



Amherst Energy and Climate Action Committee Meeting
Wednesday, April 22, 2020
4:30 PM

Please note this a virtual meeting and will be located at:

<https://zoom.us/j/95283460251>

To join from a PC, Mac, iPad, iPhone or Android device:

Please click this URL to join. <https://zoom.us/j/95283460251>

To join by telephone:

Dial (for higher quality, dial a number based on your current location):

US: +1 646 876 9923 or +1 312 626 6799 or +1 669 900 6833 or +1 253 215
8782 or +1 301 715 8592 or +1 346 248 7799 or +1 408 638 0968

Webinar ID: 952 8346 0251

International numbers available: <https://zoom.us/u/abejppj9zCj>

Meeting Agenda:

1. Meeting Format Overview – Stephanie
2. Review and Vote to Approve Minutes of 3-11-20
3. Public Comment – *(will be accommodated to the extent practicable)*
4. Staff Updates
5. Linnean Solutions (Jim Newman and Lauren de la Parra):
 - Introduction
 - Climate Action, Adaptation and Resilience Plan presentation and discussion
6. Next Steps/Agenda Setting
7. Public Comment -*(will be accommodated to the extent practicable)*
8. Adjourn

Energy and Climate Action Committee (ECAC)

Minutes

Wednesday, March 11th, 2020

(approved 4-22-20)

Attending: Laura Draucker (Chair), Andra Rose (Vice-chair), Darcy Dumont, Evan Ross, Steve Roof, Ashwin Ravikumar, Dwayne Breger, Jesse Selman, Sarah Durr, Steve Roof, Ashwin Ravikumar

Staff: Stephanie Ciccarello, Sustainability Coordinator

Absent: None

Public: Martha Hanner LWVA SCAC member, Richard Kolfer LWVA SCAC committee member, Rosemary Kolfer

Meeting called to order 4:32 PM

Review of meeting minutes

- **MOTION:** Rose moved to accept the minutes, Selman seconded
- **APPROVED:** 7-0-1 (Durr abstaining)

Public

- Martha stated an Issue of concern regarding the power plant in Springfield. Her concern is that the biomass renewable portfolio standard would get state subsidies. She thinks it should be a concern to the ECAC committee. Richard Kolfer shared the same concern.
- Rosemary Kolfer stated she is observing meetings.

Welcome new committee member, Sarah Durr

- Everyone introduced themselves.
- Durr works in the architecture/infrastructure industry and has passion for sustainability and environmental justice.

Staff updates

- Opening proposals in response to the RFP for a consultant to assist with development of a Climate Action, Adaptation and Resilience Plan on Monday. There is a formatted procurement process on how the town responds and conducts interviews.
- There is a staff meeting tomorrow about coronavirus. The Sustainability Festival may be postponed to a later date or canceled.
- Stephanie requests members coordinate with her in regards to getting on other committees' meeting agenda.
- Potential of remote meetings in the future due to the coronavirus.

Discussion on the Role of Town Councilors on the Committee

- Ross thanked the committee for the work it has done and is stepping down as a member. He noted the ECAC is the only committee that has councilors on it. The committee

discussed the effect of having councilors as members. The goal of the conversation was to give input on what the role of councilors has been and should (or should not) continue to be on the committee. Members acknowledged numerous benefits including being more connected to the town. The group also discussed concerns that future members may be inhibited to voice their opinions which may impact the free flow of conversation. Draucker will send language around about the conversation next week to the Council President.

Finalize Consultant Questions

- The committee suggested adding questions such as; 1) can they do remote meetings and community outreach somehow; 2) asking how they incorporate environmental justice and 3) asking about how they do analytical methods and what specific ones they use.

