

# Energy and Sustainability Committee Sudbury, MA

Rami Alwan, Chair

January 14, 2020



# Sudbury

## Energy and Sustainability Committee

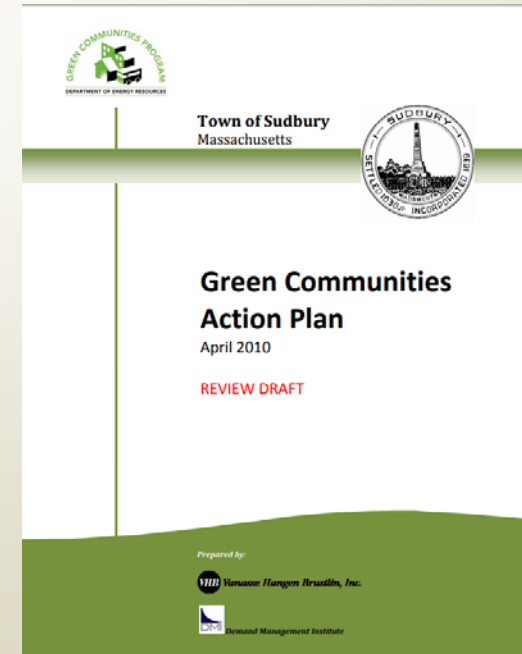


- Volunteer committee established May 2009 by the Sudbury Board of Selectmen
- Mission Statement - assist the Board and Town Manager in developing programs and projects to foster energy conservation, energy efficiency, renewable energy generation and sustainability planning.
  - Gather, study and evaluate information that will help determine various approaches for improving the energy efficiency of operating town and school buildings and vehicles, investigate alternative energy technologies and identify funding opportunities to help the Town achieve its energy and sustainability related goals.
  - Develop recommended approaches for influencing the town residents and businesses to maximize their environmental sustainability through educational outreach, informational programs and incentives.



# Green Community Designation

- In 2009 Sudbury became a Massachusetts Green Community. The Action Plan was prepared in 2010. This has allowed us to apply for and be awarded ~\$1.7 million over the past 10 years.
- These funds have been used for:
  - a. Interior LED lighting upgrades for Loring, Curtis, Haynes, Nixon, Noyes, Atkinson and LSRHS.
  - b. Refrigeration improvements for the Curtis and Noyes school cafeterias.
  - c. Weatherization and air sealing at Curtis and Noyes
  - d. Ford Focus EV and charging station at the DPW building
  - e. Goodnow Library EMS/ controls upgrades
  - f. HVAC controls at LSRHS





# Solar Projects

## Energy and Sustainability Committee

- Implemented 2 - 1.1+ megawatt solar arrays in Sudbury
  - One on the former landfill (2013)
  - One on the LSRHS parking lot (2015)
  - They are saving the town ~\$130,000 and ~\$110,000 respectively in electricity cost annually.

Community Corner

### Sudbury Solar One Facility Ready for Operation

Ribbon-cutting ceremony planned for Nov. 13 at Transfer Station.

By Robert Fucci, Patch Staff

Nov 7, 2013 1:21 pm ET | Updated Nov 12, 2013 10:33 am ET



# Solar Projects

## Energy and Sustainability Committee



### Lincoln-Sudbury Regional High School

Our team, previously as SunEdison's C&I division, developed a 1.238 MW parking canopy for Lincoln-Sudbury Regional High School in Massachusetts. The project, which was completed in 2015, offsets over 2 million pounds of carbon dioxide equivalent for the school. The structure also provides shade during warm months and a shield from harsh elements during the winter.

The Lincoln-Sudbury Regional High School purchases the solar energy through a 20-year Power Purchase Agreement (PPA). The PPA includes operations and maintenance at no additional charge.

|                 |                                      |
|-----------------|--------------------------------------|
| <b>Customer</b> | Lincoln-Sudbury Regional High School |
| <b>Segment</b>  | Public Sector                        |
| <b>Type</b>     | Parking Canopy                       |
| <b>Capacity</b> | 1.238 MW                             |
| <b>Year</b>     | 2015                                 |
| <b>Location</b> | Sudbury, Massachusetts               |





# Energy Aggregation Project

## Energy and Sustainability Committee

- Residential Energy Aggregation/Community Choice Energy Supply
- The primary goals of the program are to provide a cost-effective, stable and responsible alternative to utility electricity rates for participating consumers. However, the program also offers exciting renewable energy options from which to choose.
  - Still trying to get traction on 100% green energy choice.
  - PLEASE SIGN UP

<https://sudbury-cea.com/enroll-in-the-program/>

A screenshot of the website for the Sudbury Town-Wide Electricity Aggregation program. The header features the town seal and the text "SUDBURY TOWN HALL" and "Sudbury Town-Wide Electricity Aggregation". A navigation bar includes links for "PROGRAM DETAILS", "ENROLL", "OPT-UP", "CALCULATOR", "OPT-OUT", and "CONTACT". The main content area has a heading "Opt Up to 100% Local Renewable Energy" and a sub-heading "RATE EFFECTIVE AUGUST 2017 - AUGUST 2020" with a rate of "10.749 cents/kWh". Below this is a paragraph of text explaining the program and a "Name (required)" input field. On the right, there is a section for "PROGRAM CONTACT INFORMATION" and "PROGRAM SUPPLIER CONTACT INFORMATION" with the supplier name "Dynergy".

# Ongoing Initiatives

## Energy and Sustainability Committee



- Other Current Initiatives:
  - Additional electric vehicles and charging stations
  - Improved energy systems controls
  - Examining additional opportunities for energy savings in town owned buildings





# Lincoln Sudbury Regional High School Environmental Club

- After an exhaustive 2 year effort the club sponsored and had passed a plastic bottle and plastic bag ban by-laws in both Lincoln and Sudbury.



Three Lincoln Sudbury students shared their experience as “Local Heroes” at the Mass Green Summit, an annual meeting of engaged citizens working to make our state cleaner and more just. [Wicked Local, 2/5/18]



# Lincoln Sudbury Regional High School Environmental Club



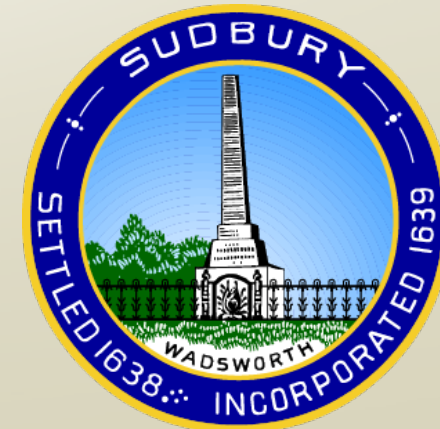
- Current efforts include
  - shoreline remediation and clean-up in Hull
  - Single use polystyrene and plastic straw ban bylaw





# Climate Resilience and Municipal Vulnerability Preparedness (MVP) Sudbury, MA

Beth Suedmeyer, Environmental Planner,  
Planning and Community Development  
Department  
January 14, 2020

