion, potential collection of relevant existing City policies and ordinances based on questionnaire, progress meeting attendance

Deliverables: Climate Action Plan Project Initiation Questionnaire (electronic document), review of City data/reports and relevant policies; Project Kick-off and progress meetings

Task 1 Analyze GHG Emissions

paleBLUEdot will outline specific data items needed for the Citywide and City Operations GHG inventory, with a brief description of the item, and anticipated data source for the information. This Data Collection outline will be reviewed with City project staff to affirm our data collection process. The Citywide data collection will be built around the requirements and organization of the ICLEI Global Protocol for Community-Scale Green House Gas Emissions. The data collection and calculations for the GHG inventory will be supported using the paleBLUEdot Citywide Integrated Inventory Tool which has been developed and refined through our past GHG modeling on dozens of inventories and plans to assist in the development of emissions forecasting and GHG reduction modeling.

Task 1.1 Citywide Inventory and Analyze GHG Emissions

The primary steps for completion of the Citywide Inventory are:

- 1.1a **Stationary combustion and electricity:** City authorizes Xcel Energy to provide energy consumption data (electricity and natural gas) by citywide customers and annual electricity emission factors. If requested, Orange provides draft energy data request letter. Orange enters all data into the ClearPath website and provides additional analysis to identify and change factors and their role in the changes (e.g. demographic changes, changes in emission factors, addition or elimination of major energy consumers, addition of renewable energy, etc.), normalize for weather factors, and analyze trends.
- 1.1b **Transportation:** a) On-road emissions: Consistent with the methodology used for the 2019 Inventory, on-road-transportation-related emissions will be extrapolated for the City based on the state-wide, per-capita rates contained in the 2020 State of Wisconsin Greenhouse Gas Emissions Inventory Report. b) Airport emissions: The City owns the La Crosse Regional Airport but it serves the entire region. City provides energy and liquid fuel consumption data. Orange estimates City population as a share of the regional population served by the airport and allocates emissions accordingly. c) De minimis emissions: Orange prepares justifications for classifying railroads and water-based emissions as de minimis. Orange enters results of analysis into the ClearPath website.
- 1.1c **Solid waste management:** a) Emissions from decomposition and methane flaring: Consistent with the methodology used for the 2019 Inventory, citywide emissions from municipal solid waste (MSW) landfilling and methane flaring will be based on a per-capita extrapolation from county-wide data at the La Crosse County landfill. b) Emissions from RDF combustion: The same per-capita methodology will be used to estimate citywide MSW volumes processed into refuse derived fuel (RDF) and combusted at Xcel Energy's French Island Generation plant. Orange calculates and allocates RDF emissions consistent with ICLEI Method SW.7. Orange enters the results of the analysis into the ClearPath website.
- 1.1d **Potable water:** Consistent with the methodology used for the 2019 Inventory, per-capita emissions associated with electricity and natural gas consumption for the treatment and distribution of potable water by the La Crosse Water Utility will be extrapolated to estimate citywide emissions. Orange enters the results of the analysis into the ClearPath

Scope

Task 1.1 Citywide Inventory and Analyze GHG Emissions (continued)

The primary steps for completion of the Citywide Inventory are:

- 1.1e **Wastewater treatment:** Consistent with the methodology used for the 2019 Inventory, per-capita emissions associated with electricity and natural gas consumption at the City's Isle La Plume wastewater treatment plant will be extrapolated to generate citywide estimates. Orange enters the results of the analysis into the ClearPath website.

Task 1.2 City Operations Inventory

The primary steps for completion of the City Operations Inventory are

- 1.2a **Energy consumption:** City provides energy use data (City has a contract with Johnson Controls) for facilities owned and leased for City operations (annual usage data for electricity, natural gas, and other fuels, e.g., diesel for emergency generators). Orange enters data in the ClearPath website and evaluates data, normalizes for annual changes in electric utility emission factors and per-FTE emission rates, and analyzes trends.
- 1.2b **Liquid fuels:** City provides transportation fuel usage data by fuel type (gasoline, diesel, propane, biofuels) for City transportation activities (public works, police, fire, pool vehicles, official travel, Municipal Transit). Orange enters data into the ClearPath website.
- 1.2c **Potable water production:** City provides water production and energy consumption data. Orange enters energy consumption data into the ClearPath website and calculates water production efficiencies (Btu per gallon, GHG per gallon).
- 1.2d **Wastewater treatment:** City provides energy consumption data for its Isle LaPlume treatment facility. Orange enters energy consumption data into the ClearPath website and calculates wastewater treatment efficiencies (Btu per gallon, GHG per gallon).
- 1.2e **Contractor services (optional Scope 3 category):** City provides information regarding contracted services for normal operating responsibilities (e.g. contractor contact people and contract dollar totals for road maintenance, seal coating, sweeping, and plowing). Orange estimates associated GHG emissions.
- 1.2f **Official travel (optional Scope 3 category):** City provides information regarding official travel by City staff and elected officials (destination cities by air and road).
- 1.2g **Solid waste management (optional Scope 3 category):** a) Decomposition emissions and methane combustion emissions: The La Crosse County landfill tracks MSW by county. FTE data for La Crosse County will yield tons of MSW per FTE, and GHG tonnes-per-FTE. b) RDF combustion: Emission tonnes-per-ton of MSW from the French Island Generation facility for RDF combustion times MSW tons-per-FTE will generate per-FTE emission tonnes of RDF combustion emissions.

paleBLUEdot will lead the data collection efforts from both City internal and external data sources for the Citywide and City Operations inventory. The data collection will include collection of two types of data: raw use/activity data (energy use, transportation mileage and VMT, etc) as well as Emission factor data. Emission factor data will support the development of appropriate community-specific emissions factors which can then be applied to the raw use/activity data to calculate community appropriate GHG emissions by category. Emission factor data includes items such as utility-specific emissions profiles or regional eGRID values.

To assist the City's future GHG inventory efforts, the paleBLUEdot team, will begin the City Operations data collection by developing a Data Collection Tool. This document will identify the raw consumption data – such as electric use by building - required to compile the City Operations inventory. The tool will focus on collection of relevant data in forms which are typically readily available to City department leads and City Administration and will provide data input locations for all relevant data required to support the current and future inventory efforts through 2030. The tool will be provided to the City's project manager for distribution to all appropriate contacts within the City to complete and will be created in a way to support sharing with multiple key staff in order to obtain all relevant data as efficiently as possible. When completed, the tool will be provided to the City to support data collection for future city operation GHG inventory efforts.



Scope

Task 1.3 Complete GHG emissions forecasting for 2030, 2040, and 2050

As noted above, our team will use the paleBLUEdot Citywide Integrated Inventory Tool's forecasting module to complete long-range GHG emissions modeling. This forecast may be used in support of identifying trends, establishing GHG reduction goals, and prioritizing emission sectors for reduction strategies and actions.

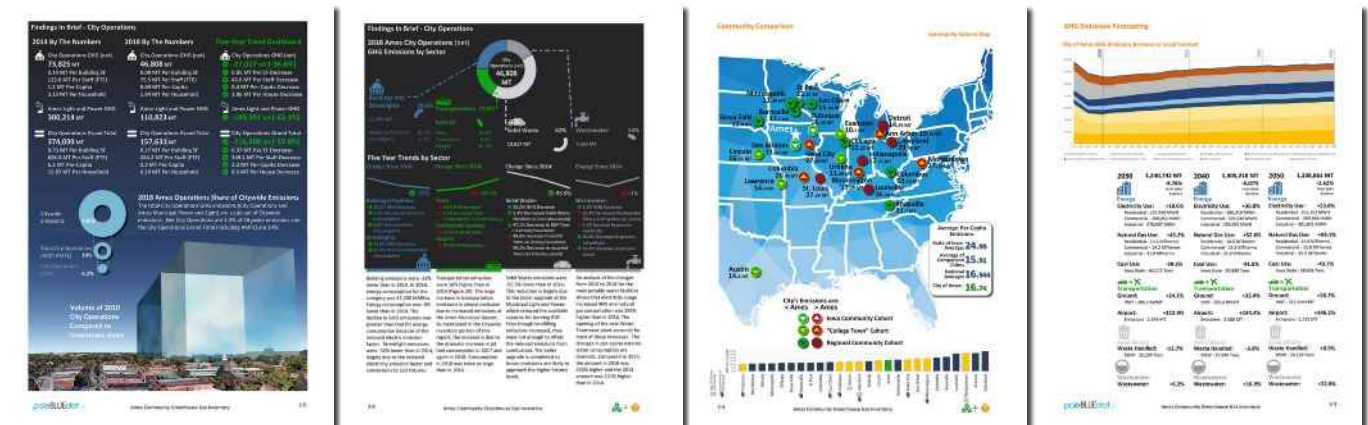
The team will model a "business as usual" forecast scenario to anticipate future emissions for the City of La Crosse assuming no further emissions reductions actions are taken. We will build the forecast scenario to anticipate emissions changes through 2050 in each of the inventory emission categories as well as total emissions. This forecast will provide a valuable tool for the City not only in designing and prioritizing GHG emissions reductions strategies, but also supporting the measurement of strategy reduction success. The "business as usual" forecast will be based on a range of variables as data is available, including: Population projections, Projected climate change impacts including Cooling Degree Day and Heating Degree Day projections, Projected emissions factor changes, Anticipated federal vehicle fuel efficiency standards (e.g., CAFE), State and local energy use projections based on the US DOE State and Local Planning for Energy (SLOPE) Platform tool.

Task 1.4 GHG Report and Calculations Summary

paleBLUEdot will prepare a Greenhouse Gas Inventory Report summarizing the methodology and findings of the community-wide and city operations inventory. As desired, our team will support the City in entering the appropriate data into the City's ICLEI ClearPath account.

City Staff Interaction: Support of relevant City Operations data collection; GHG inventory and analysis review meeting(s)

Deliverables: GHG Report and Calculations Summary (electronic document); ClearPath Account data entry support



Example GHG Inventory Review and Business-as-Usual Forecast

Scope

Task 1b Risk and Vulnerability Assessment

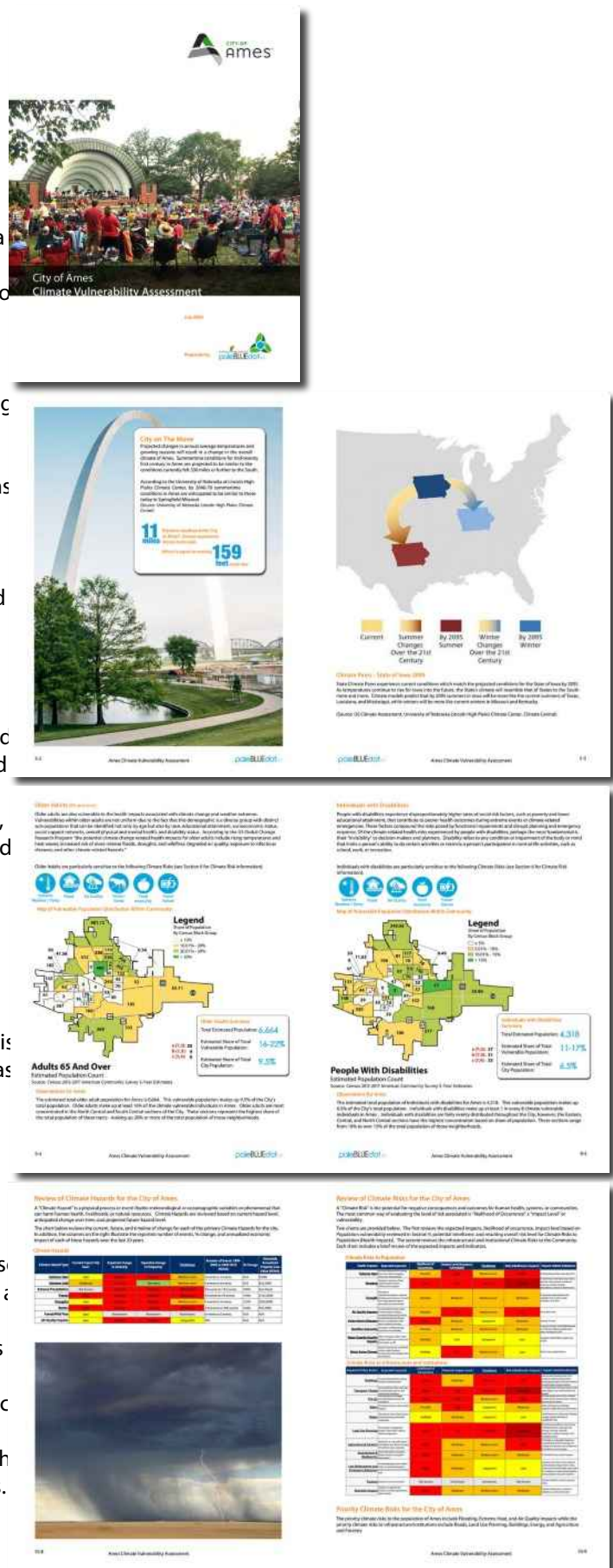
Developing effective, community specific climate adaptation strategies and actions depends on robust data collection and a solid understanding of what community sectors, assets, people, and services are most vulnerable to climate change and why. paleBLUEdot believes the most effective way to achieve this understanding is through a collaborative process with community stakeholders to identify what existing conditions and challenges are facing the community, discuss how climate change may make those conditions and challenges worse or vice versa, and quantify the risk level (likelihood x consequence) as well as the community's capacity to adapt or cope with risks. Following this stakeholder input, paleBLUEdot reviews existing resources, planning documents, and other literature to create a comprehensive summary of risks and vulnerabilities facing a community.

Task 1b.1 Climate Changes and Impacts Summary

The paleBLUEdot team will identify and summarize the climate change metrics already experienced and projected to occur in the region. Data on the region will be collected from the U.S. National Climate Assessment as well as the Great Lakes Integrated Sciences and Assessments (GLISA), USDA Northern Forests Climate and Assessment Hub, National Oceanic and Atmospheric Administration, and FEMA, among others. Wisconsin-specific data will be collected and summarized from State and National agencies and regional university data sources. From this research, paleBLUEdot will summarize current and projected changes for the region and the likely impacts on natural resources and human communities. This summary will be included in the final Risk and Vulnerability Assessment Report as well as provided as a stand-alone document to be used in the Vulnerability Assessment Workshop.

Task 1b.2 Vulnerability Assessment Workshop

paleBLUEdot, with guidance from the City on who is best suited to attend, will convene City staff and major stakeholders to assess risks and vulnerabilities for La Cross in a half-day, online workshop. The workshop will include a review of climate changes and impacts, discussion about the existing conditions and challenges facing La Crosse as well as the primary climate impacts of concern, quantification of risks for major topics/areas of interest such as Local Food/Agriculture, Green Space, Health & Safety, Water/Wastewater, and Economy, and an assessment of the capacity of the City to adapt or cope with climate impacts. paleBLUEdot will work with the City to identify the major topics/areas of interest to explore for the vulnerability assessment prior to the workshop.



Example Baseline Building and Energy Metrics



Scope

Task 1b.3 Risk and Vulnerability Assessment Report

The paleBLUEdot team will develop a Risk and Vulnerability Assessment for La Crosse. The assessment will include a review of current and projected climate changes and impacts on the community, a summary of existing conditions and challenges facing La Crosse and how climate change may either exacerbate the current impacts of these conditions or how existing conditions may exacerbate the impacts of climate change, and a review and quantification of the risks and vulnerabilities for major topics/areas of interest (e.g., Water/Wastewater, Local Food/Agriculture, Health & Safety). As part of the vulnerability assessment, we will, where possible, create maps overlaying climate risk factors with locations of vulnerable populations to quantify risks to those locations.

The final risk and vulnerability assessment will consist of quantified vulnerability rankings for major topics/areas of interest, synthesized risk and vulnerability information that integrates input from community stakeholders with supporting resources and planning documents, and identification of data and information gaps and recommended next steps. The risk and vulnerability assessment draft report will be shared with the City, workshop participants, and CAP Teams for review before being finalized.

City Staff Interaction: Climate Risk and Vulnerability Assessment review meeting(s); Support in identifying appropriate community resource participants for Vulnerability Assessment Workshop, participation in the Vulnerability Assessment Workshop

Deliverables: Climate Risk and Vulnerability Assessment

Task 2 Recommend GHG Emission Reduction Targets and Additional Baseline Documentation

paleBLUEdot believes effective, meaningful, and community specific climate action planning is grounded in robust data collection and assessment of community existing conditions metrics. Establishing comprehensive baseline data is a necessary element that provides a point from which to inventory what you have before you set out to improve it, and from there, aid in identifying and establishing strategies, and measuring the progress of them. The broader the baseline data available, the more effective GHG emission reduction target and climate action goalsetting and action planning can be.

As such, the paleBLUEdot Climate Action Planning project approach includes a robust assessment of community existing conditions and baseline indicators. The additional baseline documentation portion of this task will culminate in a Climate Baseline Assessment, Reduction Target and Strategic Goal Recommendations report.

Task 2.1 Key Indicators Research and Documentation

paleBLUEdot will conduct research and data collection across a broad range of baseline metrics in each of the climate mitigation and adaptation sectors relevant to the City of La Crosse. This effort will include:

Baseline Buildings and Energy Metric

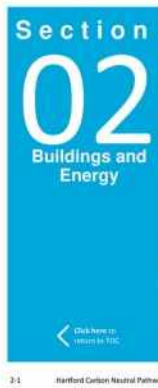
paleBLUEdot will create summary of existing building and energy metrics within the community including community wide residential, commercial, and industrial energy use profiles, identification of existing high performance LEED and Net Zero building stock, community wide building stock energy efficiency considerations and projected achievable energy efficiency potential through strategies including building energy benchmarking potential, commercial energy audit potential, commercial and institutional retro-commissioning potential, residential weatherization program potential, community wide LED light replacement energy savings potential, among others.

