



2025

Township
of Montclair
Master Plan

SUSTAINABILITY + RESILIENCE AMENDMENT

Acknowledgments



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STATUTORY BASIS



Note: This image was generated using AI for illustrative purposes

STATUTORY BASIS

OVERVIEW

This section of the Unified Land Use and Circulation Plan addresses issues related to environmental sustainability that must be addressed in the Land Use Plan pursuant to the New Jersey Municipal Land Use Law (MLUL). The MLUL has been amended several times in the past few years to require that municipal master plans address environmental sustainability. Specifically, amendments to N.J.S.A. 40:55D-28.b.(2) added the following sections as a required component of the municipal land use plan element:

F

Including, for any land use plan element adopted after the effective date of P.L.2017, c.275, a statement of strategy concerning:

- i. smart growth which, in part, shall consider potential locations for the installation of electric vehicle charging stations,
- ii. storm resiliency with respect to energy supply, flood-prone areas, and environmental infrastructure, and
- iii. environmental sustainability;

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showing the existing and proposed location of public electric vehicle charging infrastructure;

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and including, for any land use plan element adopted after the effective date of P.L.2021, c.6, a climate change-related hazard vulnerability assessment which shall

- i. analyze current and future threats to, and vulnerabilities of, the municipality associated with climate change-related natural hazards, including, but not limited to increased temperatures, drought, flooding, hurricanes, and sea-level rise;
- iii. include a build-out analysis of future residential, commercial, industrial, and other development in the municipality, and an assessment of the threats and vulnerabilities identified in subparagraph (i) of this subparagraph related to that development; identify critical facilities, utilities, roadways, and other infrastructure that is necessary for evacuation purposes and for sustaining quality of life during a natural disaster, to be maintained at all times in an operational state;
- iv. analyze the potential impact of natural hazards on relevant components and elements of the master plan;
- v. provide strategies and design standards that may be implemented to reduce or avoid risks associated with natural hazards;
- vi. include a specific policy statement on the consistency, coordination, and integration of the climate-change related hazard vulnerability assessment with any existing or proposed natural hazard mitigation plan, floodplain management plan, comprehensive emergency management plan, emergency response plan, post-disaster recovery plan, or capital improvement plan; and
- vii. rely on the most recent natural hazard projections and best available science provided by the New Jersey Department of Environmental Protection;



Presby Memorial Iris Gardens. (Source: Essex County)



Channelized Stream Segment in Residential Area in Montclair. (Source: Colliers Engineering, April 2024)



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ENVIRONMENTAL SUSTAINABILITY



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CURRENT SUSTAINABILITY POLICIES + INITIATIVES

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CLIMATE CHANGE ISSUES

CURRENT SUSTAINABILITY POLICIES + INITIATIVES

WHAT IS ENVIRONMENTAL SUSTAINABILITY?

Environmental sustainability is broadly defined as creating and maintaining conditions under which humans and nature can exist in productive harmony to support present and future generations. These conditions include air, water, energy, human health risks and communities in general. This foundational concept is reflected across Montclair’s policies and initiatives, from sustainable land use and energy efficiency to green infrastructure, climate action, and the protection of natural resources.

REVIEW OF CURRENT POLICIES + INITIATIVES

Montclair Township has embedded sustainability principles across its land use, infrastructure, and environmental policies, demonstrating a consistent commitment to resilient, green development through regulatory action and planning initiatives.



Smart Growth and Sustainable Development

The Township of Montclair has done much in recent years to become more environmentally sustainable. New development in the Township is in the form of more dense, mixed-use, walkable development in strategic locations through redevelopment projects that reflect “smart growth”¹ principles. These developments are context appropriate to their location so that the character of the Township’s unique neighborhoods is not negatively affected. Redevelopment has been concentrated in commercial areas and in nodes that are within walking distance of rail transit stations to reduce automobile dependency.



Electric Vehicle Infrastructure

The Township has been proactive in providing electric vehicle (“EV”) charging stations in public parking lots and in redevelopment projects. In accordance with recent statewide EV requirements, all new development projects, not just mixed-use, are required to include EV charging infrastructure. While some federal incentives are in flux, New Jersey’s programs and utility support continue to drive the rapid expansion of local EV infrastructure.



Sustainability and the Master Plan

Many elements of Montclair Township’s Master Plan already incorporate environmental sustainability. The Conservation Plan Element advances many goals and strategies intended to create a more sustainable community. The Plan recommends more efficient use of energy in community buildings and vehicles which has been achieved, in part, with replacing CFL lights with LED lights and purchasing electric fleet vehicles. The Plan also calls for incorporating LEED® (Leadership in Energy Environmental Design) building standards into all public buildings and encourages their use in new development, a goal which has been achieved in redevelopment projects.

Montclair is paving the way toward a more resilient future—advancing smart growth, clean energy, and green infrastructure to ensure harmony between people and planet for generations to come.

¹ Smart growth policies guide new growth to places in and near existing communities already served by infrastructure, including roads, public transportation, sewers, schools and services, and preserving undeveloped rural areas. The New Jersey State Development and Redevelopment Plan embraced smart growth by encouraging development and infrastructure investment in metropolitan and suburban planning areas and designated centers.



Green Building Requirements in Redevelopment Plans

Many of Montclair's redevelopment plans include green building requirements:

- The Montclair Center Gateway Phase 1 Redevelopment Plan, adopted in 2011 and amended through 2023, requires that all new buildings in the Plan Area achieve the minimum certified level (40 points) under either the LEED-NC or LEED-ND program. The Plan further requires that points be achieved for public transportation access, bicycle storage and changing rooms, low-emitting and fuel efficient vehicles, parking capacity, green roofs, on-site renewable energy, and green power.
- The Eastern Gateway Redevelopment Plan, adopted in 2013 and amended in 2017, requires that all new buildings within the Plan Area achieve a minimum silver certification (50 points) under either the LEED-NC or LEED-ND program. The Plan also requires that points be achieved for public transportation access, bicycle storage and changing rooms, low-emitting and fuel efficient vehicles, parking capacity, green roofs, on-site renewable energy, and green power.
- The Seymour Street Redevelopment Plan, adopted in 2016, requires that all development include sufficient "green building" techniques to result in achieving a minimum of 40 points and obtaining LEED certification from the U.S. Green Building Council.
- The HUMC/Mountainside Hospital Redevelopment Plan, also adopted in 2016, requires that all development include sufficient "green building" techniques to result in achieving silver certification (a minimum of 50 points) which would be required to obtain LEED certification from the U.S. Green Building Council.
- The Amended Hahne's Redevelopment Plan, which was adopted in 2019, requires new development include sufficient "green building" techniques which result in silver LEED certification from the U.S. Green Building Council under the LEED Rating System or achieving three Green Globes from the Green Building Initiative.
- The Lackawanna Plaza Redevelopment Plan, adopted in 2024, requires all new buildings demonstrate the ability to obtain LEED Certification.

LEED Certification & Clean Transportation Support

As part of its commitment to sustainable development, Montclair Township requires LEED certification in multiple redevelopment areas. These requirements ensure that new buildings incorporate environmentally responsible design, construction, and operational strategies. Projects must also achieve points in specific categories that advance broader municipal goals such as clean mobility, energy efficiency, and climate resilience.

LEED CERTIFICATION TYPES

- **LEED-NC (New Construction):**
Certification for individual buildings that meet performance standards in energy use, water efficiency, materials, and indoor environmental quality.
- **LEED-ND (Neighborhood Development):**
Certification for neighborhood-scale projects that meet performance standards in smart growth, walkability, green infrastructure, and sustainable site design..

LOW EMITTING + FUEL EFFICIENT VEHICLE CREDIT

Both LEED-NC and LEED-ND include optional credits for supporting clean transportation options. In Montclair, buildings typically earn these points by:

- Installing EV charging stations, or
- Providing preferred or discounted parking for low-emitting/fuel-efficient vehicles

These strategies align with Montclair's broader goals to reduce transportation-related emissions and expand access to sustainable mobility.



Unified Land Use + Circulation Plan

Montclair Township adopted a Unified Land Use and Circulation Plan in 2015, with amendments in 2017, 2020, 2021, and 2023. The plan promotes sustainability by encouraging high-quality, sustainable development necessary for the Township to meet the needs of all residents. The plan promotes mixed-use development in business districts and in areas served by public transportation, with a particular focus on train stations.

The 2023 amendments incorporated the Township's first Climate Change Related Hazard Vulnerability Assessment (CCRHVA) through the addition of a new section entitled "Environmental Sustainability." This document updates and amends the CCRHVA adopted in 2023. Later that year, the Township received a Municipal Assistance Planning Grant from the New Jersey Department of Environmental Protection (NJDEP) to build upon its existing CCRHVA and develop an implementable Resilience Action Plan.

The goals of the plan are listed above in Section 1.0 (the five 'Big Ideas') and Section 1.4 (Township goals)².

Future development should conform to the recommendations in Section 3.0 of the Unified Plan. The Plan identifies activity nodes and potential redevelopment areas along Bloomfield Avenue, served by bus and near train stations, where more intense mixed-use development is appropriate. It also advances a Complete Streets program to make the Township's streets safer for cars, bicycles, and pedestrians. In 2025, the Township adopted a new Complete Streets Ordinance that formalizes procedures for implementing the Complete Streets Implementation Plan, establishes a Complete Streets Oversight Board, and creates a dedicated Complete Streets Director position. This position has been filled, and the Township is currently developing a Local Safety Action Plan. Implementation of these efforts has already included projects such as the Township's first dedicated bike lane on Glenridge Avenue.



Stormwater Culvert in Montclair. (Source: Colliers Engineering, April 2024)

² These goals were based on a 2011 Baseline Conditions Report (see Section 1.1 above) and developed with community input from 2011 to 2015 (see Section 1.3 above). The Township has changed significantly since that time and these goals may not reflect 2023 conditions or community goals. Therefore, the first Recommended Change to Policy Documents in this Sustainability Section (see p. 34) is to reevaluate the Master Plan through formal reexamination.



Stormwater Management

In 2020, Montclair Township adopted a new Stormwater Management Plan that reflects current stormwater management requirements and recommended that any new increase of more than 250 square feet in impervious surface trigger stormwater management approval. An ordinance was subsequently adopted in 2021 that implemented the recommendations in the Plan. The Township amended its stormwater management ordinances in June 2024 to comply with new requirements from the NJDEP, which included revised precipitation depths from 2-, 10-, and 100-year design storms³.



Urban Forestry Initiative

Other initiatives taken by Montclair Township include the adoption of a Tree Preservation Ordinance in 2012 that established regulations to preserve and enhance the Township's trees and maintain a sustainable urban forest. In 2014, the Township prepared a Community Forestry Management Plan that established a program to replenish, protect and maintain a healthy, safe, and sustainable tree canopy for the environmental, aesthetic, and economic benefit of Montclair's residents, businesses, and visitors in the most cost-effective manner possible.



Climate Action Planning

In 2024, the Township's Environmental Commission prepared a Climate Action Plan, which was endorsed by the Township Council on April 24, 2024. This plan establishes a goal of reducing the Township's greenhouse gas emissions by 50 percent by 2030, and 80 percent by 2050⁴. This plan identifies various goals, objectives, and actions that can be taken, both by the Township and individual property owners, across a variety of topic areas, including: energy; transportation and land use; natural resources; materials management and waste reduction; and resilience, mitigation, and adaptation.

Key Findings: Climate + Nature Working Together for a Resilient Montclair

Montclair's commitment to sustainability spans ecosystems, infrastructure, and climate action:

URBAN FORESTRY:

Healthy trees do more than beautify, they reduce urban heat, absorb stormwater, improve air quality, and increase property values. Montclair's Tree Ordinance and Forestry Management Plan help protect this vital green infrastructure.

SMARTER STORMWATER:

Stronger storms mean more runoff. Montclair's 2024 stormwater ordinance ensures that even small increases in impervious surfaces must account for flood risk and drainage, helping to prevent localized flooding and water quality issues.

CLIMATE ACTION:

With bold emissions targets (50% by 2030, 80% by 2050), Montclair's Climate Action Plan lays the groundwork for community-wide transformation, focusing on energy, transportation, waste, and natural systems.

Together, these efforts show how local policies can work in tandem to protect residents from the impacts of extreme heat, flooding, and other climate-related hazards.



³ The new stormwater management rules provided direction for calculating precipitation depths for the 2-, 10-, and 100-year storm events for current and future conditions. Two tables are provided in the rules, one used to calculate current rainfall depths and the other used to calculate future anticipated rainfall depths. These tables contain multipliers for each county in the state. The multipliers are applied to the rainfall depths that the design engineer obtains from the NOAA Atlas Point Precipitation Data.

⁴ The Climate Action Plan uses a baseline of emissions from the year 2015. Page 11.

CLIMATE CHANGE ISSUES

DESPITE EFFORTS TO ADVANCE ENVIRONMENTAL SUSTAINABILITY, MONTCLAIR TOWNSHIP IS EXPERIENCING THE EFFECTS OF CLIMATE CHANGE.

MONTCLAIR + A WARMING NEW JERSEY

New Jersey is warming faster than the rest of the northeast and the world. Since 1895, New Jersey's annual temperature has increased by 3.5°F⁵, and for northern New Jersey, it has increased by 3.6°F⁶. Temperature increases are felt more strongly in New Jersey because much of the state is highly urbanized with large expanses of impervious surfaces that reflect heat. Montclair has urban areas that experience high surface temperatures identified as "hot spots." A review of surface temperature data from Sustainable Jersey illustrate elevated temperatures primarily located along Bloomfield Avenue in Montclair Center, but also exist, to a lesser extent, in the Township's other business districts, including Watchung Plaza, Walnut Street, and Upper Montclair. Additional "hot spots" include athletic fields that utilize certain forms of artificial turf, with the athletic fields at Essex Park showing the highest values.^{7 8}

The average annual temperatures in New Jersey have increased by nearly 4.0°F since the end of the 1800s, which is twice the global land and ocean average and about 1.4 times the global over land average⁹. Projections by NJDEP indicate that by 2100, the temperature in New Jersey is expected to increase anywhere from 3 to 9°F under a lower emissions scenario, and 6 to 13°F under a higher emissions scenario, from the average temperature for the period of 1901-1960.¹⁰

PRECIPITATION EXTREMES + FLOODING

Over the last ten years, New Jersey has experienced a 7.9% increase in precipitation. Major flood events hit New Jersey in 2000, 2004 2005, 2006, 2007, 2010, 2011, 2012, 2016 and 2021. In Essex County, a record was set when 3.65 inches of rainfall in one hour during Tropical Storm Ida and a total of 10+ inches of rainfall during the storm. This led to storm sewers being overwhelmed and more than 12 rivers exceeding their 100-year flood levels. Tropical Storm Ida directly led to the loss of 30 lives and became the second deadliest natural disaster event to impact New Jersey in a century.

In Montclair, localized flooding from major storm events has created significant problems. The Township's stormwater infrastructure has proven to be inadequate in locations where various factors including topography, debris accumulation, lack of stormwater inlets, and proximity to tributaries contribute to flooding.

DROUGHT + WILDFIRE RISK INTENSIFYING

While New Jersey typically experiences a dry period from mid-October through mid-November, earlier and longer stretches of warm, dry weather in 2024 intensified conditions, creating the driest year in 120 years and leading to a spike in wildfires. In total, there were over 1,400 fires reported in the state during 2024, with wildfire smoke and emissions impacting areas near and far,^{11 12} ultimately leading to an official drought watch issued by Governor Murphy in November.

Increases in heat waves and droughts can worsen flooding by hardening soils, reducing absorption, and causing more runoff during storms.

⁵ NOAA National Center for Environmental Information, New Jersey State Climate Summary 2022.

⁶ 2020 New Jersey Scientific Report on Climate Change, page 33.

⁷ NJDEP Technical Memorandum: Synthetic turf impacts on storm water and flood resilience, and potential for heat island and heat-stress effects; <https://dep.nj.gov/wp-content/uploads/dsr/synthetic-turf-memorandum-june2022.pdf>

⁸ New Jersey Heat Island Map. Data based on Landsat 8 Thermal Imagery taken on June 25, 2016 at 3:39 pm. <https://www.arcgis.com/home/webmap/viewer.html?webmap=cb57fa89f69d49e2bfd35cd2b4721225&extent=-75.3191,40.0398,-73.740,7198>

⁹ State of the Climate 2023 Report, <https://njclimateresourcecenter.rutgers.edu/wp-content/uploads/2024/06/State-of-the-Climate-2023-06-24.pdf>

¹⁰ 2020 New Jersey Scientific Report on Climate Change, <https://dep.nj.gov/wp-content/uploads/climatechange/docs/nj-scientific-report-2020.pdf> Pages 33-34

¹¹ <https://www.nbcnews.com/news/us-news/new-jersey-drought-warning-rcna179973>

¹² <https://csl.noaa.gov/factsheets/csdWildfiresFIREX.pdf>



WHY CLIMATE CHANGE MATTERS

CLIMATE CHANGE ISN'T JUST A GLOBAL ISSUE, IT'S ALREADY ALTERING MONTCLAIR'S ENVIRONMENT IN WAYS THAT AFFECT HOW WE LIVE, MOVE, AND PLAN FOR THE FUTURE. THE FOLLOWING LOCAL IMPACTS ILLUSTRATE WHY PROACTIVE ADAPTATION AND RESILIENCE PLANNING ARE CRITICAL:



MORE INTENSE STORMS AND FLOODING: HIGHER TEMPERATURES INCREASE THE ENERGY IN STORMS AND ALLOW THE ATMOSPHERE TO HOLD MORE MOISTURE, LEADING TO MORE FREQUENT AND INTENSE PRECIPITATION EVENTS. BY THE END OF THE 21ST CENTURY, HEAVY STORM EVENTS ARE PROJECTED TO OCCUR 200 TO 500% MORE OFTEN—AND WITH GREATER INTENSITY—THAN IN THE 20TH CENTURY.¹³



STRESS ON URBAN VEGETATION: HEAT AND DROUGHT CONDITIONS CAUSE PLANTS TO CLOSE THEIR STOMATA TO CONSERVE WATER, WHICH LIMITS CARBON DIOXIDE INTAKE AND REDUCES PHOTOSYNTHESIS. INCREASED TEMPERATURES ALSO ACCELERATE PLANT RESPIRATION, DEPLETING STORED ENERGY MORE QUICKLY THAN IT CAN BE REPLENISHED, ULTIMATELY WEAKENING OR KILLING PLANTS.