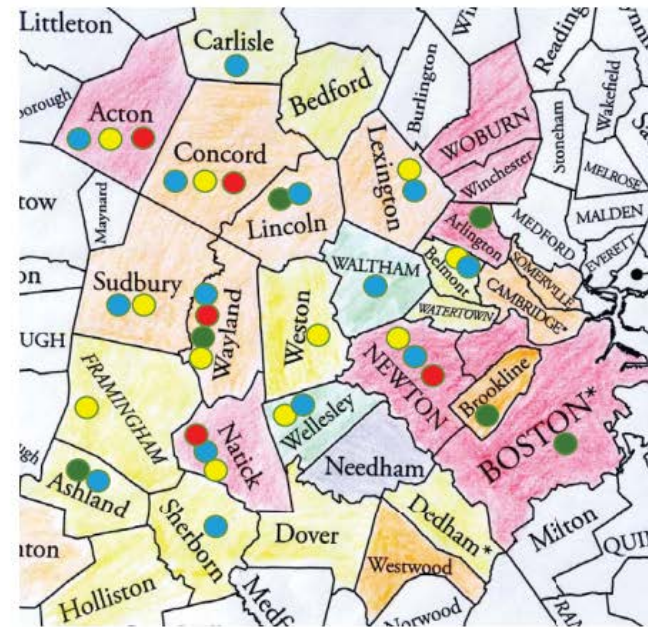




# Sustainability is part of General Municipal Operations

- Policies and Bylaws
- General Governance
- Citizen Initiated Initiatives
- Partnerships with the State

## Green Communities establish governance for sustainability



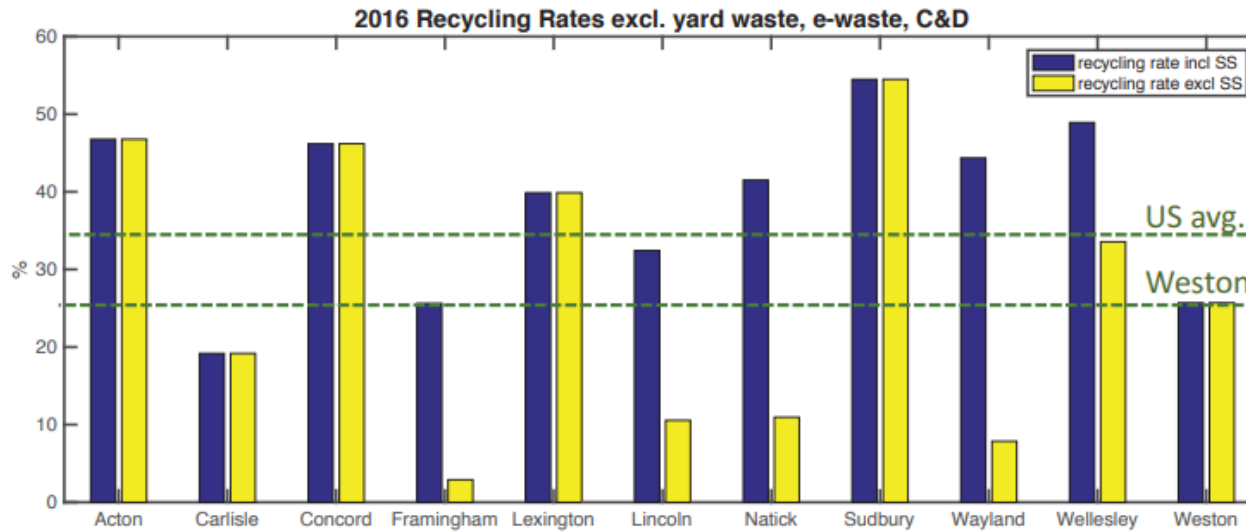
- Town received grant funding for **administrative costs**
- Town has **employee dedicated to sustainability**
- Town has **permanent energy/sustainability committee**
- Town has **active citizen's group** or initiative

### Total Green Communities Grant Funding Awarded

- > \$1,000,000
- \$600,000 – \$1,000,000
- < \$600,000
- New GC designation (2017)



# Recycling



- **Single Stream (SS)** recycling is a factor
- **PAYT/SMART towns:**
  - Acton
  - Concord
  - Natick
  - Sudbury
  - Wayland

Source: 2016 data from <https://www.mass.gov/lists/recycling-solid-waste-data-for-massachusetts-cities-towns>



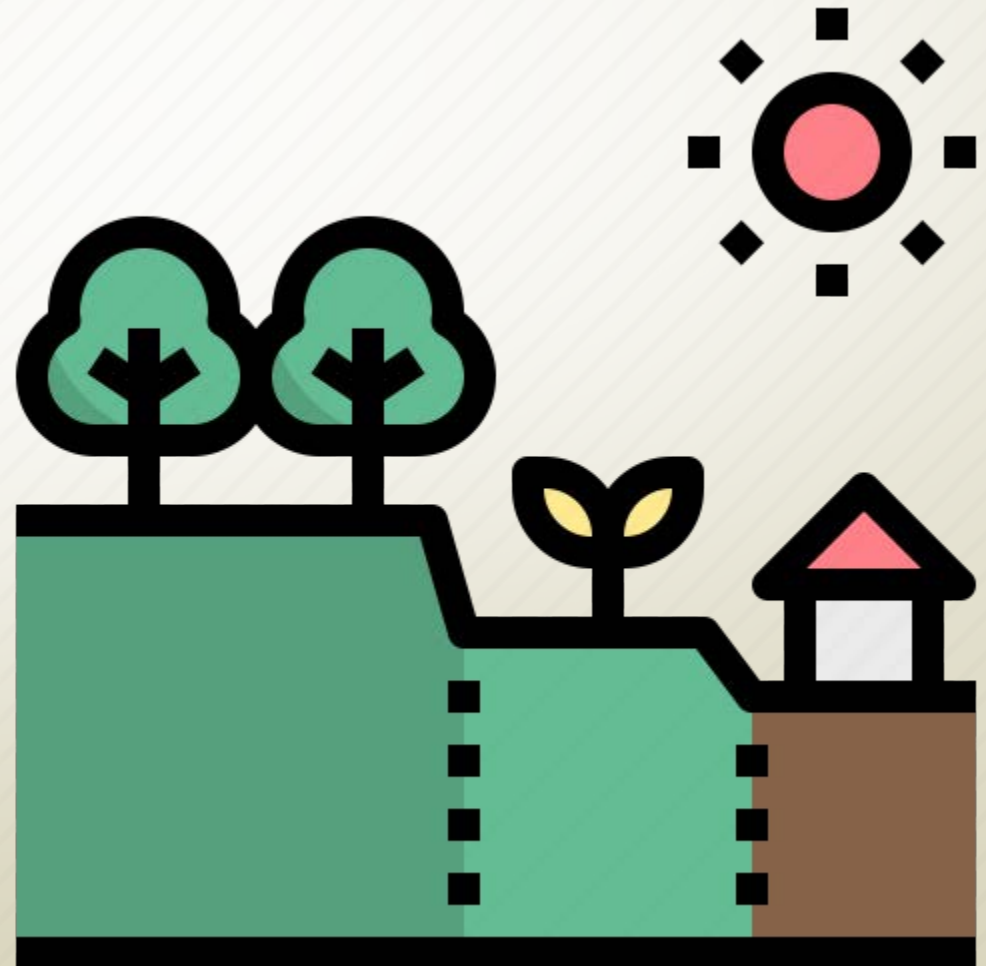
# Stretch Code Policy

- The Stretch Energy Code is an optional appendix to the Massachusetts State Building Code
- The Code was adopted by Sudbury as is required of the Green Community Designation program
- Streamlined and cost effective route to achieving approximately 20% better energy efficiency in new residential and commercial buildings leading to a decrease in annual average energy costs to home owners and businesses.