Baseline Energy and Housing Burden

“Energy Burden” and “Housing Burden” are the percentages of household income that goes toward energy costs and housing costs respectively. Households with high energy burden (over 6%) or high housing burden (over 30%) tend to have higher vulnerabilities to environmental, climate, and social impacts. Carefully designed energy and transportation actions in Climate Action Plans can help mitigate these issues. paleBLUEdot will collect, analyze, and summarize existing La Crosse community energy and housing burden indicators. Our work will draw from multiple data sources including the State of Wisconsin, La Crosse County, US Department of Energy, and the US Census Bureau.

Scope

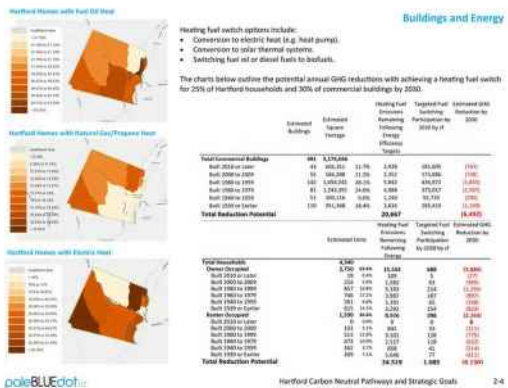
Task 2.1 Key Indicators Research and Documentation (continued)



Buildings and Energy
Residential Commercial Building Stock Efficiency - Community Wide
 Similarly to residential construction, older commercial buildings represent a significant potential energy efficiency increase. This means that retrofitting older commercial buildings with some of these technologies provides ample opportunity to improve energy efficiency throughout the community. The chart below outlines the estimated annual energy savings potential for commercial buildings within Hartford. Anticipating an energy efficiency participation of 30% of commercial buildings by 2030 (approximately 147 buildings rather than the 31 buildings indicated in the Town Plan goal [1]) with an average energy efficiency improvement of 15% should yield an annual community-wide energy reduction of 3.4 TWh/Year of electricity and 2.4 billion BTU of thermal energy. This reduction would achieve an annual GHG reduction of 87% by 2030.

Estimated Building	Estimated Name	Est. Energy Consumption (MMWh/Year)	Weather-Related Energy Savings of 15% Improvement (MMWh/Year)	Energy Savings Potential (MMWh/Year)	Estimated Annual Energy Savings by 2030** (MMWh/Year)	Estimated Annual Energy Savings by 2030** (MMWh/Year)	Estimated Annual Energy Savings by 2030** (MMWh/Year)	Estimated Annual Energy Savings by 2030** (MMWh/Year)
Total Commercial Buildings	465	1,232,000	184,800	1,047,200	1,047,200	1,047,200	1,047,200	1,047,200
Build 2010 or later	49	604,352	12,376	591,976	591,976	591,976	591,976	591,976
Build 2010 or earlier	416	627,648	172,424	455,224	455,224	455,224	455,224	455,224
Build 2010 or later	542	1,405,248	28,116	1,377,132	1,377,132	1,377,132	1,377,132	1,377,132
Build 2010 or earlier	86	1,245,280	20,676	1,224,604	1,224,604	1,224,604	1,224,604	1,224,604
Build 2010 or later	10	900,000	6,000	894,000	894,000	894,000	894,000	894,000
Build 2010 or earlier	115	912,360	30,270	882,090	882,090	882,090	882,090	882,090
Total Reduction Potential					3,400,000	2,400,000	1,400,000	87%

** Assumes target that 33 buildings in Town Plan in a class of 30% of commercial and industrial building stock (approximately 147 buildings total by 2030)



Example Baseline Building and Energy Metrics

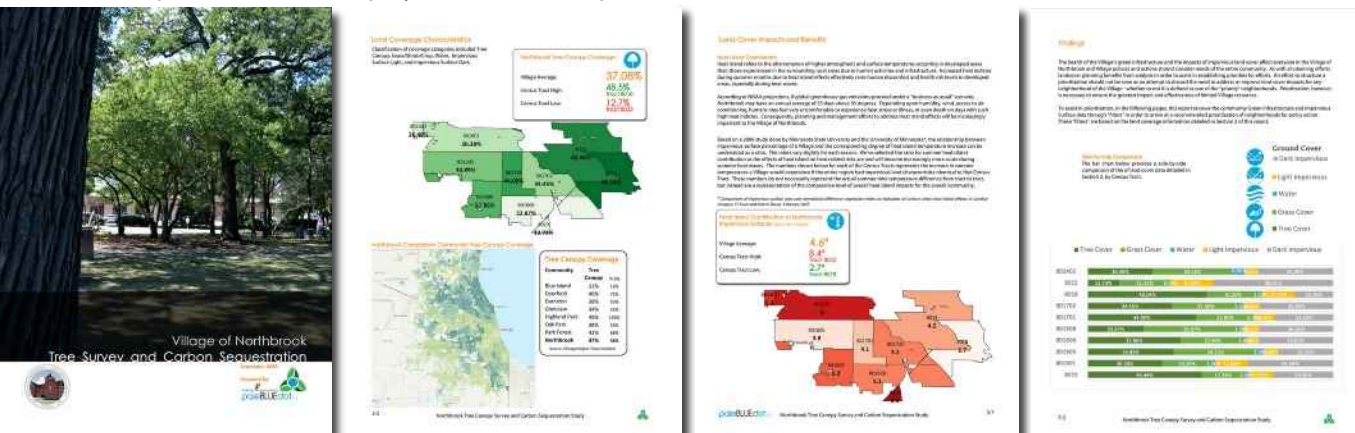
Community-Wide Renewable Energy Potentials

In support of development of effective renewable energy goalsetting and to establish strategies addressing renewable energy development, paleBLUEDot will conduct a Community-Wide rooftop solar pv potentials study including economic and environmental benefits with a focus on the equity potential of renewable energy - both potential for serving low income communities as well as equitable economic development. Through study of community-wide potential, the City of La Crosse will be empowered to create near and long-term renewable energy targets and implementation strategies based on community specific opportunity that can be both visionary and achievable.

City-Wide Ground Cover, Heat Island, and Carbon Sequestration Baseline

paleBLUEDot will conduct a baseline assessment of City-Wide ground cover conditions. This baseline will be an expansion of information currently available through the City of La Crosse' Urban Forest Master Plan and will cover City-wide conditions and will identify ground cover conditions (grass, water, wetland, dark and light impervious surface coverage, building coverage, pavement coverage, and tree canopy) and shares City-wide as well as by neighborhood / census tract. Baseline calculations will also be made for electrical and natural gas energy savings attributable to the Urban Tree Canopy. Baseline calculations will also be made for annual carbon sequestration rates, carbon stock, heat island and micro-heat island indices, tree canopy/green space economic value, and pollution absorption rates (CO, O3, NO2, SO2, particulate pollution).

Baseline data will be mapped by neighborhood/census tract and with data generated to standard error (SE) of 2.0% or less. The results of this baseline assessment will be overlapped with the vulnerable populations mapped in the Risk and Vulnerability Assessment enabling a refinement of heat island mitigation, ground cover, and tree canopy strategy and action development within an equity and climate adaptive framework.



Example City-Wide Ground Cover, Tree Canopy, Carbon Sequestration, and Heat Island Baseline



Scope

Task 2.1 Key Indicators Research and Documentation (continued)

Baseline Walk Score/ Bike Score Heat Mapping

paleBLUEdot will create a walkability baseline heat map by neighborhood/census tract. A community's walkability is key to understanding the current baseline and opportunities for advancing transportation sustainability. Additionally, understanding differences in walkability from neighborhood to neighborhood can help to highlight equity and empowerment opportunities.

Public Transit Benefit Mapping Baseline

Understanding the current baseline social and economic benefits of public transit, mapped across the City, provides a solid foundation for prioritizing transit related investments and identification of effective strategies for reduced VMT and increased walkability and livability. Drawing from General Transit Feed Specification Data (GTFS), a national dataset assembled for all transit stops, routes, and frequency, we will capture information on: Overall Transit Performance, Transit metrics, and Transit gap identification of census block groups where the transit service is less than typical for similar areas in the US.

Housing and Transit Affordability Baseline

Housing affordability is widely recognized as a key metric of economic, social, and even environmental sustainability of a community. The traditional measure of affordability recommends that housing cost no more than 30% of household income. However, that benchmark fails to take into account transportation costs, which are typically a household's second-largest expenditure and are deeply intertwined housing conditions. Drawing from available datasets, we will capture housing and transit metrics City-wide, as well as by neighborhood, including; Location Efficiency Metrics, Transportation Cost Metrics, Housing Cost Metrics, Neighborhood Characteristic Scores on job access and density

City Staff Interaction: assist in data collection (limited staff involvement anticipated)

Deliverables: Research and content for use in Climate Baseline Assessment, Reduction Target, and Strategic Goal Recommendations report.

Task 2.2 Climate Baseline Assessment, Reduction Target, and Strategic Goal Recommendations report.

Informed by the GHG Analysis, Climate Risk and Vulnerability Assessment, and the Key Indicators Research and Documentation efforts, the Climate Baseline Assessment, Reduction Target and Strategic Goal Recommendations report will include all sectors anticipated in the Climate Action Plan including those outlined in the RFP: Energy Use and Resources, Buildings and Infrastructure, Transportation and Land Use, Climate Preparedness and Resilience, Waste Management and Reduction, Food Systems and Security, Natural Systems and Water Resources. The community indicators and existing conditions assessed and summarized are outlined next.

Preliminary Goal Setting Support – Climate Mitigation and Adaptation Goals

Based on the findings of the existing documentation included in Task 2, the paleBLUEdot team will outline preliminary example draft strategic goals for each of the Climate Action Plan sectors. These Draft Strategic Goals will be included in the Climate Baseline Assessment, Reduction Target and Strategic Goal Recommendations report. This report will summarize all of the existing conditions and research completed in this initial phase of the project and will form the basis for the collaborative planning process.

City Staff Interaction: Data Analysis and Baseline Review Meeting(s)

Deliverables: Climate Baseline Assessment, Reduction Target and Strategic Goal Recommendations Report to include indicators, GHG reduction targets, and preliminary goal recommendations for all Climate Action Plan sectors; Risk and Vulnerability Assessment report, GHG Inventory Review and BAU Report, Renewable Energy Potentials study, Citywide Groundcover, Heat Island, and Carbon Sequestration Study (electronic documents).

Scope



Example Climate Baseline Assessment, Reduction Target, and Strategic Goal Recommendations report

Task 3. Forecast GHG Emission Reductions

Our team will analyze the emissions reduction forecast potential of each community-wide and City operations emissions sector based on the research, data, and recommendations included in the Climate Baseline Assessment, Reduction Target and Strategic Goal Recommendations Report.

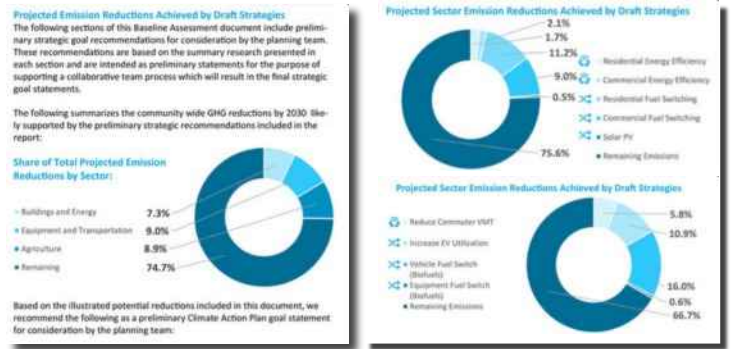
GHG reduction modeling will use the paleBLUEdot Citywide Integrated Inventory Tool described in the GHG Inventory Review section above. This tool enables our team to directly integrate all strategy GHG reduction potentials with City specific existing GHG data and Business as Usual forecasts. The findings of this GHG emission reduction forecasting effort will be reviewed with the City and CAP Planning team early in the collaborative planning process.

City Staff Interaction: GHG Emission Reduction Forecast review meeting(s)

Deliverables: GHG Emission Reduction Potential and Forecast (electronic document).



Example GHG Emissions Reduction Potential and Forecast



Scope

Task 4 Engage City Commissions/Common Council and Community

Please see the “Community Engagement” section of this proposal for a detailed review of the paleBLUEdot team community engagement plan.

Engaging City Commissions and Council

The paleBLUEdot team anticipates engaging appropriate City Commissions and the City Council in collaboration with City staff. paleBLUEdot will collaborate with the City in finalizing the plan for engagement, however, we preliminarily anticipate two engagement periods with City Commissions and three with the City Council. The first engagement with each is recommended at an interim period following the development of the Climate Baseline Assessment, Reduction Target and Strategic Goal Recommendations report. The second engagement with each is recommended as a review of the Draft Climate Action Plan. The third engagement for City Council is recommended as a review of the final Climate Action Plan. In addition, the paleBLUEdot team anticipates regular update meetings with the Climate Action Plan Steering Committee. The paleBLUEdot team proposes to work with the City staff to refine the number, intent, and schedule of each of these engagement at project kick-off.

City Staff Interaction: Coordination meeting(s), attendance at CAP Steering Committee, Commissions, and City Council engagements

Deliverables: CAP Steering Committee, Commissions, and City Council engagements

Task 5. Coordinate with Related City Efforts

paleBLUEdot will coordinate with the City for periodic review and updates of the City’s related planning efforts. These periodic reviews will focus on maintaining coordination and alignment between the development of the Climate Action Plan and the City’s General Plan update, Partners in Energy Program, and other relevant on-going City efforts. The final Implementation Matrix will identify actions which relate to these other plans as well as identify coordinated implementation opportunities.

City Staff Interaction: Attendance at period review meeting(s)/phone calls with paleBLUEdot team, providing related city effort update materials/draft/final reports to paleBLUEdot team

Deliverables: Integration of relevant content into final Climate Action Plan and Implementation Matrix

Scope

Task 6 Climate Action Plan

The paleBLUEdot team proposes to develop a Climate Action Plan (CAP) which integrates broad sustainability strategies and actions along with both climate mitigation (greenhouse gas reduction) as well as climate adaptation measures for the City of La Crosse. The primary task for the CAP is to identify cost effective strategies and detailed actions to address the City's climate action goals. Effective climate action strategies can meet these goals while improving quality of life, building prosperity, and enhancing community resilience. The climate action planning effort should focus on prioritizing strategies and actions to ensure that the final plan will be achievable. The actions included in the final implementation plan should be vetted as the actions most likely to achieve success towards the community's goals while being appropriate for the City of La Crosse specifically.

The CAP should provide a format to coordinate the City's initiatives and department activities to achieve consistency with the community's climate goals while providing metrics for measuring progress. An effective CAP must also recognize that long-range success will be achieved only through community-wide buy-in and should include an identification of actions to facilitate community education, communication, and positive behavior change.

Collaborative Plan Creation

The paleBLUEdot team believes that the most effective Climate Action Plans come from a highly collaborative process. Our approach for developing climate action strategies and actions for the City of La Crosse will be built around a collaborative and interactive process. We will work with the City at project kick-off to confirm and finalize the proposed approach to ensure it meets City expectations. Our recommended approach, offered for consideration, is to form a CAP Planning Team comprised of the CAP project team members, Technical Advisory Committee members, and CAP Committee members.

We anticipate the Joint CAP Planning Team working collaboratively with the paleBLUEdot team in the exploration, creation, review, refinement, and prioritization of climate action strategies and detailed actions. paleBLUEdot will support this process through facilitation of workshops, providing technical advice and recommendations, and coordinating the work input of the Joint CAP Planning Team. Through this approach, the final CAP will be informed by regional and national best practices and rooted in a deep understanding of the City of La Crosse community and municipal operations. The end result will be a highly La Crosse specific, community grounded Climate Action Plan

Task 6.1 Climate Action Plan Meetings

We anticipate working collaboratively with the City's CAP Project team, CAP Steering Committee, and Technical Advisory Committee in the exploration, creation, review, refinement, and prioritization of mitigation and adaptation strategies. We recommend conducting as many of the planning sessions as possible within a CAP planning team format comprised of portions or all of these three committees. The paleBLUEdot team anticipates working with the City to explore this proposed approach and to finalize the meeting and engagement approach for the planning process collaboratively.

Our proposed plan for Climate Action Plan team engagement, to be reviewed and refined with the City includes up to seven sessions over the timeframe of the project. Below is a summary of these sessions::

1: CAP Team Introduction/ Kickoff Meeting (virtual) for Project Kick-off to review project scope, process, goals and expectations, timeline, and to confirm Steering Committee engagement.

2: CAP Sub-Team / Sector Goalsetting Meeting for team collaboration and preliminary consensus development on sector level strategic goals.

3: Four (virtual) Workshop sessions:

A) Review of Existing Conditions documents (Climate Vulnerability Assessment, GHG Inventory review and emissions forecast, Renewable Energy Potentials Study, Baseline Assessment Report); Collaboratively define short term and long-term goals, collaboratively establish measure evaluation criteria; break group into sub-teams based on Climate Action categories; train CAP team on paleBLUEdot ACTION Finder tool.

Inter-meeting activity: Sub-teams use ACTION Finder tool to explore potential strategies and actions; Sub-teams to consider range of possible strategy screening criteria and develop recommended shortlist of criteria.



Scope

Task 6.1 Climate Action Plan Meetings (continued)

2) CAP Sub Teams report on potential strategy review; CAP Team “brainstorming” additional community specific measures and strategies; CAP Team collaboration for identification of action priorities; Consensus on community specific strategy screening criteria.

Inter-meeting activity: Provide advance copies of Workshop Session Three shortlisted strategies to subcommittees for preview; CAP Sub-Teams explore development of additional strategies and actions based on CAP Team discussion in workshop 2; Sub-Teams to paleBLUEdot to develop Draft Action Plan; community engagement activities.

3) Review shortlisted strategies with cost/benefit evaluation and Community Engagement Feedback; Sub-Team feedback by category; CAP Team evaluation of shortlisted strategies and actions based on strategy screening criteria. Finalization of prioritized strategies and actions.