GREATER RISK FROM PESTS AND DISEASE: WARMER TEMPERATURES AND Milder WINTERS EXPAND THE RANGE AND SURVIVAL OF MANY PESTS AND PLANT DISEASES, PLACING ADDITIONAL STRESS ON ALREADY VULNERABLE VEGETATION, INCLUDING MONTCLAIR'S TREE CANOPY.

¹³ New Jersey Department of Environmental Protection, NJPACT Update: Resilient Environments and Landscapes. August 4, 2024.



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RESILIENCE



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RESILIENCE INITIATIVES

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RESILIENCE ISSUES

RESILIENCE INITIATIVES

OVERVIEW

RESILIENCE IS THE CAPACITY OF A MUNICIPALITY TO ADAPT TO AND ABSORB FUTURE SHOCKS AND STRESSES TO ITS BUILT AND NATURAL SYSTEM.

It is a term that is used frequently, especially in recent years as climate adaptation and sustainability goals align. Resilient communities can respond to and recover from disasters and disruptions in both natural and built systems. Such communities are prepared to respond to prospective uncertainties and adapt to changing future conditions, balancing the requirements to meet vital human needs while respecting the limitations of natural systems. This plan addresses Montclair's resilience by ensuring access to reliable energy and reducing stormwater velocity and volume during major storm events.

PREVIOUS AND CURRENT INITIATIVES

Office of Sustainability

Montclair is one of a few communities in New Jersey to have its own Office of Sustainability. The stated mission of this office is to:

- “Design and implement cost-effective strategies to reduce energy use and waste across municipal operations and the community;
- Promote environmental education, community well-being, and the conservation and enhancement of natural resources among residents, schools, and businesses;
- Serve as a bridge between the Township and the Montclair Environmental Commission to advance policies that protect Montclair's natural environment, safeguard public health, and build resilience to future challenges.”¹⁴

Sustainable Jersey

Montclair actively participates in Sustainable Jersey and has implemented a range of initiatives to advance sustainability. These efforts recently earned the Township a Silver Certification, reflecting its ongoing environmental leadership.

Some of these actions, from their most recent certification round (2022) include:

- Providing a networked series of public charging stations for electric vehicles
- Prohibiting internal combustion leaf blowers
- Adopting a tree protection ordinance

Sustainability Grants

The Township has been awarded numerous grants in recent years to advance sustainability and climate resilience. These include grants from the New Jersey Board of Public Utilities (NJBPU) to develop a Community Energy Plan, conduct a solar feasibility study, install electric vehicle charging stations, and purchase electric vehicles for the municipal fleet.

In 2017, Montclair also received an NJBPU grant to evaluate the feasibility of developing a microgrid to support critical infrastructure around Hackensack Meridian Mountinside Hospital, including nearby affordable housing developments and a middle school. While the project offered potential for localized energy resilience, it did not move forward due to feasibility constraints under existing economic and technical conditions.

In 2023, the Township received a \$1 million Urban & Community Forestry Grant from the U.S. Department of Agriculture to support its efforts to expand Montclair's urban tree canopy. The initiative promotes equitable access to trees and strengthens climate resilience. By increasing tree cover, supported by data collection and community education, the Township aims to improve air quality and reduce energy demand across the community.

Another recent initiative included a Sustainable Jersey-funded grant to create a demonstration native plant garden and provide consultations with property owners to increase awareness of and install native plantings. In 2023, Montclair Township was awarded two grants from NJDEP to fund the revision of this Climate Change Related Hazard Vulnerability Assessment and to develop a Stormwater Utilities Feasibility Study.

¹⁴ <https://www.montclairnjusa.org/Government/Departments/Office-of-Sustainability>

WHAT IS SUSTAINABLE JERSEY?

BUILDING STRONGER, GREENER COMMUNITIES ACROSS NEW JERSEY

Sustainable Jersey is a certification program for municipalities that want to go green, save money, and take steps to sustain their quality of life over the long term. It provides tools, training, and financial incentives to support community-led sustainability initiatives across a broad range of issues, including energy, land use, climate resilience, health, equity, and economy.

Montclair's Commitment to Sustainability

Montclair actively participates in the Sustainable Jersey program and has demonstrated leadership through its ambitious environmental actions. In 2022, the Township earned Silver Certification, the program's highest level of recognition. This achievement reflects Montclair's proactive approach to building a more resilient, equitable, and climate-conscious future.

Examples of Montclair's Certified Actions

- Installed a network of public EV charging stations
- Banned gas-powered leaf blowers
- Adopted a tree protection ordinance to preserve urban canopy
- Completed a community energy plan and solar feasibility study
- Secured grants for urban forestry, native plant gardens, and climate vulnerability planning

WHY IT MATTERS

PARTICIPATION IN SUSTAINABLE JERSEY:

- HELPS MONTCLAIR ALIGN
LOCAL GOALS WITH
STATE AND FEDERAL
SUSTAINABILITY TARGETS
- OPENS DOORS TO GRANT
FUNDING AND TECHNICAL
ASSISTANCE
- PROMOTES REGIONAL
LEADERSHIP IN
SUSTAINABILITY AND
CLIMATE ACTION
- ENGAGES THE
COMMUNITY IN
PRACTICAL, MEASURABLE
PROGRESS

RESILIENCE ISSUES

OVERVIEW

MONTCLAIR IS WORKING TO REDUCE POWER OUTAGES CAUSED BY ABOVE-GROUND LINES THROUGH TREE MAINTENANCE, INFRASTRUCTURE UPGRADES, AND ALTERNATIVE ENERGY SOURCES, WHILE EXPLORING OPTIONS FOR UNDER-GROUNDING LINES AND IMPROVING COORDINATION WITH UTILITIES.

Almost all of Montclair Township's electricity is provided through above-ground power lines, making falling limbs and trees the most frequent causes of power outages in the Township. Initiatives that place electric lines underground and establish regular maintenance for pruning trees around power lines will reduce future power outages. One ongoing challenge in certain areas of the Township is the presence of powerlines located in the rear yards of private properties. While undergrounding these lines could offer a solution, it is often cost prohibitive. Alternatively, the Township should consider creating a program or providing information to residents with powerlines on their properties to raise awareness and provide contact information for Public Service Electric & Gas (PSE&G) to request tree trimming near power lines.

Encouraging the use of alternative energy sources, such as solar and geo-thermal power, will help reduce reliance on the electricity grid for power. The Township is also working closely with PSE&G to upgrade existing facilities, including substations, to safeguard energy supply and transmission. Resilience in flood-prone areas is addressed in the Climate Change-Related Hazard Vulnerability Assessment.

Powering a Resilient Future

Montclair is taking action to strengthen its energy infrastructure and reduce power disruptions.

- **TREE MAINTENANCE & UPGRADES:** Proactive tree pruning and ongoing infrastructure upgrades are helping reduce outages caused by downed lines.
- **UNDERGROUND POWER LINES:** While costly, undergrounding lines, especially those in rear yards, could reduce outages and improve safety.
- **UTILITY COORDINATION:** The Township is exploring ways to improve communication between residents and PSE&G for maintenance and service requests.
- **ALTERNATIVE ENERGY:** Expanding access to solar and geothermal energy supports energy independence and resilience.
- **INFRASTRUCTURE RESILIENCE:** Montclair is partnering with PSE&G to modernize substations and strengthen the grid - particularly in vulnerable areas.

Together, these efforts support a more reliable, sustainable, and future-ready energy system.

THE POWER OF TREES

Trees are vital to both environmental health and community resilience. They regulate ground temperatures, absorb stormwater runoff, produce oxygen, and enhance neighborhood character. Covering roughly 30% of the Earth's land surface, trees act as critical carbon sinks, removing an estimated 2 billion metric tons of carbon dioxide (CO₂) annually and storing it in wood, roots, and soil. This natural carbon capture function slows the rate of climate change and reinforces the importance of maintaining and expanding healthy tree canopies as a long-term strategy for resilience.

Beyond carbon storage, trees improve water quality, reduce heat, support biodiversity, and help ecosystems adapt to changing conditions. As the climate shifts, bringing longer dry periods and higher temperatures, some species may decline while others migrate, disrupting soil function and increasing wildfire risk.

In both urban and suburban areas, trees support quality of life by cooling buildings, storing stormwater, and creating walkable, vibrant streets. They also boost local economies by encouraging longer visits to commercial areas. According to the USDA, the annual value of trees outweighs maintenance costs by more than 1,000 to 1. As climate impacts intensify, investing in diverse, well-managed tree canopies will be key to building sustainable, livable, and resilient communities.



CANOPY SHADE TREES

Canopy shade trees are ideal street trees because they provide extensive shade, reduce urban heat, absorb stormwater, improve air quality, and enhance walkability and comfort in public spaces.

✓ This IS a good street tree!



FLOWERING TREES

Flowering trees make excellent street trees because they offer seasonal beauty, support pollinators, enhance neighborhood identity, and provide shade and stormwater benefits. Many flowering species are small enough to be planted in narrow spaces like parking strips or beneath utility lines, making them a flexible option for constrained urban areas.

✓

This IS a good street tree!



EVERGREEN TREES

Evergreen trees are ideal for parks and suburban areas because they provide year-round greenery, stormwater management, wildlife habitat, and natural screening with minimal maintenance.

✓ This IS a good tree for parks and suburban areas!



| 04

PUBLIC EV CHARGING STATIONS



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EV INITIATIVES

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EV ISSUES

EV INITIATIVES

OVERVIEW

MONTCLAIR SUPPORTS ALTERNATIVE FUEL VEHICLES THROUGH PLANNING EFFORTS, ZONING UPDATES, AND STATE-MANDATED REQUIREMENTS FOR EV CHARGING IN NEW DEVELOPMENT.

In 2017, the Township partnered with the New Jersey Transportation Planning Authority to develop a Local Readiness Plan to facilitate the use of Alternatively Fueled (electric and natural gas) Vehicles (AFVs). The plan considered how municipal regulations and infrastructure can be improved to advance the use of alternative fuel vehicles. This includes a review of local zoning and land use ordinances, permitting requirements, and potential locations for charging station infrastructure.

In 2021, the State of New Jersey adopted electric vehicle legislation, P.L. 2021, c. 171. It was signed into law on July 9, 2021. The law requires certain types of new development to install “make-ready” infrastructure, rather than fully operational EV charging stations in all cases. It also streamlines the process for existing developments to add charging stations. In response, the Township has required that all new development provide for EV charging facilities onsite. See the following page for a table of local EV charging stations. Please note that some stations may have limited public access depending on the time of day. This information, along with all maps referenced in this Element, is also available through the Township’s interactive Stormwater Map [here](#).

EV Integration + Infrastructure Planning.

Vehicle emissions are a leading source of greenhouse gases and replacing gas-powered vehicles with electric vehicles is a major initiative to combat climate change. Access to charging stations is essential to the success of e-vehicles. Local data indicates that over 50 percent of emissions in Montclair is attributable to on-road vehicles.¹⁶ Given that over half of Montclair’s emissions come from on-road vehicles, reducing vehicle emissions is expected to yield substantial health benefits alongside environmental gains.

Montclair has supported efforts to locate electric vehicle charging stations on public and private property for many years. Electric vehicle charging stations are in many public parking lots and parking decks, and redevelopment plans require that parking structures include electric vehicle charging stations. As of 2020, 395 residents owned EVs; by the end of June 2024, that number had grown to 1,343.¹⁷



EV Charging Stations. (Source: Colliers Engineering, April 2025)

¹⁵ <https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=e41aa50dd8cd45faba8641b6be6097b1>

¹⁶ Sustainable Jersey Dataset, compiled in collaboration with the Metropolitan Planning Organizations (MPOs) in New Jersey: Delaware Valley Regional Planning Commission (DVRPC), North Jersey Transportation Planning Authority (NJTPA) and South Jersey Transportation Planning Organization (SJTPO).

¹⁷ Sustainable Jersey Dataset, prepared by processing US Census American Community Survey (ACS) data and New Jersey Department of Environmental Protection’s (NJDEP’s) Alternative Fueled Vehicles (AFV) Report data; and EV Hub State EV Registration Data (<https://www.atlasevhub.com/market-data/state-ev-registration-data/>)

EV ISSUES

OVERVIEW

ONGOING INVESTMENT AND MAINTENANCE OF EV CHARGING STATIONS ARE ESSENTIAL TO SUPPORT ELECTRIC VEHICLE USE IN MONTCLAIR AND ENSURE LONG-TERM FUNCTIONALITY.

Continued investment in charging stations in public and private parking lots is essential to ensure electric vehicles remain a reliable option for Montclair residents and employees. The Township should expand charging infrastructure on municipal property and continue requiring it in new development. Websites like PlugShare should be reviewed at least twice a year to identify maintenance issues, with follow-up to station operators where feasible. Montclair may also explore solar-powered charging options, including rooftop systems or EV “charging trees,” to enhance access and grid resilience.



EV Charging Stations in Bloomfield. (Source: Colliers Engineering, April 2025)

Local EV Charging Stations Available to the Public (as of 2024)

| Type* | Location | Address |
|---------|---|--|
| Public | Crescent Parking Deck | 1-29 The Crescent |
| | Montclair Kimberly Academy Primary School | 224 Orange Road |
| | Montclair Kimberly Academy Middle School | 201 Valley Road |
| | Montclair Kimberly Academy Upper School | 6 Lloyd Road |
| | South Fullerton Parking Deck | 7 Seymour Street |
| | Fullerton Parking Deck | 11 Park Street and 10 N. Fullerton Ave. |
| | Hackensack Meridian Mountainside Hospital | 1 Bay Avenue |
| | Essex County Glenfield Park | 63 Maple Avenue |
| | South Willow Parking Deck | 2 South Willow Street |
| | Valley & Bloom Parking Deck | 34 Valley Road |
| | Walnut | 31 Bay Avenue |
| | Upper Montclair Plaza | 51 Upper Montclair Plaza and 580 Valley Road |
| | Brookdale Park | West Circuit Drive |
| | Red Hawk Deck | 1 Normal Avenue |
| | Montclair Municipal Building | 205 Claremont Avenue |
| Private | Montclair Bikery (DC Fast) | 148 Valley Road |
| | Hillside Square | 8 Hillside Avenue |
| | Brassworks | 105 Grove Street |
| | The Westerly | 256 Park Street |

*Public station type is for use by the public, private station type is limited to private users.

<https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=e41aa50dd8cd45faba8641b6be6097b1>



05

CLIMATE CHANGE RELATED HAZARD VULNERABILITY ASSESSMENT



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VULNERABILITY ASSESSMENT

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OTHER THREATS

VULNERABILITY ASSESSMENT

OVERVIEW

A Climate Change Related Hazard Vulnerability Committee (“Committee”) was formed in late 2021 to participate in preparing the Township’s first Climate Change Related Hazard Vulnerability Assessment, which was adopted as part of the 2023 update to the Master Plan. The Committee included the Township Engineer, the Assistant Township Manager, the Director of Planning and Community Development, the Assistant Planner, and members of the Planning Board and the Environmental Commission. The Committee was tasked with identifying climate change-related hazards in Montclair Township and evaluating these hazards to develop a plan for adaptation.

In 2023, the Township was awarded a Municipal Assistance Planning Grant from NJDEP to expand upon this document and develop a Resilience Action Plan. Consultants worked with the Township’s Office of Sustainability and the Department of Planning and Community Development to undertake this process. This effort also sought to solicit on-the-ground feedback from residents and businesses through a community survey; presentations before the Mayor and Council in August 2024; the Planning Board in March 2025; and “pop-up” engagement sessions at the Montclair Farmers’ Market (November 2024) and the jazz festival (September 2024).

Identification of Climate Change-Related Natural Hazards

The 2021 amendments to the Municipal Land Use Law require municipalities that adopt a new Master Plan or update their Land Use Element to analyze current and future threats and vulnerabilities associated with climate change-related natural hazards. These hazards include, but are not limited to, increased temperatures, drought, flooding, hurricanes, and sea-level rise.¹⁸

The February 2020 Hazard Mitigation Plan Update for Essex County identifies hazards that pose threats to the county. Montclair, in conjunction with the County, ranked primary hazard concerns based on the municipality’s capabilities to withstand impacts and rebound after an emergency event. Montclair Township ranked Drought, Extreme Temperature, Flood and Wildfire as being considered “medium” degree hazards, while Severe Storm and Winter Storm were ranked “high” degree hazards.

As part of the public survey that was released in 2024 to evaluate the opinions of residents and businesses, the top two environmental concerns were “precipitation/flooding” and “extreme heat” in a list which also included drought, wildfire, hurricanes/wind, landslides, earthquakes, snow, diseases, contaminants, and air quality.

Severe storms contribute to extreme precipitation and associated flooding which impact municipal infrastructure. Direct flood impacts include frequent flooding that exceeds the capacity of stormwater systems and local drainage networks, overtopping and erosion of bridges and other transportation infrastructure due to higher stream levels and faster stream flows. Secondary impacts include disruptions to the mobility of local citizens and emergency services, the provision of public services and access to public buildings and water quality and public health.

Heat vulnerability and surface temperatures impact the businesses and services in the central business districts as well as Montclair’s natural habitats. Direct impacts of high surface temperatures include health concerns to residents and workers and disruptions to plant and animal species. Similarly, the threat of wildfire is also of concern, which can impact the community directly through damage to property, or indirectly, through impaired air quality. In addition, portions of Montclair are at risk of landslides, which can be caused by heavy rain events. These threats: flooding, heat, fire, and landslides are examined in greater detail in the following sections of this CCRHVA.

¹⁸ As noted in the 2020 New Jersey Scientific Report on Climate Change, sea level rise in New Jersey is the result of several factors: geological subsidence, ice melting on land, and thermal expansion of water. Sea level rise has been occurring more intensely in the northeastern United States than elsewhere, increasing 12 inches since 1900 compared to the global average of 8 inches. The report notes that the rate of sea level rise is projected to increase from the current rate of 0.2 inches per year to one half inch every year by 2050, with projections to 2100 ranging from 0.2 to 0.6 inches per year under a low emissions scenario, 0.2 to 0.8 inches per year under a moderate emissions scenario, and 0.3 to 1.1 inches per year under a high emissions scenario. While Montclair is an inland community, rising sea levels can reduce the capacity of rivers and drainage canals to evacuate stormwater and river water to the sea, which can exacerbate flooding in inland areas not normally at risk.