# Land Use and Bylaws

- Site Plan
- Subdivision
- Stormwater Management
- Water Resource Protection District
- Local Wetlands Bylaw
- Earth Removal Bylaw
- In Development – Solar Bylaw



# Master Plan Update (2020-2040)



- Natural Resources, Open Space, and Recreation
- Historic and Cultural Assets
- Public Health, Housing, and Equity
- Economic Resilience, Town Services, and Infrastructure
- Transportation, Mobility, and Connectivity
- <https://sudbury.ma.us/masterplan/>

### Sudbury Master Plan Community Conversation Housing

Housing options, costs, and conditions are important attributes families and individuals evaluate when choosing a place to live. These factors can also influence whether a current resident can remain in town as he or she transitions from one life stage to another.

**Housing Units & Types**

Between 2000 and 2017, Sudbury increased its housing units by 6,356 units.

| Year | Housing Units |
|------|---------------|
| 2000 | 5,504         |
| 2010 | 5,951         |
| 2017 | 6,356         |

**Natural Resources, Open Space, and Recreation**

Natural resources provide important environmental, social, and economic benefits, including habitat for plants and animals, flood protection, recreation, economic livelihood, and improved air and water quality. Protection and management of these areas are important for the long-term health of a community and its resilience in the face of a changing climate.

**Conservation Land**

In Sudbury, there is approximately 32% of the town's land is dedicated to conservation and recreational open space, and more than half are protected from future development. Conservation and open space areas are owned by public, private, and non-profit entities and have different levels of protection.

| Landowner  | % of Total Town Land |
|--|----------------------|
| Private  | 13%                  |
| Federal  | 28%                  |
| State (incl. Sudbury Water District)             | 15%                  |
| Town   | 29%                  |
| Sudbury Valley Trustees                          | 14%                  |
| Other (Lincoln-Sudbury Regional School District) | 1%                   |
| <b>Total</b>                                     | <b>4,869</b>         |

**Year Built**

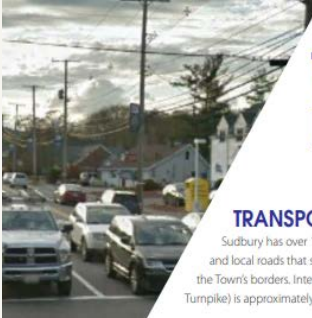
| Year Built      | Percentage of Units |
|-----------------|---------------------|
| 1939 or earlier | 3%                  |
| 1940 – 1949     | 3%                  |
| 1950 – 1959     | 18%                 |
| 1960 – 1969     | 22%                 |
| 1970 – 1979     | 13%                 |
| 1980 – 1989     | 12%                 |
| 1990 – 1999     | 14%                 |
| 2000 – 2009     | 10%                 |
| 2010 or later   | 3%                  |

# Transportation Options

## Transit



- Shuttles
- Microtransit initiative
- Park and Ride
- Other



### TRANSPORTATION IN SUDBURY

#### TRANSPORTATION SNAPSHOT

Sudbury has over 160 miles of roadways. These roadways include a mix of arterials, collectors, and local roads that serve the town and the region. There are no interstate highways within the Town's borders. Interstate (I) 495 lies approximately five miles to the west, I-90 (Massachusetts Turnpike) is approximately three miles south, and I-95 lies approximately seven miles east.

#### REGIONAL TRAFFIC

Development in neighboring communities impacts Sudbury, primarily on major transportation routes such as Routes 117, 27 and 20. Recent developments at Sudbury's borders with Maynard and Acton include the Maynard Crossing Development which has 320 housing units, the Market Basket store which will open in 2020, and the Beijing Royal International School, which is projected to enroll 500 students in grades K-12 beginning in 2020. Although located in other communities, these developments create additional regional traffic that may impact Sudbury, due to the development types and locations.

#### SUDBURY BY THE NUMBERS...

- 160 miles of roadway
- 6 signalized intersections
- 16,000 - 20,000 average daily traffic volumes on Route 20
- 799 crashes\* 400+ injuries\*
- 1 fatality\* \* (2014 - 2016)


#### WHAT WILL THIS PLAN DO?

This master plan will identify potential strategies to make Sudbury's roadway network safer and more accessible for all users. It will also identify opportunities to alleviate congestion and improve traffic flow at key intersections.

- Transit improvements where possible
- Town wide safety enhancements
- Walking and biking improvements

#### WE WANT TO HEAR FROM YOU!

Do you live or work in Sudbury? To learn more about the Sudbury Master Plan or to join the project mailing list, please visit the website below:  
[www.sudbury.ma.us/masterplan](http://www.sudbury.ma.us/masterplan)



### JOURNEY TO WORK

Sudbury residents are heavily reliant upon the automobile to get to work with approximately 82% of residents driving to work alone (according to the 2013-2017 American Community Survey). The most common work destinations are Boston, Waltham, Framingham, and destinations within Sudbury.

Additionally, there are also over 6,000 commuters into Sudbury, an overwhelming majority of which are dependent upon the automobile for travel. Nearly 8,000 Sudbury residents commute out of Town for work daily (2015 all job counts, source: U.S. Census Bureau, Center for Economic Studies, Onthemap tool). In 2011 (most historic available count year), the number of commuters into Sudbury was over 6,550, while almost 7,000 residents commuted away from Sudbury for work. The decrease in commuters into Town could be attributed to the closing of major employers such as Raytheon, which officially left Sudbury in 2016.

Approximately 850 Sudbury residents both live and work in Sudbury. This is an increase since 2011, where 770 Sudbury residents both lived and worked in the Town.