Climate Action Planning

- Discussion was held on the ECAC's involvement with other committees. Selman went to the Agriculture commission meeting and they had a lot of input for ECAC. He said that when he attended the meeting what worked well was to introduce ECAC in a brief manner and spend more time listening to feedback. He took notes and will share them with the committee. They work on issues that overlap with ECAC such as food justice and community outreach. The committee discussed that interacting with other committees is a good way to connect with other people in the community, and that ECAC can learn from other committees. Also, ECAC can partner with other committees to work on the same project.
- Selman will write a follow up thank you to the Agriculture Commission and keep the connection going. Dumont will go to a Transportation committee meeting. Breger will go to a Joint Capital Planning Cte meeting. Ravikumar will go to a Finance Committee meeting. Draucker will go to a Planning and Zoning committee meeting. Rose will go to an Amherst School Committee meeting. Roof will go to a Conservation Committee meeting.
- Draucker compiled notes regarding the climate action plan.

Unforeseen items

- None

Next meeting agenda

- Updates on committee members who have talked to groups.
- Identify other committees to connect with

Public comment

- None

Meeting adjourned: 6:32 PM



Town of Amherst, MA

Climate Action, Adaptation, and Resilience Plan

Energy and Climate Action Committee Meeting

April 22, 2020

1. Introductions

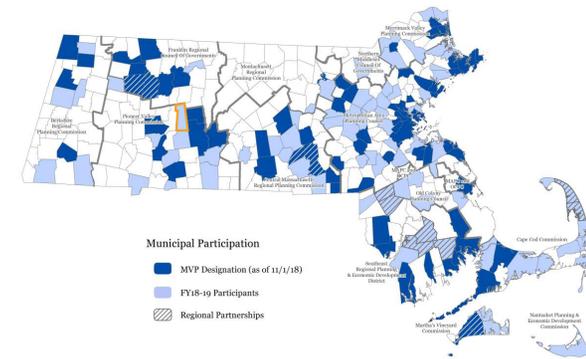
- Linnean Solutions and Project Partners

2. Background: Climate Planning in Amherst

3. CAARP Vision Discussion

4. CAARP Process and Timeline

5. Next Steps

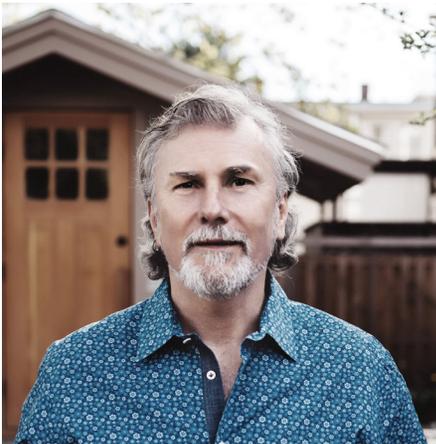


Our Team



Linnean Solutions - Based in Portland, ME and Cambridge, MA

*Climate action and adaptation planning •
Process facilitation • Regenerative approach*



JIM NEWMAN
Principal
LEED AP (O&M), EcoDistrict AP

Certified MVP Service Provider



LAUREN DE LA PARRA
Sustainability Planner
LEED Green Associate

Certified MVP Service Provider



HOLLY JACOBSON
Resilience Consultant
LEED Green Associate

Certified MVP Service Provider

Our Partners



Nitsch Engineering - Based in Boston, MA

Infrastructure resilience planning • Technical modeling • Sustainable and low-carbon procurement



Regenerative Design Group - Based in Greenfield, MA

Soil health and soil carbon analysis • Land use planning recommendations and best practices

GCN

Gazit Chaya Nkosi - Based in Amherst, MA

Community participation planning • Community partner engagement • Community outreach coordination and support

Climate Planning in Amherst

GHG Inventory

- Baseline FY11-FY16
- Municipal and town-wide
- Stationary Energy, Transportation, Waste, Agriculture
- 286,773 MTCO₂e (FY16) (down 2.3%)

MVP Planning

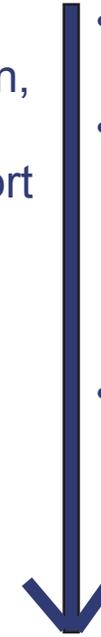
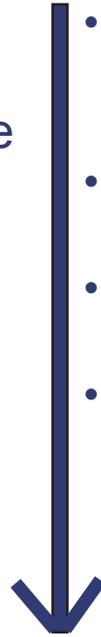
- Increased heat, precipitation, drought, extreme weather
- Vulnerabilities, strengths, priorities
- Infrastructural, environmental, societal