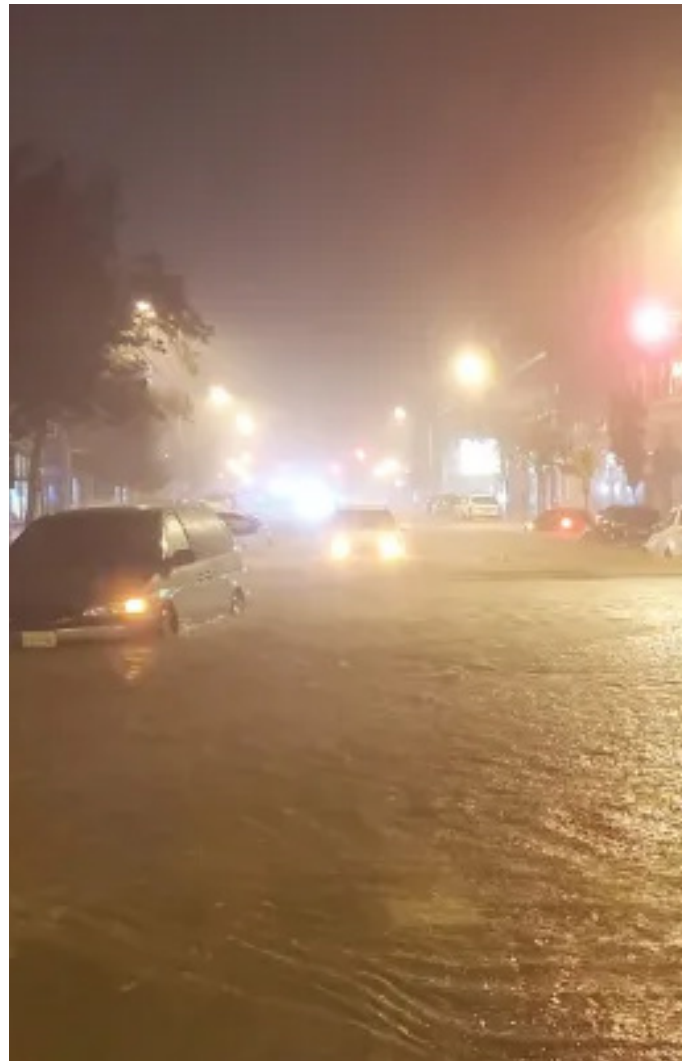
OTHER THREATS

OVERVIEW

Several threats listed in the Essex County Hazard Mitigation Plan and referenced in the Municipal Land Use Law's guidance for climate-related hazard vulnerability assessments are not analyzed in depth in this CCRHVA. These include threats with a low likelihood or secondary threats that are already addressed through related primary hazards, such as hurricanes discussed within the flooding section.

For example, while drought can impact landscaping, soil health, and stormwater absorption, its effects in Montclair are more likely to be indirect and are already addressed in the context of vegetation stress and runoff challenges. Similarly, hurricanes, such as the remnants of Hurricane Ida in 2021, are discussed within the extreme storm and flooding vulnerability sections.

These threats are recognized but are considered secondary to Montclair's more immediate climate risks and are therefore not analyzed in full detail in this plan.



Town Square Flooding from Tropical Storm Ida. (Source Montclair Local)



COMMUNITY SURVEY INSIGHT

Montclair Residents and Business Owners identified places that raise particular concern about their vulnerability to flooding and natural disasters.

- **Primary Concern: Lackawanna Plaza**
- **Secondary Concern: Valley Road Corridor**



06

ASSESSMENT OF THREATS + VULNERABILITIES



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VULNERABILITIES

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THREATS

VULNERABILITIES

OVERVIEW

The characteristics of a community contribute to its unique strengths and vulnerabilities when facing environmental threats. The topography of a place, the way land has been developed, and the people who live there are all factors in what rises to the level of a high risk. Moreover, the condition, location, and accessibility of critical infrastructure may also increase risk.

VULNERABLE POPULATIONS

Vulnerable populations fall into two general categories:

1 VULNERABLE BLOCK GROUPS. Residents of a certain geographic area who, because of physical, social, economic, or social circumstances are more likely to be impacted by climate threats. Includes those living in areas with historic land use disparities, clustered language or poverty characteristics, age, race, and other demographic cohorts.

2 FACILITIES SERVING THE NEEDS OF VULNERABLE PERSONS. Places such as nursing homes, day care facilities, and even animal shelters may be identified as vulnerable based on the needs of the population being served and their reliance on assistance.

Data on vulnerable block groups were compiled based on the Environmental Protection Agency's (EPA) identified Environmental Justice communities and New Jersey's identified overburdened communities. Environmental Justice communities are identified by evaluating both demographic and environmental indicators produced by the EPA EJScreen, an online mapping tool.¹⁹

Combined demographic and environmental data produces an EJ Index, with a high EJ Index indicating large numbers of mainly low-income and/or minority residents with a higher environmental indicator value.

Similarly, New Jersey's overburdened communities are defined as census block groups with:

- 1) at least 35 percent low-income households; or
- 2) at least 40 percent of the residents identify as minority or as members of a state recognized tribal community; or
- 3) at least 40 percent of the households have limited English proficiency.

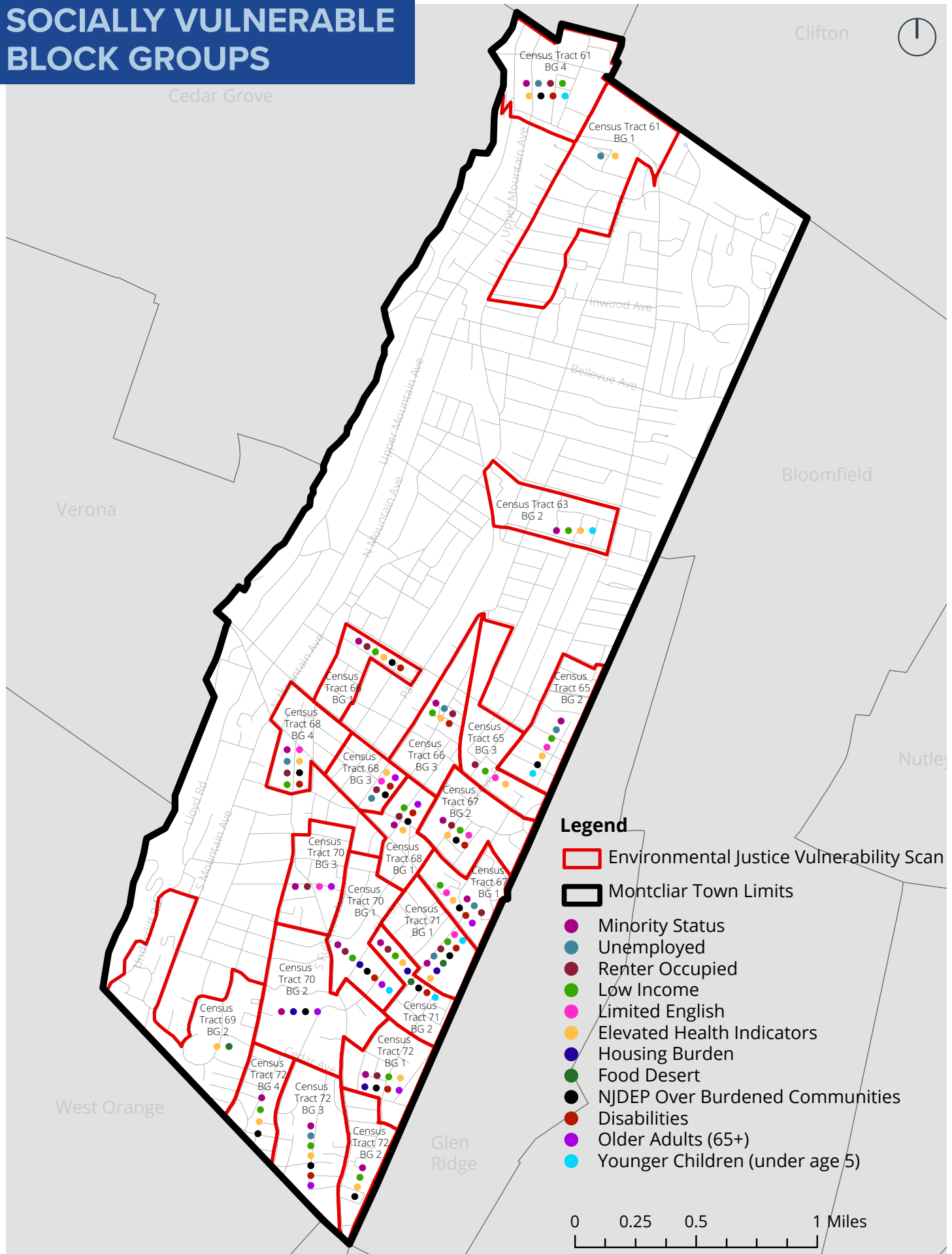
Utilizing both the EPA's Environmental Justice communities and New Jersey's overburdened communities, our analysis identified 22 potentially vulnerable block groups within Montclair, also highlighting those block groups where certain factors, such as per capita income, may be lower than the Township as a whole. A summary map is illustrated on the following page, with a more detailed analysis of their particular vulnerabilities in comparison to the Township as a whole is illustrated in the Appendix.

Environmental justice shows that vulnerable block groups are often exposed to multiple, overlapping hazards at the same time. Vulnerable block groups have historically been developed with less attention to detail, with fewer amenities and services, and with closer proximity to hazards.

TOGETHER, THESE TWO GROUPS OF VULNERABLE POPULATIONS ARE LIKELY TO EXPERIENCE THE EFFECTS OF CLIMATE-RELATED THREATS MORE ACUTELY THAN THE POPULATION AT LARGE AND SPECIAL CONSIDERATION SHOULD BE MADE TO ENSURE THEIR SAFETY AND PROTECTION.

¹⁹ As of April 2025, the EPA EJScreen is no longer available.

SOCIALLY VULNERABLE BLOCK GROUPS



Data Source: Montclair Planning, NJDEP, Data.gov

Vulnerable Sites

| Type | Name | Address |
|------------------------------------|---|----------------------------|
| Nursing Homes | Family of Caring Montclair Nursing Home | 42 North Mountain Avenue |
| | Little Nursing Home | 71 Christopher Street |
| | Montclair Care Center | 111-115 Gates Avenue |
| | Montclair Manor | 403 Claremont Avenue |
| | Horizon Manor North | 73 Overlook Road |
| | Horizon Manor South | 89 Christopher Street |
| | Walpan Residence for Senior Citizens | 176 Christopher Street |
| | Willows Home for Senior Citizens | 39 South Willow Street |
| | Memorial Home for the Aged | 185 Fernwood Avenue |
| | | |
| Senior Citizen Housing | First Montclair House | 56 Walnut Street |
| | South End Gardens | 340 Orange Road |
| | Montclair Inn | 27 Hillside Avenue |
| | PineRidge of Montclair | 60 Glenridge Avenue |
| | Essex House of Montclair | 271 Claremont Avenue |
| Special Needs Housing/ Home Groups | Cornerstone House | 68 North Fullerton Avenue |
| | Covenant House | 32 South Willow Street |
| | ARC of Essex County group home | 434 Washington Street |
| | ARC of Essex County group home | 27 Claremont Avenue |
| | Mental Health Association housing | 354 Orange Road |
| | Real House | 95 Grove Street |
| | Real House | 31 North Mountain Avenue |
| Schools | Oxford House | 21 Irving Street |
| | Nishuane Elementary School | 36 Cedar Avenue |
| | Glenfield Middle School | 25 Maple Avenue |
| | Hillside Elementary School | 54 Orange Road |
| | Montclair Community Pre-K | 49 Orange Road |
| | Charles H. Bullock School | 55 Washington Street |
| | Renaissance at Rand Middle School | 176 North Fullerton Avenue |
| | Montclair High School | 100 Chestnut Street |
| | Watchung Elementary School | 14 Garden Street |
| | Edgemont Elementary School | 20 Edgemont Road |
| | Buzz Aldrin Middle School | 173 Bellevue Avenue |
| | Northeast Elementary School | 603 Grove Street |
| | Bradford Elementary School | 87 Mt. Hebron Road |
| | Sawtelle Learning Center | 208 South Mountain Avenue |
| | Deron School | 130 Grove Street |
| | Immaculate Conception High School | 33 Cottage Place |
| | St. Cassian School | 190 Lorraine Avenue |
| | Montclair Kimberly Academy Middle School | 201 Valley Road |
| | Montclair Kimberly Academy Upper School | 6 Lloyd Road |
| | Montclair Kimberly Academy Primary School | 224 Orange Road |
| | Lacordaire Academy | 155 Lorraine Avenue |
| | Fusion Academy | 427 Bloomfield Avenue |

| Type | Name | Address |
|-------------------------------|---------------------------------------|---------------------------|
| Child/ Adult Day Care Centers | NW Essex Community Healthcare Network | 83 Walnut Street |
| | Senior Care and Activities Center | 115 Greenwood Avenue |
| | The Goddard School | 2 Seymour Street |
| | Union Congregational Nursery School | 176 Cooper Avenue |
| | Parkside Montessori School | 53 Norwood Avenue |
| | Over the Rainbow Nursery School | 32 Pleasant Avenue |
| | Neighborhood Childcare Center | 30 Maple Avenue |
| | Montclair Child Development Center | 33 Fulton Street |
| | Early Explorers Preschool | 67 Church Street |
| | Watchung Cooperative Preschool | 24 North Fullerton Avenue |
| | Kelly's Kids Day Care Center | 213 Glenridge Avenue |
| | Park Street Academy | 46 Park Street |
| | Shomrei Emunah Preschool | 67 Park Street |
| | St. James Preschool | 581 Valley Road |
| | Pilsbury School | 433 Park Street |
| | Children's Studio | 289 Park Street |
| | Montclair Cooperative School | 65 Chestnut Street |
| | Precious Jewels Child Care | 100 Bloomfield Avenue |
| Animal Care Centers | Township of Montclair Animal Shelter | 77 North Willow Street |
| | Montclair Animal Hospital | 124 Watchung Avenue |
| | Cameron Animal Hospital | 417 Bloomfield Avenue |
| | Katz & Dogs Animal Hospital | 545 Valley Road |
| | Brenda J. King, V.M.D. | 2 Forest Street |
| Low Income Housing | Union Gardens | 50 Greenwood Avenue |

Key Findings.

Together, these two groups of vulnerable populations - geographically defined block groups and facilities serving at-risk individuals - are likely to experience the effects of climate-related threats more acutely than the population at large. Historic inequities, environmental burdens, and social vulnerabilities compound risk, making it essential that future planning efforts prioritize these communities to ensure their safety, resilience, and long-term well-being.

CRITICAL FACILITIES AND INFRASTRUCTURE

Critical municipal facilities necessary to respond to climate-related disasters are listed below and mapped in Appendix B. This includes stormwater sewers, EV charging stations, gas stations, fire hydrants, and emergency response facilities such as fire stations, hospitals, police stations, and ambulance units, as well as public transportation systems. It also covers essential services such as hardware stores, pharmacies, banks, medical centers, and grocery stores.

This list represents a snapshot in time and will continue to evolve as infrastructure and community needs change. Disruptions to transportation systems can also hinder the delivery of vital resources, emergency services, and safe evacuation.

Critical Facilities + Infrastructure

| Facility | Name | Address |
|-----------------|--|---------------------|
| Fire Stations | Fire Department Headquarters (co-housing the Office of Emergency Management) | 1 Pine St. |
| | Fire Station #2 | 588 Valley Rd. |
| | Fire Station #3 | 151 Harrison Ave. |
| Hospitals | Hackensack Meridian Mountainside Hospital | 1 Bay St. |
| Police Stations | Police Headquarters | 647 Bloomfield Ave. |
| Ambulance Unit | Montclair Ambulance Unit | 95 Walnut St. |
| Utilities | Montclair Water Bureau & Sewer Utility | Watchung Ave. |
| | Newark Water Treatment Plant | Valley Rd. |

Critical Businesses

| Facility | Name | Address |
|--------------------------------|---|------------------|
| ATMs | There were 55 ATMs identified | |
| Banks | Bank of America | Valley Rd. |
| | Chase | N Fullerton Ave. |
| | Chase | Valley Rd. |
| | Check Cashers | Bloomfield Ave. |
| | Garden State Community Bank | Orange Rd. |
| | Garden State Community Bank | Valley Rd. |
| | Haven Savings Bank | Bellevue Ave. |
| | Investors Bank | Bloomfield Ave. |
| | PNC Bank | Valley Rd. |
| | TD Bank | Bloomfield Ave. |
| Dental | 14 Dental offices identified | |
| Doctor | 33 Doctor offices identified | |
| Hardware | American Royal Hardware | Park St. |
| | Bob Fraser Master Locksmiths | Watchung Ave. |
| Medical | Al-Anon Alateen Information Service of North Jersey | S Fullerton Ave. |
| | Ancient Song Doula Services, Inc. | Church St. |
| | Grove Pharmacy Inc | Grove St. |
| | Montclair Pharmacy Rx LLC | Valley Rd. |
| | Serket Pharmacy | Church St. |
| | Summit Health | Bloomfield Ave. |
| | Summit Medical Group | N Fullerton Ave. |
| | Hackensack Meridian Mountainside Medical Center* | Bay Ave. |
| | Comfort Keepers | Park St. |
| Gas Service Station | Ferraras Auto Body Inc. | Orange Ave |
| | Chevron #204274 | Bloomfield Ave |
| | Grand Auto Service Inc. | Bloomfield Ave |
| | 148 Valley Road Strip Mall | Valley Rd. |
| | Zeus Complete Automotive Center | Watching Ave. |
| | Lukoil Service Station #57285 | Valley Rd. |
| | Pines Auto Service Station | Harrison Ave. |
| | NJLG UST1 NJ0180 Service Station | Bloomfield Ave. |
| | Bloom Avenue Gas Service Station | Bloomfield Ave. |
| | Clar Pine Service Center | Claremont Ave. |
| Refuse Collection / Management | SERVPRO of Montclair/West Orange | N Willow St. |
| | South Orange Disposal | Gates Ave. |
| Grocery | Acme Markets | Valley Rd. |
| | Dry Goods Refillery Llc | Bellevue Ave. |
| | Krauszer's Food Store | Valley Rd. |
| | Whole Foods | Bloomfield Ave. |
| | King's Food Market | Valley Rd. |

*Technically not within the Montclair Township limits.

COMMUNITY SURVEY INSIGHT

Montclair Residents and Business Owners are concerned about the potential impacts of natural hazards on critical assets.