82.6 %  
Drove Alone



9.3 %  
Worked at Home



3.5 %  
Carpooled



3.3 %  
Public Transportation



1.0 %  
Walked or Biked

### WHAT WE'VE HEARD



- Traffic congestion is a major issue
- Limited public transit options available, this makes it challenging for seniors, disabled, and lower income residents
- Safety concerns for pedestrians and bicyclists
- Lack of ADA accessible walkways, trails, etc.
- Limited resources available for maintenance of existing walkways
- Planned bike trail network is a major asset

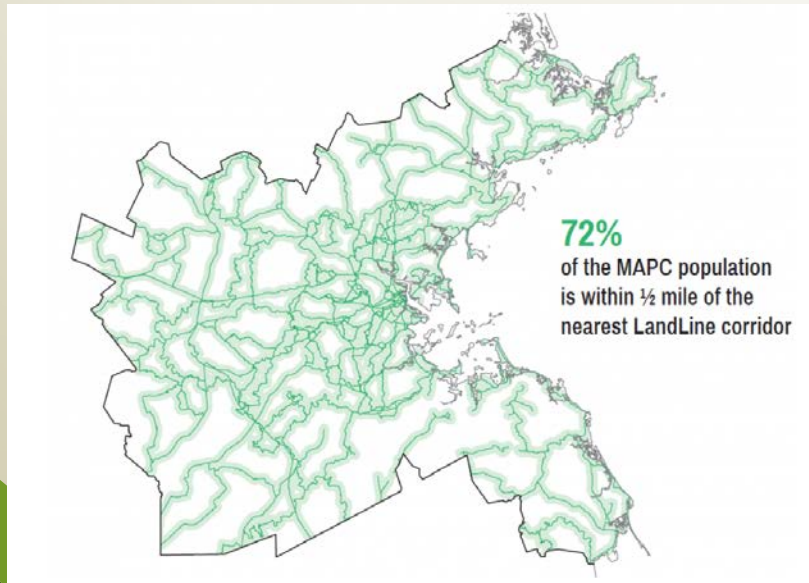


# Active Transportation Options

## Bicycle and Pedestrian Amenities



- Rail Trails
  - Bruce Freeman Rail Trail in Design
  - Proposed Mass Central Rail Trail
- Complete Streets Policy and Planning



### MAGIC

#### Trails and Bicycle Facilities

- Existing (solid line)      Proposed (dotted line)
- Walking Trails**
  - Footpath (paved or natural surface)
- Bicycle Facilities**
  - Bike Lane
  - Cycle Track
  - Marked Shared-Lane
- Shared Use Paths**
  - Shared-Use Path
  - Shared-Use Path, Unimproved Surface
- Greenway Route
- Greenway and Walking Trail
- Regional Walking Trail



The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.



# Is Sudbury prepared?

March 2018 and beyond... what can we do to become more resilient to climate change?

## Several Roads Closed In Sudbury: A Map And Video

Seven roads are closed or partially closed due to flooding from the storm.

By Charlene Arseneault, Patch Staff | Mar 2, 2018 4:12 pm ET | Updated Mar 2, 2018 4:13 pm ET



SUDBURY, MA—The storm is spitting wind and rain on the area, and apparently is hitting quite a few streets hard right here in Sudbury. As of 4 p.m. on Friday, some seven streets were closed or included detours in Sudbury, including.

Here is an update of road situations as of 4:10 p.m.:

## Here's where you can track power outages being reported in Massachusetts

Strong winds and heavy snow from the nor'easter have brought down trees and power lines in the state, knocking out power to thousands of homes and businesses.



A police vehicle blocks a road near downed power lines, Thursday in Natick. --Steven Senne / AP

By Dialynn Dwyer updated on March 8, 2018

**Massachusetts Power Outages**  
320421 customers without power as of 3:00PM EST 18 PM

The map indicates power outage for the entire Commonwealth. Data available as of 3:00 PM EST.

- Green: No reported outages
- Yellow: 1-999 customers without power
- Orange: 1000-9999 customers without power
- Red: 10000+ customers without power
- Dark Red: 100000+ customers without power

Zoom Map to a Town:  
Select a town:

The information contained on this website is for general informational purposes only. The user is responsible for verifying the accuracy and reliability of the information. The Massachusetts Emergency Management Agency takes no responsibility for any delays or interruptions in service or for any other losses.

**MEMA** @MassEMA  
~320K outages at 4 PM  
Utilities report this will be a multi-day restoration effort. Those without power should stay with friends, family, at hotels or a nearby shelter - Call local public safety officials or 2-1-1 for shelter locations  
Safety tips: [bit.ly/2j5qs8X](https://bit.ly/2j5qs8X) #MASnow  
♡ 26 5:34 PM - Mar 8, 2018  
50 people are talking about this

# Is Sudbury prepared?



## Emergency Shelter Open at Fairbank Center March 8-11, 2018

- Served 346 residents, with 10 overnight stays
  - 250 snacks and 127 meals
- Rides to the shelter for homebound residents were provided via the senior van
- 59 people staffed the shelter
  - Medical Reserve Corps (MRC)
  - Community Emergency Response Team (CERT) members
  - Town staff
  - Neighboring town volunteers



*Residents who came to the shelter had access to free WIFI, charging stations, 3 meals a day plus snacks, bathrooms, and a warm place to stay.*

# Municipal Vulnerability Preparedness Program (2019)



**Sudbury Massachusetts** About Sudbury Calendars Committees Departments Schools Payments Email Lists Jobs Contact

Zoning Bylaw Rules and Regulations Application Forms Application Filing Fees Master Plans Hazard Mitigation Plan

News Documents Staff FAQs Links

## Municipal Vulnerability Preparedness (MVP) Planning

Published May 31, 2019 | Planning & Community Development | Updated July 8, 2019

Sudbury is participating in the Municipal Vulnerability Preparedness (MVP) Program, which is coordinated by the Commonwealth's Executive Office of Energy and Environmental Affairs and focuses on community planning for climate change resiliency and implementing key climate change adaptation actions for resiliency. Communities who complete the MVP planning process become certified as a MVP community and are eligible for MVP Action grant funding from the state and other opportunities. The *Summary of Findings Report* and *Workshop Discussion Matrix* were submitted to EEA in May 2019.

Key components of the MVP Planning Process are the:

- MVP Workshop**, which was held on May 14, 2019 with nearly 50 invited attendees representing Town boards and committees, regional partners (from health services, transportation, utilities, and environmental sectors), business and property owners, and Town staff. Workshop participants worked in small groups to identify vulnerabilities and strengths, and then ultimately prioritized potential community actions to make Sudbury more resilient to climate change.
- MVP Listening Session**, which was held on May 30, 2019 to present the findings of the MVP workshop and planning process.

Regulatory review and update, which is an additional, related initiative underway to identify opportunities to make Sudbury's policies, bylaws, and regulations more closely align with the outcomes of the MVP plan.

For more information about the MVP program and to access relevant climate change data, please see the following links:

- Municipal Vulnerability Preparedness grant program (MVP)
- Municipal Vulnerability Preparedness (MVP) Program's Tool Box
- The *Massachusetts Climate Change Clearinghouse (resilient MA)* is a gateway to access local climate data, maps, websites, tools, and documents relevant to climate change adaptation and mitigation.
- Sudbury Receives MVP Grant

Please contact Beth Suedmeyer, Environmental Planner at 978-639-3387 or [suedmeyerb@sudbury.ma.us](mailto:suedmeyerb@sudbury.ma.us) with any questions.