CCA Task Force

- Inter-municipal with Northampton, Pelham
- Task Force Report released 2019
- CCA 3.0 framework
- Next: municipal aggregation plan to DPU

ECAC Outreach

- Community visioning and interviews
- Community groups, low-mod income renters, business community, Town staff & Committees
- Knowledge, opportunities, barriers, support



Climate Action, Adaptation, and Resiliency Plan:

Merging these processes to address mitigation, adaptation, *and* resilience



**What do you see when you think
about Amherst in 30 years?**

Integrative climate planning framework

- Carbon mitigation
- Resilience and adaptation

Equity-focused and community-driven

- Equity in process and outcomes
- Community partnerships and participation

Outlines process for tracking and updating over time

- GHG emissions inventory
- CAARP implementation

Identifies goals and strategies to meet them

- Metrics and indicators
- Sector Gap Analysis

Specifies Town staffing and budgeting needs

- Priority projects
- Ongoing climate action

Explores innovative funding models to support climate action

- Emerging trends and case studies
- Municipal and town-wide



Carbon Mitigation Goals

50% reduction in town-wide GHG emissions below FY 2016 levels by 2030

Interim goal of 25% reductions by 2025



Carbon neutrality no later than 2050
Prepare for carbon neutrality by 2030

Plan locally, advocate for state and federal action, adopt new technologies

- **Clear, well-defined, science-based**
- **Measurable, actionable, time-framed**

What do we mean by resilience?

“The capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience.”

- 100 Resilient Cities, Rockefeller Foundation



What does resilience look like for Amherst?

Water infrastructure and water security

Sustainable & compact development practices

Thorough distribution of information and resources

New models for all levels of participation

Reducing vulnerability of electric grid

Sustainable and resilient buildings

Resilient food production and distribution systems

Empowerment of vulnerable populations in political and planning processes

Master planning and zoning that reflect community values

Flood resilience and green infrastructure

Environmentally-friendly transportation

Coordinated water systems protection

Foster new community connections

What does resilience look like for Amherst?

2

Social Equity & Governance

Goal 1.

Decisions at the local level involve extensive consultation with stakeholders (residents, community partners, and others affected by decisions). The decision-making process is transparent and accountable.

Potential Indicators:

- Town has a protocol in place for consultation with stakeholders
- The local community reports that decisions are made in a transparent and accountable way

Goal 2.

Town considers climate justice in all climate action, ensuring that no portions of the community experience disproportionate harm from climate change and that the benefits of climate adaptation are shared equally.

Potential Indicators:

- Town has a protocol in place for assessing whether decisions have a disproportionate effect on traditionally marginalized community members, and whether benefits are distributed equally

What does resilience look like for Amherst?

4

Infrastructure & Environment

Goal 1.

All infrastructure and planning decisions are made using the latest climate science projections in order to ensure building systems continue to support the health, safety, and wellbeing of the campus community under all circumstances.

Potential Indicators:

- Town has a protocol in place for applying climate projections in local decision-making
- Town infrastructure can support 100% of essential functions under all emergency situations
- Frequency and duration of interruptions in power, water/sewer, transportation, or communications/IT systems

Goal 2.

The natural environment and the built environment in town *work together* to make both the local community and local ecosystems more resilient.

Potential Indicators:

- Percentage of applicable areas in town that use nature-based solutions to address stormwater management, high heat mitigation, resilience to wind and storms, and/or improvement of air or water quality
- Percentage of applicable areas in town where the design and management of open spaces support healthy ecosystems and healthy soils

Sector-Based Task Groups

- Composition, planning, scheduling
- Community partner outreach
- Meeting #1 in late May/early June

Community Participation Planning

- Support for community partner outreach
- Community participation plan
- Outreach framework and materials

Soil Health and Soil Carbon Analysis

- Existing soil function
- Significance, vulnerabilities, and opportunities
- Recommendations for aligning land use planning with soil health