- Energy & Utility Infrastructure – 88% concern
- Transportation – 79% concern
- Communication – 76% concern
- Schools – 59% concern
- Hospitals - 49% concern
- Police/fire - 46% concern
- Government buildings – 29% concern

LAND USE AND FUTURE DEVELOPMENT

Existing land uses and the characteristics associated with those uses also impact vulnerabilities. Areas with extensive industrial uses, for example, often have high rates of impervious coverage which exacerbate flooding issues during emergency events. Certain types of uses also pose secondary risks because ground disturbances through flooding, fire, etc. may expose previously buried or dormant hazards.

Future Development

Understanding how much future development is realistically possible, and where it can safely occur while respecting the existing character of the community, can help reduce vulnerabilities when paired with effective land use policies and hazard mitigation strategies. Land use policy concerning lot coverage limits, restricting development in areas that experience repeat flooding, and requiring appropriate buffers can help mitigate risk. Montclair Township is almost fully built-out and has less than 55 acres of vacant or agricultural land, much of which is devoted to open space uses. Over 31% of the Township's land area is impervious, including 34.2% in residential zone districts and 85.3% in non-residential and mixed-use zone districts as shown in the map on pages 34 and 35.

The Township's 2023 CCRHVA opted not to conduct a build-out analysis, noting the limited availability of vacant, developable lands. In accordance with the Municipal Land Use Law (MLUL), a build-out analysis is important to understand the remaining development potential within Montclair and the associated impacts on infrastructure, community character, and climate resilience. Montclair's limited available land means future growth will occur primarily through infill development and adaptive reuse, concentrated in designated redevelopment areas.

Redevelopment areas are largely built out, with the notable exception of the Lackawanna Plaza Redevelopment Area, which alone is approved for 300 new dwelling units, 135,000 square feet of retail space, and 75,000 square feet of office space. The 2025 Housing Element and Fair Share Plan projects approximately 600 new housing units by 2035, the majority within redevelopment areas.

In addition to these major redevelopment projects, the Township's 2025 Housing Element and Fair Share Plan identifies several other potential development sites. Some of these parcels also overlap with mapped hazard areas, such as floodplains and heat-vulnerable zones, underscoring the importance of integrating resilient design and stormwater management measures as redevelopment occurs.

Site with Future Development Potential (2025)

| Address / Site | Potential Development | Notes |
|--|-----------------------|--------------------------|
| 1 Lackawanna Plaza | 300 units | Approved redevelopment |
| 59 Church Street* | 74 units | Approved, not yet built |
| 10 Elm Street* | 22 units | Approved, not yet built |
| 161-167 Glenridge Avenue* | 17 units | Approved, not yet built |
| 210 Bloomfield Avenue | 11 units | - |
| Wildwood Avenue Tract | 8 units | - |
| 102 Pine Street | 6 units | - |
| 53-55 New Street | 4 units | - |
| 14 Miller Street | 3 units | - |
| 18 Miller Street | 2 units | - |
| NJTransit Mountain Avenue Station | 1 unit | - |
| Immaculate Conception High School – 33 Cottage Place | TBD | - |
| Montclair Center Gateway Phase II – Includes the Police Building | TBD | Includes Police Building |
| DeCamp Bus Depot – 101 Greenwood Avenue | TBD | - |
| Northwest Essex Community Healthcare Facility – 83 Walnut Street | TBD | - |
| Acme Shopping Center - 516 Valley Road | TBD | - |

Based on current projections:

- 300 units: Lackawanna Plaza (approved)
- 35 units: Smaller approved parcels (excluding “TBD” sites)
- 275 units: Anticipated from opportunity site such as Immaculate Conception High School, Walnut Street/Greenwood Avenue area, and other TBD parcels.

This build-out perspective helps contextualize where change will occur, the scale of expected growth, and how it intersects with climate hazards, particularly in flood-prone or heat-vulnerable areas such as Lackawanna Plaza.

Recent and anticipated growth in Montclair is occurring primarily through redevelopment rather than greenfield construction. This includes adaptive reuse of existing buildings, expansions of existing structures, and replacement of obsolete uses with new residential, commercial, or mixed-use development. Over the past decade, formal redevelopment plans have produced more than 700 new dwelling units, approximately 71,744 square feet of office space, and 19,592 square feet of retail space. In addition, smaller-scale infill development has continued across the Township through subdivision of lots and construction of new homes.

On average, residential construction²⁰ has added 71 new dwelling units per year including 92 single- and two-family dwelling units and 685 multi-family dwelling units. Nonresidential construction²¹ has added 157,178 square feet of space per year.

Looking ahead, this pace of development is anticipated to remain steady. Municipal projections estimate growth of approximately 600 new housing units by 2035, accommodated largely through a combination of infill and redevelopment projects such as the Lackawanna Plaza Redevelopment Plan, the Montclair Center Gateway Phase 2 Redevelopment Plan, and the Municipal Complex Redevelopment Plan.²²



Lackawanna Station. (Source Montclair Girl)

Housing Units Authorized by Building Permits (2013-2023)

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|-------|
| 1 + 2 Family | 5 | 7 | 8 | 12 | 11 | 9 | 12 | 11 | 6 | 8 | 3 | 92 |
| Multifamily | 0 | 258 | 40 | 40 | 0 | 92 | 211 | 0 | 0 | 44 | 0 | 685 |
| Mixed Use | - | - | - | - | 0 | - | - | 0 | 0 | 0 | 0 | 0 |

Non-residential Units Square Feet Authorized by Building Permits (2013-2023)

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Total |
|--|--------|---------|--------|--------|---------|---------|---------|---------|---------|---------|--------|-----------|
| Office | 3,296 | 6,799 | 22,525 | - | 11,387 | 4,977 | 17,041 | 515 | 3,223 | 1,981 | - | 71,744 |
| Retail | - | - | - | 14,996 | 3,327 | 1,269 | - | - | - | - | - | 19,592 |
| Other | 42,593 | 326,307 | 27,052 | 94,254 | 145,267 | 191,087 | 429,027 | 128,760 | 429,027 | 128,760 | 97,403 | 1,637,627 |
| Other includes A-1, A-2, A-3, A-4, A-5, Multifamily/dormitories, hotel/motel, education, industrial, hazardous, institutional, storage, signs, fences, utility & miscellaneous | | | | | | | | | | | | |

²⁰ New Jersey Department of Labor & Workforce Development Annual Building Permit Data from 2013 to 2023.

²¹ New Jersey Department of Community Affairs Nonresidential Building Permit Data, 2013 to 2023.

²² North Jersey Transportation Planning Authority. Current NJTPA Board approved municipal forecasts, dated September 13, 2021. <https://www.njtpa.org/Data-Maps/Demographics-GIS/Forecasts.aspx>. The NJTPA's 0.5% annual population growth projection is a regional estimate. Montclair's 2025 Housing Element and Fair Share Plan anticipates more modest growth—approximately 600 new housing units by 2035—based on limited available land and a built-out urban fabric. The Township's projected growth is expected to be accommodated largely through redevelopment projects like Lackawanna Plaza and other designated areas.

IMPERVIOUS COVERAGE (2015)



IMPERVIOUS COVERAGE (2015)



THE IMPACTS OF IMPERVIOUS SURFACES ON LAND USE + VULNERABILITY

CURRENT CONDITIONS AND CHALLENGES

Montclair is nearly fully built-out, with fewer than 55 acres of vacant or agricultural land remaining - much of which is dedicated to open space or constrained by environmental conditions. As a result, the Township's ability to accommodate new growth is limited, placing greater importance on how existing land is used and managed.

Over 31% of Montclair's land area is covered by impervious surfaces such as pavement and rooftops. These figures rise sharply in developed zones:

- 34.2% impervious coverage in residential areas
- 85.3% in non-residential and mixed-use districts

This high level of impervious coverage contributes significantly to local flooding, particularly during extreme weather events, by preventing water from absorbing into the ground. In areas with a history of industrial activity, flooding can also disturb dormant contaminants, creating additional health and environmental risks.

To address these vulnerabilities, Montclair must take a proactive, risk-informed approach to future development and redevelopment:

- Limit lot coverage to prevent further impervious surface expansion
- Restrict development in flood-prone areas, especially those with a history of repetitive loss
- Promote green infrastructure such as permeable pavement, bioswales, and rain gardens to manage runoff
- Establish buffers around sensitive sites and natural features
- Pair green infrastructure with traditional gray systems, such as storm drains and culverts, to improve overall flood resilience. This integrated approach helps reduce runoff at the source while ensuring capacity during high-intensity storms.

WHY IMPERVIOUS SURFACES MATTER

Impervious surfaces - such as roads, rooftops, parking lots, and other hardscapes - prevent water from soaking into the ground. This significantly increases the volume and speed of stormwater runoff, which can lead to:

- Flooding during severe weather events
- Erosion and sedimentation in local waterways
- Overwhelmed stormwater infrastructure
- Exposure of contaminated soils during ground disturbance events



Flooding inside Fullerton Parking Deck from Tropical Storm Ida. (Source Montclair Local)

Lackawanna Plaza Redevelopment Plan

This 8-acre site located in the center of the Bloomfield Avenue business district contains an historic train station that was redeveloped in the 1980s as a strip shopping center. Most of the tenant spaces are currently vacant. Site plan approval was granted by the Planning Board to redevelop this property in 2019 into 154 dwelling units, 21,726 square feet of office space and 37,000 square feet of retail space, including a new grocery store. The approved site plan has not been constructed.

A Redevelopment Plan for this site was adopted in May 2024. The current plan, which includes the additional lot to the east that currently contains a bank, anticipates 300 dwelling units, 135,000 square feet of retail space and 75,000 square feet of office space.

Montclair Center Gateway Phase 2 Redevelopment Plan

The Montclair Center Gateway Phase 2 area plan is still in its draft format. The redevelopment area comprises lots on the north side of Bloomfield Avenue on either side of Valley Road at the westerly entrance to Montclair Center. This draft redevelopment plan includes the current Montclair Township police station and municipal court, which is an historic building that is obsolete for its current use. The draft redevelopment plan envisions the adaptive reuse of several existing buildings for new land uses, the enhancement and integration of certain existing land uses, and wholesale redevelopment of other properties.

Contamination

Identifying known contaminated sites can help the municipality prepare for containment risks associated with climate change-related hazards. While not a direct climate hazard themselves, events such as flooding, extreme heat, and other impacts can affect the effectiveness of hazardous and non-hazardous waste management, the restoration of contaminated land, and the handling of chemical risks.

There are a total of 61 active known contaminated sites within the Township, ranging from levels B to D.

- **Remedial level B:** sites are associated with emergency response and generally have no impact to soil or groundwater.
- **Remedial level C1:** sites are associated one or two contaminants localized to soil and the immediate spill or discharge area.
- **Remedial level C2:** sites present more complicated contaminant discharges such as multiple site spills, more than one contaminant, and with both soil and ground water impacted.
- **Remedial level C3:** are dangerous for direct contact due to multiple contaminants at high concentrations with unknown sources continuing to impact soils, groundwater, surface waters, or potable water resources.
- **Remedial level D:** sites have the same conditions as C3 and are designated Federal “Superfund Sites” (there are no level D sites within Montclair).

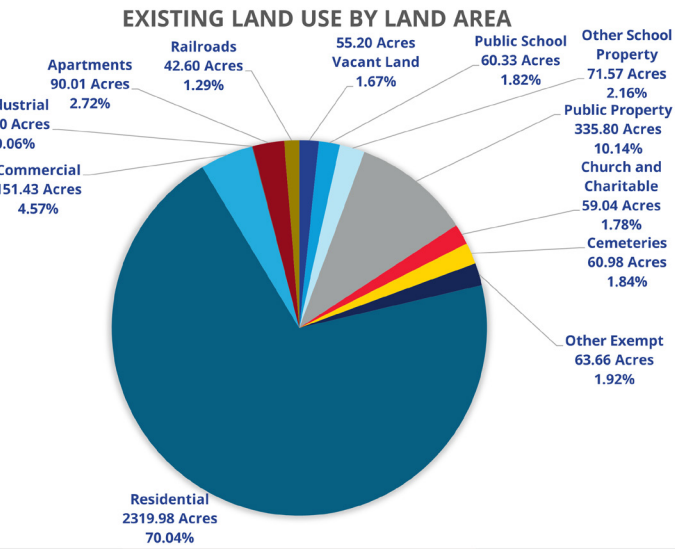
CONTAMINATED SITES

There are six known contaminated sites with a remediation level of C3 or higher in the township. The following areas contain a known contaminated site:

- Block 2212, Lot 18 in Montclair Center
 - Block 3402, Lot 11 (located in Watchung Plaza Historic Business District)
 - The corner of Bellevue Ave and Valley Road (located in Upper Montclair Historic District) in Upper Montclair (two sites)
 - Orange Road between Bloomfield Avenue and Church Street in Montclair Center
 - The intersection of Orange Road and Bloomfield Avenue in Montclair Center
- In addition to the above, there exist numerous Classification Exception Areas throughout Montclair Township, where groundwater contamination is known to exist.

Existing Land Uses

The below land use graph shows that over 70 percent of land area in Montclair is developed for residential use.²⁴ This is followed by public uses, including public schools and other publicly-owned properties, which covers approximately 12 percent. The next highest land use is commercial, at a mere 4.6 percent. No other land use is significantly represented in Montclair.



Community Amenities

| Type | Name | Address |
|--------------------|-------------------------------------|--|
| Historic Districts | Mountain Historic District | - |
| | Erwin Park Historic District | - |
| | Edgemont Historic District | - |
| | Miller Street Historic District | - |
| | Marlboro Park Historic District | - |
| | First Residential Historic District | - |
| | Estate Area Historic District | - |
| | Town Center Historic District* | - |
| | Pine Street Historic District** | - |
| | Watchung Plaza Historic District* | - |
| | Upper Montclair Historic District* | - |
| Parks | Eagle Rock Reservation | Eagle Rock Avenue |
| | Nishuane Park | Cedar Avenue between High Street and Harrison Avenue |
| | Glenfield Park | Maple Avenue |
| | Porter Park | Orange Road and Harrison Avenue |
| | Alonso F. Bonsal Wildlife Preserve | Riverview Drive |
| | Canterbury Park | Canterbury Drive and Planschet Drive |
| | Christopher Park | Label and Christopher Streets |
| | Crane Park | Lackawanna Plaza, Bloomfield Avenue |
| | Edgemont Park | Valley Road |
| | Essex Park | Chestnut Street and Essex Avenue |
| | Graz Park | Claremont and Bloomfield Avenues |
| | George Washington Field | Baldwin Street and Glenridge Avenue |
| | Kaveney Field | Grove and Walnut Streets |
| | Mountainside Park | Upper Mountain Avenue |
| | Rand Park | North Fullerton Avenue and Chestnut Street |
| | Sunset Park | Norwood Avenue and Sunset Park |
| | Tuers Park | Stonehenge Road |
| | Watchung | Watchung and Midland Avenues |
| | Yantacaw | Club Road |
| | Anderson Park | Bellevue and North Mountain Avenues |
| | Brookdale Park | Grove Street, Bellevue Avenue, Watchung Avenue |
| | Mills Reservation | Normal Avenue |

***Locally recognized historic districts.**
****State and locally recognized historic districts.**

²³ For the purposes of this CCRHVA, MOD IV property tax data was used to examine land use and impacts from potential climate events. This data was obtained from NJ Haz Adapt in 2024. Variations between this data and the Township's Existing Land Use map and data found in the Land Use Element may exist based on the date of collection and how the data was subsequently processed and interpreted. The MOD IV property tax data divides land use into 12 different categories, whereas the Existing Land Use Map in the Land Use Element was simplified into 9 categories: commercial, industrial, institutional, mixed-use, multifamily residential, open urban land, single family residential, transportation, and two-family residential.

²⁴ Area calculations are based on property parcels, and as such, do not include road rights of way.



Wooded stream section near residential area. (Source: Colliers Engineering, April 2024)

THREATS

FLOODING

Montclair Township is located at the eastern foot of the Watchung Mountains, specifically the First Watchung Mountain, abutting two ridgelines – Eagle Rock Reservation, located along the southwest border of Montclair, and Mills Reservation at the northwest border of Montclair. This topography poses an increased risk of flooding and puts a strain on existing stormwater infrastructure.

Montclair's stormwater system comprises a network of inlets and pipes that drain stormwater into the Township streams and tributaries including the Second River, Third River, Toney's Brook and Nishuane Brook. Because of this, areas around these rivers risk inundation during flood events, and flood hazard areas surround their courses. One large flood hazard area is located on both sides of the railroad tracks in Upper Montclair, particularly near Brookdale Road. Another large flood hazard area is located the Second River stream corridor between Park Street and Glenridge Avenue. And, a third relatively large flood hazard area is located along Nishuane Brook between Elm Street and the Orange border. Each of these areas is critical during flood events.

As an historic community, many streets in Montclair were built over one hundred years ago and contain what today would be considered inadequate stormwater infrastructure which on many streets is old and in poor condition, and in some locations there is no stormwater infrastructure at all. The Township Engineer identified 36 areas prone to flooding during heavy rain events based on local knowledge of the Township and past flooding events. A map was developed showing the location of these flood prone areas in relation to existing stormwater infrastructure and land use. The Committee conducted limited field observations of each of these 36 areas and prepared a report for each which includes descriptions of the area, general observations, photo documentation of stormwater inlets, and other notable features such as steep topography, streams, and evidence of standing water or erosion. These reports are included as Appendix A.



Flooding on Burnside Street during Tropical Storm Ida.