Inter-meeting activity: paleBLUEdot to develop draft Climate Action Plan; community engagement activities

4) Review of draft Climate Action Plan; draft Implementation Matrix; strategy prioritization; Discuss and identify action responsibilities and potential collaborators and partners for Implementation; identification of additional functionality/component needs

C: Meeting for finalization of Draft Climate Action Plan

Task 6.2 Goalsetting – Climate Mitigation, Adaptation, and Resilience Targets

The paleBLUEdot team will work with the City of La Crosse and the CAP team to establish sector level goals. Sector goals are anticipated to address broad sustainability considerations as well as both climate adaptation and climate mitigation (such as emissions reduction and renewable energy targets). The collaborative goalsetting process will begin with a review and discussion of the Draft Reduction Target and Strategic Goal Recommendations based on the Risk and Vulnerability Assessment and Climate Baseline Assessment (see Task 1b). Final goals will be collaboratively established with the CAP team.

To support this critical next step, we will provide a survey of community-wide greenhouse gas emissions reduction, sustainability, and climate adaptation goals from peer cities throughout Wisconsin and the Midwest. The paleBLUEdot team will provide a comparison to a range of State and regional communities, as well as comparisons to State and national averages. We will collect comparable community level data from our team’s recent and on-going 40+ regional community GHG inventories, as well as comparable community data collected from the C40 Community Comparison Dashboard, CDP Cities Reporting Dataset, and the Global Covenant of Mayors Data Dashboard. All of these efforts will allow us to assess and present a range of goals for the CAP team and City to consider as a foundation for their collaborative consensus building on the goals appropriate for the City of La Crosse.

Task 6.3 Climate Action Plan Strategy and Action Creation

The process to develop La Crosse specific measures will use the previously described Climate Baseline Assessment, Reduction Target and Strategic Goal Recommendations report and will include an identification of existing regional measures. Our team will also share our extensive national measures database and Best Practices. Honing City of La Crosse specific measures will happen through collaborative Joint CAP Planning Team efforts outlined in the “CAP Plan Meetings” section of this proposal. Our process for defining climate action strategies and actions includes:

Scope

Task 6.3 Climate Action Plan Strategy and Action Creation (continued)

paleBLUeDot ACTION Finder Tool

Through our sustainability and climate action planning work with communities, paleBLUeDot believes collaboratively developing community-specific strategies with the broad stakeholders represented in the Joint CAP Planning Team is the most effective planning process. We also understand, however, it can be difficult for Joint CAP Planning Team members to know where to begin. Sustainability and climate action encompass such a broad range of considerations in our communities that the task of exploring what may even be possible can seem insurmountable. We've discovered that simply being able to see what others have done before us can ignite a community's own ideas and give clarity to how a community wishes to approach their own solutions. This led us to create the ACTION Finder tool.

The ACTION Finder tool is a robust database of municipal climate mitigation, climate adaptation, climate economy, and sustainability strategies and actions from across the United States. The over 4,000 strategies and actions included in the ACTION Finder come from cities large and small from nearly every region of the country. The ACTION Finder is designed as a collaborative tool to support Climate Action Plan Teams and stakeholder groups in exploring a range of strategies and actions as they work to visualize what would be most effective and appropriate for their own community.

The ACTION Finder tool provides Joint CAP Planning Team guidance as the central tool in the design of community specific strategies and actions. The tool functions as support for research, inspiration, collaboration organization, team communication, and ultimately as the launch pad for custom, community specific strategy and action development. This tool will be used through a series of workshops to explore a wide range of example climate action strategies for cities throughout the United States, develop new La Crosse specific potential strategies, and to collaboratively review, refine, prioritize, and finalize La Crosse' climate action strategies. The workshops are described in detail in the "CAP Plan Meetings" section of this proposal.

Category Designation	Action Number	Strategic Goal	Detailed Action	Cost (\$, \$K, \$M, \$B)	Timeline (Year, Mid, Long)	Scale (Citywide / Operations)	Policy Type (Example, Incentive, Advocate, Regulate)	Example City	Example City Population Range (x10,000)	Year	Save Strategy ("Save")	Comments / Notes	Save Strategy ("Save")	Comments / Notes
Buildings and Energy	BE-54	Advocate for improved State-wide renewable energy policies	Participate in statewide policy discussions to expand the market in Oregon for renewable energy, including solar, wind, geothermal, biogas and biomass, and remove barriers to widespread participation in renewable energy programs like...	\$	Mid	Citywide	Advocate	Portland	>300,000	2015				
Buildings and Energy	BE-55	Support development of Biogas projects	Continue to support development of local and regional biogas resources, including anaerobic digestion of food scraps, while minimizing disproportionate impacts on low-income populations and communities of color.	\$	Year	Citywide	Advocate	Portland	>300,000					
Buildings and Energy	BE-56	Increase development of District Heating and Cooling systems	Continue to support development and expansion of low-carbon district heating and cooling systems	\$	Mid	Citywide	Advocate	Portland	>300,000					
Buildings and Energy	BE-57	Reduce Fossil Fuel exports passing through City/State	Establish a fossil fuel export policy that considers lifecycle emissions, safety, economic, neighborhood viability and the environment at the state level, oppose exports of coal and oil	\$	Long	Citywide	Advocate	Portland	>300,000					
Buildings and Energy	BE-58	Maximize renewable energy purchasing and production	Include CAP priorities in long-range electric and water resource planning goals			Citywide	Advocate	Columbia	50,000 - 150,000					
Buildings and Energy	BE-59	Maximize renewable energy purchasing and production	Consider all renewable energy sources on a cost per metric ton of carbon dioxide equivalent reduction in the City's integrated electric resource plan			Citywide	Advocate	Columbia	50,000 - 150,000					
Buildings and Energy	BE-60	Maximize renewable energy purchasing and production	Invest in local renewable energy generation			Citywide	Advocate	Columbia	50,000 - 150,000					
Buildings and Energy	BE-61	Create a resilient energy grid	Develop energy storage (battery) programs for all customer types to reduce peak demand, support electric grid reliability and improve the effectiveness of solar and other renewable energy			Citywide	Advocate	Columbia	50,000 - 150,000					
Buildings and Energy	BE-62	Create a resilient energy grid	Enforce equitable implementation of grid resilience actions by partnering with high-risk neighborhoods and non-governmental organizations to develop resilience hubs—community facilities that offer power and other services during times of need. Establish criteria to screen and select locations for community			Citywide	Advocate	Columbia	50,000 - 150,000					

paleBLUeDot ACTIONFinder Tool Screenshots



Scope

Task 6.4 Strategy and Action Quantification and Evaluation

For each of the recommended City of La Crosse Climate Action Plan strategies and actions, the paleBLUEdot team will conduct a range of quantitative analyses to inform the selection of measures to be included in the draft CAP. Specifically, review will include:

Revised Reduction Potential Calculations

Our team will analyze the draft portfolio of actions for their GHG reduction potential, their contribution to one or more GHG reduction targets, and impacts on energy use and vehicle miles traveled. This GHG reduction modeling will build on and revise the Task 3 GHG Emission Reduction Potential and Forecast and will use the Citywide Integrated Inventory Tool described in the GHG Inventory Review section above. This tool enables our team to directly integrate all strategy GHG reduction potentials with City specific existing GHG data and Business as Usual forecasts.

Action Screening Criteria

To assist in the refinement and prioritization of strategies and actions on which the Climate Action Plan should focus, paleBLUEdot will work with the Joint CAP Planning Team to identify specific criteria for screening, reviewing, and prioritizing actions to be developed for the plan. Strategy screening criteria may include considerations such as community support, co-benefits, feasibility, and community capacity for implementation. The process of determining City of La Crosse screening criteria will begin by reviewing paleBLUEdot's database of Climate Action Strategy Screening Criteria used by communities throughout the region. From this initial database review, the Joint CAP Planning Team will be empowered to narrow and define strategy screening criteria of their own, ultimately building a consensus on the criteria against which potential actions should be measured. Examples of potential criteria that results from this process include equity, community support, return on investment, and economic development potential.

Prioritization

Once we have the comprehensive list of potential strategies and actions evaluated, they will be reviewed with the City and Joint CAP Planning Team through a collaborative workshop session for prioritization and refinement. These lists will form the basis of the draft Climate Action Plan as well as review and input by City Staff, the CAP Team, and the Community Engagement effort outlined in the Task 4 section of this proposal.

Task 6.5 CAP Action Finalization

Following the Draft CAP actions review outlined in Task 3.4, paleBLUEdot will engage in a meeting with the CAP Project Team to review the community engagement and committee input and to establish a consensus understanding on appropriate integration of that feedback. Following CAP Project Team direction consensus, paleBLUEdot will facilitate joint CAP Planning Team workshops to finalize the CAP strategies and actions. The first portion of these workshops will focus on review, consideration, and integration of review input received through community and steering committee input. The second portion of these workshops will focus on collaborative identification of CAP action implementation responsibilities, potential supporting partners, and supporting community resources.

Task 6.6 Strategy and Action Measurement and Metrics

paleBLUEdot will execute a review of the City of La Crosse climate and sustainability goals and policies to identify monitoring requirements. Our team will combine these observations with the preliminary metrics included in the Risk and Vulnerability Assessment and the Climate Baseline Assessment documents to arrive at recommended metrics for the strategies and actions included in the final Climate Action Plan. The intent of the effort will be to identify metrics which are readily available and repeatable on an annual basis. The metrics identified will be included in the final Implementation Matrix.

Scope

Task 6.7 Implementation Matrix and Annual Reporting Template

paleBLUEdot will provide an excel based implementation matrix tool for use by City staff in tracking and monitoring the implementation progress of all Climate Action Plan strategies and actions. The Implementation Matrix will include information on implementation responsibilities, and metrics to measure success for all actions. The Matrix will include template formatting for annual staff reporting on action status and performance data reporting. To support ease of use and collaboration by many City staff, the Matrix will be a highly searchable database enabling searches by CAP sector, climate action strategy grouping, department/staff responsible for implementation, and by key word/phrase. The Implementation Matrix will also retain any notes and comments which were made by all Joint CAP Planning Team members during the planning phase so that City staff will have ready access to those records. The Matrix will also include, where applicable, an identification of other communities that have similar actions included in their sustainability or climate action plan – enabling City staff to identify peer communities who may be contacted in the future to share implementation observations and lessons learned. Finally, the Implementation Matrix will support annual progress reporting based on the identified metrics.

Task 6.8 Draft CAP Strategy and Action Review

The review, refinement, and prioritization process outlined in Task 3.3 will result in Draft CAP strategies and actions. Following the development of the draft CAP actions, paleBLUEdot will engage in a meeting with the CAP Project Team to confirm consensus on the draft CAP actions and to coordinate the review and input process.

Soliciting review and input on these draft CAP actions will form the basis for the drafting community engagement outlined in the Task 4 Engagement section. During this timeframe, paleBLUEdot will also coordinate with the CAP project team to provide a presentation and input session with the Steering Committee for input on the draft CAP actions.

Task 6.9 Cost Benefit Analysis

The paleBLUEdot Integrated GHG Inventory and Modeling Tool (see GHG Inventory section in this proposal) includes a cost benefit analysis module. The module is linked to tool's GHG reduction modeling modules which calculate the community-wide energy consumption and emissions reductions resulting from the actions and strategies developed for the Climate Action Plan. The tool can then be used for community-wide cost benefit calculations using the modeled raw energy consumption savings, and projected investments in relevant technologies such as distributed renewable installations, EV infrastructure, etc. The resulting calculations can then be broken down to present the projected cost benefit based on CAP sector (Transportation, Buildings, etc) or community sector (residential sector, commercial sector, etc).

Cost benefit calculations will also include a calculation for a localized social cost of carbon. This social cost of carbon will enable the cost benefit analysis to also include a projection for the value of the avoided carbon impacts associated with the CAP plan GHG reductions. The localized social cost of carbon will be calculated using the City's current GHG emissions as calculated in the GHG inventory in combination with the estimated local climate change cost impacts on agriculture, energy costs, labor productivity, property crime, and violent crime to arrive at a localized cost of carbon impacts on a per metric ton basis.

Task 6.10 Draft Climate Action Plan Development and Review

paleBLUEdot will develop a Draft Climate Action Plan including the final CAP strategies and actions developed through Task 3.5 as well as a full public-facing plan document presented in a format that is visually appealing, easy to understand, and translatable to a variety of media. The Draft Climate Action Plan will include a Draft Implementation Matrix.

The Draft Climate Action Plan will be reviewed at an initial meeting with the CAP Project Team. The Draft Climate Action Plan will then be reviewed with the joint CAP Planning Team. Following these meetings, the Draft Climate Action Plan will be provided to the joint CAP Planning Team for editorial review. The intended result of the review process will be for the CAP Project Team to receive and consolidate a unified, consensus direction on final draft plan refinement desired.



Scope

Task 6.11 Final Draft Plan Review

Following receipt of the consolidated review direction, paleBLUEdot will produce a Final Draft of the Climate Action Plan. This Final Draft Climate Action Plan will be reviewed with the Steering Committee and used as the foundation for the City Council and community plan review effort. The intended result of the Steering Committee and public engagement review process will be for the CAP Project Team to receive and consolidate a unified, consensus direction on final plan refinement.

paleBLUEdot will coordinate with the CAP Project Team and Steering Committee on the desired Final Draft CAP plan presentation and City Council review process. Our team will create appropriate presentations and review documents to support the final City Council review process expectations.

Task 6.12 Final Climate Action Plan Edits

Following receipt of the consolidated, unified consensus direction on final plan refinement, paleBLUEdot will finalize the Climate Action Plan and Implementation Matrix.

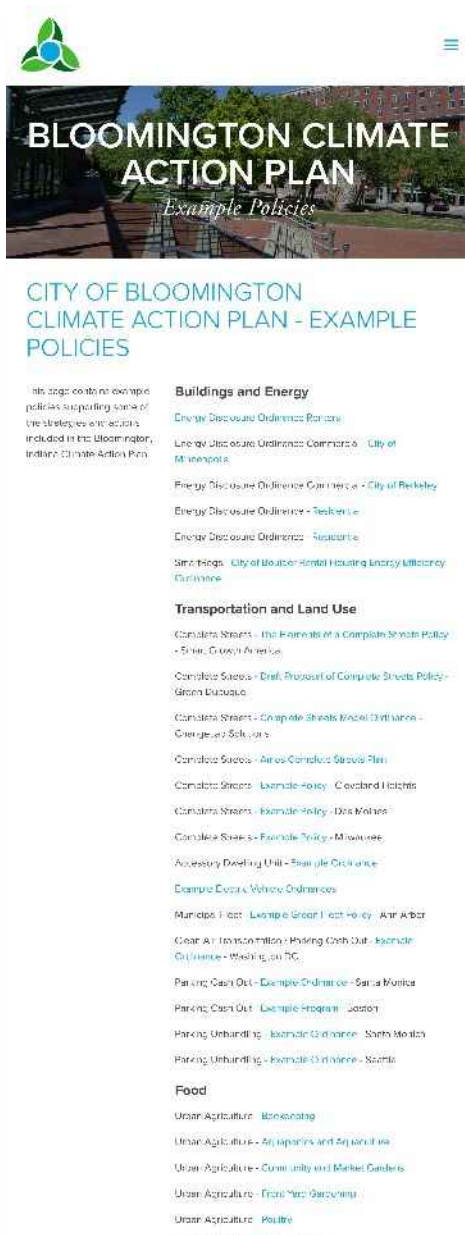
Task 6.13 Example Municipal Policies and Ordinances (offered Pro Bono)

Most Climate Action Plans include actions which ultimately require the development of a City policy or ordinance in order to implement fully. paleBLUEdot has found that the development of policies and ordinances can frequently be made easier if the City department responsible for developing the policy has access to successful example policies or other “best practice” guidance. To support the City’s resources in “hitting the ground running” in the transition to plan implementation with respect to policy and ordinance development, paleBLUEdot will research, identify, and curate example policies and ordinances for actions in the final CAP plan which require policy or ordinance development (unless, of course, examples are not yet available). paleBLUEdot will create a webpage resource for the City will all of the example policies and ordinances organized by Climate Action Plan sector.

City Staff Interaction: CAP Planning Meetings and CAP Finalization Meeting attendance; CAP Planning Team use of ACTIONFinder tool for collaboration on action exploration, refinement, and prioritization; Consolidation of Draft CAP review consensus; Supporting Consolidation of Final Draft CAP review consensus

Deliverables:

Use of paleBLUEdot ACTION Finder tool (electronic document), Action Screening Criteria (electronic document), Draft CAP strategies and actions (electronic document); Draft Climate Action Plan (electronic document) Draft CAP Executive Summary (electronic document); Final Draft Climate Action Plan (electronic document); Final Climate Action Plan (electronic document); Final CAP Executive Summary (electronic document); Example Municipal Policies and Ordinances Database (offered Pro Bono)



paleBLUEdot example Municipal Policy and Ordinance Resource

Scope

Task 7. Support City in Adoption of the Climate Action Plan and General Plan Amendments

The paleBLUEdot team will execute the work of the Climate Action Plan in close coordination with the City's related on-going General Plan Amendment work. Our team will participate in coordination discussions, meetings as needed to maintain coordination between the two plans. paleBLUEdot will also execute a review of draft General Plan to support identification of General Plan Amendments which may best support the Climate Action Plan implementation. Our team will review the final CAP plan and implementation matrix and will identify specific strategies and actions which should be reflected in or coordinated with the final General Plan Amendments and will provide documentation to the City.

City Staff Interaction: Intermittent coordination meeting/communication related to the General Plan Amendment.

Deliverables: On-going review of General Plan Amendment effort, coordination review of CAP deliverables, documentation of coordination needs.

Task 8 Optional Services

Once a Climate Action Plan is finalized and approved by City Council, we find that transitioning to the implementation phase can be a bit overwhelming, challenging, and a time consuming transition for many city governments. Climate Action Plans are unique among municipal plans. More than any other plan, their successful implementation relies on advancing community-wide behavior change as much, if not more, than actions which can be implemented solely by municipal resources. "Changing gears" from planning into initiating action within the City government structure, residents, and businesses can be challenging and difficult to quickly build the momentum needed to sustain long-term action. As a mission driven practice, it is important to paleBLUEdot to do all we can to help our clients to "hit the ground running." To help with that, we are offering a number of optional services to support the successful transition into the Climate Action Plan implementation:

Optional Task 8.1 Climate Action Toolkit Supporting CAP Implementation

The CAP and its recommended strategies and solutions are not just for City officials use and government-owned buildings and assets. The CAP should also provide the community with actionable next steps towards climate action, which will be supported through a Climate Action Toolkit. The toolkit will include an online engagement platform as well as an online database of resources supporting community action.