Infrastructure Resilience and Procurement Analysis

- Key stakeholder interviews
- Technical analysis and recommendations
- Presentation to Transportation and Infrastructure Task Group

Proposed Sectors

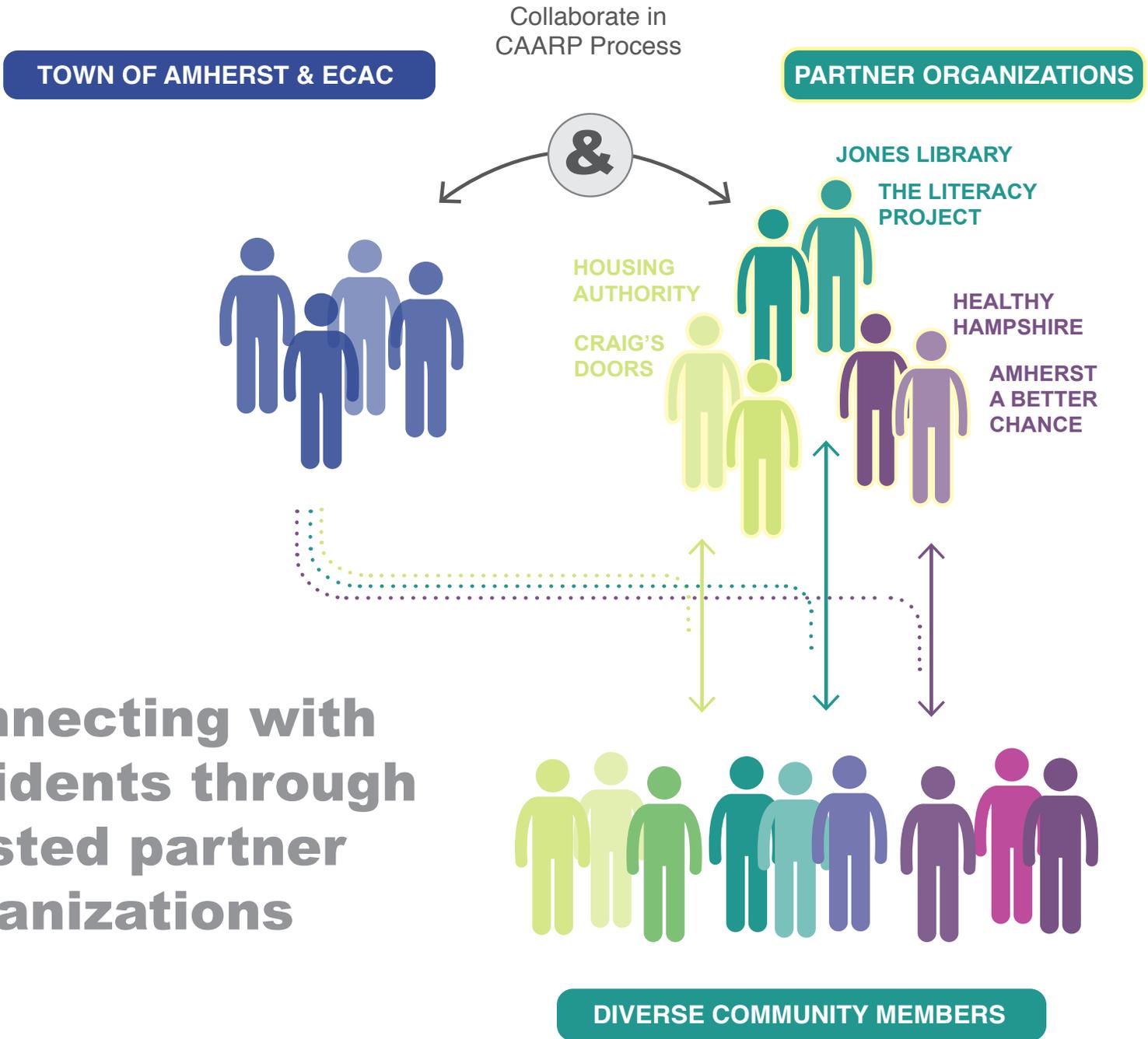
*Buildings & Energy (*incl. CCA)*

Transportation & Non-Building Infrastructure

Land Use & Natural Systems

Community & Public Health

Community Participation



Connecting with residents through trusted partner organizations

Project Timeline

← 2020 → ← 2021 →

APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY

PHASE ONE: FRAMEWORK DEVELOPMENT

BASELINE ASSESSMENTS - REVIEW OF EXISTING PLANS	APR	MAY	JUN															
PLANNING MEETING WITH ECAC - VISION & PROCESS	APR																	
DEVELOPMENT OF OUTREACH STRATEGIES & TIMELINE	APR	MAY																
INITIATE WORK WITH COMMUNITY ORGS & SECTOR TASK GROUPS		MAY	JUN															
INFRASTRUCTURE RESILIENCE & PROCUREMENT ANALYSIS		MAY	JUN															
SOIL HEALTH & SOIL CARBON ANALYSIS		MAY	JUN															
DRAFT COMMUNITY PARTICIPATION PLAN			JUN															

PHASE TWO: STRATEGY DEVELOPMENT

SECTOR-BASED TASK GROUP MEETINGS			JUN	JUL	AUG	SEP	OCT											
SECTOR GAP ANALYSIS - MITIGATION & RESILIENCE			JUN	JUL	AUG													
COMMUNITY MEETINGS						SEP	OCT											
MONITORING & EVALUATION BRAINSTORMING						AUG												
CONSOLIDATION OF MEETING OUTCOMES & FEEDBACK						AUG		SEP										

PHASE THREE: PLAN DEVELOPMENT

DEVELOP & PRESENT PRIORITY RANKING TO ECAC									NOV	DEC	JAN	FEB	MAR	APR	MAY			
DRAFT CAARP									NOV	DEC	JAN	FEB	MAR					
PRESENT DRAFT PLAN TO ECAC										DEC	JAN	FEB	MAR					
PRESENT DRAFT PLAN TO COMMUNITY													MAR					
FINALIZE CAARP															APR			
PRESENT FINAL PLAN TO ECAC AND TOWN COUNCIL																		MAY

**Are there any additional considerations
to make sure this process advances
Amherst's broader goals?**

Next Steps



- 1. Identify Task Group leaders**
- 2. Brainstorm Task Group members**