### Planning & Community Development

The Planning and Community Development Department staffs the following boards and committees:

- Planning Board
- Design Review Board
- Zoning Board of Appeals
- Sudbury Housing Trust
- Community Preservation Committee
- Sudbury Center Improvement Advisory Committee
- Historic Districts Commission

### Contact

**Hours:**  
**Regular Hours**  
Monday, Wednesday, & Thursday: 8:30 AM - 4:00 PM  
Tuesday: 8:30 AM - 7:00 PM  
Friday: 8:30 AM - 12:30 PM

**Summer Hours (7/8/19 - 8/23/19)**  
Monday, Wednesday, & Thursday: 8:00 AM - 5:00 PM  
Tuesday: 8:00 AM - 7:00 PM  
Friday: CLOSED

**Email:** [pcd@sudbury.ma.us](mailto:pcd@sudbury.ma.us)  
**Phone:** (978) 639 - 3387  
**Fax:** (978) 443 - 0756  
**Building:** Flynn Building  
278 Old Sudbury Road  
Sudbury, MA01776

**Sudbury** Summary of Findings  
**Sudbury Municipal Vulnerability Preparedness Workshop**  
Sudbury, Massachusetts  
June 29, 2019

Prepared for:  
Town of Sudbury  
Attn: Beth Suedmeyer,  
Environmental Planner  
278 Old Sudbury Road  
Sudbury, MA 01776

Prepared by:  
Horsley Witten Group, Inc.

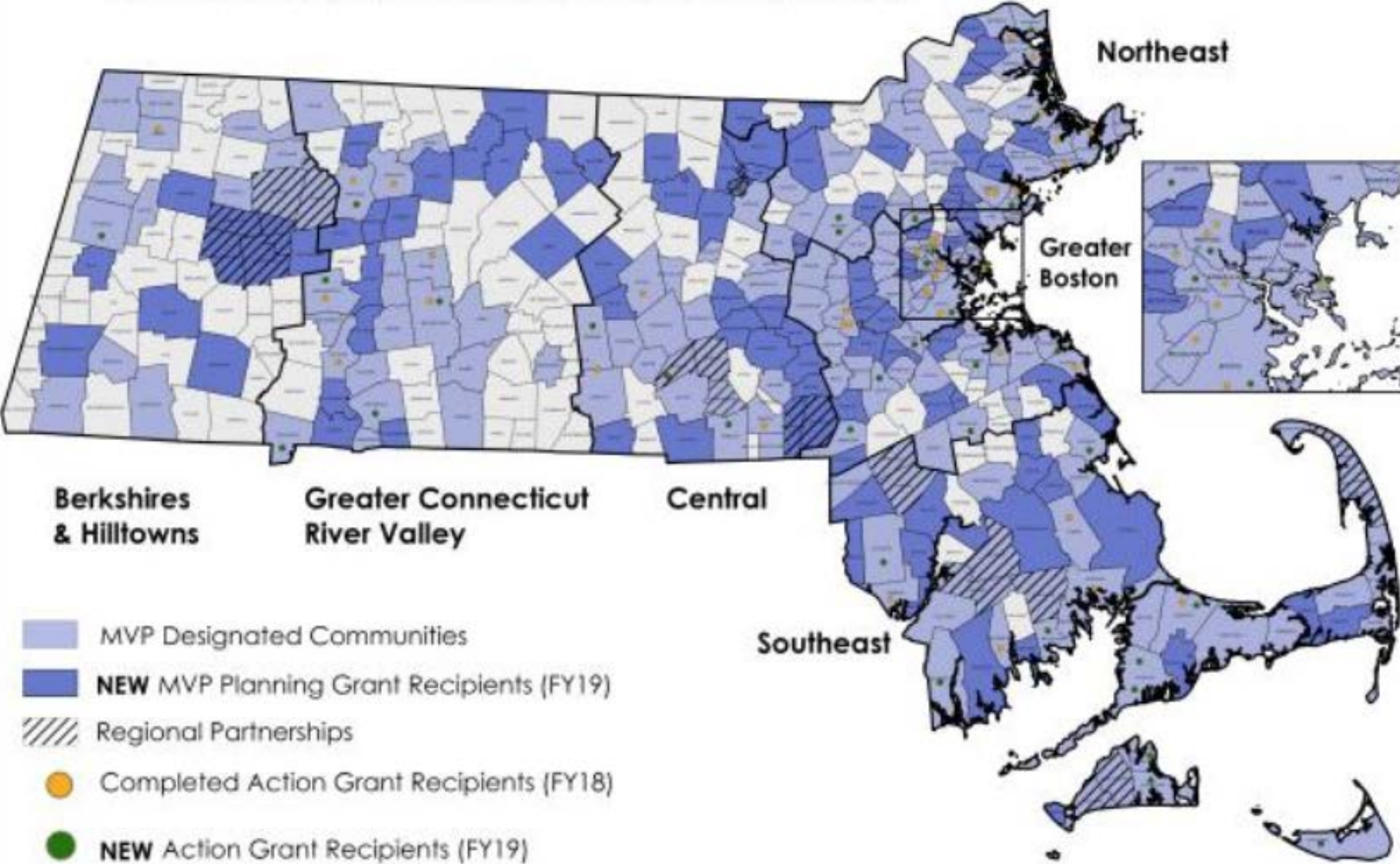
**Horsley Witten Group**  
Sustainable Environmental Solutions  
60 Route 6A, Unit 1 • Sandwich, MA • 02563  
Phone • 508-833-0800 • Fax • 508-833-3150 • [www.horsleywitten.com](http://www.horsleywitten.com)

The cover features a photograph of a workshop session and a map of Sudbury with handwritten annotations: 'white pine trees', 'white pine trees (shelter access)', 'High School (shelter)', 'Culvert town', and 'Town Hall gateway'. A legend on the map lists various locations like 'High School', 'Culvert town', 'Town Hall gateway', 'Sudbury Center', and 'Sudbury High School'.

<https://sudbury.ma.us/pcd/2019/05/31/municipal-vulnerability-preparedness-mvp-planning/>



## Municipal Vulnerability Preparedness (MVP) Program



71 percent of the cities and towns in the Commonwealth have enrolled in the MVP program.

# Climate Change Data Resource

## www.massclimatechange.org



Maps Data Documents

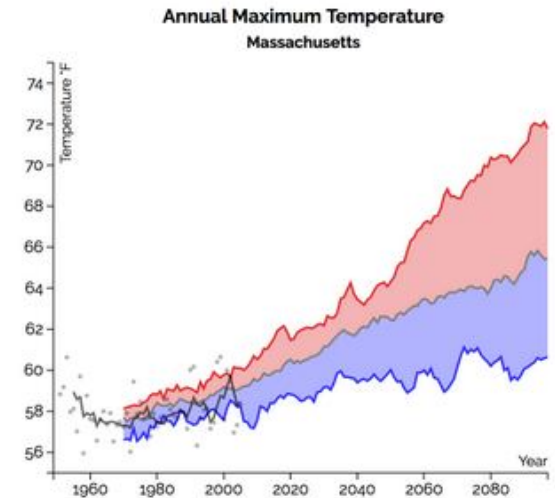
Search for resources... [Search](#)

Providing the most up-to-date climate change science and decision-support tools for the Commonwealth. [More »](#)

## Climate Change Data

The Baker-Polito Administration is investing in the best science and data to understand how the climate is projected to change and to allow Massachusetts to plan and adapt for the future.