We propose to create a comprehensive online community platform designed to engage and empower individual households on climate and sustainability actions. This portion of the toolkit will provide a simple, easy, and fun engagement platform and program that empowers residents and business owners to learn about climate solutions supporting the La Crosse Climate Action Plan, take action, and save money. The interactive platform will include many easy, affordable actions that everyone can take to make a difference as well as actions of increasing impact for those ready and capable of more advanced action. The savings for participating residents and businesses will be tangible—based on past projects, most households will save between \$1,000 and \$3,000/year while reducing their household climate impact.

ROBUST CARBON ANALYTICS ENGINE with data customized for each user so residents can see the true impact and savings from actions.

SIMPLE, FUN PLATFORM that makes it easy to learn to take climate actions, track progress, and save money

SOCIAL ENGAGEMENT with built-in features for residents to work in teams, share tips, and celebrate wins

CUSTOM PROGRAMS AND SUPPORT local branding and custom engagement programs with dashboards and data reporting to track progress

Deliverables: Climate Action Toolkit document (electronic)



Example online Climate Toolkit Engagement Platform



Scope

Optional Task 8.2 Community Guides Supporting CAP Implementation

paleBLUEdot will produce public facing guides to support community education and awareness on the three major high-impact categories of personal / household / and company action potential: High Performance / Net Zero building energy efficiency, on-site renewable energy, and EV adoption and charging infrastructure. The guides to be produced include:

Net Zero Energy Building Guide

The Net Zero Energy Building (NZE) Guide will be developed as a tool for use by businesses and residents of the City of La Crosse. The intent of the NZE Building Guide will be to provide insight, education, and actionable guidance on advancing high performance energy efficiency and zero emissions buildings supporting the City's GHG Reduction goals within the Building sector.

The NZE Building Guide will be developed as a print-ready document as well as a webpage embedded magazine or PDF for on-line use. The guide will include considerations for commercial and institutional buildings, and residential buildings. The NZE Building Guide will provide an introduction to the concept of Net Zero, common terms, and the purposes and benefits of Net Zero building. The guide will include a review of building design and construction team structure and approaches for reaching NZE, as well as an overview of Net Zero procurement tools and strategies available to building owners. The guide will provide a menu of strategies for achieving Net Zero design. The menu of strategies will be organized by building components and aspects and will include links to additional resources.

Solar Ready Guide

paleBLUEdot will provide a Solar Ready Guideline document as a companion to the NZE Building Guide. The intent of this document will be to provide insight, education, strategies and content with actionable guidance on advancing on-site renewable energy deployment supporting the City's GHG Reduction goals within the Building sector. The Solar Ready Guide will provide an overview of design considerations all buildings should include in order to more readily and cost-effectively support a future solar photovoltaic array installation. The Solar Ready Guideline will include a "solar ready checklist" for building owners, designers, and contractors to use in support of making their projects solar ready. The guide will also identify strategies and "next steps" the City of La Crosse can employ to encourage and advance distributed on-site renewable energy deployment throughout the City. The guide will also include a brief section on aesthetics with a range of solar PV integration examples.

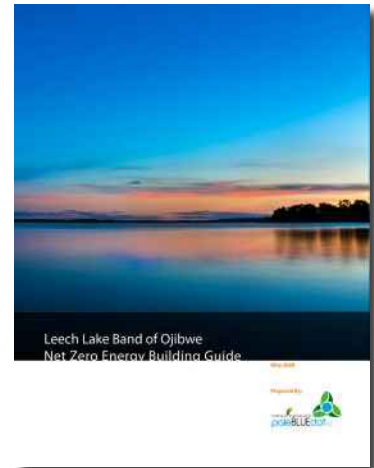
EV Ready Guide

The EV Guide is intended to support residents, families, institutions, and businesses in exploring, planning for, and making the transition to electric vehicle use. The guide will provide a broad overview of electric vehicle information, resources, and recommendations. The guide will include: an introduction to EV technology and charging infrastructure; driving and maintaining electric vehicles; an overview of the EV market; review of transitioning commercial fleets to electric vehicles; a review of EV fleet use cases; site and building EV readiness standards; estimating EV charging infrastructure needs for residential, commercial, and fleet needs; estimating electric vehicle power needs and consumption for residential, commercial, and fleets; EV buying guide; review of current federal, state, and utility incentives; and references to additional resources.

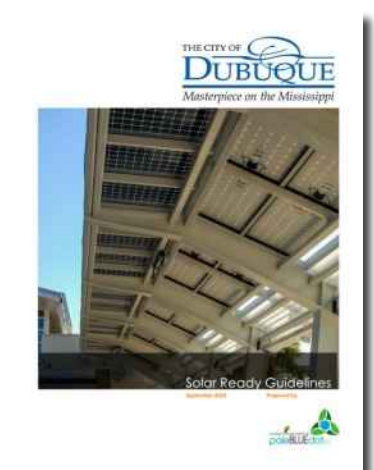
Deliverables:

Net Zero Energy Guide; Solar Ready Guide; EV Ready Guide

Example Net Zero Energy Building Guide



Example Solar Ready Guide



Example EV Ready Guide



Scope

Optional Task 8.3 Climate Action Implementation Communications Plan

The communications plan will help set the stage for implementing community communications to build community awareness and focused, prioritized action around the Climate Action Plan, and for engaging City residents and businesses in positive behavior change throughout the plan implementation phase. The implementation concept plan will identify Climate Action Plan messaging approaches, recommended communications content, and an outline of engagement formats and event potentials supporting community-wide plan implementation. This plan effort will include:

1. Discovery - Conduct information gathering enquiries by phone and email with staff members from La Crosse and conduct secondary research when appropriate.
2. Implementation Communication Goals and Objectives - The overall “big picture” desired outcome, and what specific thresholds need to be achieved to generate the outcome.
3. Target Audiences - Who is trying to be reached and why.
4. Core Messages - What is being communicated to each audience.
5. Implementation Plan - What needs to be generated, what are the specific communications channels being used and who’s responsible for each task.
6. Communications Calendar - A schedule of what and when communications are occurring.
7. Measurement - Tracking the success of accomplishing the plan's objectives and goal.

Deliverables:

Climate Action Implementation Communications Plan

Optional Task 8.4 Communications Plan Implementation Support (6 months)

The paleBLUEdot team can support the implementation phase of the Climate Action Implementation Communications Plan. This task would include generating monthly communications content (website copy, social media posts, content for newsletters, etc). The paleBLUEdot team will also collaborate and coordinate with the City’s communications staff for the posting of monthly content on the City’s social media accounts, website, and other communications pathways.

Deliverables:

Monthly Climate Action Plan implementation communications content.

Example CAP Communications Concept Plan

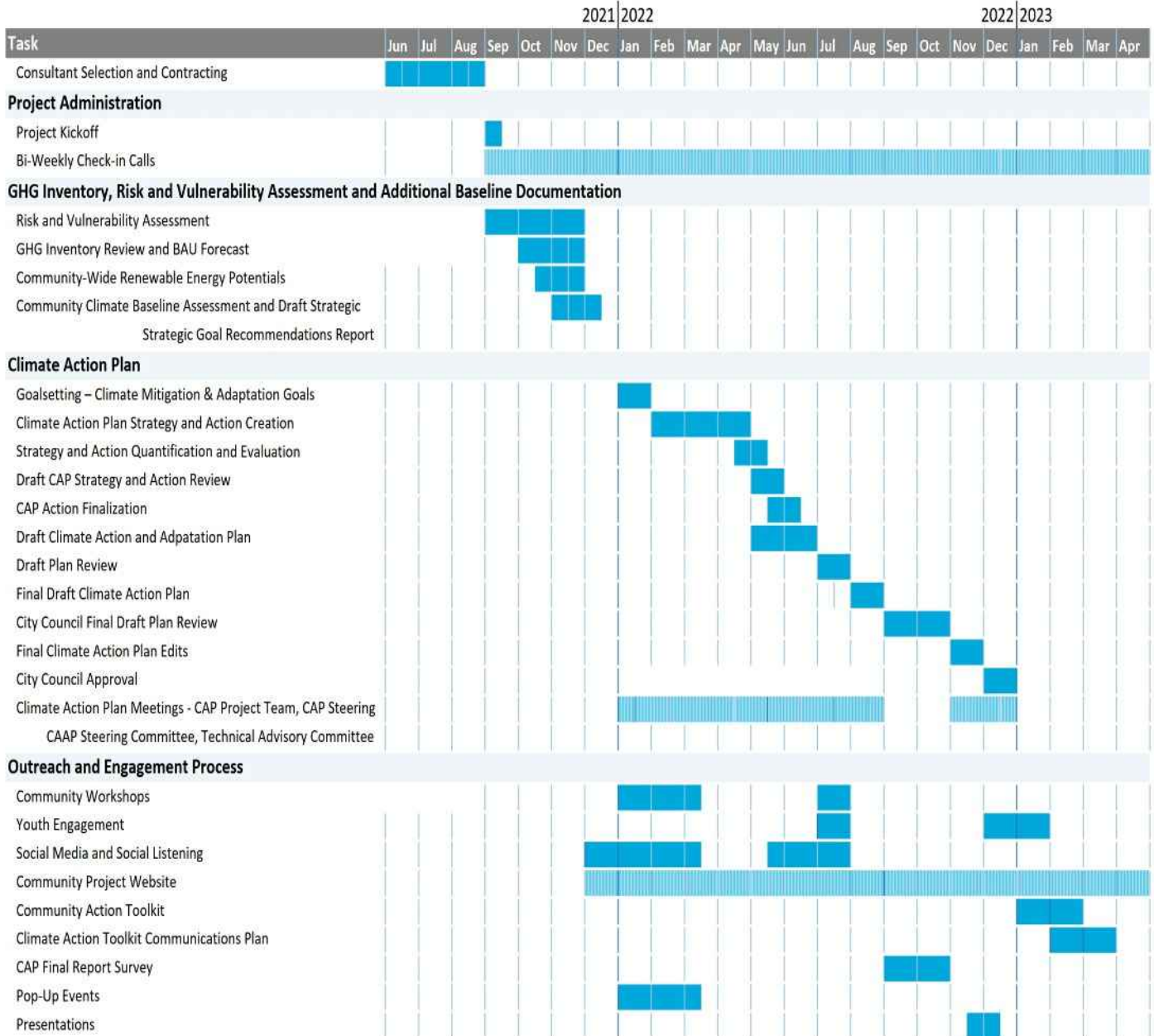


Timelines

Proposed Project Work Plan

As a highly integrated project effort between the paleBLUEdot team and the City of La Crosse, we recommend a project scheduling discussion at the project kick-off meeting. By collaborating on project schedule parameters, the paleBLUEdot team will ensure that the project tasks are completed in coordination with the City's schedule requirements.

Our team will manage the project scope to assure that project tasks are completed within the City's expectations. Below is our team's preliminary recommendation for the Climate Action Plan project work plan and chronology of key deliverables and presentations as described in detail in the "Scope" section of this proposal:





Community Engagement

Meaningful community engagement provides outlets for the local community and its residents to speak and participate, as well as to feel heard, understood, and valued. To achieve this, all stakeholders, particularly under-represented and vulnerable communities, residents, businesses, institutions and other stakeholders will be provided with opportunities to become actively involved in the development and planning of the City's long-range plan and evaluation of climate and other environmental issues.

The paleBLUEdot team will also conduct a series of Community Meetings, focus groups, and community-events to survey, gauge opinions, solicit input, and hear from residents, particularly frontline communities.

Effectively and creatively soliciting the guidance, ideas, and needs of numerous stakeholders at the onset of the planning process captures the community's priorities, preferences, and values. Thus, the community engagement process for this Climate Action Plan will:

Steward Community Ownership and Engagement – we seek the vested interest to cultivate a sense of ownership with residents through active participation throughout the planning, analysis, and implementation process.

Build a Culture of Collaboration, Transparency, and Trust – Through multiple town meetings, focus group interviews, listening sessions, and a process embedded in transparency and stakeholder engagement to residents of all ages, the community of La Crosse gains a clear understanding of priorities; varying perspectives, values, and needs; and the collaboration required to build solutions that addresses the needs of the community.

Facilitate Participation and Informed Decision-Making – Our team provides strategic support to multi-stakeholder to encapsulate shared purpose and sound judgment that benefit the good of all. The process seeks common themes from diverse perspectives to build cohesive resolutions.

Ensure efficiency and productivity – The planning process is productive yet efficient, generating depth in purpose, and actionable strategies by community members.

Task 4.1 Developing the Community Engagement Approach and Strategy

To implement effective change and a feasible climate action plan that transitions a community towards both climate mitigation and climate action addressing the needs of all, but especially populations particularly vulnerable to the critical impacts of climate change, an effective community engagement plan needs to be utilized. A community of business owners, community services, developers, homeowners and property management, and residents and youth must be actively involved in the planning, design, and implementation of any climate strategy or action that involves the whole community and is uniquely tailored for the City of La Crosse.

Our team anticipates working with the City to design on-going engagement, long-term planning, and implement the goals of the community for effective climate action. Our team proposes a two phase engagement approach as outlined in the following sub-tasks.

City Staff Interaction: Community Engagement planning meeting(s)

Deliverables: Finalized community engagement plan

Task 4.2 Community Engagement Phase 1 – Community Input

The paleBLUEdot team utilizes a collaborative process to build climate action through community engagement. The approach includes all stakeholders, paleBLUEdot team members, City project team representatives and team leads, representatives of under-represented, vulnerable communities, and representatives of local businesses and community groups. paleBLUEdot's community leads, Ted Redmond, Colleen Redmond, and Huda Ahmed, have significant community engagement experience. The team will leverage and build upon that experience to cast the wide net of engagement to reach a diversity of community members and under-represented groups.

Community Engagement

Task 4.2 Community Engagement Phase 1 – Community Input (continued)

Community Project Website: A key tool in our approach is a project website that will serve as an easily accessible forum for obtaining and sharing project information. The outreach team will create a design-forward, interactive, mobile-friendly, and accessible web platform. The website will include a robust amount of information, including a project overview, frequently asked questions, key resources, project schedule, and materials from public input opportunities. paleBLUeDot will secure a custom domain, develop content, design and construct the website, secure hosting, maintain the website, and provide up to four content updates of the website through the planning process. At the completion of the project the website will be made available to the City to enable the City to continue use of the website throughout the plan implementation phase.

Community Engagement Meetings: These meetings are designed to provide an inclusive, responsive, diverse, feasible strategic engagement process that addresses the concerns and perspectives of all key stakeholders across sectors, geographies, cultures, and interests in which the project seeks to engage.

Public Information Campaign: The paleBLUeDot team will work with the City to design a public information campaign about the development of the Climate Action Plan, and the role of community members and residents to participate in the process. The campaign will include information for the city website, project website, and the City's social media accounts, in addition to flyers, and brochures provided at community outreach meetings.

Community Perspectives Installation: This project will post large interactive pieces in a high foot-traffic area of La Crosse posing questions to capture community opinions and feedback from all age levels, such as: "A green La Crosse means _____, carbon neutrality in La Crosse looks like _____." The piece will also include a link and QR code connecting community members with the project website as well as a content upload center where community members can upload stories, art, poems, or other materials expressing their input.

Pop-Up Events: To broaden input surrounding CAP drafting and finalization, paleBLUeDot can attend and staff a vendor booth at two community events that solicits additional input from the public.

Equity Listening Sessions: paleBLUeDot's Equity Engagement Lead, Huda Ahmed, will organize and lead up to six focus group listening sessions and one-on-one interviews with priority community liaisons to begin to build relationships, deepen understanding of needs, and identify best ways to partner to broaden engagement within their community. The goal of this engagement will be to identify and activate key community partners and establish Climate Engagement Champions capable of supporting deep, authentic communication within target communities within the City and support robust input on solution ideas and the impacts experienced by different communities and groups within the city. This process will also identify potential Co-Creators within these communities who can participate as representatives in the Climate Action Planning Team. The paleBLUeDot team will compensate the Co-Creators directly for their in-depth participating, helping to enable the participation of under represented or vulnerable populations within the planning effort

WHAT IS MEETING-IN-A-BOX?

Meeting in a Box is a way to support interested individuals in helping organizations, social groups, friends or neighbors to gather at a convenient time and location to provide meaningful input in the development of the Climate Action Plan.

This Meeting in a Box kit contains everything you need to hold a discussion!

What is in My Meeting-in-a-Box?

Facilitator's Guide

Four infographics

1. What is Climate Change?
2. The Climate Change Road Ahead for Edina
3. Climate Change Solutions for Cities
4. Edina Community Greenhouse Gas Emissions

Infographics Talking Points

Draft Event Flyer to customize

Facilitation Guide with talking points and questions to ask

Debrief Worksheet to guide note taking

Download Your Meeting-in-a-Box

Click on the Meeting-in-a-Box icon below to download your copy:



Community Engagement

Task 4.2 Community Engagement Phase 1 – Community Input (continued)

Community Partner Listening Sessions: Our team will provide support for community partner listening sessions to empower community partner organizations – as well as any interested community member - in holding input sessions with their community groups, neighborhood organizations, religious communities, schools, or family and neighbors. The listening sessions will be designed to collect general/overall input, solution ideas, as well as input on impacts experienced by different communities and groups within the city.

To support this effort, paleBLUEdot will develop a “Meeting in a Box” Toolkit to provide community partners and interested community groups and individuals the resources needed to hold their own climate action listening session. The toolkit will be developed and distributed to community partners and will include a facilitator’s guide, infographics with facilitator’s talking points, recommended questions for discussion, session “sign in”, and listening session reporting worksheet.