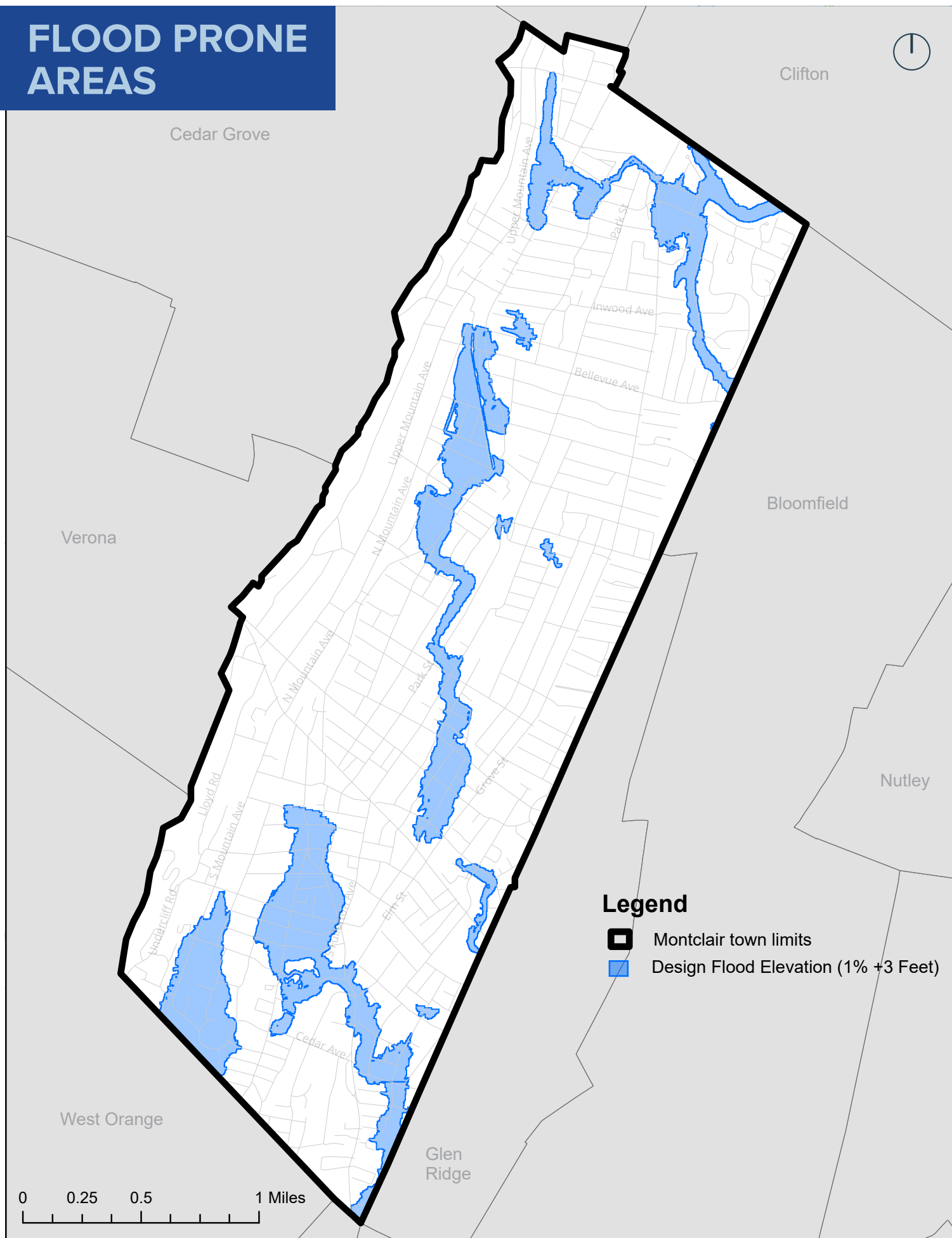
(Source Montclair Local)

In July 2023, NJDEP adopted its Inland Flood Protection Rule which establishes a new Design Flood Elevation (DFE) standard for specific types of new construction and redevelopment in inland/fluvial areas. The new DFE is three feet above the elevation of the 1% Chance Annual Flood for New Jersey.²⁵ The flood hazard data used to identify the impacts of flooding on specific facilities and infrastructure based on this new rule was recently updated by Rutgers and is illustrated on the following page.

During the field observations and utilizing what limited visibility was available at street level, the Committee found that flooding issues in many of these areas are caused by blocked pipes and eroding inlets. In some instances, the lack of stormwater infrastructure led to local flooding, or the infrastructure was insufficient to handle the volume and velocity of stormwater.

²⁵ Also known as the "100 year floodplain." This 3 feet plus base flood elevation applies, except where NJDEP flood mapping is available, then it is 2 feet above NJDEP's flood hazard area design flood elevation where that results in a DFE higher than FEMA's 1% flood plus 3 feet.

FLOOD PRONE AREAS



Vulnerable Populations

As previously introduced, vulnerable populations and facilities include but are not limited to, nursing homes, schools and day care facilities, and animal shelters.

Identified vulnerable facilities that are vulnerable to flooding, which include the Montclair Animal Shelter, Montclair Township High School, Renaissance at Rand Middle School, St. Cassian School, St. James Preschool, Montclair Kimberly Academy Primary School, Montclair Cooperative School, the Montclair Care Center Nursing Home, the ARC Group Home on Washington Avenue, Northeast Elementary School, and the Pine Ridge of Montclair senior citizen housing complex. As noted in the previous section, vulnerable block group status and susceptibility to hazards often appear in an intersectional nature, which is to say that more than one threat is often simultaneously present. With regard to flooding, 14 of the 22 vulnerable block groups are impacted by the floodplain and have a majority of land encumbered by the flood hazard.

Critical Facilities and Infrastructure

Two critical facilities, Fire Station #2 at 588 Valley Road and Newark Water Treatment Plant at 782 Valley Road, are located in an area at risk for flooding. A total of 167 fire hydrants fall within the updated DFE 1% (plus 3 feet) floodplain. Hydrants particularly at risk to flooding include those along Claremont Avenue, Walnut Street, Chestnut Street and Brookfield Road. The location of fire hydrants can be obscured during a flooding event which can impact access in case of a fire emergency. Hydrants can also become damaged during a flood event and burst, further exacerbating flooding in an already inundated area.

Of the identified critical businesses, 23 are impacted by the DFE 1% annual chance flood hazard area (plus 3 feet). The majority of those impacted businesses are located along Valley Road to the north, and along Forrest Street to the south.

Two Electric vehicle (EV) charging stations are within the floodplain, one in the Montclair Plaza parking lot and the other in the MKA Primary School parking lot. There is also one gas station, Lukoil, located on the edge of the floodplain off of Valley Road.

The 1% annual chance flood hazard area (plus 3 feet) mostly impacts local roads within the Township with limited portions of county roads being inundated. County roads impacted are Route 643 (Alexander Avenue), Route 623 (Grove Street), and Route 621 (Valley Road). Local streets that are particularly at risk to flooding include Claremont Avenue, Walnut Street, Chestnut Street and Brookfield Road. NJ Transit bus routes that utilize these roads and others susceptible to flooding include bus line 34 that runs between Newark and Montclair/Bloomfield, bus line 97 which runs between East Orange and Montclair, bus line 101 which runs between New York City and West Orange, bus line 29 which runs between Newark and West Caldwell, and bus line 705 which runs between Wayne and Passaic. (See Transportation Map in the Appendix of this report for reference.)

In terms of the railroad and rail stations, almost two thirds of railroad tracks between Watchung Avenue Station and Upper Montclair Station are located within the floodplain. The NJ Transit Montclair-Boonton rail line provides access to towns from Hackettstown in northwest New Jersey to New York City. The tracks between Mountain Avenue Station and Montclair Heights Station are also largely within the floodplain. As identified in the Master Plan, there is a ½-mile radius transit village around the Bay Street Station, portions of which are also within the flood zone. Such a significant amount of track length within flood zones could cause delays and damages over a prolonged period of time.

WHEN FLOODS MEET THE FRONT LINES

Did you know that 167 fire hydrants in Montclair are located within the floodplain? That means even the tools designed to fight emergencies could be part of the problem during a major storm. If hydrants are submerged or damaged in a flood, it could slow down emergency response times when they're needed most.

And it's not just hydrants. Critical facilities like Fire Station #2 and the Newark Water Treatment Plant, along with two EV charging stations and even a local gas station, sit in flood-prone areas. Add to that school campuses, nursing homes, and animal shelters, and it's clear that flooding threatens more than just basements, it disrupts daily life and emergency services alike.



Wooded stream section near residential area. (Source: Colliers Engineering, April 2024)

Land Use and Future Development

There are a total of 11,145 tax parcels in Montclair Township, 2,147 of which are within the new DFE 1% Chance Annual Flood plus 3 feet. This predominately impacts the residential uses in the north and south of the Township, as well as commercial, services, and recreational uses in the center of the Township. Of those parcels inundated by flooding, 2,019 contribute to the tax base, generating approximately \$45,312,157 in taxes in 2022, with a combined net value of \$1,373,046,700.

With an outlook toward future development, the Lackawanna Plaza Redevelopment Area is located within the new DFE 1% Annual Chance Flood plus 3 feet flood zone. As such, the redevelopment plan for that area acknowledges the new NJDEP Flood Hazard Area Control Act regulations effective July 17, 2023, and that development of the site will be subject to NJDEP permitting requirements. In addition, other potential redevelopment sites fall within or along the boundary of the flood hazard area, including the Acme Shopping Center (516 Valley Road) and the DeCamp Bus Depot (101 Greenwood Avenue), both of which are within the DFE, as well as the NJ Transit Mountain Avenue Station and 161–167 Glenridge Avenue, which lie along its edge. Redevelopment at these locations will require careful site design, resilient stormwater management, and floodproofing measures consistent with State regulations.

The percentage and area of land uses impacted by the DFE updated 1% plus 3 feet flooding is as follows:

Existing Lands Impacted by Flooding

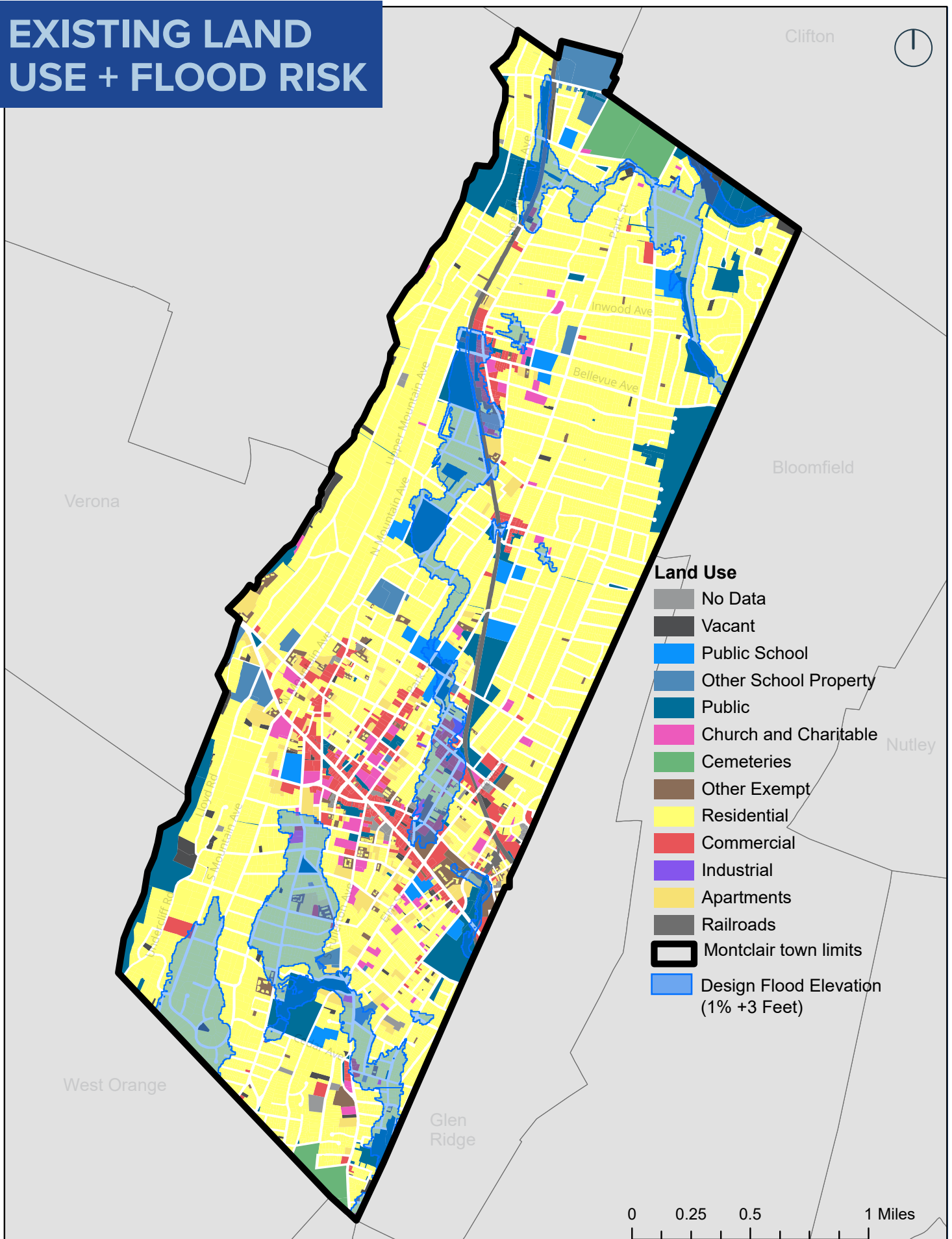
| Land Use Category | Total (Acres) | Land Acres Impacted | Percentage Impacted |
|------------------------------|---------------|---------------------|---------------------|
| Vacant Land | 54.20 | 11.00 | 19.93% |
| Public School | 60.33 | 5.46 | 9.05% |
| Other School Property | 71.57 | 4.36 | 6.09% |
| Public Property: | 335.80 | 94.06 | 28.015% |
| <i>Vacant</i> | - | 20.74 | |
| <i>Parks</i> | - | 17.81 | |
| <i>Utilities</i> | - | 17.27 | |
| <i>Emergency Facilities</i> | - | 26.03 | |
| <i>Parking Lots</i> | - | 12.21 | |
| Church and Charitable | 59.04 | 5.37 | 9.08% |
| Cemeteries | 60.98 | 0.10 | 0.17% |
| Other Exempt | 63.66 | 13.67 | 21.48% |
| Residential | 2319.98 | 302.01 | 12.94% |
| Commercial | 151.43 | 25.83 | 17.06% |
| Industrial | 1.90 | 1.01 | 53.19% |
| Apartments | 90.01 | 8.61 | 9.56% |
| Railroads | 42.60 | 8.39 | 19.70% |



Constrained stream channel in Montclair. (Source: Colliers Engineering, April 2024)

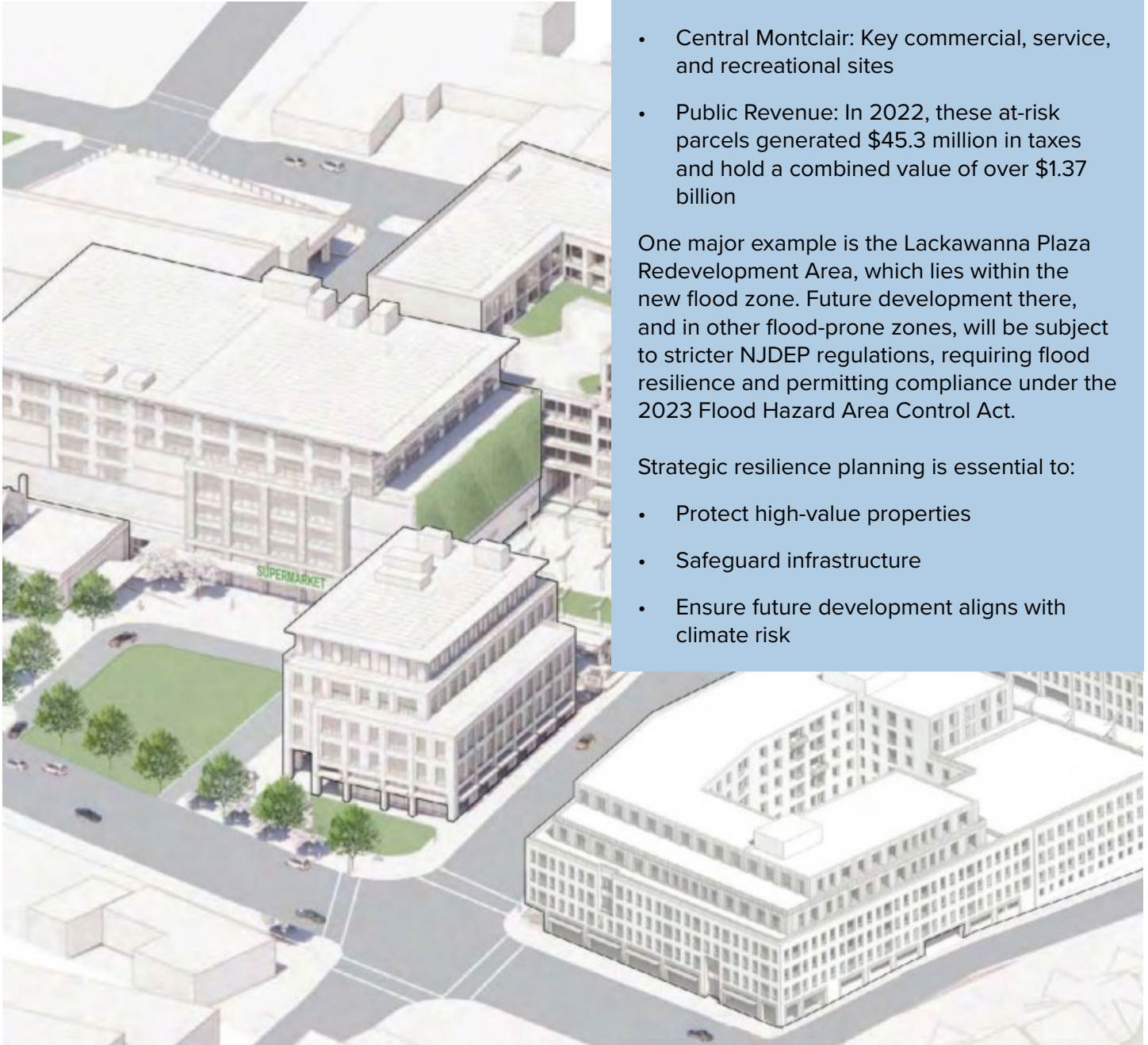
²⁶ Net value is land value plus improvement value.

EXISTING LAND USE + FLOOD RISK



Future Development Impacted by Flooding

The map on the following page illustrates how future development across Montclair Township intersects with areas at risk for flooding. With over 2,100 tax parcels, many of them high-value residential, commercial, and recreational properties, falling within the updated 1% annual chance floodplain (plus 3 feet), this visualization highlights where climate resilience planning is most critical to protect public investment, infrastructure, and community well-being.