[More »](#)



[Download Data](#)

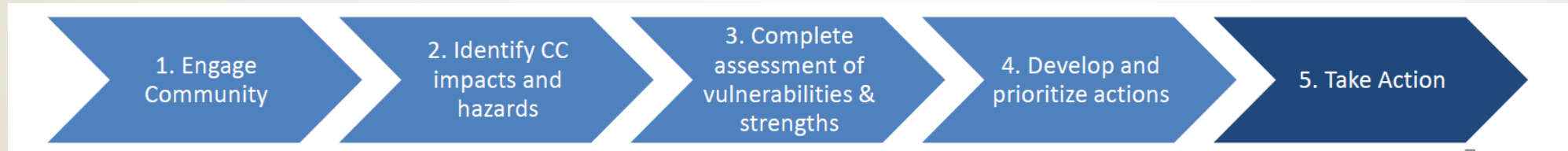
| Observed                    |        |
|-----------------------------|--------|
| 5-yr Mean                   | °F     |
| <b>Modeled °F</b>           |        |
| Max                         | ~      |
| Median                      | ~      |
| Min                         | ~      |
| Changes from 1971-2000 for: |        |
| 2020 - 2049                 | 3.83°F |
| 2040 - 2069                 | 5.02°F |
| 2060 - 2089                 | 6.14°F |
| 2080 - 2097                 | 6.84°F |





# Overview of MVP Project Components

- Municipal Vulnerability Preparedness (MVP) Planning – State and local partnership to build resilience to climate change.



- Policy/Regulatory Review
- Hazard Mitigation Plan Update

# Sudbury MVP Core Team



- Beth Suedmeyer, Environmental Planner
- John Whalen, Sudbury Fire Chief
- Adam Duchesneau, Director of Planning and Community Development
- Dan Nason, Director of Public Works
- Bill Murphy, Health Director
- Bill O'Rourke, Deputy Director of Public Works
- Bill Barletta, Facilities Director
- Mark Herweck, Building Inspector
- Vin Roy, Executive Director Sudbury Water District
- Craig Pereira, Project Manager – Horsley Witten Group





# Workshop Invited Stakeholders

- 70 community members invited. 56 participated.
  - Maryanne Bilodeau, Assistant Town Manager
  - Pat Brown, Board of Selectman
  - Janie Dretler, Board of Selectman
  - Representatives of Boards and Committees
  - Town Staff
  - Regional Partners (health care, conservation, utilities, and transportation)
  - Business and property owners

# Goal of the Workshop

## Vibrant Discussion



- Presentation to **set the stage** for our discussion
- Determine which **climate change hazards** to focus on
- Identify the most **vulnerable features** in Sudbury
- Identify the **features that provide strength**
- Develop **actions** – what can the Town do to address vulnerabilities and protect/enhance strengths?
- Prioritize the **most important actions** for Sudbury

# Setting the Stage

## Local Impacts – Flooding





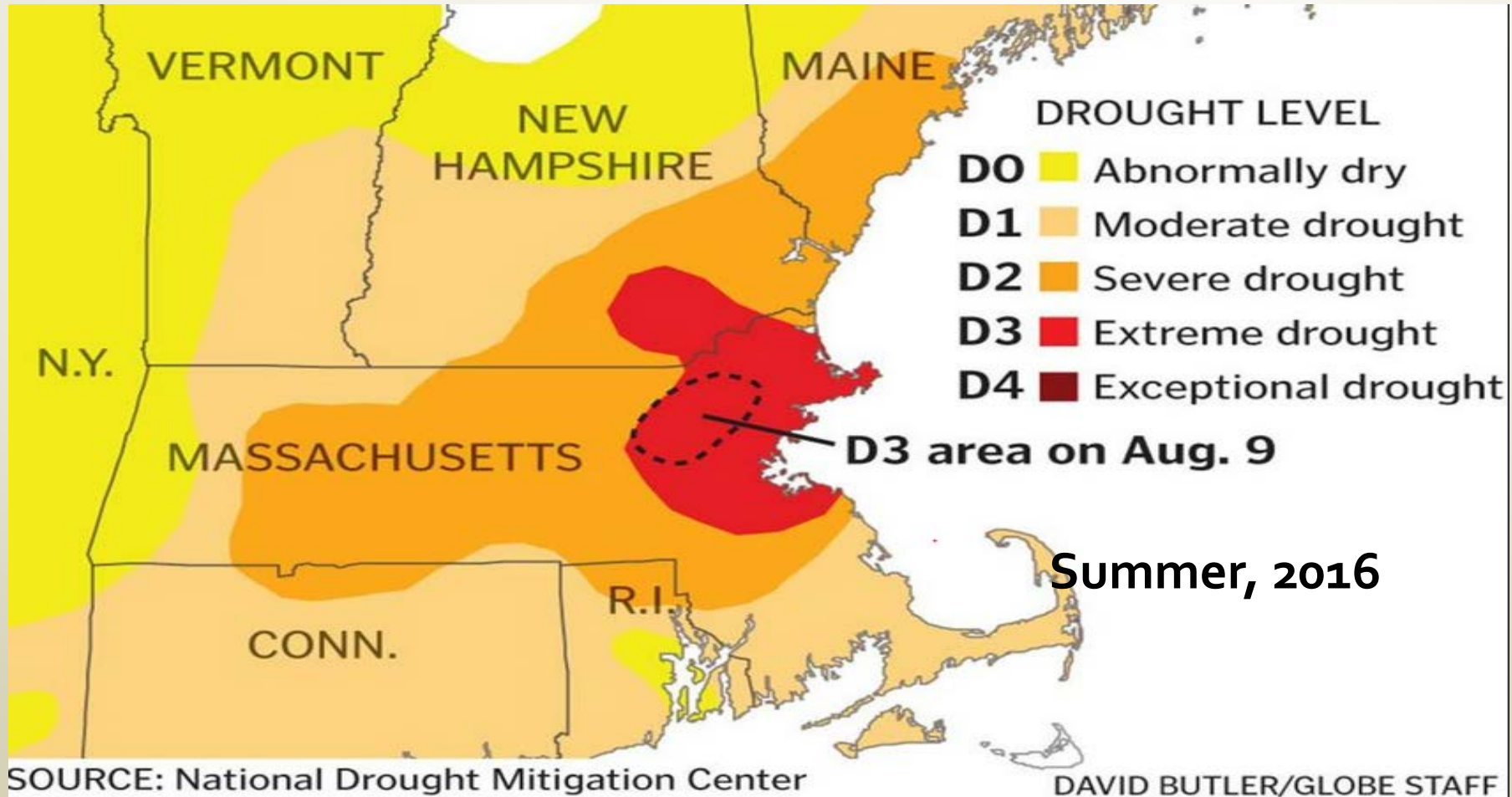
# Setting the Stage

## Local Impacts – High Winds/Snow Storms



# Setting the Stage

## Local Impacts - Drought



# Top Four Climate Change Hazards Impacting Sudbury



- Winter Storms/Extreme Cold
- Wind/Hurricanes/Tornadoes/  
Micro Bursts
- Flooding/Intense Rain
- Drought/Extreme Heat