- 3. Reach out to potential Community Partners**
- 4. Schedule first Task Group meetings**



Thank You!



LINNEAN SOLUTIONS
Cambridge, MA
linneansolutions.com

Images of Amherst taken by John Phelan (public domain)



AMHERST CLIMATE ACTION, ADAPTATION, AND RESILIENCY PLAN

Buildings and Energy Task Group

Meeting 1, [insert date], 6:30 – 8:30pm
Room #, Location

Vision for the Climate Action, Adaptation, and Resiliency Plan: Amherst strives to be a great place to visit, live, work, and thrive, now and for generations to come, ensuring that our future is *just and equitable, resilient, healthy and carbon neutral*.

Task for the Buildings and Energy Task Group: Amherst aims to be carbon neutral by 2050. How will we get there? How will we make sure our buildings and energy systems are also resilient to climate change impacts?

Agenda for Meeting #1

TIME	DESCRIPTION
6:30 – 6:35 (5 mins)	Group Introductions
6:35 – 6:45 (10 mins)	Context Setting, Goals, Today's Task
6:45 – 7:00 (15 mins)	Review of Provided Material
7:00 – 8:15 (75 mins)	Discussion and Development of Strategies
8:15 – 8:30 (15 mins)	Discussion of Next Steps and Next Meeting

CAARP Project Schedule and Framework Proposal

April 2020

I. BACKGROUND

Over the past year, significant groundwork has been laid by the Town of Amherst's Energy and Climate Action Committee (ECAC) and Municipal Vulnerability Preparedness (MVP) planning efforts. These experiences have set the stage for effective public engagement and equitable strategy development to support the creation of a town-wide Climate Action, Adaptation and Resilience Plan. Ambitious carbon emissions reduction goals have been established –25% below baseline levels by 2025, 50% below baseline by 2030, and carbon neutrality by 2050 – and consideration of pathways to achieving these goals has been initiated. Many key stakeholders have been brought into conversations about the town's strengths, vulnerabilities, and opportunities in the face of the climate crisis.