Conceptual Imagery in Lackawanna Plaza Redevelopment Plan. (Source Montclair Local)

Flooding + the Future of Development

As flood risks increase, Montclair must plan carefully for where and how future growth occurs. Over 2,100 tax parcels, including homes, businesses, and parks, fall within the updated 1% Annual Chance Flood Zone + 3 feet, impacting:

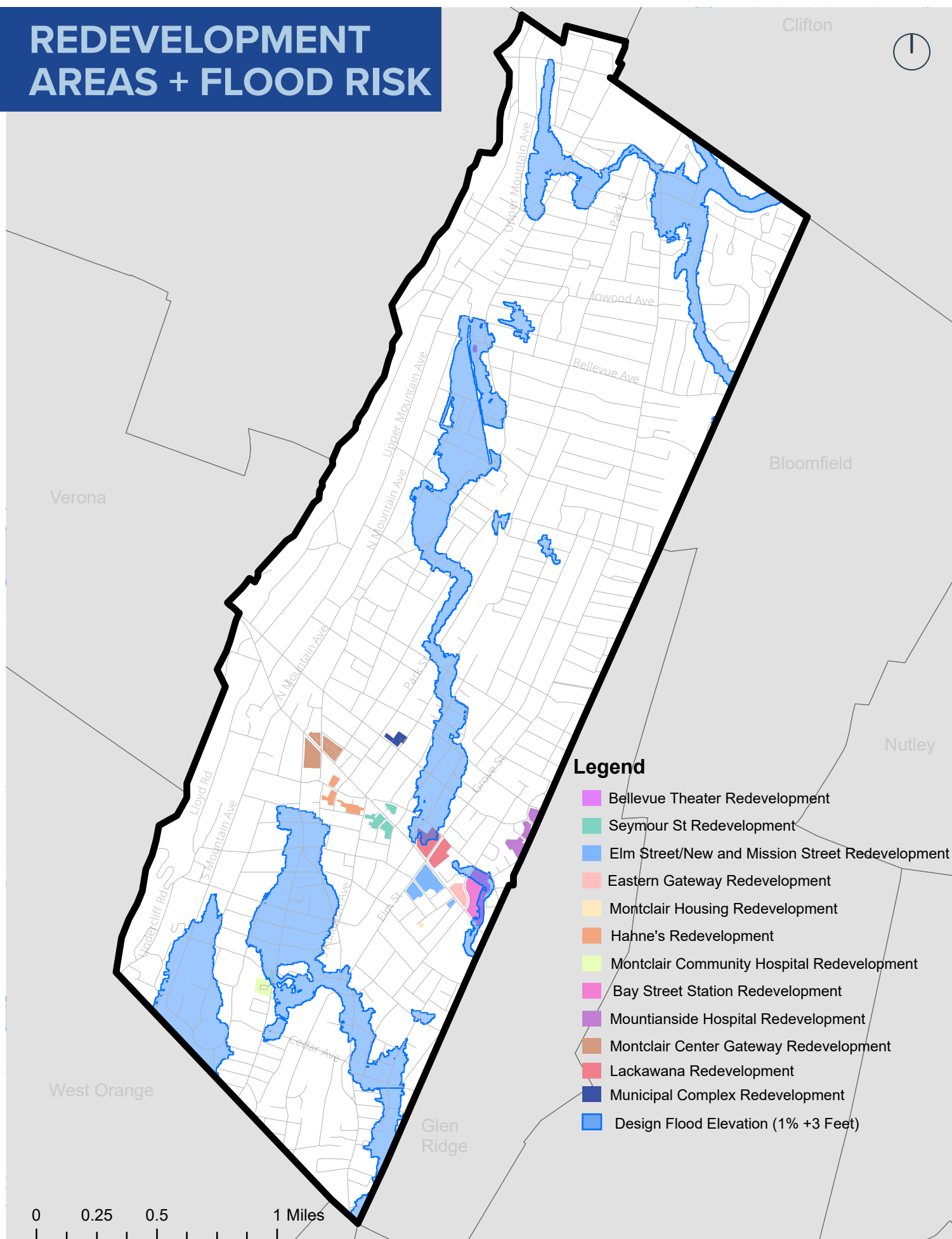
- North & South Montclair: Predominantly residential areas
- Central Montclair: Key commercial, service, and recreational sites
- Public Revenue: In 2022, these at-risk parcels generated \$45.3 million in taxes and hold a combined value of over \$1.37 billion

One major example is the Lackawanna Plaza Redevelopment Area, which lies within the new flood zone. Future development there, and in other flood-prone zones, will be subject to stricter NJDEP regulations, requiring flood resilience and permitting compliance under the 2023 Flood Hazard Area Control Act.

Strategic resilience planning is essential to:

- Protect high-value properties
- Safeguard infrastructure
- Ensure future development aligns with climate risk

REDEVELOPMENT AREAS + FLOOD RISK



EXTREME HEAT

Montclair has been proactive in addressing extreme heat through its focus on its tree canopy. In 2012, Montclair Township adopted a Tree Preservation Ordinance that established regulations to preserve and enhance the Township's trees and maintain a sustainable urban forest. The Township's Tree Ordinance, Montclair Code §324, establishes requirements for preservation, removal, and replacement of shade trees. In 2014, the Township prepared a Community Forestry Management Plan that established a program to replenish, protect and maintain a sustainable tree canopy in the most cost-effective manner possible. The Township currently retains a licensed arborist to help make decisions regarding tree planting, removal, and preservation.

Despite these efforts, concerns about insufficient tree cover persist. The Unified Land Use and Circulation Element (2015, amended 2021) recommends that the Township's shade tree program be bolstered to provide clear recommendations for specific tree types that are appropriate for each street, based on general width and use of the street, changing climate, solar orientation, and stormwater management concerns. As of 2016, the average tree canopy coverage in the Township is 38.64%, below the 2010 national average of 27.1% according to the United States Forest Service and the USDA's Urban Forest Effects (UFORE) model. The following maps show the percentage tree canopy coverage throughout the Township.

WHILE TREES CAN HELP REDUCE AMBIENT TEMPERATURES BELOW THEIR CANOPIES (IN ADDITION TO THE OTHER BENEFITS THEY OFFER IN TERMS OF AESTHETICS AND STORMWATER MANAGEMENT), THEY TOO ARE AT RISK OF A CHANGING CLIMATE. CONTINUALLY RISING TEMPERATURES CAUSED BY CLIMATE CHANGE ARE DAMAGING THE TOWNSHIP'S EXISTING TREE STOCK AND REDUCING THE TOWNSHIP'S TREE CANOPY COVERAGE.

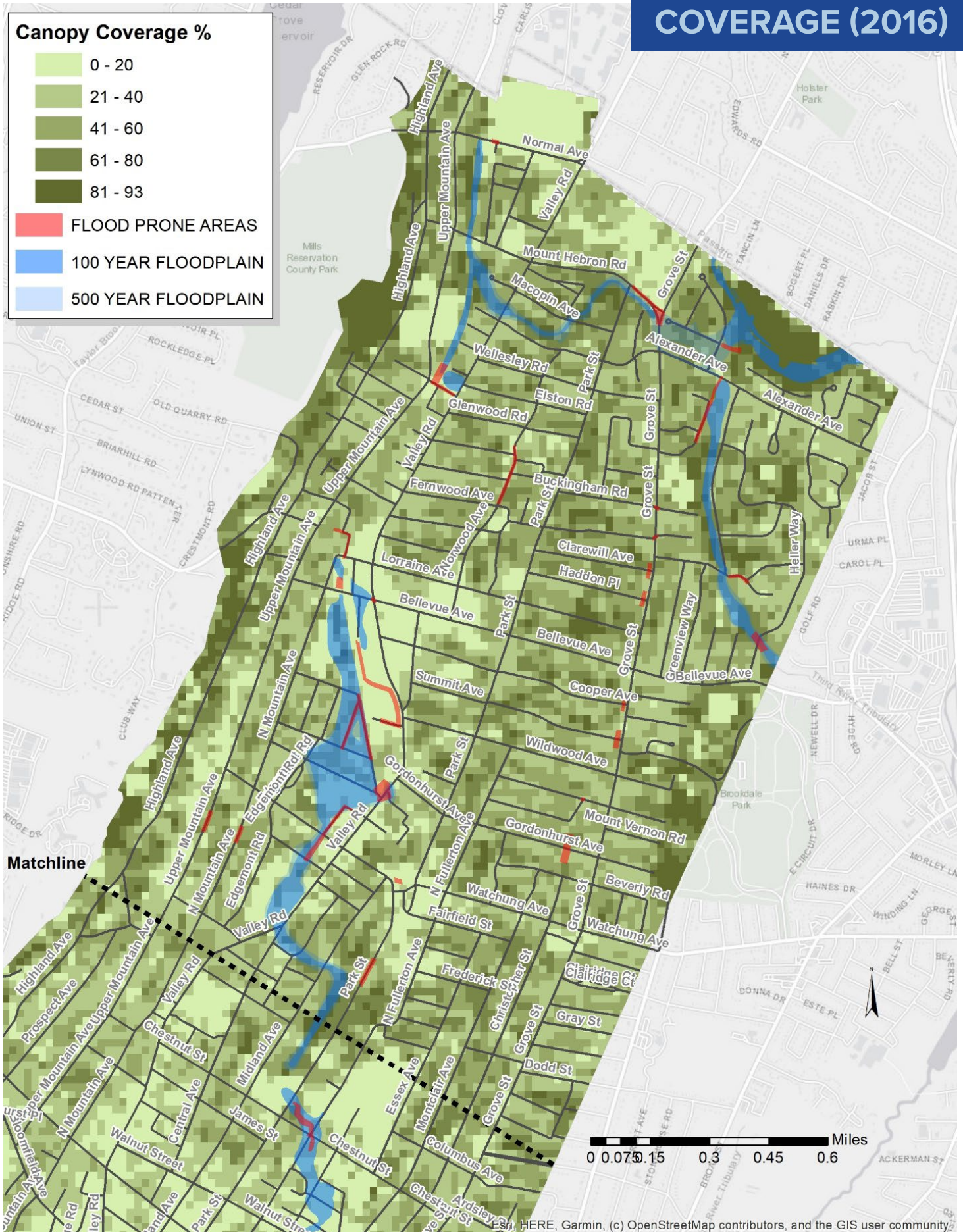
Why Tree Canopies Matter

Tree canopy plays a vital role in reducing the impacts of extreme heat in urban areas. By shading streets, sidewalks, and buildings, trees can lower surface and air temperatures by as much as 10–20°F, helping to combat the urban heat island effect. In addition to cooling benefits, a robust tree canopy improves air quality, supports stormwater management, and enhances overall quality of life. As climate change intensifies heatwaves, protecting and expanding Montclair's tree canopy is not just a beautification effort - it's a critical tool for community health and resilience



Edgemont Park. (Source: Brian, Adobe)

TREE CANOPY COVERAGE (2016)



Canopy Coverage %



Vulnerable Populations

Vulnerable block groups have historically been developed with less attention to detail, with fewer amenities and services, and with closer proximity to hazards. It is therefore unsurprising that these patterns remain evident today. On a nationwide average, low-income blocks have 15.2% less tree cover and are 2.7 degrees Fahrenheit hotter than high-income blocks.²⁸ This trend extends to race as well: In 67 percent of US communities, neighborhoods of color have less tree cover than white neighborhoods, even after accounting for trends in income.²⁹ When it comes to extreme heat in Montclair, 8 of 22 vulnerable block groups have high surface temperature.

Critical Facilities + Infrastructure

Most township facilities and critical businesses lie within a hotter surface temperature zone. Specifically, those located near Bloomfield Avenue or Claremont Avenue where the density, dark rooftops, and impervious surfaces are high.

As previously discussed, improved tree canopy reduces the impact of heat. Streets identified by the Township as in need of more street trees to combat high temperatures, both as part of this report and at the time of the Circulation Element preparation, include Bloomfield Avenue, Valley Road, Orange Road, Grove Street, and Lackawanna Plaza.

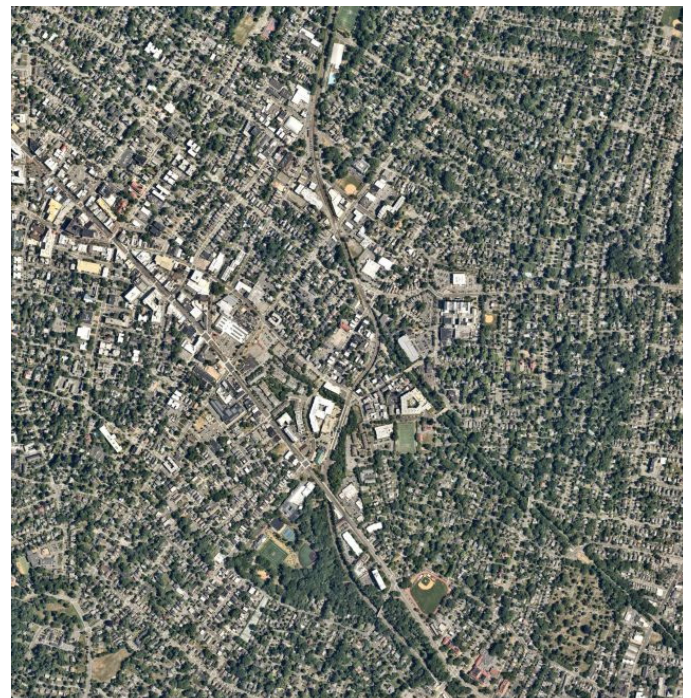
The Bloomfield Avenue corridor is particularly impactful, as it includes the Town Center historic district, most of the gasoline service stations and EV charging stations, and Montclair Police headquarters. There are multiple unsheltered bus stops along Bloomfield Avenue, as well as Grove Street, and Valley Road.

Other hot spots that have been identified include Fire Station #2 on Valley Road.

Land Use and Future Development

The parcels most vulnerable to high surface temperatures are those containing buildings with dark roofing, parcels with dark parking lots, as well as certain recreational uses, including some artificial turf fields. For example, Woodman Field off of Essex Avenue and Van Brunt Field off of Lloyd Road, both synthetic turf athletic fields, show elevated temperatures. Lackawanna Plaza is also considered a “hot spot,” as the property contains and is near large amounts of paved surfaces. Moreover, the dark roof on the building correlates with areas registering higher temperatures on the heat map.

Consistent with their urban locations, almost all of Montclair’s identified redevelopment sites show elevated surface temperatures, reflecting the concentration of paved areas and limited tree canopy cover. The only exceptions are the Wildwood Avenue Tract, the Acme Shopping Center (516 Valley Road), and the NJ Transit Mountain Avenue Station, which fall outside the Township’s heat “hot spots.” Redevelopment of heat-vulnerable parcels presents an opportunity to reduce localized heat impacts through strategies such as increased tree canopy, use of reflective or green roofing, shaded pedestrian spaces, and permeable pavement.



Aerial view of Montclair centered on Bloomfield Avenue and the NJ Transit rail corridor. (Source: Eagleview, April 2025)

²⁸ McDonald RI, Biswas T, Sachar C, Housman I, Boucher TM, Balk D, et al. (2021) The tree cover and temperature disparity in US urbanized areas: Quantifying the association with income across 5,723 communities. *PLoS ONE* 16(4): e0249715. <https://doi.org/10.1371/journal.pone.0249715>

²⁹ McDonald, R. *Mapping Tree Inequality: Why Many People Don't Benefit from Tree Cover*. The Nature Conservancy. <https://shorturl.at/Issm5>



SURFACE TEMPERATURE EXPLAINED

The Land Surface Temperature dataset identifies the surface temperature of areas in the municipality.²⁷

The “hot spots” in Montclair are mostly located in the Montclair Center area along Bloomfield Avenue. Here, the paved surfaces of the urban area and darker roofs of buildings absorb heat – particularly noticeable on the Lackawanna Plaza shopping center – in contrast to other buildings in Montclair Center with roofs painted white to allow sunlight to be reflected rather than absorbed into the roof.

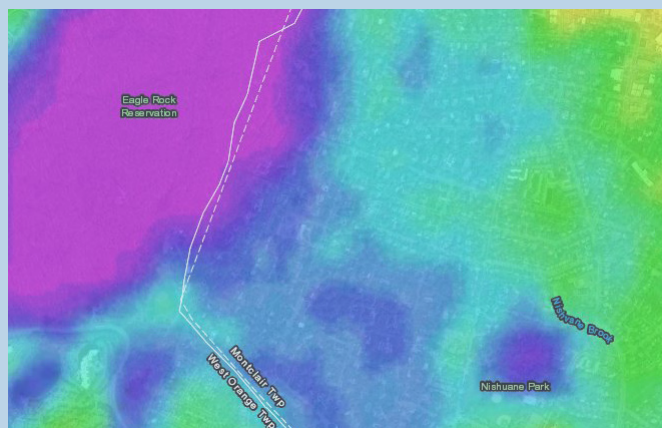
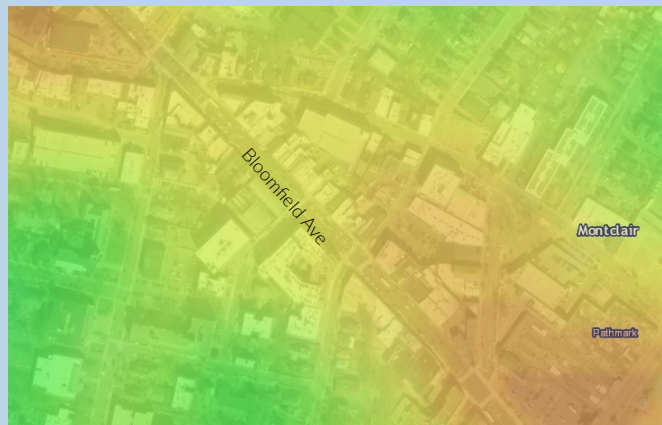
By contrast, areas that contain dense vegetation or lakes have cooler temperatures and are identified as “cool spots.” The Alonzo F Bonsal Wildlife Preserve, Eagle Rock Reservation, and Mills Reservation are areas that are considered “cool spots,” with primarily dense vegetation and little to no paved surfaces.

A closer look at Montclair’s land surface temperature reveals how materials and land uses contribute to the urban heat island effect. Hot spots, such as Lackawanna Plaza, are characterized by extensive dark paving and conventional rooftops that absorb and retain heat. In contrast, cooler areas like tree-covered parks and grass fields help moderate local temperatures.