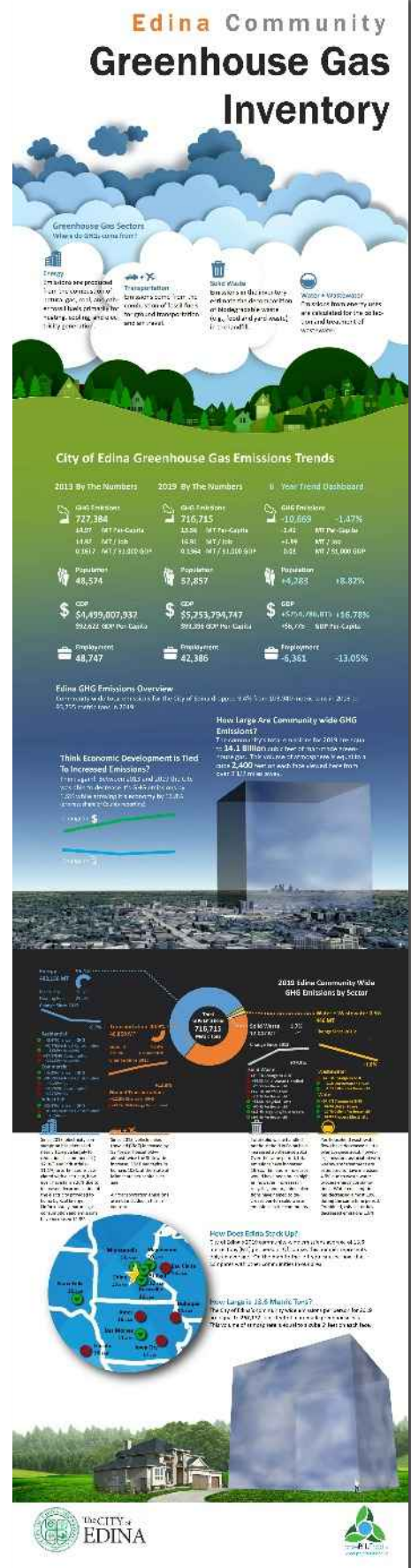
On-Line Survey: To expand the opportunity for community input and involvement, the paleBLUEdot team will develop an on-line survey which can be distributed as linked content for the City’s social media channels as well as inclusion in other City communications. The focus of this survey will be to explore community awareness of climate change science and issues, collect input on concerns, interests, and ideas for addressing climate mitigation and adaptation.

Infographics

paleBLUEdot will develop a series of infographics which summarize the findings of the GHG Analysis, Climate Risk and Vulnerability Assessment, and additional baseline documentation. The intent of the infographics will be to support communication of data to the public through the workshop sessions, focus group discussions, social media, and public website. The infographics will also be used in the engagement of the CAP Project Team.

City Staff Interaction: Attendance at community-wide engagement events

Deliverables: Community Project Website, Community engagement events, Listening sessions. Meeting-in-a-box toolkit, Community Perspectives Installation, on-line survey, infographics



Example Infographic

Community Engagement

Task 4.3 Community Engagement Phase 2: Draft CAP Review, Refinement, and Feedback

Community Engagement Meetings: following the completion of the Draft La Crosse Climate Action Plan, paleBLUEDot will coordinate with City team members to present the draft plan through community engagement meetings to solicit input, feedback and to gauge the level of community interest. Each sector of the draft Climate Action Plan will have posters summarizing the sector and outlining the potential proposed strategies and actions. Attendees will be given opportunities to provide qualitative feedback, and to “vote” for their preferences. These community engagement events will be live and/or virtual, interactive, and will allow community members an opportunity to provide their thoughts on the Climate Action Plan and help to prioritize the potential strategies and actions they deem most important to the community.

Draft CAP Review Webpage and Survey: paleBLUEDot will create a website hosting the full Draft Climate Action Plan with online survey forms to provide community members an additional review and feedback mechanism on the draft plan.

Equity Listening Sessions: paleBLUEDot’s Equity Engagement Lead, Huda Ahmed, will re-engage the focus groups and interviewees engaged in Phase 1 in a discussion reviewing the Draft CAP plan. The goal of these sessions will be to collect overall feedback as well as a focus on understanding how the implementation of the plan can best incorporate equity and empowerment for under represented and vulnerable populations in the city. These sessions will also explore potential community based implementation partners, resources, and pathways to enhance the effectiveness of the Climate Action Plan Implementation phase. The paleBLUEDot team will create Equitable Implementation Considerations content for each of the Climate Action Plan sectors based on the input and information collected through these sessions. Potential equity partners for specific CAP strategies and actions will be identified and included as “Potential Partners” in the Implementation Matrix.



Example Draft CAP Review Webpage



Community Engagement

Task 4.3 Community Engagement Phase 2: Draft CAP Review, Refinement, and Feedback (continued)

Youth Engagement: Youth engagement in climate action planning and implementation is a crucial bridge to the future as well as to families - particularly those who are under represented. Activating youth involvement in climate action is necessary to ensure the long-term success of plan implementation.

Working collaboratively with members of the City, community, School District of La Crosse, and other stakeholders, paleBLUeDot will assist in the development of a Youth Engagement mechanism. The goal is to establish ongoing inclusion of young people in the Climate Action Plan review process and implementation, and to build the foundation for the next generation of climate engagement, and progress towards the City's long-range goals. This cooperative effort will focus on youth Education, Awareness, and Engagement in regards to climate change and the positive steps outlined in the City's action plan:

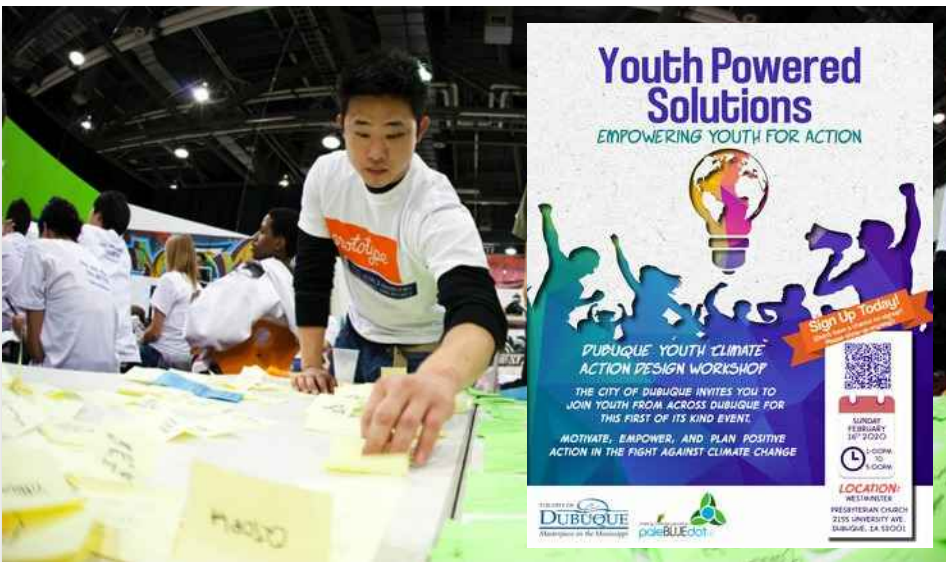
Education: building or reinforcing key background knowledge in regards to climate change and the need for positive steps such as the city's action plan.

Awareness: creating a growing understanding of and appreciation for the City's Climate Action Plan and current action measures.

Engagement: involvement of high school youth in design thinking activities in order to seek feedback to improve current efforts as well as develop new and innovative ideas for future projects.

City Staff Interaction: Attendance at community-wide engagement events

Deliverables: Community engagement events, Listening Sessions, Draft CAP Review Website and Survey, youth engagement deliverable - collaboratively determined and to be similar to one of these options: youth input and design thinking implementation forum; youth presentation toolkit; components to integrate into existing school curriculum; annual design thinking workshop toolkit.



See City of Dubuque Youth Engagement Example here:



<http://palebluedot.llc/dubuque-youth-power>



It's a collective endeavor. It's a collective accountability.

Christine Lagarde, Managing Director, IMF

(40+) Renewable Energy Action Plans (partial list)

State of Montana Solar For Schools Statewide Solar Feasibility Assessment
Helena, MT

City of Maplewood Community-Wide Renewable Energy Action Plan / Solar Potentials Study
Maplewood, MN

City of Mountain Iron Community-Wide Renewable Energy Action Plan
Mountain Iron, MN

City of Albert Lea City-Wide Renewable Energy Action Plan / Solar Potentials Study
Albert Lea, MN

City of Faribault City-Wide Renewable Energy Action Plan / Solar Potentials Study
Faribault, MN

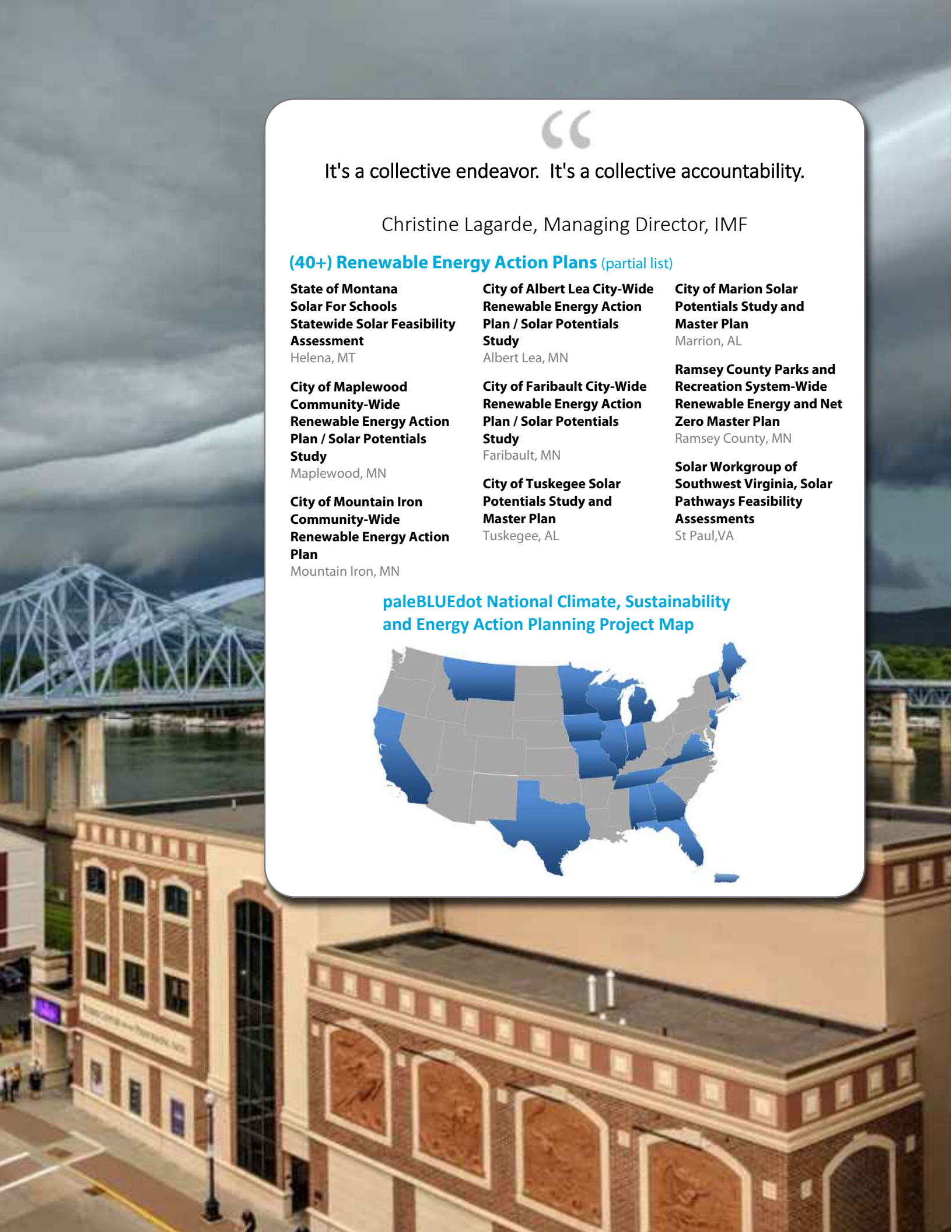
City of Tuskegee Solar Potentials Study and Master Plan
Tuskegee, AL

City of Marion Solar Potentials Study and Master Plan
Marrion, AL

Ramsey County Parks and Recreation System-Wide Renewable Energy and Net Zero Master Plan
Ramsey County, MN

Solar Workgroup of Southwest Virginia, Solar Pathways Feasibility Assessments
St Paul, VA

paleBLUEdot National Climate, Sustainability and Energy Action Planning Project Map



Qualifications

The paleBLUEdot team has extensive consulting experience relevant to the La Crosse Climate Action Plan project, including Climate Action Plans, Climate Vulnerability Assessments, Climate Adaptation Plans, Renewable Energy Action Plans, Sustainability Baseline Assessments, and Tree Canopy and Carbon Sequestration Plans. Our work spans 21 States and our project experience within the last three years alone includes:

Experience of paleBLUEdot - Lead Firm

Recent Municipal Climate + Energy Planning Clients (Since 2018)

Addison County, VT	Kelliher, MN
Aekely, MN	LaFarge, WI
Albert Lea, MN	Leech Lake Band of
Ames, IA	Ojibwe
Bloomington, IN	Maplewood, MN
Brainerd, MN	Marion, AL
Brooklyn Park, MN	Morris, MN
Burnsville, MN	Mountain Iron, MN
Chattanooga, TN	Northbrook, IL
Chrisholm, MN	Northfield, MN
Crookston, MN	Oakdale, MN
Dallas, TX	Ranier, MN
Dubuque, IA	Roseville, MN
Duluth, MN	Saint Charles, MN
Eau Claire, WI	St Louis Park, MN
Edina, MN	Tuskegee AL
Elk River, MN	Warren, MN
Fairfax, MN	Winnebago, MN
Faribault, MN	Winthrop, MN
Granite Falls, MN	Wise, VA
Hartford, VT	

(50+) Community Climate, Energy, and Sustainability Planning Projects (partial list)

City of Dubuque Climate Action Plan Dubuque, IA	City of Chattanooga Greenhouse Gas Inventory and Analysis (years 2013, 2016, 2019) Chattanooga, TN
City of Edina Climate Action Plan Edina, MN	Village of Northbrook Climate Action Plan Northbrook, IL
City of Bloomington Climate Action Plan Bloomington, IN	City of Burnsville Sustainability and Climate Action Plan Burnsville, MN
City of Maplewood Climate Adaptation Plan Maplewood, MN	City of Albert Lea Climate Action and Adaptation Plan Albert Lea, MN
City of Faribault Climate Adaptation Plan Faribault, MN	
Leech Lake Band of Ojibwe Climate Adaptation Plan Cass Lake, MN	
Town of Hartford Carbon Neutral Climate Action Plan Hartford, VT	

Completed Work Samples:

For samples of paleBLUEdot team work, please scan the QR code:



Or go to:
<https://palebluedot.llc/lcw-examples>

Experience of EcoAdapt (partial list)

The State of Climate Change Adaptation in the Great Lakes Region

Report summarizing climate change impacts and providing a review of climate change adaptation activities in the Great Lakes region, with a focus on the natural and built environment as they relate to freshwater resources

Great Lakes Climate Adaptation Toolkit

Resources to help Great Lakes communities respond to the impacts of climate change

Climate Policy Menu: Adapt

Resource to help policymakers navigate the policy solutions that can be used to adapt to climate change

Resilient Rural America

Online training program to help rural communities become more resilient to extreme weather and changing climate conditions

Rapid Vulnerability & Adaptation Tool for Climate-Informed Community Planning

Guided planning tool to help communities quickly assess vulnerability and develop priority adaptation solutions

Climate Change Adaptation Certification Tool

Checklist-based evaluation tool to ensure climate change considerations are incorporated into local government decision making on projects, permits, policies, and capital expenditures

The State of Climate Adaptation in Public Health: An Assessment of 16 U.S. States

A report summarizing the state of climate adaptation planning and implementation in public health for 16 U.S. states

Climate Adaptation Knowledge Exchange (CAKE)

Knowledge sharing platform featuring hundreds of climate change adaptation case studies, tools, and resources

Qualifications

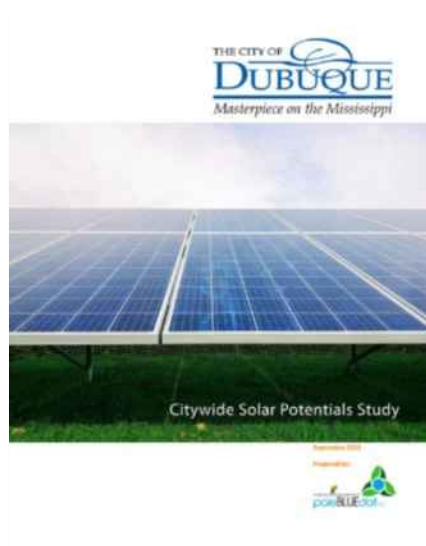
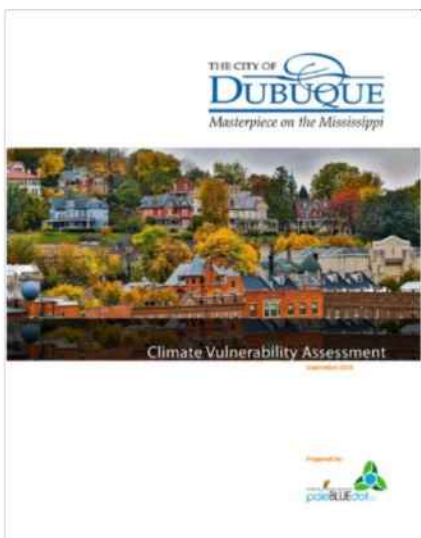
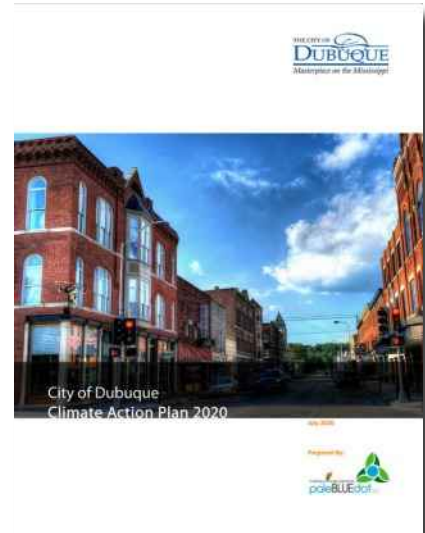
City of Dubuque

Climate Action Plan
 Climate Vulnerability Assessment,
 Community Renewable Energy Potentials Study,
 Climate Action Plan

The paleBLUEdot team’s work with the City of Dubuque has been focused on creating a comprehensive city-wide climate action plan. The work has included Climate Vulnerability Assessment and a Community Renewable Energy Potentials Study.