# Small Facilitated Work Groups

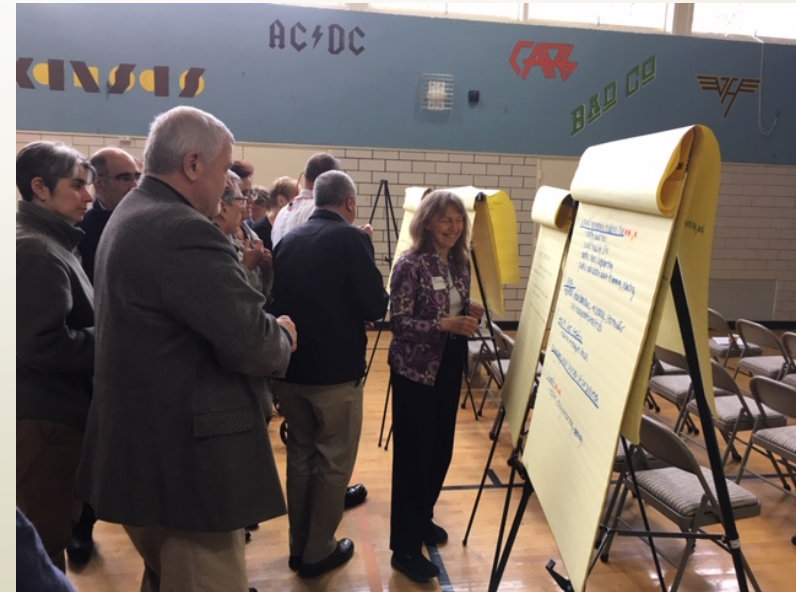
Participants worked together in small groups to identify strengths and vulnerabilities.





# MVP Development of Actions

- Workshop participants tasked to identify the 5 – 7 Highest Priority actions that the Town of Sudbury should take to increase resilience and adapt to climate change.







# Community Resilience Building Risk Matrix



www.CommunityResilienceBuilding.com

H-M-L priority for action over the Short or Long term (and Ongoing)  
V = Vulnerability S = Strength

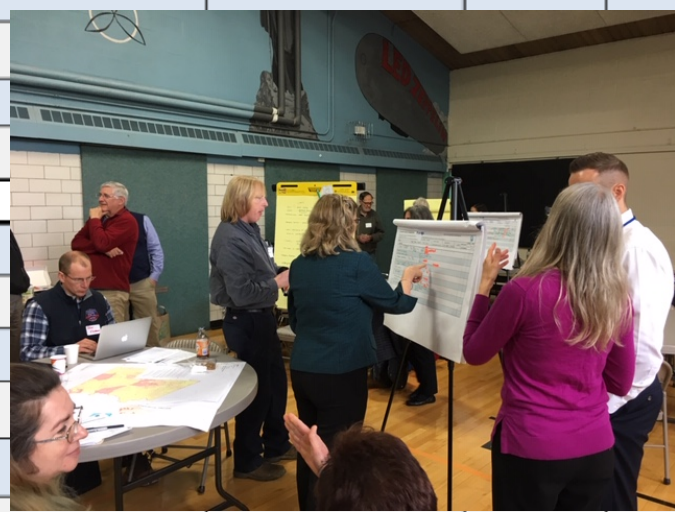
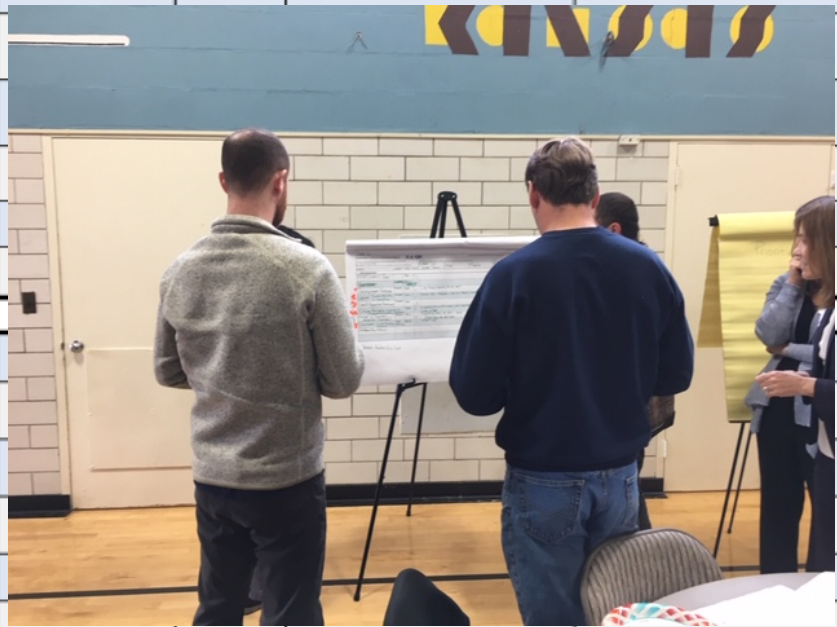
Top Priority Hazards (tornado, floods, wildfire, hurricanes, earthquake, drought, sea level rise, heat wave, etc.)

| Features | Location | Ownership | V or S |  |  |  |  | Priority  |                    | Time |  |
|----------|----------|-----------|--------|--|--|--|--|-----------|--------------------|------|--|
|          |          |           |        |  |  |  |  | H - M - L | Short Long Ongoing |      |  |

## Infrastructural

## Societal

## Environmental



# High Priority Actions (1)



## Tree maintenance and forest management

- Maintain trees at roadways / Utilities rights of way
- Preserve existing tree canopy/Plan for future species changes
  - Identify/remove dead/failing trees
  - Develop plan for re-planting (native species/size/shape/placement)
- Purchase bucket truck for DPW
- Public education around trimming/planting

## Power / utility lines management

- Bury lines underground as roads are repaved
- Establish tree/buffer management
- Evaluate resources
  - Rate-payer funding
  - MA Surcharge Program
  - Solar facilities

# High Priority Actions (2)



## Improve Emergency response planning and communication

- Increase capacity and support for CERT and MRC (recruitment)
- Training/communication protocol for hospitals and home care agencies
- Educate community on Reverse 911
- Assess needs of vulnerable populations to understand sheltering needs/'know your neighbor'
- Maintain database of vulnerable populations, address data privacy/sharing challenges

## Update existing regulations

- Stormwater regulations to reduce flooding/water quality impacts
- Minimize slope and vegetation disturbance
- Incorporate latest science/climate change projections
- Private well restrictions/water bans during drought events



# High Priority Actions (3)

## Improve drainage infrastructure and capacity

- Stormwater Infrastructure Assessment
  - Retrofits, replacement, Low Impact Development/Green Infrastructure
- Culvert Replacement
  - Repair, replace, engineering/design

## Strengthen emergency shelters (schools, libraries, Community Center)

- Generators
- Air-conditioning
- Charging stations

# MVP Next Steps



- 2019 - Sudbury was certified as a MVP Community
- Eligible for MVP Action Grants to implement priority action items
- Policy/Regulatory Review
  - Recommendations advanced
- Hazard Mitigation Plan Update
- All of the above will also inform the Master Plan Update currently underway



# Municipal Vulnerability Preparedness (MVP) Program – Action Grant



Grant opportunity to request funds to implement priority climate adaptation actions identified by MVP Communities.