Key features observed across the township include:

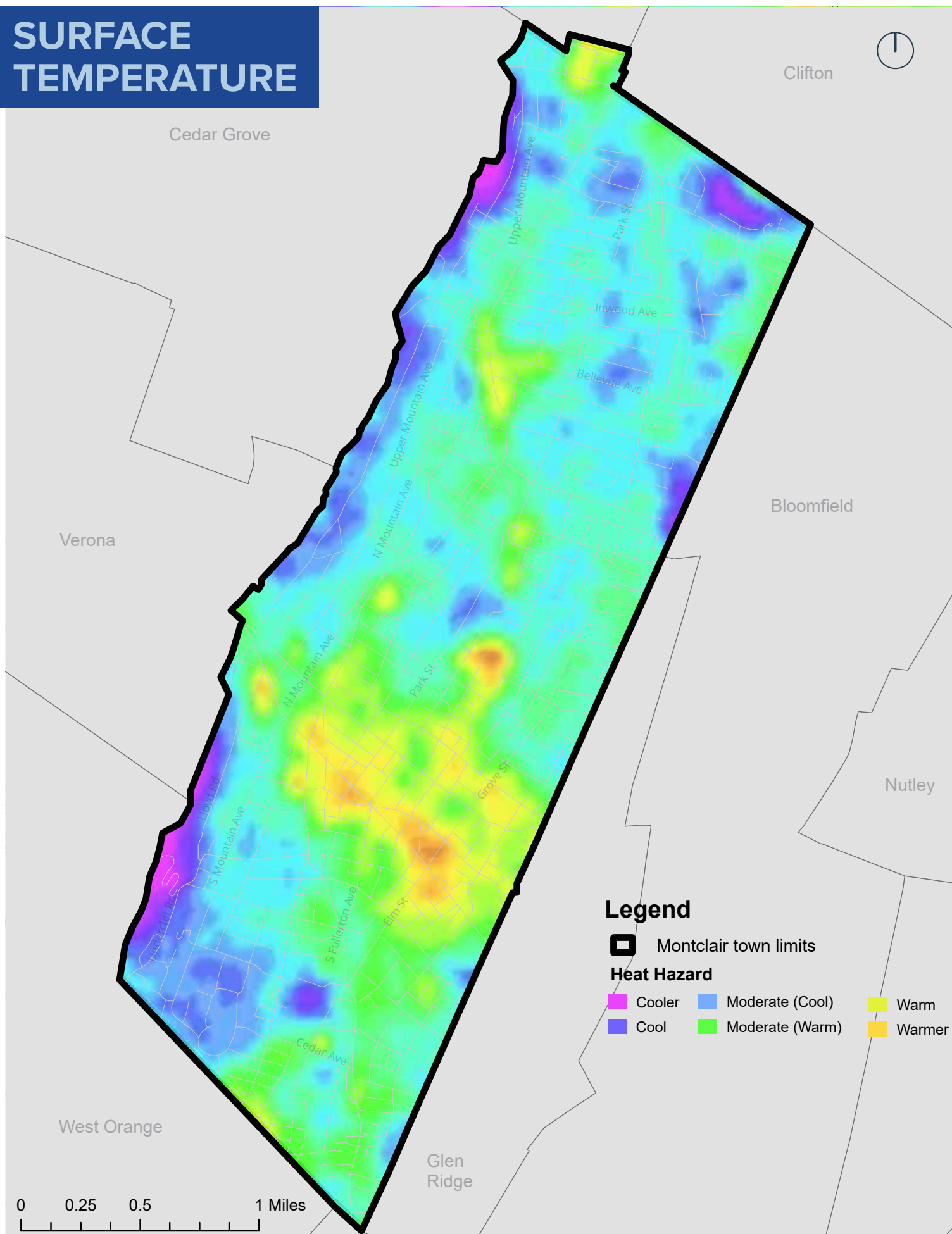
- White reflective roofs along Bloomfield Avenue that deflect heat
- Old synthetic turf fields that retain more heat compared to newer, cooler turf materials
- Open green spaces like Eagle Rock Reservation and Alonzo F. Bonsal Wildlife Preserve that provide natural cooling

These patterns highlight how design choices, building materials, and land cover all play a critical role in shaping Montclair’s climate resilience at the neighborhood scale.



²⁷ Improvements and construction made after the heat map data was collected in 2016 may not have been captured by the heat imaging

SURFACE TEMPERATURE



WILDFIRE

In terms of wildfire risk, a majority of the Township is identified as “urban,” meaning human development which is not at risk and thus was not assigned a hazard ranking for wildfires.³⁰ This does not mean that Montclair is immune to fire, however. Instead, fire risk is generally limited to landscaped natural areas that contain grass, trees, and shrubbery. Particularly during dry periods, careless behavior (e.g. inappropriate disposal of cigarettes or backyard firepits without spark controls, can cause wildfires that threaten natural areas and built structures, particularly on dry windy days.

Vulnerable Populations

Vulnerable populations located in areas of high to moderate risk include the Real House shelter and Family of Care nursing home.

Critical Facilities + Infrastructure

There are two critical facilities near areas of low to moderate fire risk. The Montclair Fire Station #3 is located near a low fire hazard risk area, and the Montclair Fire Department building is near a moderate fire hazard risk area.

Transportation infrastructure at higher risk for wildfire hazards includes transportation amenities such as bus stops or rail stops along parks or adjacent to wooded areas. Outdoor bus and rail stops also experience secondary wildfire impacts in terms of air quality; wildfires even outside the Montclair municipal limits can impair air quality, which will impact those using open-air transit stops.

Land Use and Future Development

Recreational and forested land uses are those most susceptible to wildfire hazards. Specifically, properties with natural and landscaped areas, including parts of Eagle Rock Reservation, Brookdale Park, and Mills Reservation, experience higher risk for wildfire because of the inherent abundance of natural fuel. Residential lots in the Mountain Historic District bordered by Upper Mountain Avenue and Highland Avenue between Edgewood Road and Ingleside Road are identified as areas of moderate hazard. Other areas at risk are developed areas abutting wooded lots.

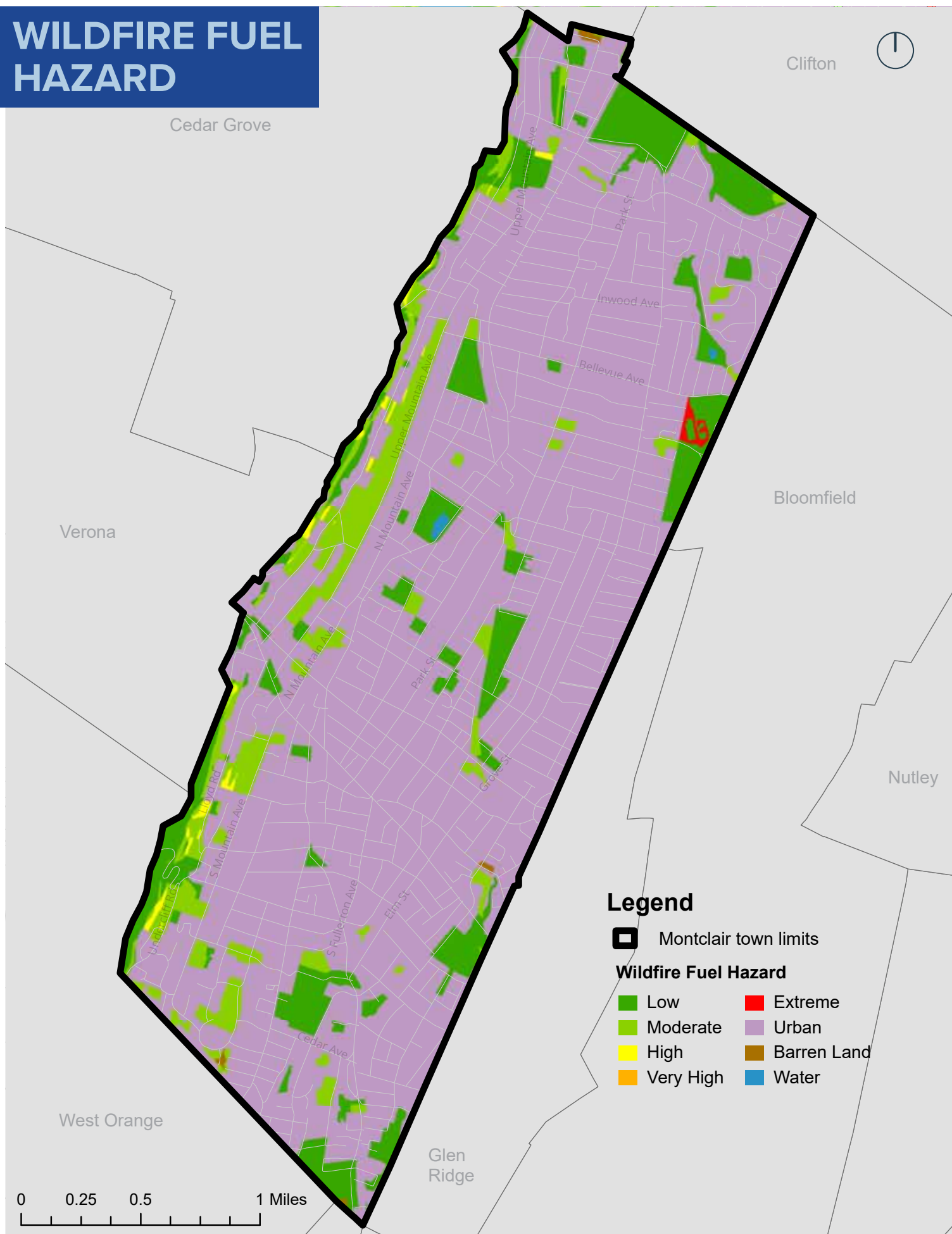
With respect to future development, nearly all of Montclair’s identified redevelopment sites are located in fully urbanized environments and therefore are not considered vulnerable to wildfire hazards. The Wildwood Avenue Tract is the only exception, falling within a “moderate” hazard area due to its proximity to wooded land. Redevelopment of this site should incorporate defensible space, fire-resistant landscaping, and other design measures that reduce wildfire risk.



Eagle Rock Preservation. (Source Essex County)

³⁰ https://nj.gov/njoem/mitigation/pdf/2019/mit2019_section5-12_Wildfire.pdf

WILDFIRE FUEL HAZARD



LANDSLIDES

A landslide is a geological phenomenon in which ground movements, such as rock falls, deep slope failures, and shallow debris flows, occur and are driven downward by gravity and the stability of a slope changes from stable to unstable. Increased flooding, droughts, fire, and erosion rates may cause or exacerbate landslides. Montclair was analyzed for landslide susceptibility to categorize areas of vulnerability using the NJDEP landslide susceptibility data. The data includes the areas susceptible to land sliding based on angle of slopes the type of geologic material forming the slope, and groundwater level³¹. The areas most susceptible to landslides within the township are along the most western Township limits.³²

Vulnerable Populations

As described above, vulnerable block group status and susceptibility to hazards often appear in an intersectional nature, which is to say that more than one threat is often simultaneously present. As it pertains to landslides, the northwestern section of census tract 69, block group 2 contains Class B land which is susceptible.

Critical Facilities + Infrastructure


There are several storm manholes and fire hydrants located near landslide susceptible areas on the westernmost part of the township along Lloyd Road and Highland Avenue. Similar to those in the floodplain, hindered access to a hydrant will delay or otherwise inhibit the effectiveness of emergency response.

Land Use and Future Development

Areas most susceptible to landslides are the forests along the western municipal border and residential uses immediately adjacent thereto. This includes portions of Eagle Rock Reservation and Mountainside Park, along with the western portions of the Mountain Historic District. Residential parcels which are located near landslide susceptible lands are along Highland Avenue, Lloyd Road, Undercliff Road, and Upper Mountain Avenue. These residential uses are predominantly single-family homes. Of those parcels susceptible to landslides, 298 contribute to the tax base, generating approximately \$9,086,936 in taxes in 2022, with a combined net value³³ of \$342,989,000. No identified redevelopment sites fall within landslide-susceptible areas; risks are limited to existing residential properties. The percentage and area of land uses impacted by landslide susceptible land is as follows:

Existing Lands Impacted by
Landslide Susceptible Land

| Land Use Category | Total (Acres) | Land Acres Impacted | Percentage Impacted |
|-----------------------|---------------|---------------------|---------------------|
| Vacant Land | 55.20 | 14.548 | 26.35% |
| Public School | 60.33 | 0 | 0% |
| Other School Property | 71.57 | 0.213 | 0.30% |
| Public Property | 335.80 | 24.464 | 7.29% |
| Church and Charitable | 59.04 | 1.463 | 2.48% |
| Cemeteries | 60.98 | 0 | 0% |
| Other Exempt | 63.66 | 2.518 | 3.95% |
| Residential | 2319.98 | 114.702 | 4.94% |
| Commercial | 151.43 | 1.030 | 0.68% |
| Industrial | 1.90 | 0 | 0% |
| Apartments | 90.01 | 0 | 0% |
| Railroads | 42.60 | 0 | 0% |



Certain areas in Montclair are more prone to landslides due to their topography, soil composition, and underlying geology. These areas are categorized based on their level of risk, helping guide safe land use and development practices.

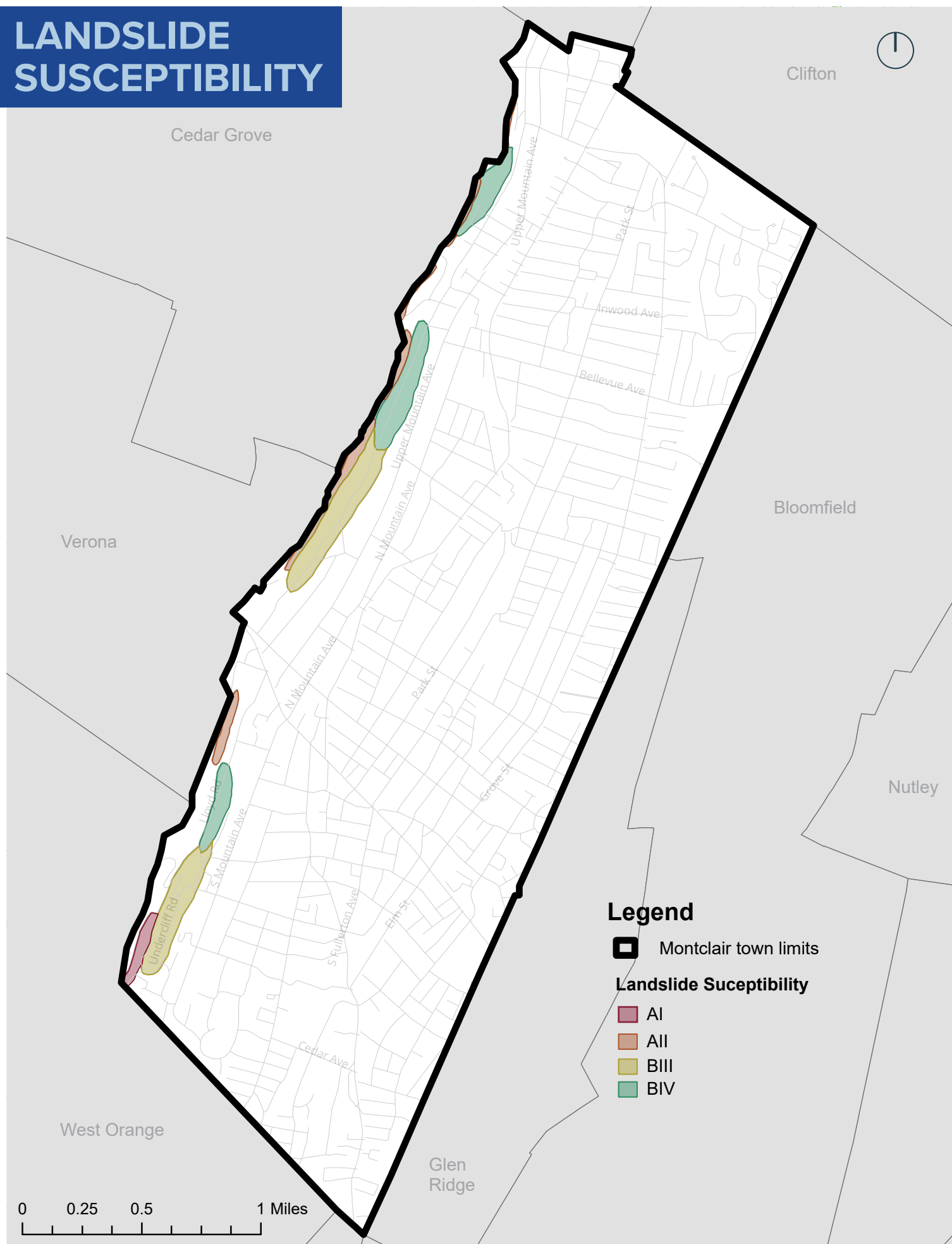
- AII – MODERATE RISK.** Areas with moderate susceptibility due to steep slopes or prior signs of instability. Caution is recommended for new construction or significant land disturbance.
- AIII – HIGH RISK.** Locations with a higher likelihood of land movement. These often have a history of slippage or contain soil and rock conditions that increase vulnerability.
- BIII – VERY HIGH RISK.** Among the most vulnerable areas, BIII zones have steep slopes and highly unstable ground. These areas may already show signs of erosion or past landslips and typically face strict development limitations.
- BIV – Extreme Risk.** The highest level of concern. BIV areas have a high probability of land failure and often require engineering interventions or restrictions on development to ensure safety.

³¹ Soil, Liquefaction and Land Slide Susceptibility in New Jersey, NJDEP, <https://www.arcgis.com/home/item.html?id=26f3a57368ce490aa3a489385e2be137>

³² Landslide susceptibility classes were determined utilizing the definitions from the HAZUS User's Manual.

³³ Net value is land value plus improvement value.

LANDSLIDE SUSCEPTIBILITY





07

IMPACTS ON OTHER MASTER PLAN ELEMENTS



58

PLANNING IMPACTS OF CLIMATE HAZARDS

Note: This image was generated using AI for illustrative purposes

PLANNING IMPACTS OF CLIMATE HAZARDS

CONSERVATION PLAN ELEMENT

The Conservation Plan, adopted in 2007, provides for the preservation, conservation, restoration, and appropriate utilization of the Township's natural resources. These include open space, energy, water supply, air, forests, soils, wetlands, rivers, and other waters, endangered and threatened species and wildlife, and other resources important to the wellbeing of the community and region. Natural hazards and their future threat impact the Conservation Element of the Master Plan in the following ways:

- Climate Change is not discussed in the Conservation Element of the Master Plan, and it should be.
- The section on Flood Plains and Flood Hazard Areas, beginning on page 6, should be updated to reference the new DFE 1 percent flood zone plus 3 feet, and to include a discussion on Flood Prone Areas as explored during the creation of this Assessment.
- The section on Steep Slopes, beginning on page 9, does not discuss the effects of climate change on increased frequency of heavy rain events and droughts, and how this would affect runoff issues and whether additional actions should be considered for these areas.