The ECAC, with support from Linnean Solutions, will create a community-driven Climate Action, Adaptation and Resilience Plan (CAARP) over the course of the coming year. The purpose of the CAARP, as charged by the Amherst Town Council, will be to outline processes for the town to meet its goals in terms of emissions reduction, climate adaptation and community resilience, and to track progress along the way. The CAARP development process will continue to engage key stakeholders, community partners, and members of the public meaningfully within a framework of transformation to achieve a collective vision that will form the basis of the CAARP's strategies. This document serves to contextualize and clarify each of the proposed steps in this process.

II. PROPOSED FRAMEWORK

Community-Driven Process

A process that is participatory, accessible, inclusive, and inspiring. One that engages traditionally underrepresented segments of the population, with an emphasis on equity in process and implementation.

Carbon Mitigation Sector Gap Analysis

Research and strategy development that is data-driven, and that leverages the previous work of the ECAC as well as Amherst's significant local expertise.

Community Resilience Sector Gap Analysis

Building on the town's MVP process and outcomes, what does resilience mean for Amherst? Setting goals for community resilience based on indicators that are measurable and meaningful.

Infrastructure Resilience and Adaptation Analysis

Nitsch Engineering will provide technical analysis, best practices, and strategy proposals for infrastructure resilience and low-carbon procurement in Amherst.

Soil Health and Land Use Planning Analysis

Regenerative Design Group will evaluate soil health in relation to carbon sequestration and climate resilience to make recommendations for integrating soil health into land use planning.

Integrative Systems Approach

Leveraging this process for continued success into the future. This includes CCA, community initiatives and campaigns and will arise from this process, and coordinated Town responses.

III. ROLES

Task Groups

We propose the creation of four (4) Task Groups, each chaired by members of the ECAC, and covering the following plan areas/sectors:

- Buildings and Energy (including CCA, energy efficiency, renewables, building resilience, and embodied carbon)
- Transportation and Infrastructure (including gas and electric infrastructure, water and wastewater infrastructure, communications infrastructure, and procurement)
- Land Use and Natural Systems (including development, agriculture, forestry, soil health and carbon sequestration, and green infrastructure)
- Community and Public Health (including lessons from COVID-19, pests and vector-borne disease, food systems and food justice, culture shifts, consumption and waste)

Each Task Group will meet 3-4 times over the course of May-July, 2020 (see Timeline below). Task Groups will participate in Sector Gap Analysis, including long-term goal-setting, identification of gaps in current action, and consideration of overall strategies and short-term actions needed to meet them.

Task Groups should consist of diverse stakeholders, community partners, and other community members with interest and/or expertise, including critical perspectives on equity. The Community Outreach Liaison (see below) will assist in the process of Task Group formation, serving as a connector and facilitator for stakeholder and community participation.

Technical Consultants

Nitsch Engineering

Nitsch's team, led by Project Manager Isabel Kaubisch, are experts in infrastructural resilience and low-carbon procurement. In Phase 1, working with relevant Town staff and key stakeholders, they will lead a discovery process to determine Amherst's infrastructure resilience needs and opportunities with an emphasis on the technical aspects of procurement and implementation. We additionally anticipate that Nitsch will lend their expertise to the Transportation and Infrastructure Task Group.

Regenerative Design Group (RDG)

Based on the needs and priorities identified by the ECAC and patterns revealed in the Level 1 Assessment of the Massachusetts Healthy Soils Action Plan, RDG will model the current state of soils in Amherst and provide guidance for land use planning that protects and enhances the functions and services provided by healthy soils. The Level 2 Soil Health Assessment and Guidance consists of three components:

1. Analysis of Existing Soil Function
2. Assessment of Significance, Vulnerabilities, and Opportunities of Soil Health
3. Recommendations for Aligning Land Use Planning and Management with Soil Health

Finally, RDG will provide recommendations for establishing research and other programs to collect and analyze Level 3 data. This work will not only allow Amherst to participate in state, federal, and private programs rewarding beneficial land management such as Carbon Credits and Payment for Ecosystem Services, but also advance the scientific understanding of soils as natural climate change solutions. We additionally anticipate that RDG will lend their expertise to the Land Use and Natural Systems Task Group.