The planning effort began with paleBLUEdot providing the City with a review of the community-wide greenhouse gas inventory as well as created a long-range emissions scenario forecast. The paleBLUEdot team is developing Climate Action strategies and actions in a highly collaborative effort with the City’s Stakeholder Group consisting of city staff, business members, and community representatives. Development, prioritization, and refinement of the plan strategies is being facilitated by paleBLUEdot’s ACTION Finder tool.

The project effort included extensive community engagement with a particular focus on reaching underrepresented populations and vulnerable populations with a focus on creating a highly equitable engagement process. The team also designed and implemented a Youth Engagement effort to facilitate equitable engagement of youth in the development of the plan, as well as in designing processes to empower youth to remain engaged and active in the climate action effort through the implementation phase. The engagement effort has been supported through a digital media effort as well as on-line surveys broadly distributed through the community for input and feedback on the plan development.



Qualifications

City of Bloomington

- Climate Action Plan
- Climate Risk and Vulnerability Assessment
- Community-Wide Renewable Energy Potential Study
- Climate Change Infographic Communications
- Solar Ready Guide
- Net Zero Energy Building Guide
- Climate Action Plan Implementation Communication Plan

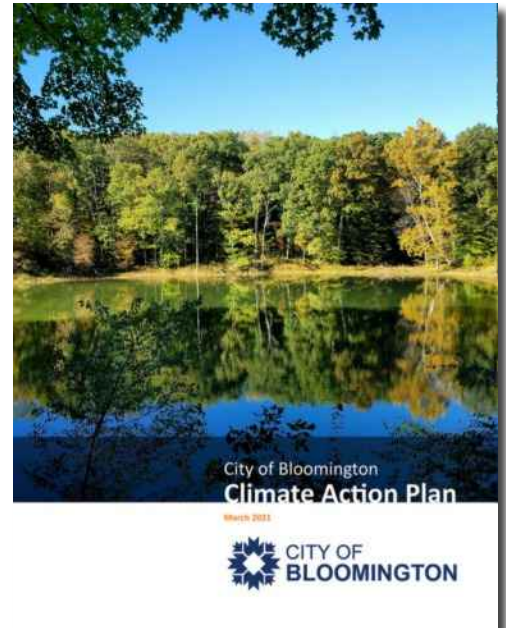
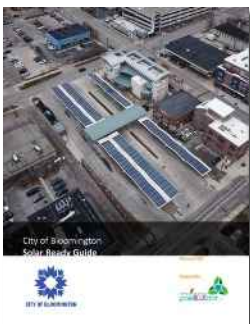
In 2020 and 2021, paleBLUEDot worked with the City of Bloomington to develop the City's first Climate Adaptation Plan. The plan support's the City's goals of achieving municipal operations and community-wide GHG emission reductions by 2030. The plan addresses climate mitigation and adaptation goals in eight sectors including: Transportation and Land use, Buildings and Energy, Waste Management, Water and Wastewater, Local Food and Agriculture, Greenspace and Ecosystem Health, Climate Health and Safety, and Climate Economy.

The effort included development of a Climate Risk and Vulnerability assessment, and a community-wide sustainability and climate action baseline assessment. paleBLUEDot also developed implementation tools including an implementation monitoring tool, CAP implementation communications plan, Solar Ready Guide and a Net Zero Energy Building Guide. The project effort included extensive community engagement with a particular focus on reaching underrepresented populations and vulnerable populations with a focus on creating a highly equitable engagement process.

The final Climate Action Plan included:

- Development of metrics that can be used to track implementation progress
- An analysis of staffing and financial resources necessary to develop, implement, monitor plan programs and initiatives
- Identification of community resources, groups, and organizations to engage with for plan implementation
- Identification of high-impact emissions reduction pathways
- Cost-benefit analysis of proposed strategies and actions
- Identification of co-benefits of climate action and adaptation
- Implementation support tools:

- Implementation and Monitoring Tool
- Climate Action Plan Communications Plan
- Solar Ready Guide
- Net Zero Ready Guide



Qualifications



Village of Northbrook
Climate Action Plan



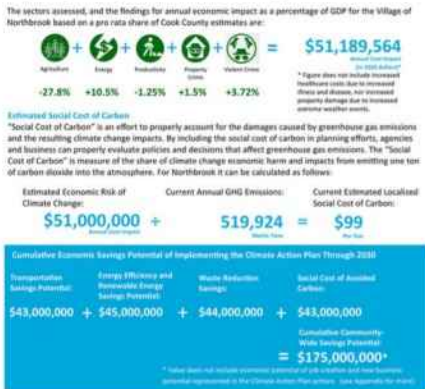
Village of Northbrook
Climate Action Plan



Village of Northbrook

- Climate Action Plan
- Community-wide GHG Inventory
- Municipal Operations GHG Inventory
- Climate Vulnerability Assessment
- Community-Wide Tree Canopy, Sequestration, and Heat Island Study
- Community Sustainability Baseline Assessment
- Community-Wide Renewable Energy Potential Study
- Climate Change Infographic Communications

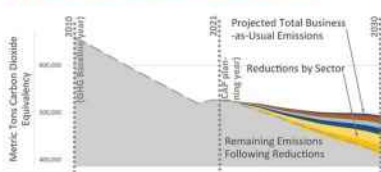
In 2020 and 2021, paleBLUEdot worked with the Village of Northbrook to develop the City's first Carbon Neutral Climate Adaptation Plan. The plan support's the Town's goals of achieving municipal operations and community-wide GHG emission reductions by 2030. The plan addresses climate mitigation and adaptation goals in eight sectors including: Transportation and Land use, Buildings and Energy, Waste Management, Water and Wastewater, Local Food and Agriculture, Greenspace and Ecosystem Health, Climate Health and Safety, and Climate Economy.



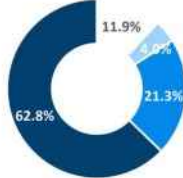
The effort included development of a Climate Risk and Vulnerability assessment, municipal operations and community-wide GHG inventory, a community-wide renewable energy potentials assessment, and a community-wide sustainability and climate action baseline assessment. The final Climate Action Plan included:

- Development of metrics that can be used to track implementation progress
- A template for annual reporting
- An analysis of staffing and financial resources necessary to develop, implement, monitor plan programs and initiatives
- Identification of most impactful climate actions/initiatives for both the community and municipal operations and a prioritized year 1 implementation plan with project budgets.
- Identification of community resources, groups, and organizations to engage with for plan implementation
- Cost-benefit analysis of proposed strategies and actions

Village-wide GHG Emission Reductions Wedge Diagram



Breakdown of GHG Emissions Reductions From 2010 to 2030
 Total anticipated GHG emissions reductions by 2030 include emissions reductions which have already occurred since 2010, reductions which are anticipated within the Business-as-Usual forecast, and the reductions resulting from the strategies and actions included in this plan.



Qualifications

City of Burnsville

Multiple Projects:

- City-Wide Sustainability Plan (including Climate Mitigation and Adaptation)
- Climate Vulnerability Assessment
- City-Wide Tree Canopy, Sequestration, and Heat Island Study
- Community Sustainability Baseline Assessment
- Climate Action Implementation Support:
 - Municipal Campus Renewable Energy Potentials Study
 - Municipal Campus Fleet Electrification Infrastructure Plan
 - Climate Change Infographic Communications

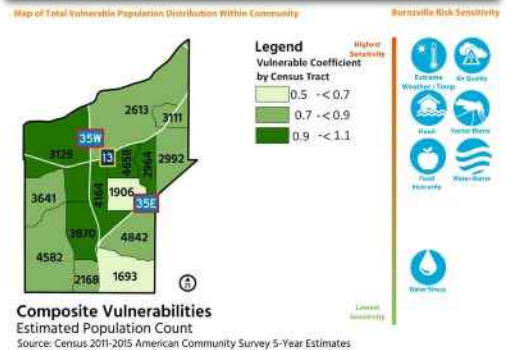
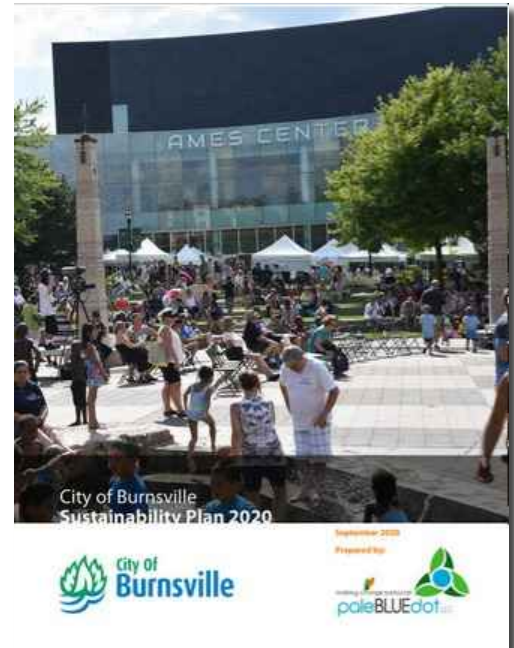
The paleBLUEdot team's work with the City of Burnsville has been focused on supporting the City's sustainability and climate action efforts across multiple planning and project efforts. paleBLUEdot work has supported the City's community-wide and municipal operations goals and has included:

City-Wide Sustainability Plan: paleBLUEdot worked with the City to establish a comprehensive City-Wide and municipal operations climate and sustainability plan to guide the City's actions to achieve long-term and interim sustainability goals within 10 sectors including: Buildings and Energy Efficiency, Community Climate Health, Fleet and Equipment, Ground Cover, Land Use, Local Food, Renewable Energy, Solid Waste and Recycling, Transportation, and Water. The final Climate Action Plan included:

- Development of metrics that can be used to track implementation progress.
- A template for annual reporting.
- An analysis of staffing and financial resources necessary to develop, implement, monitor plan programs and initiatives.
- Identification of most impactful climate actions/initiatives for both the community and municipal operations.
- Identification of 12 cross-cutting projects prioritizing city actions over first 3 to 5 years of implementation.
- Identification of community resources, groups, and organizations to engage with for plan implementation.

City-Wide Ground Cover, Carbon Sequestration, and Heat Island Action Plan:

In support of identifying appropriate community climate adaptation and mitigation strategies associated with green infrastructure and heat island mitigation, paleBLUEdot conducted a city-wide tree canopy, grassland water, and impervious surface coverage assessment. From these baseline data, the study then calculated: City-Wide tree and green infrastructure benefits, Tree canopy economic value, Tract-level heat island contribution calculations, stormwater runoff and tree canopy stormwater contribution calculations, city-wide carbon sequestration baselines. The study then identified a range of appropriate climate adaptation, emission mitigation, carbon sequestration, and heat island mitigation strategies for review and inclusion in the City's climate adaptation and mitigation plans.



Implementation and Monitoring

Implementation Plan

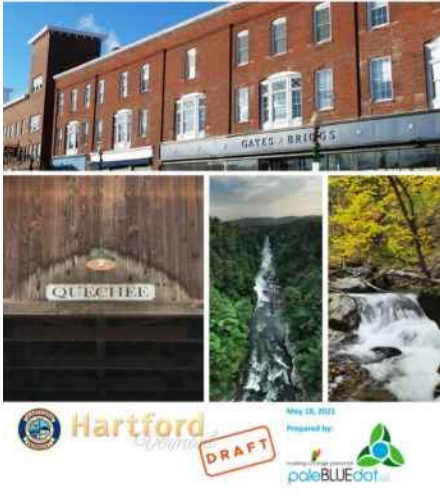
The following is the full detailed list of the detailed Sustainability Plan actions outlined in each of the sector chapters earlier in this plan document. This Implementation Plan assembles most actions together organized into 11 Major Project Groups which facilitate the coordinated implementation of related and supportive actions across all sectors. Individual actions not included in a Major Project Group are represented in a 12th group "Stand-Alone Actions and Projects". The Implementation Plan also provides implementation details including estimated implementation budgets, identification of potential implementation partner agencies, identification of recommended City staff role responsible for implementation and recommended City department responsible for oversight of each action.

3-5 Year Priority Projects	Sectors Supported by Project Group
City Facilities Energy Audit and Energy Efficiency Master Plan	Buildings and Energy Efficiency
Staff Sustainability Handbook and Training	Buildings and Energy Efficiency
ENERGY STAR Program	Buildings and Energy Efficiency
Ground Cover Improvement Plan	Ground Cover
Multi-Modal and Complete Streets Plan	Transportation
Bike Roadmap	Transportation
City Fleet Plan	Fleet and Equipment
Citywide Solar Advancement Plan	Renewable Energy
Local Agriculture and Nutrition Security Study and Plan	Local Food
Sustainability Considerations for Zoning Actions	Land Use
Water Reuse and Conservation Plan	Water
Stand-Alone Actions and Projects	Buildings and Energy Efficiency, Ground Cover, Transportation, Fleet and Equipment, Renewable Energy, Land Use, Local Food, Water



Qualifications

Town of Hartford Climate Action Plan



Executive Summary

ONE Executive Summary (and) in-Depth Content
Reviewing the Town's Climate Action Plan presents a reduction goal within a global context and greenhouse gas emissions (GHG) reduction recommendations formulated by the International Panel on Climate Change (IPCC) can help validate the appropriateness of the goal. The IPCC is the United Nations Environment Programme (UNEP) body for assessing the science related to climate change and providing expert advice on climate action policy making. IPCC science has guided a number of international agreements to address climate change, most notably the Paris Agreement.

The Paris Agreement is a landmark international accord that was adopted by nearly every nation in 2015 to address climate change and its negative impacts. The agreement offers IPCC recommendations by aiming to limit global warming to 1.5°C to 2°C above pre-industrial levels, committed to be the maximum for dangerous climate impacts. The agreement includes commitments from all major emitting countries to cut their climate pollution and to strengthen those commitments over time.

The Carbon Reduction Goal
The Hartford Selectboard and School Board formed the Ad-Hoc Climate Advisory Committee in 2019 and subsequently voted unanimously to pass a Joint Resolution Declaring a Climate Emergency, making climate change a defining focus for Town planning, funding, and action. The action resolves that:

The Town shall achieve net zero greenhouse gas (GHG) emissions town-wide by 2030 and that "Hartford's response to the climate emergency be just and equitable, especially with respect to the most vulnerable and impacted members of society."

Following the passage of the Resolution, an additional Joint Resolution ("Article 25") passed with 40% of the vote, requiring the Town to lead by example and that:

The operation and maintenance of the Town of Hartford's essential infrastructure and equipment shall achieve carbon neutrality by 2022.



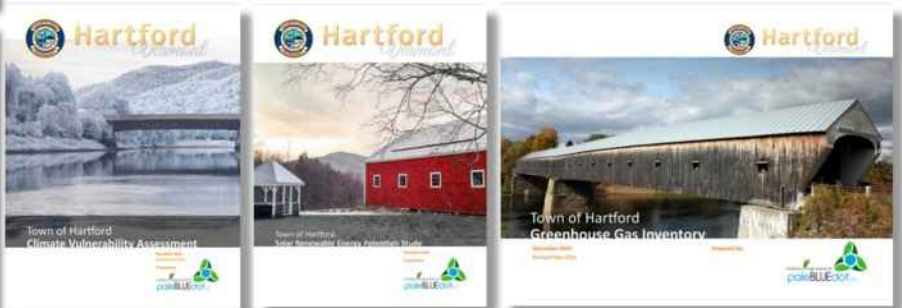
Town of Hartford

- Carbon Neutral Climate Action Plan
- Community-wide GHG Inventory
- Municipal Operations GHG Inventory
- Climate Vulnerability Assessment

In 2020 and 2021, paleBLUEDot worked with the Town of Hartford to develop the Town's first Carbon Neutral Climate Adaptation Plan. The plan support's the Town's goals of achieving carbon neutral municipal operations and community-wide GHG emission reductions by 2030. The plan addresses climate mitigation and adaptation goals in nine sectors including: Transportation and Land use, Buildings and Energy, Waste Management, Water and Wastewater, Local Food and Agriculture, Greenspace and Trees, Climate Health and Safety, Climate Economy, and Municipal Operations.

The effort included development of a Climate Risk and Vulnerability assessment, municipal operations and community-wide GHG inventory, and a community-wide renewable energy potentials assessment. The final Climate Action Plan included:

- Development of metrics that can be used to track implementation progress
- A template for annual reporting
- An analysis of staffing and financial resources necessary to develop, implement, monitor plan programs and initiatives
- Identification of most impactful climate actions/initiatives for both the community and municipal operations and a prioritized year 1 implementation plan with project budgets
- Identification of community resources, groups, and organizations to engage with for plan implementation
- Cost-benefit analysis of proposed strategies and actions
- Identification of co-benefits of climate action and adaptation



Qualifications

City of Maplewood

Multiple Projects:

- Climate Adaptation Plan
- Climate Vulnerability Assessment
- Community Wide Greenhouse Gas Inventory Baseline Assessment
- GHG Inventory Baseline and Annual Update (2016- present)
- GHG Reduction Action Recommendations
- City-Wide Renewable Energy Goal Setting
- Renewable Energy Potentials Study
- GreenStep Cities Sustainability Baseline Assessment
- Climate Change Infographic Communications

GHG Inventory

Beginning in 2016, paleBLUEdot created a comprehensive Greenhouse Gas emissions inventory, baseline assessment, and reduction action recommendations for community-wide emissions as well as full City Operations. As a part of this process paleBLUEdot generated the City operations baseline inventory for all categories as well as peer reviewed previously established Community-Wide GHG inventories established for the Regional Indicators Initiative (RII). paleBLUEdot's services expanded data to cover components not originally included in RII. Greenhouse Gas inventories were created based on internationally recognized protocols including the GHG Protocol standard and the ICLEI Community GHG Protocol.