## Who's eligible?

- Municipalities with MVP designation
- Municipalities completing MVP planning process
- Funding: \$10,000 - \$400,000 per project
- Match: At least 25% of total project cost required



# Hazard Mitigation Plan Public Workshop

January 29, 2020  
6:30-8:30 PM  
Sudbury Town Hall  
322 Concord Road



**WEDNESDAY  
JANUARY 29, 2020  
6:30 – 8:30 PM**

Sudbury Town Hall  
322 Concord Road  
Sudbury, MA

**JANUARY 29, 2020  
PUBLIC WORKSHOP**

**Public Workshop – Hazard Mitigation Plan Update**  
The Town is currently updating the 2010 Hazard Mitigation Plan. This plan is important because it helps the Town remain eligible to receive funding for projects that reduce the risk of injury or damage to property from future natural hazard events such as flooding and hurricanes. Please join us to hear about the progress on the plan's update, learn about the mitigation actions for inclusion in the plan's update and contribute to the process.

For more information on the hazard mitigation plan update, please visit: <https://sudbury.ma.us/fire/hazard-mitigation-plan/>.



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## Climate Change Resilience Plan

Vulnerability Assessment  
& Response Strategies

2017 | Working Document 2.0

Prepared for  
MAGIC Regional Council  
<http://www.magic.org/magic>

Prepared by  
Metropolitan Area Planning Council  
60 Temple Place, 6th Floor  
Boston, Massachusetts 02111  
Tel (617) 451-2770  
[www.mapc.org](http://www.mapc.org)

# Minuteman Advisory Group on Interlocal Coordination (MAGIC)

# Climate Change Resilience Plan



- Completed and disseminated in 2018 and comprised of two parts:
- The **MAGIC Vulnerability Assessment**, evaluates the degree to which the region is resilient to anticipated climate change impacts.
- The **Climate Change Response Strategies** present mitigation strategies which seek to minimize or eliminate the impacts of climate change; and adaptation strategies that will strengthen the region's ability to adjust to new conditions from climate change.
- [https://www.mapc.org/wp-content/uploads/2017/11/MAGIC-Climate-Resilience-Plan\\_VA-and-Strategies\\_112017.pdf](https://www.mapc.org/wp-content/uploads/2017/11/MAGIC-Climate-Resilience-Plan_VA-and-Strategies_112017.pdf)





# Minuteman Advisory Group on Interlocal Coordination (MAGIC) Climate Change Resilience Plan

*Table 1. Survey Climate Change Impact Categories of Concern*

| <b>Category</b>                      | <b>Description</b>   |
|--------------------------------------|--|
| <b>Ecological systems</b>            | Damage to protective ecological systems: drinking water quantity and quality, loss of habitat and green spaces, degraded waterbodies and recreation areas, plant and animal species changes. |
| <b>Public Health</b>                 | Threats to public health: respiratory, cardiovascular, allergies, and other illnesses (particularly of elderly, children and outdoor workers).   |
| <b>Effects on Agriculture</b>        | Effects on agriculture: decrease and or/changes in food production due to heat and drought conditions.   |
| <b>Economy and Built Environment</b> | Damage to the economy and built environment: business closures and lost wages, and damages/loss of property and infrastructure (transportation, energy, water).                              |

*Source: MAGIC Region Climate Change Adaptation & Mitigation Survey*

# Minuteman Advisory Group on Interlocal Coordination (MAGIC) Climate Change Resilience Plan



## Starting Points for the Region

The following four recommended actions are ones the MAGIC region can begin to implement now to bolster regional and municipal climate resilience. These recommended actions were identified through the feedback received from stakeholders during the planning process, and are informed by the vulnerability assessment findings. Recommended climate actions propose areas for initial coordination toward regional climate resilience, and they leverage and build on municipal initiatives and efforts already in place. The four actions are discussed in greater detail in the Adaptation and Mitigation Strategies section, and are presented alongside a broader range of strategies that MAGIC municipalities are encouraged to implement as the region advances a climate resilience strategy.

| Recommended Action   | Desired Outcome  |
|--|--|
| A. Designate Municipal Climate Leads and Establish a MAGIC Climate Sub-Committee | A network of municipal stewards that lead local climate resiliency efforts and hold towns responsible in their decision-making as it relates to local and regional action to prepare for climate change. In addition, a formal body, recognized by MAGIC, that acts as peer exchange network and an advisory group for regional advocacy on state and federal legislation that affect climate change resiliency. |
| B. Engage in Regional Green and Clean Infrastructure Planning                    | A 13-town action plan for preservation and protection of natural resources, with a specific focus on open space and water resources and clean energy infrastructure. The plan would serve as a recommended investment plan for land protection and clean energy investments at the local level in service of regional climate change resiliency.   |
| C. Prioritize Active Transportation Investments                                  | Adoption of standard active transportation policy and performance targets for the region that produce reduction in GHG emissions and increase redundancy of existing personal motor vehicle infrastructure.  |
| D. Build and Bolster Community-Level Climate Resiliency                          | Residents, regardless of income, background, or ability, have the capacity to meet their needs and assist neighbors prior, during, and after climate change-induced weather events. Although this work with begin through community organizations, its purpose would be to enhance informal neighbor-to-neighbor social connections that can be activated in the event of anticipated climate change impacts.    |



# MAGIC Transportation/Climate Forum

February 10, 2020 | 9:30am- 12pm

Acton Town Hall, Faulkner Room  
472 Main Street, Acton, MA

Municipal staff, school staff, and town Transportation Advisory/Sustainability committee members: Please join us to learn about what municipalities and schools can do to reduce carbon emissions in the transportation sector. The forum will focus on opportunities to electrify vehicle fleets, and also introduce the Transportation and Climate Initiative. [RSVP here--](#)

<https://events.r2o.constantcontact.com/register/eventReg?oeidk=ao7egto67n3d4271d68&oseq=&c=&ch=>



# Town of Sudbury Contacts

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## **Rami Alwan, Chair**

Energy and Sustainability Committee [energy@sudbury.ma.us](mailto:energy@sudbury.ma.us) | [www.sudbury.ma.us/energy](http://www.sudbury.ma.us/energy)