Community Outreach Liaison

Engaged community member Gazit Chaya Nkosi will serve as a key liaison between CAARP community partners, Linnean, and the ECAC, supporting community outreach and relationship development in service of participation and equity goals. The Community Outreach Liaison will be a leader in the development of the CAARP community outreach strategy, which will include Phase 1 Task Group formation and Phase 2 community meeting planning and execution.

Linnean Solutions

The Linnean team, including Project Manager Lauren de la Parra and Principal Jim Newman, will lead the design and execution of the CAARP planning process, including meeting planning, facilitation, and/or support, synthesis of feedback, development of presentations and key communications, and all other process-based aspects of the work. In addition, Linnean will support all other elements of the planning process, including strategy development and prioritization, and will lead the development of the final Climate Action, Adaptation and Resilience Plan report.

Energy and Climate Action Committee (ECAC)

The Energy and Climate Action Committee, with support from Linnean Solutions, will lead the process of Sector Gap Analysis and the development of the CAARP's core goals and strategies. We recommend that two (2) members of the ECAC chair each of the proposed sector-based Task Groups according to interest and/or expertise, and that these Task Groups serve to implement the Sector Gap Analyses as outlined by the ECAC. The ECAC will also support community outreach as a continuation of their work already undertaken to date.

IV. TIMELINE

Phase 1: Framework Development

1. Baseline Assessments
 - a. Linnean Solutions will review key background documents relevant to climate action, adaptation and resilience planning in Amherst – April 22, 2020
2. Strategy Development Planning
 - a. Meeting with ECAC to establish plan sectors, discuss Task Group structure and community outreach planning, and overall process timeline – April 22, 2020
 - b. Finalizing of CAARP sectors and key elements – April 30, 2020
 - c. Development of CAARP vision and resilience/adaptation goals – May 22, 2020
 - d. Infrastructure resilience and procurement planning led by Nitsch – May 29, 2020
 - e. Soil health, land use analysis led by Regenerative Design Group – May 29, 2020
3. Community Outreach Planning
 - a. Development of community outreach timeline in collaboration with ECAC and Community Outreach Liaison – May 15, 2020
 - b. Connecting with community partner organizations to engage them in Task Group process – May 29, 2020
 - c. Form, schedule, and kick off sector-specific Task Groups – May 29, 2020
 - d. Draft community participation plan with Community Outreach Liaison and community partners – June 26, 2020

Phase 2: Strategy Development

4. Sector Gap Analysis
 - a. ECAC, Task Groups develop climate mitigation strategies – July 31, 2020
 - b. ECAC, Task Groups develop adaptation/resilience strategies – July 31, 2020
 - c. ECAC, Task Groups identify and define monitoring and evaluation needs and potential pathways – July 31, 2020
5. Community Meetings
 - a. Development of broad community outreach strategies and materials with Community Outreach Liaison and community partners – August 21, 2020
 - b. Community meetings – October 30, 2020
 - c. Consolidation of meeting outcomes and feedback – October 30, 2020

Phase 3: Plan Development

6. Priority Ranking
 - a. Development of prioritized strategy rankings by sector – November 20, 2020
 - b. Presentation of prioritized strategy rankings to ECAC, Task Groups, and community partners – December 4, 2020
7. Report Production
 - a. Drafting of Climate Action, Adaptation, and Resilience Plan – February 19, 2021
 - b. Presentation of draft CAARP to ECAC – March 10, 2021
 - c. Presentation of draft CAARP to community – March 24, 2021
 - d. Finalizing of CAARP – May 7, 2021
8. Present Final CAARP to ECAC and Town Council – May 17, 2021