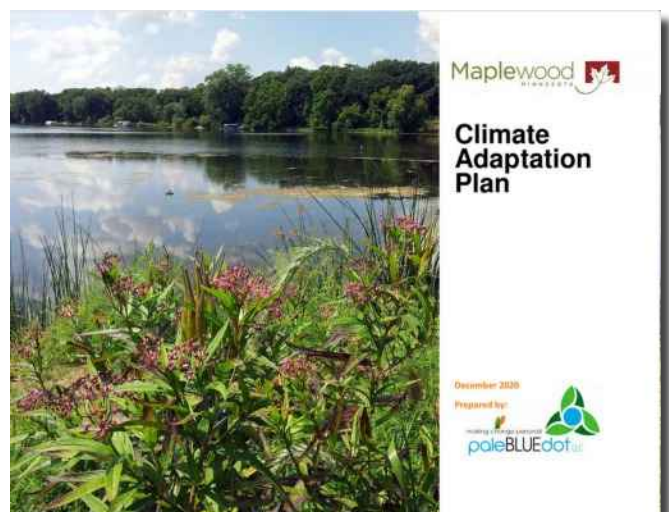
GreenStep Cities Sustainability Baseline Assessment

The City engages paleBLUEdot annually to assist with the City's GreenStep Cities sustainability baseline analysis and submission. In support of this annual assessment, paleBLUEdot has produced an annual community wide and city operations GHG inventory update for the City every year since the 2016 baseline effort.

Climate Vulnerability Assessment and Climate Adaptation Plan

In 2017 paleBLUEdot conducted a Climate Vulnerability Assessment for the City of Maplewood. The assessment established current and future climate projections and impacts and identified community vulnerabilities to anticipated climate change impacts. The assessment mapped vulnerable populations city-wide and established a wide range of climate vulnerability metrics.

In 2020 paleBLUEdot worked with the City of Maplewood to develop the City's first Climate Adaptation Plan. The plan addresses climate adaptation and sustainability goals in eight sectors including: Climate Health and Safety, Extreme Heat and Weather, Air Quality, Water Quality and Flooding, Greenspace and Ecosystem Health, Local Food and Agriculture, Climate Economy, and Adaptation Capacity.



Qualifications



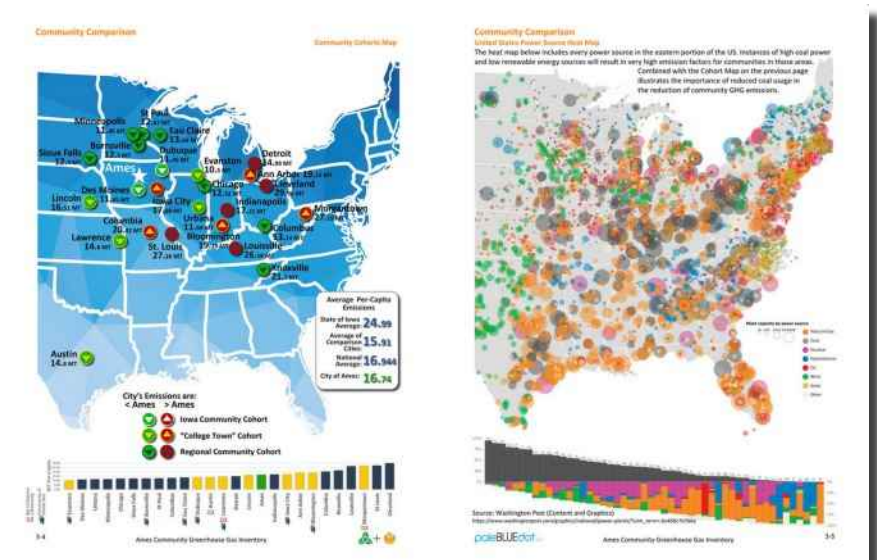
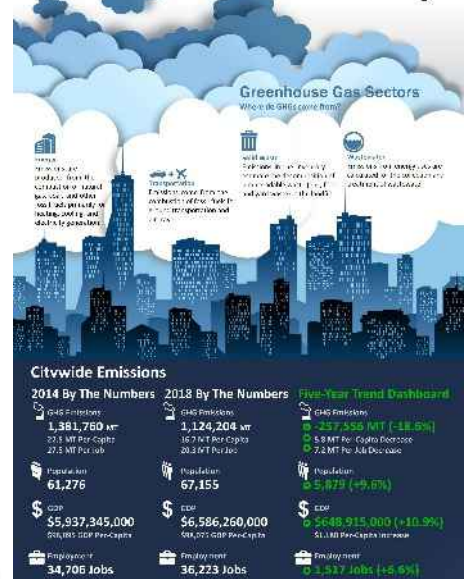
- Citywide GHG Inventory
- City Operations GHG Inventory
- Climate Vulnerability Assessment
- Renewable Energy Potentials Study
- Climate Change Infographic Communications

As a precursor to the City's anticipated Climate Action Planning effort, the City of Ames contracted with paleBLUeDot to establish a broad local climate baseline assessment and vulnerability analysis. The effort included development of three primary studies:

- 1) Inventories for citywide and city operations sources of greenhouse gas (GHG) emissions
- 2) Citywide Renewable energy potential study
- 3) Citywide Climate vulnerability assessment

The GHG inventories included three study years. The report provided an introduction of greenhouse gas emissions and their role in climate change, a summary "findings in brief" which graphically overviews the inventory results in a simple public format, comparison of the City's emissions against 30 regional cities, long range GHG emissions forecasting, GHG emissions reduction recommendations, and a detailed technical report.

The City of Ames Greenhouse Gas Inventory



Qualifications



Johnson County, Iowa

Climate Change Vulnerability Assessment and Adaptation Planning for County Operations (2020-2021)

EcoAdapt worked with Johnson County to assess vulnerability of and develop adaptation strategies for county operations, including Health & Safety, Facilities & Public Services, Transit, and Land Use. The project approach included a multi-day virtual workshop with county staff discuss current challenges and identify and prioritize key climate stressors, review existing climate data and trends for the county, assess primary vulnerabilities for county operations, develop adaptation strategies that help to reduce vulnerabilities, and generate implementation plans for priority adaptation strategies, including who, when, and how to implement as well as resources and capacity needed. EcoAdapt also worked with participants to apply the Climate Change Adaptation Certification Tool to evaluate the vulnerability of current county projects to climate change and explore potential solutions to reduce vulnerability.

The final plan, *Climate Vulnerability and Adaptation Report for Johnson County*, highlights key vulnerabilities and adaptation solutions for each sector (i.e., Health & Safety, Facilities & Public Services, Transit, and Land Use), and will be used by the county to guide their internal operations to be more resilient to climate change.



Great Lakes Region

Surveying, Synthesizing, and Developing Toolkits for Adaptation Activities in the Great Lakes Region (2012-2019)

EcoAdapt has engaged in a number of adaptation efforts in the Great Lakes region, including [surveying and synthesizing climate impacts and adaptation activities](#) related to natural and built environments in the region, partnering with Freshwater Future to create the [Great Lakes Climate Adaptation Toolkit](#) to help communities respond to climate change impacts, and surveying and synthesizing climate impacts and adaptation activities related to [public health](#). In addition to the aforementioned products, EcoAdapt has written dozens of case studies summarizing adaptation activities occurring in the region and created additional materials to support adaptation efforts by local communities such as an [online public health and climate adaptation hub](#), [communication guidance](#) for discussing climate change, and [climate change fact sheets](#).



Bainbridge Island

Comp Plan Update; BI Climate Impact Assessment; Climate Action Plan & Climate Change Adaptation Certification (2015-present)

This series of projects began with supporting an update of the City of Bainbridge Island's Comprehensive Plan to include climate change across all elements, and has continued with the implementation of recommendations from that plan, as well as additional needs identified for successful staff evaluation of climate risk and remediation. This process has included City and community stakeholder workshops, direct consultation with and review by City staff and stakeholders, presentations to City staff and City Council, identification of and acquisition of external funding to support the process, development of action plans and a climate-informing checklist to evaluate permitting, planning, policy and capital expenditure decisions, and technical support and training for the community. The process began in 2015 with a series of community workshops to create a common understanding of the climate vulnerabilities of Bainbridge Island and the community priorities in the update of the Comprehensive Plan. The result was the creation of the Bainbridge Island Climate Impact Assessment, which included guidance for how to respond to and reduce climate vulnerability in the development of climate savvy Comprehensive Plan elements. These guiding questions were augmented by policy, code and activity recommendations for implementation in the Plan and by individual departments. This product included recommendations to create a City Climate Committee. EcoAdapt staff sit on that committee and have been part of creating the City's first Climate Action Plan (adaptation & mitigation) and developing its implementation plan. Additionally EcoAdapt, in collaboration with Foresight Consulting, created the Climate Change Adaptation Certification, the aforementioned "checklist" for decision evaluation. Additionally the Bainbridge Island Climate Impact Assessment, led to the creation of the Climate Change Adaptation through Local Comprehensive Planning: Guidance for Puget Sound Communities which is now being used by the Washington State Department of Commerce in the development of state level guidance on incorporating climate change into Growth Management Act planning.

Qualifications



Ted Redmond
Project Role:
Lead / Project Manager

Ted will be the project team lead, responsible for final paleBLUEdot deliverables.

Community Leadership (partial)

City of Maplewood
Environment and Natural Resource Commissioner
Climate Reality Project, Leadership Corps Member

Education

Bachelor of Architecture, with Honors, University of Detroit

Recent Speaking and Training Engagements

University of Michigan, Great Lakes Adaptation Forum 2018: *"Beyond Borders: Low-Cost Opportunities for Engaging Limited-Resourced Communities in Climate Action Planning"*

Michigan State University: *"Climate Vulnerability and Climate Action Opportunities for the City of Lansing"*

4th Annual National Adaptation Forum, Madison, WI: *"Minnesota Adaptation Toolkit –case study review of a scalable project approach for rapid vulnerability assessments"*

2019 Annual Missouri SEMA conference, St Louis, MO: *"Climate Vulnerability And Adaptation Approaches for Missouri Emergency Managers"*

2019 ASES Conference, Minneapolis, MN: *"Maximizing Value of Climate Actions Forum"*

City of New Berlin, WI
"Potential for Renewable Energy in New Berlin"

Ted has over 27 years of experience leading planning efforts for local governments. Ted also has experience facilitating public engagement and input processes, both as a professional consultant as well as through his many years as a community volunteer leader. He has an expertise in delivering community sustainability, vulnerability and adaptation, Greenhouse Gas, energy, and water consumption Inventories and Reduction Action Plans. His recent experience includes over 50 community climate assessments and planning efforts and 13 non-governmental organizations.

Ted is also a national solar pv technical expert for the US Department of Energy. His work with the DOE includes technical assistance for community driven solar projects nationally as well as serving as a national solar technology trainer for architects and engineers.

Relevant Experience

(50+) Community and NGO Climate Vulnerability, GHG Inventory, Adaptation and Action Plans (partial list):

City of Maplewood

Community Sustainability Planning including:
Climate Vulnerabilities Assessment;
Climate Adaptation and Action Plan;
City-Wide Sustainable Energy potentials study and target goal setting;
Community-Wide Tree Inventory and Sequestration Potentials Study;
Greenhouse Gas Inventory & Reduction Plan
Maplewood, MN

City of Eau Claire

City-Wide Net Zero Guide;
GHG Calculator/Scenario Planning Tools:
Land Use and Land Development Impact
Travel and Transportation Impact
Building and Infrastructure Impact
Eau Claire, WI

Town of Hartford

Climate Vulnerabilities Assessment; Renewable Energy Potentials Study; Climate Action Plan
Hartford, VT

City of Albert Lea,

Climate Vulnerabilities Assessment; Climate Adaptation Action Plan; City Wide Renewable Energy Planning
Albert Lea, MN

Addison County

County-Wide Climate Action Plan
Middlebury, VT

Registrations and Affiliations (partial)

Registered Architect, State of Minnesota
International Living Future Institute
Climate Action Reserve
Climate Adaptation Knowledge Exchange
American Society of Adaptation Professionals
GHG Management Institute
US EPA ENERGY STAR Partner
National Council of Architectural Registration Boards

City of Dubuque

Climate Vulnerable Population Assessment;
Climate Action Plan
Dubuque, IA

City of Bloomington

Climate Risk and Vulnerability Assessment;
Climate Action Plan
Bloomington, IN

Village of Northbrook

Climate Risk and Vulnerability Assessment;
Climate Action Plan
Northbrook, IL

City of Burnsville

Climate Vulnerable Population Assessment;
Climate Adaptation Plan; Sustainability Plan
Burnsville, MN

City of Edina

Climate Vulnerable Population Assessment;
GHG Inventory; Climate Action and Adaptation Plan (in progress)
Edina, MN

City of Ames

Community Greenhouse Gas Inventory, Forecasting, and Climate Mitigation Recommendations Report
Ames, IA

City of Chattanooga

Community Greenhouse Gas Inventory, Forecasting, and Climate Mitigation Recommendations Report
Chattanooga, TN

State of Minnesota, MPCA

Climate Adaptation Goals and Menu of Strategies for Minnesota Communities
St Paul, MN



Qualifications



Colleen Redmond
Project Role:
Youth Engagement Lead

Colleen will lead the Youth Engagement Effort and support the development of the Community Education content to be used in the Climate Action Plan.

Colleen has twenty-six years of educational experience including nine years expertise in curriculum development and implementation of gifted education. Colleen is accomplished in designing and executing youth educational programming in the classroom and across a variety of age groups. In addition, Colleen has coordinated and participated in multiple design thinking initiatives both in the classroom and with district staff members.

Relevant Experience (partial list)

Youth Engagement, Public Education Communication support on (30+) Community GHG Inventory, Climate Vulnerability, Adaptation and Action Plans (partial list):

City of Dubuque

Youth Climate Action Design Thinking Engagement
Dubuque, IA

Town of Hartford

Hartford, VT

City of Maplewood

Maplewood, MN

Village of Northbrook

Climate Risk and Vulnerability Assessment; Climate Action Plan (in progress)
Northbrook, IL

Avenues for Homeless Youth

Youth Design Thinking Engagement
Minneapolis, MN

City of Duluth

Duluth, MN

City of Albert Lea

Albert Lea, MN

City of Burnsville

Burnsville, MN

City of Edina

Youth Climate Action Design Thinking Engagement
Edina, MN

City of Faribault

Faribault, MN

City of Granite Falls

Granite Falls, MN

City of Brainerd

Brainerd, MN

City of Morris

Morris, MN

City of Bloomington

Climate Risk and Vulnerability Assessment; Climate Action Plan
Bloomington, IN

City of Brooklyn Park

Brooklyn Park, MN

City of Faribault

Faribault, MN

City of Crookston

Crookston, MN

Leech Lake Band of Ojibwe

Cass Lake, MN

City of St Louis Park

St Louis Park, MN

City of Mountain Iron

Mountain Iron, MN

Additional Experience

Curriculum Development and Implementation - Gateway Program ISD 833

Programming Specialist - District 833 Gifted Education Department

Design Thinking Team, ISD 833

Design Thinking Process Coach/Facilitator - ISD 833 Summer Design Challenge

Community Climate Awareness Program Development and Implementation

MPCA State Fair Sustainability Stage

City of Maplewood Energize Maplewood Community Engagement

Youth Engagement, Avenues for Homeless Youth, City of Minneapolis

Climate Committee Bailey Elementary School

Community Engagement Gifted Education ISD 833

Lead Teacher ISD 833 Gifted and Talented

Leadership Team ISD 833 Gateway

Education, Affiliations, and Honors

Master of Education - Educational Leadership

Gifted Education Certificate - St. Thomas University

Minnesota Education Association

Minnesota Educators of the Gifted and Talented

National Association for Gifted Children

2015 Nominee Minnesota Teacher of the Year

2016 Nominee Presidential Award for Excellence in Math and Science Teaching

Qualifications



Lara J. Hansen

Ph.D

Project Role:

Adaptation Lead

Recent Relevant Experience:

Adaptation Expertise and Innovation

Work to create climate savvy community group, municipality & county plans and operations. Examples include:

- Contributing to City of Bainbridge Island Climate Action Plan (adaptation lead author)

- Provided support for development of Washington State Department of Commerce GMA climate guidance

- Creation of the Climate Change Adaptation Certification a checklist-based evaluation tool to ensure climate savvy local government decision making on projects, permits, policies and capital expenditures.

- Other national examples include: Los Angeles, CA; Atlanta, GA; Chicago, IL; Denver, CO (see links below)

- Principal Investigator on an active NSF study to develop best practices to ensure climate planning develops effective actions to address the challenges of climate change by local communities

- Philanthropic foundation program evaluation adaptation checklists

- Natural Resource Management Adaptation Checklist, being co-produced with five state fish and wildlife agencies

- Member of the American Society of Adaptation Professionals

Facilitation & Stakeholder processes

- Co-created Awareness to Action method for adaptation planning. We've led 141 workshops with 6698 trainees

- Recent relevant facilitation experience:

 - Johnson County, IA Adaptation Planning Workshop, March/April 2021- online

 - Santa Rosa, CA Adaptation Planning Workshop, January 2021- online

 - Denver, CO Rapid Vulnerability Assessment Workshop, May 2019- in person

 - Los Angeles, CA Rapid Vulnerability Assessment Workshop, 2018- in person

 - Atlanta, GA Rapid Vulnerability Assessment Workshop, October 2017- in person

 - Commission for Environmental Cooperation MPA Rapid Vulnerability Assessment Workshop, Dec 2016 - in person

 - City of Bainbridge Island Climate Savvy Comprehensive Plan Workshop, November 2015- in person

 - Completed professional facilitation training

Communications

- Co-creator of the Climate Adaptation Knowledge Exchange (CAKEx.org) and National Adaptation Forum

- Fact sheets, OpEds, Podcasts, video products, and >140 other informal and professional speaking engagements

- Author of >70 peer review and other professional publications, including recent work relevant to this project:

 - Hansen, L.J., J. Kershner & E.E. Mielbrecht. 2021. Rapid Vulnerability & Adaptation Tool for Climate-Informed Community Planning. EcoAdapt. Bainbridge Island, WA.

 - Hansen, L.J. & M. Ramirez. 2020. Rapid Climate Vulnerability Assessment Tool for Climate-Informed Equitable Community Development. Strong, Prosperous and Resilient Community Challenge.

 - Nordgren, S.J. & L.J. Hansen. 2018. Climate Change Adaptation Certification Tool: Moving communities from planning to implementation. EcoAdapt. Bainbridge Island, WA.

 - Commission for Environmental Cooperation. 2017. North American Marine Protected Area Rapid Vulnerability Assessment Tool. Montreal, Canada: Commission for Environmental Cooperation. Prepared by Hansen, L., E. Mielbrecht & S. Hutto

 - Hansen, L.J., S.J. Nordgren & E.E. Mielbrecht. 2017. Climate Change Adaptation through Local Comprehensive Planning: Guidance for Puget Sound Communities. EcoAdapt. Bainbridge Island, WA.

 - Hansen, L.J., S.J. Nordgren & E.E. Mielbrecht. 2016. Bainbridge Island Climate Impact Assessment. EcoAdapt. Bainbridge Island.

Lara thinks climate change is everybody's problem and she wishes someone would bother to do something about it. Her desire for action led her to co-create EcoAdapt with a team of similarly inclined folks in 2008. She serves this fine organization as Executive Director and Chief Scientist. She is co-author and editor of one of the earliest texts on the issue of natural system adaptation to climate change and co-created an engaged stakeholder process (first known as Climate Camp; now known as Awareness to Action Workshops) to help everyone create adaptation strategies applicable to their work.

Lara serves on the Intergovernmental Panel on Climate Change, is a Switzer Environmental Fellow, and a United States Environmental Protection Agency Bronze Medalist. She has successfully managed and completed >55 governmental & private grants over the past 12 years; regularly manages 5.



Qualifications




EcoAdapt[™]
Jessi Kershner
M.M.A.
Project Role:
Project Support
(adaptation)

Jessi is a Senior Scientist at EcoAdapt with over a decade of experience in climate change adaptation. She brings expertise in workshop design and facilitation, assessing vulnerabilities of natural resources and human communities to climate change, identifying and evaluating climate adaptation strategies, synthesizing complex information into diverse products, translating spatial information to facilitate decision-making, and communicating climate vulnerability and adaptation to diverse audiences.

Jessi leads EcoAdapt's Awareness to Action program, which creates customized trainings and workshops to help organizations, agencies, and communities engage in climate adaptation planning and implementation. She created a vulnerability assessment and adaptation planning methodology that has been used in projects across the western United States, including California, Washington, Idaho, Alaska, and Hawaii. She has successfully managed and completed >20 federal, state and private grants. Regularly manage 4-8 projects.

Recent Relevant Experience:

Adaptation Expertise and Innovation

Investigator on an active NSF study to identify workshop best practices that catalyze climate adaptation action by local communities

Design and facilitate workshops with natural resource managers, conservation practitioners, scientists, and others from federal and state agencies, tribes, NGOs, local governments, and academia to gather stakeholder input and develop consensus-backed climate vulnerability assessments and adaptation strategies

Evaluate the effectiveness of adaptation strategies and create easily accessible and digestible short narratives ("Adaptation Snapshots") to help managers prioritize strategies for implementation

Develop a training module and conduct trainings for coastal and marine conservation practitioners from Mexico, Canada, and the U.S. on the Climate Adaptation Toolkit for Marine and Coastal Protected Areas for climate adaptation planning

Assess the vulnerability of over 30 habitats and 260 species of greatest conservation need to inform Washington's State Wildlife Action Plan update

Member of the American Society of Adaptation Professionals

Facilitation & Stakeholder Processes

Recent relevant facilitation experience

Johnson County, IA Adaptation Planning Workshop, March/April 2021- online

Santa Rosa, CA Adaptation Planning Workshop, January 2021- online

Midpeninsula Regional Open Space District Climate Adaptation Workshop, November 2020- online

Building Capacity for Climate Adaptation Planning in the North Atlantic, October 2020- online

Hakalau Forest Climate-Informed Restoration Workshops, November 2019 and March 2020- in person

Santa Cruz Mountains Climate Change Vulnerability Assessment Workshop, October 2019- in person

Northern California Climate Adaptation Workshops, December 2017- in person

Karuk Tribe Vulnerability Assessment Workshop, July 2017- in person

Completed professional facilitation training

Communications

Author of >40 peer review and other professional publications, including recent relevant work:

EcoAdapt. 2021. Climate Vulnerability and Adaptation Summary Report for Santa Rosa. EcoAdapt, Bainbridge Island, WA. Prepared by J. Kershner & L. Hilberg, EcoAdapt.

Hansen, L.J., J. Kershner & E.E. Mielbrecht. 2021. Rapid Vulnerability & Adaptation Tool for Climate-Informed Community Planning. EcoAdapt. Bainbridge Island, WA. USA.

Kershner, J., A. Woodward & A. Torregrosa. 2020. Integrating Climate Change Considerations into Natural Resource Planning – An Implementation Guide. U.S. Geological Survey Techniques and Methods, 6C2, 61 p., <https://doi.org/10.3133/tm6C2>.

Hilberg, L.E., W.A. Reynier, & J.M. Kershner. 2019. Climate Change Vulnerability Assessment Syntheses for Habitats, Species Groups, and Species of Northern California. EcoAdapt, Bainbridge Island, WA.

Gregg, R.M. & J. Kershner. 2019. Extremes to Ex-Streams: Ecological Drought Adaptation in a Changing Climate. EcoAdapt, Bainbridge Island, WA.

Washington Department of Fish & Wildlife. 2015. Washington's State Wildlife Action Plan: Update Chapter 5. Climate Change: Which species & habitats are most at risk? Washington Department of Fish & Wildlife, Olympia, WA. Prepared by J. Kershner, EcoAdapt.

Qualifications



Michael Orange
Project Role:
GHG Analyst

Michael will lead data research and the technical development of the GHG inventories.

Additional Experience (partial)

Managed the City of Minneapolis and City of St Paul participation in the Urban CO₂ Reduction Project Plan.

Developed Greenhouse Gas component of the State of Minnesota GreenStep Cities program.

Developed Carbon Footprint Inventory and Mitigation Measures Report for the Minnesota Steel Industries Association

Developed and taught graduate level course on Urban Planning and Citizen Participation for the Center of Urban and Regional Affairs at the University of Minnesota, since 2010

Directed the City of Minneapolis' Office of Environmental Management

Peer Review and Summary of the Minnesota Green Step Cities Program, for the Minnesota Pollution Control Agency.

Guide for Step 4—Metrics, GreenStep Cities Program, for the Minnesota Pollution Control Agency

After a 30-year career as a city planner and environmental manager for the City of Minneapolis, Mr. Orange formed his own company, ORANGE Environmental, LLC. Since 2007, he completed 57 analyses for 44 separate clients including greenhouse gas assessments for 28 Minnesota cities and a county, the *West Saint Paul Sustainability Assessment*, and the *Potable Water Analysis*, for the Minnesota Governor's Office.

From 2010-2015, Orange developed and taught *Sustainable City Planning*, a graduate-level course at Minnesota State University, Mankato 2010-2015.

In collaboration with Rainbow Treecare, he developed a cost-benefit model to analyze best management practices for the Emerald Ash Borer (EAB) infestation, developed the *Minnesota Model EAB Management Plan*, and prepared EAB management plans for 13 Minnesota cities.

Orange was awarded a Masters of Arts, Urban and Regional Planning from Minnesota State University, Mankato.

Relevant Experience

(28) Community GHG Inventories (partial list):

City of Ames
Ames, IA

City of Minneapolis
Minneapolis, MN

City of Burnsville
Burnsville, MN

City of Northfield
Northfield MN

City of Bloomington
Bloomington, MN

City of Brooklyn Center
Brooklyn Center, MN

City of Brooklyn Park
Brooklyn Park, MN

City of Columbia Heights
Columbia Heights, MN

City of Edina
Edina, MN

City of Golden Valley
Golden Valley, MN

City of Minnetonka
Minnetonka, MN

City of New Port
New Port, MN

City of Richfield
Richfield, MN

City of Rochester
Rochester, MN

City of Roseville
Roseville, MN

City of St Louis Park
St Louis Park, MN

City of St Paul
St Paul, MN

City of Stillwater
Stillwater, MN

Washington County
Washington County, MN

City of Hopkins
Hopkins, MN

Education (partial)

Masters of Arts, Urban and Regional Studies: Minnesota State University, Mankato, MN
National Endowment for the Humanities, Three-Month Seminar on Cities (participation selected through national competition)

Leadership Development Program, City of Minneapolis

Financing Community Development Program, National Development Council



Qualifications



Huda Ahmed
Project Role:
Equitable Community Engagement Lead

Huda will lead the design, coordination, and execution of the Equitable Community Engagement effort.

Education

University of Minnesota,
Humphrey School of
Public Affairs
Policy Fellow
Minnesota State
University, Mankato
MS Community Health
Education
Minnesota State
University, Mankato
BS Human Biology

Huda is a visionary who has spent her career helping institutions and funders co-create solutions with impacted communities to close the equity gap. She has consistently achieved systems level results through identifying root causes, building meaningful and connected relationships, and establishing repeatable processes towards more equitable and healthier communities. Huda works with clients to build trust and strategically build relationships that foster inclusion, create accountability, and transform challenges into rewarding opportunities. She's worked with foundations, nonprofits, local government and academia. Huda is also a Robert Wood Johnson Foundations Culture of Health Leader.

Huda formerly work for three years for the City of Bloomington Public Health department serving as the public health department for Edina and Richfield. Huda's role was engaging the communities of each of those cities on systems and policy change. The experience gained in this role makes Huda quite familiar with the demographics of Edina, its strengths, challenges, and opportunities as well as foundational relationships for community partner outreach.

Huda's most recent project experience has been designing and leading the equity focused community engagement process for the Climate Action Plans for the cities of Dubuque Iowa, Bloomington Indiana, and Edina Minnesota.



Anders Olson
Project Role:
Research and Engagement Support

Anders will support the paleBLUEdot team research assistance underpinning the GHG inventory and Climate Baselines Assessment. Anders will also support the team's community engagement coordination and logistics and participate along with Ted, Huda, Colleen, and the other paleBLUEdot team members.

Sustainability Professional Experience

Owner, Sustainability Analytics LLC (La Crosse WI) -- 01/2014 – ongoing
Complete annual greenhouse gas emission inventories for corporate clients
Complete annual sustainability reporting for municipal clients
Sustainability Technology Manager, BaselineES (Yarmouth ME) -- 10/2008 – 08/2013
Completed corporate greenhouse gas emissions inventories
Managed LEED NC project application
Analyzed energy savings from efficiency measures
Managed development of software application for remote energy monitoring
Designed facility commissioning data collection tool and reporting documents
Developed analysis methodology for Gold Standard carbon credit project application

Education

M.S. Forest Ecology & Management (conservation biology focus), 2008 University of Wisconsin-Madison; GPA: 4.0/4.0; dates attended: 09/05 – 9/08

B.S. Zoology (major), History (major), Environmental Studies (certificate), 2000 University of Wisconsin-Madison; GPA: 4.0/4.0; dates attended: 09/96 – 12/00

Selected Awards

Cooper Ornithological Society Award for best student oral paper, 2007
Budweiser Conservation Scholarship, 2006
National Science Foundation Graduate Research Fellowship, 2005
Fulbright Student Fellowship, 2001
Dean's Prize, UW Letters and Science, 2000

Qualifications



Jared Walker
Project Role:
Fleet Electrification Advisor

Jared will support the paleBLUEdot team and City of La Crosse in exploring fleet electrification strategies and actions to meet CAP goals for both City operations and community-wide.

Jared Walker has 13 years of professional automotive fleet management experience. He has worked to develop and manage several unique, vehicle financing programs on behalf of multinational organizations. In his role as Senior Programs Specialist at the Electrification Coalition, Jared leverages his extensive automotive fleet management knowledge and electric vehicle and infrastructure expertise to reduce barriers to fleet electrification. Jared is focused on identifying practical, creative approaches to assist public and private fleets with the transition to electric LD, MD and HD vehicles.

Education

Duquesne University, Bachelor's in Corporate Communications



Paul Nicholas
Project Role:
Communications

Paul leads the paleBLUEdot team's implementation communication planning and support

Nicholas Marketing provides content writing services to a variety of startup and small businesses, local governments and non-profit organizations. He spent 15 years as a senior level B2B sales and marketing executive. At one of these companies, he found his entrepreneurial passion when he was given responsibility for a struggling business unit. The team he managed had tremendous freedom and were excited and gratified when they tripled revenue and doubled profit margins within two years.

Paul launched his business in 2000 and started working with the owners of small businesses, he rediscovered my passion for writing and communication. Often these entrepreneurs knew what they wanted to say, but had trouble saying it. Now that he has expanded into the worlds of non-profits and local governments, he is finding similar challenges. The conversations he have with clients - learning their stories and reasons for doing what they do - are highlights of his work.

Paul's most recent experience includes development of the Debuque Climate Action Plan Implementation Communications Plan.

Education

University of St. Thomas. St. Paul, MN, Master of Business Administration, Marketing Concentration



Ben Heck
Project Role:
Research Assistant

Ben supports the paleBLUEdot team with research assistance underpinning the development of plan strategies and city-wide tree canopy and urban heat island data.

Ben is a Junior at University of Minnesota Duluth. Ben is majoring in Psychology and double minoring in Cognitive Science and Philosophy. Ben has been a research assistant supporting the paleBLUEdot team since 2018. Ben's experience also includes being a staff advisor for the College of Education and Human Service Professions and the UMD providing advisory services on General/Cognitive psychology and statistics.

Ben's recent experience with paleBLUEdot includes strategy research support as well as tree canopy and ground cover data research for the City of Burnsville Sustainability Plan, Village of Northbrook Climate Action Plan, and the City of Edina Climate Action Plan.

Education

University of Minnesota Duluth, B.A.Sc (2022)



Qualifications

References



City of Bloomington

Climate Risk and Vulnerability Assessment
Community-wide Renewable Energy Potentials Study
Climate Action and Adaptation Plan

Contact:

Lauren Travis, Assistant Director of Sustainability
City of Bloomington
401 N Morton St
Bloomington IN 47404
(812) 349-3837; lauren.travis@bloomington.in.gov

City of Burnsville

City-Wide Sustainability Guide (including GHG mitigation and
Climate Adaptation)
City-Wide Tree Canopy, Ground Cover, and Carbon
Sequestration Study
Sustainability Baseline Assessment and Strategic Goal
Recommendations

Contact:

Sue Bast, Environmental Specialist
City of Burnsville
100 Civic Center Pkwy
Burnsville, MN 55337
(952) 895-4524; sue.bast@burnsvillemn.gov

Village of Northbrook

Climate Action Plan
Climate Risk and Vulnerability Assessment
Climate Baseline Assessment

Contact:

Michaela Kohlstedt, Planning Director
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City of Dubuque

Climate Action and Adaptation Plan
Climate Risk and Vulnerability Assessment
Climate Action Plan Implementation Communication Plan

Contact:

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Cost Proposal

As noted in our Cover Letter, paleBLUEdot exists as a mission-driven organization solely to advance climate action. As a result, you will find us a flexible, responsive, collaborative team providing high quality service energetically delivered and within a flexible fee structure. In that spirit, we present our fees in detail and with costs summarized by deliverable category for the Basic Services requested within the RFP and the services proposed by our team outlined in our Project Approach. We hope this provides a flexible “a-la-carte” selection of services desired by the City.

Cost Breakdown

The paleBLUEdot team proposes a lump sum fee to include only the services ultimately selected by the City. Fees will be billed monthly for the team’s time spent towards progress on each item. The proposed lump sum fee for each service, including anticipated reimbursable expenses, are as follows:

Basic Services

Project Kick-off	Included Below
GHG Inventory, Vulnerability Assessment, Climate Baseline Assessment, Target Recommendations, and Strategic Goal Recommendations:	\$45,151
Vulnerability Assessment	\$18,318
GHG Inventory, Forecasting and Analysis	\$18,333
Climate Baseline Assessment and Strategy Recommendations (including Goalsetting / Reductions Target, Renewable Energy Potentials and Tree Canopy/Carbon Sequestration Studies)	\$8,500
Climate Action Plan Development and Finalization	\$40,719
Strategies and Actions	
GHG Reduction Modeling	
Draft Climate Action Plan	
Final Climate Action Plan	
Implementation Support Tools	
Implementation Tools	\$5,000
Community Engagement	\$53,468
Project Management, CAP Team Engagement, and Presentations	\$21,920
Total Basic Services*:	\$166,258

Task 8 Optional Services:

Climate Action Toolkit Supporting CAP Implementation	\$7,500
Community Guides Supporting CAP Implementation	\$5,000
Climate Action Implementation Communications Plan	\$3,500
Communications Plan Implementation Support	\$5,100

* Fees include all budgeted expenses including travel required for proposed scope of services, incidental printing and supplies for planning team meetings, community workshops, and community art installation. All final deliverables are anticipated to be electronic documents, minimizing the environmental impact of paper use, and reimbursable expenses. As a lump sum proposal, paleBLUEdot is committed to delivering the scope of services outlined in this proposal for the fees proposed here. paleBLUEdot understands that the City will provide meeting spaces for all staff, climate action plan team, and other project meetings and does not include expenses associated with securing meeting space.



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