Property with steep slopes. (Source Conservation Plan Element)

HOUSING ELEMENT

The Housing Element and Fair Share Plan, adopted in 2025, replaces the Township's previous 2008 Housing Plan. While the 2025 Plan is comprehensive, it does not yet fully address climate change or natural hazard risks. Future updates could benefit from:

- Acknowledging the impacts of flooding and extreme weather on housing
- Considering strategies to support climate resilience, particularly for vulnerable populations

Additionally, the section on Lands Most Appropriate for Affordable Housing may be strengthened by:

- Avoiding flood-prone areas, wetlands, and other high-risk zones
- Promoting safe, equitable, and climate-resilient housing options

These additions would enhance the Plan's alignment with environmental justice and long-term sustainability goals.

HISTORIC PRESERVATION ELEMENT

The Historic Preservation Plan, adopted in 2016, includes an overview of the history of Montclair and its architectural context, an inventory of historic resources in the township including their location and significance, as well as preservation goals and an action plan. Natural hazards and their future threat impact this element of the Master Plan in the following ways:

- This element of the Master Plan does not discuss climate change.
- Section 5. Public Policy Review of this plan discusses both the Township's Conservation and Stormwater Management elements of the Master Plan (see above) and how these elements relate to historic preservation.
- A new subheading to Section 5 that covers climate change and its relationship to Historic Preservation should be added.

STORMWATER MANAGEMENT PLAN
ELEMENT

The Stormwater Management Plan, adopted in 2020, documents the strategy for the Township to address stormwater-related impacts. The plan addresses groundwater recharge, stormwater quantity and quality impacts by incorporating stormwater design and performance standards for new major development. These standards are intended to minimize the adverse impact of stormwater runoff on water quality and the loss of groundwater recharge that provides base flow in receiving water bodies. The plan describes long-term operation and maintenance measures for existing and future stormwater facilities. The final component of this plan is a mitigation strategy for when a variance or exemption of the design and performance standards is sought. As part of the mitigation section of the stormwater plan, specific stormwater management measures are identified to lessen the impact of existing development.

- This element is most closely tied to the Climate Change-Related Hazard Vulnerability Assessment as flooding is the primary climate change related hazard in the Township.
- The plan identifies flooding and increases in precipitation caused by climate change as urgent problems for the Township, which is exacerbated by increasing impervious coverage.
- The plan recommendations to update Montclair Code Section 295 – Stormwater Control have been implemented.
- The plan recommends maximum impervious coverage requirements in the Zoning Ordinance for residential zones. The Township is currently in the process of adopting these regulations.

In June 2024, Montclair Code Section 295 - Stormwater Control was amended by Ordinance O-24-22 to reflect the new requirements found in N.J.A.C. 7:8. The Zoning Ordinance has also been updated by Ordinance O-22-23 to reflect revised maximum impervious coverage requirements in residential zones.

REDEVELOPMENT PLANS

There are currently 12 redevelopment plans in effect in Montclair Township. Most of these plans do not discuss specific items related to climate change or stormwater management. This may, in part, reflect

the period in which many plans were developed, before climate resilience became a more prominent consideration in local and state planning practice. The underlying zoning and development regulations generally apply to all redevelopment plans. As with any development in the Township, site plans located within adopted Redevelopment Plans must address stormwater management and runoff per the Site Plan Ordinance. Site plan submissions are reviewed by the Board Engineer and/or Township Engineer for stormwater and drainage compliance.

Several plans include specific references to stormwater or green infrastructure:

- Montclair Center Gateway Phase I Redevelopment Plan (2011): Mentions runoff in relation to recommended implementation of green roofs.
- HUMC/Mountainside Hospital Redevelopment Plan (2016): Includes a stormwater section requiring buffer plantings around the site perimeter and tie-ins to the Township stormwater utility.
- Seymour Street Redevelopment Plan (2016): Contains site design standards encouraging the use of green infrastructure such as bioswales, plantings, and green roofs to enhance onsite infiltration, and references Township Code §295: Stormwater Control.
- Lackawanna Redevelopment Plan (2024): Encourages use of green buildings, permeable surfaces, and plantings to limit resource use, help slow and infiltrate stormwater, and reduce irrigation needs.



COMMUNITY SURVEY
INSIGHT

Lands at risk of repeat flooding remain a persistent threat. When asked about converting these areas to open space, Montclair residents and business owners expressed openness to the idea, highlighting the need for clear communication and public education on the approach.

- 46% Support (Yes)
- 14% Oppose (No)
- 40% Uncertain (Maybe)



08

STRATEGIES + DESIGN STANDARDS



62

TOWNSHIP INITIATIVES

65

ORDINANCE CHANGES

66

RECOMMENDED CHANGES TO POLICY DOCUMENTS

TOWNSHIP INITIATIVES

RECOMMENDATIONS

Considering the risks created by climate change, the Township should create a comprehensive and coordinated land use planning strategy that minimizes the potential hazards associated with climate change. This includes land use development and redevelopment policies and strategies, future assessments of the stormwater system, ongoing mapping projects, and the establishment of a stormwater utility. Specific recommendations are listed below.

LAND USE + DEVELOPMENT

1. Continue to promote higher density, compact, mixed-use development in areas with appropriate infrastructure to reduce automobile dependency and reduce carbon footprint.

MOBILITY + TRANSPORTATION

2. Conduct a sidewalk audit. Such an action will help to inventory the Township's existing sidewalk network, identifying where gaps exist, where improvements are needed, and where areas are perceived to be unsafe. This will allow for targeted improvements which, when addressed, may encourage more people to walk.
3. Install green bus shelters as provided by NJ Transit.³⁴
4. Provide parking on public and private properties with charging stations for electric bikes, scooters, and other such smaller electric vehicles which have gained considerable popularity in recent years.

TREE CANOPY + URBAN COOLING

5. Plant additional street trees along Bloomfield Avenue (particularly the south side); Valley Road (south of Van Vleck Street and in Upper Montclair between Wildwood Avenue and Oakwood Avenue); Orange Road (in the South End Business District); Lackawanna Plaza; and Grove Street near Lackawanna Plaza.
6. Where installing street trees is not feasible in downtown areas, consider adopting design standards that would encourage or require awnings along sidewalks.
7. Increase net tree canopy coverage by 10 percent by 2040 through robust planting of new trees and active maintenance and protection of existing trees resources.
8. Where existing artificial turf fields exist, explore improvements that help to mitigate surface temperatures.
9. Install cooling technologies in already established artificial turf locations. Where artificial turf is necessary, consider alternatives, such as those which utilize recycled plastic, rather than rubber.

³⁴ NJ Transit unveiled a bus shelter in Cherry Hill, NJ in 2021 which uses solar panels to recharge the shelter's lights and device charging ports.

STORMWATER + FLOOD RESILIENCE

10. Conduct an in-depth analysis of the Township's stormwater system by a qualified engineering firm to identify problem areas and create a prioritized Capital Improvement Plan for stormwater by 2027. Consider technologies including drones and cameras to examine drainage inlets, culverts, and other infrastructure.
11. Update the Township's stormwater map using GIS to reflect in-field conditions by 2027. As part of this analysis, existing conditions of inlets, pipes, streets, and outfalls should be evaluated to determine drainage capacity.
12. Install detention and retention facilities on properties, especially those owned by the Township, near flood-prone areas.
13. Replace undersized and aging stormwater pipes and inlets and install new stormwater facilities in priority areas.
14. Create a stormwater infrastructure maintenance program, which would include a preventative maintenance plan with a schedule for inspections and maintenance work.
15. Reduce impervious coverage on Township-owned property where possible.
16. Continually maintain Edgemont Pond and Yantacaw Pond as stormwater detention basins, including performing routine dredging. Prioritize planting installations along the borders of these ponds to help improve water quality.
17. Revise stormwater system maps in compliance with NJDEP (MS4).
18. Identify potential sites for a demonstration project highlighting flood protection.
19. Identify improved ways of cleaning the streams and culverts/drain pipes behind private properties.
20. Develop a plan to assess the riparian buffers along Montclair's streams and identify those in need of repair.
21. Explore ways of conducting cost-effective regular inspections of streams and culverts throughout town.
22. Integrate stormwater designs into existing open spaces, vacant lands, and surface parking lots owned by the Township.
23. Develop a maintenance plan for green infrastructure.



ENERGY, UTILITIES + ELECTRIFICATION

24. Require electric utilities to be underground where feasible.
25. Require electric vehicles for municipal fleet, school buses and intra-local shuttles to reduce carbon emissions.
26. Encourage increased private electric vehicle usage by providing EV charging stations on public and private properties.
27. Increase the supply of EV charging stations on public property to meet increasing demand.
28. Maintain public EV charging stations by checking websites such as PlugShare at least twice annually to check for unresolved reports of maintenance and functionality issues at local charging stations.
29. Consider undergrounding powerlines located in rear yards of private properties to reduce power outages caused by falling trees or limbs. Where undergrounding is not feasible due to cost or site constraints, the Township should consider creating a program, or providing clear information, to help residents more easily contact PSE&G to request routine tree trimming and maintenance near powerlines.
30. Continue to work with PSE&G to expand electrical base and substation enhancements.
31. Identify above ground electrical lines and explore opportunities to reduce risk of damage and enhance public safety.

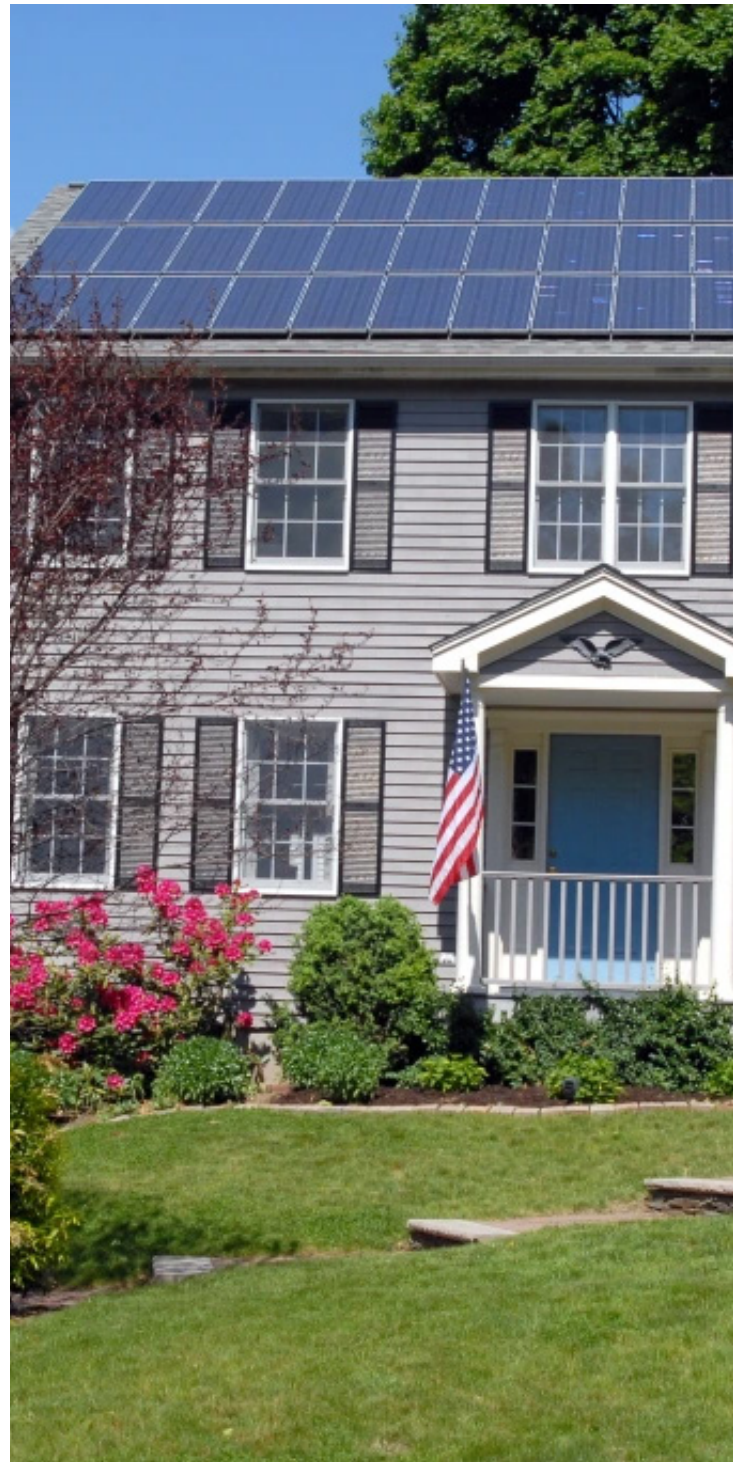
EMERGENCY PREPAREDNESS + RESILIENCE

32. Continue to pursue Sustainable Jersey Silver or higher certification every three years
33. Establish a conservation easement along the First Mountain ridgeline.
34. Encourage using water efficient fixtures and facilities in new development, and promote efficiency retrofits in existing developments.
35. Explore alternate sources of drinking water for emergency backup needs.
36. Launch an outreach campaign for New Jersey Office of Emergency Management's Register Ready program.
37. Develop an extreme temperature event plan.
38. Participate in the National Fire Protection Association's Firewise Communities Program.
39. Work with utility providers to ensure that infrastructure is less susceptible to hazards.
40. Develop a wildfire prevention plan.
41. Participate in FEMA's Community Rating System as a means of reducing flood insurance premiums throughout the Township.
42. Essex County's most recently adopted All Hazard Mitigation Plan update was in 2020. Considering that these plans must be updated and submitted to FEMA every five years, Montclair should look to be an active participant in the process and ensure that the recommendations from this document align with the recommended actions of the 2025 HMP update.

ORDINANCE CHANGES

RECOMMENDATIONS

1. Reduce impervious coverage by establishing maximum impervious coverage limitations for all zoning districts.
2. Encourage energy-efficient building, siting, design, and operation through new zoning requirements for green buildings and infrastructure, including renewable energy facilities.
3. Encourage using alternative energy sources, such as solar and geo-thermal power, to help reduce reliance on the electricity grid for power. Support using of solar power and battery storage on public and private properties to provide backup power supply.
4. Adopt a well-head protection ordinance.
5. Adopt a local noise ordinance.
6. Amend the checklist for development applications to include green infrastructure Best Management Practices (BMP) improvements.
7. Update the Township's steep slopes ordinance. Consider adoption of the model ordinance prepared by NJDEP.
8. Revise zoning codes to encourage or require all multifamily and non-residential buildings utilize white roofs to help mitigate heat absorption.
9. Prepare a green roof ordinance and consider potential development incentives for using green roofs.
10. Adopt a native landscaping program.
11. Amend the Township's tree ordinances to prohibit tree removal near a ridgeline, or where removal may impair the growth of other nearby trees.



Solar Panels on house roof. (Source Montclair Solar)

POLICY DOCUMENT UPDATES

RECOMMENDATIONS

1. Prepare a Master Plan Reexamination Report that addresses the changes in the Township since the last Reexamination Report was adopted in 2016, with particular attention paid to the impact of redevelopment.
2. Update the Community Forestry Management Plan to include a tree inventory and evaluation with recommendations of trees most appropriate for warmer temperatures. The Plan should include clear recommendations for specific tree types that are appropriate for each street, based on general width and use of the street, changing climate, solar orientation, and stormwater management concerns. The guidelines should outline a selection of street tree species to address common concerns including obstructing views of storefronts/signs, planting under power lines and damage to sidewalks and pavement.
3. Update redevelopment plans to require reducing impervious coverage. Innovative approaches for consideration include bonus incentives for green roofs, rainwater harvesting, or other "green" features.
4. Update the Conservation Plan Element to include a new natural resources inventory and an updated discussion on local flood-prone areas in the section on Flood Plains and Flood Hazard Areas. The section on Steep Slopes should be amended to address the effects of increased frequency of heavy rain events.
5. Update the Historic Preservation Plan Element to include a new subheading in Section 5 that covers climate change and its relationship to Historic Preservation. The Historic Design Guidelines should be amended to include language encouraging the incorporation of green infrastructure in ways that do not affect the historic integrity of the property. Sections where this discussion is pertinent include Parking (p125), Ground Surfaces (p149), and Utilities and Energy Retrofitting (p150).





Downtown Montclair. (Source Montclair Local)



09

POLICY STATEMENT



Note: This image was generated using AI for illustrative purposes

POLICY STATEMENT

The sections above describe how the climate change hazard vulnerability assessment can be used to guide capital improvements, direct ordinance changes new Master Plan elements, and influence policy.

Environmental and social vulnerabilities are exacerbated by the impact of climate change, and protecting the infrastructure, natural resources, and people of Montclair is of prime importance. An ongoing inventory of areas within the Township that are vulnerable to hazards, including the Interactive Stormwater Map²⁶ prepared as part of the Climate Change Related Hazard Vulnerability Assessment, will be useful tools in directing efforts toward the most at-risk areas. Such maps and lists should be continually updated to help inform future development considerations as they relate to flood prone areas and floodplains, stormwater infrastructure, fire risk, and proximity to vulnerable populations in the Township.

With such comprehensive data at hand, even the best of intentions will need to be accompanied by financial support, whether through a stormwater utility, grant funding, capital budgeting, or otherwise.

²⁶ <https://experience.arcgis.com/experience/7a7a37b2548849eeba71475f52683d65>



APPENDIX A

BLOCK GROUPS BY POTENTIAL VULNERABILITY

BLOCK GROUPS BY POTENTIAL VULNERABILITY

| | | Montclair Township | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---------------------------|--------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------|----------|-------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----|---|---|---|---|---|---|---|
| Montclair Township | Census Tract | 61 | | 63 | 65 | | 66 | | 67 | | 68 | | 69 | 70 | | | 71 | | 72 | | | | | | | | | | | | |
| | Block Group | 1 | 4 | 2 | 2 | 3 | 1 | 3 | 1 | 2 | 1 | 3 | 4 | 2 | 1 | 2 | 3 | 1 | 2 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 40,520 | Population Statistics | 1,024 | 633 | 789 | 811 | 628 | 1,474 | 1,050 | 1,292 | 1,638 | 679 | 535 | 1,395 | 894 | 1,221 | 958 | 704 | 1,315 | 1,047 | 334 | 1,023 | 974 | 1,146 | | | | | | | | |
| 43% | People of Color | 8% | 53% | 47% | 56% | 29% | 59% | 49% | 59% | 56% | 54% | 36% | 64% | 43% | 57% | 70% | 48% | 93% | 75% | 56% | 83% | 89% | 90% | | | | | | | | |
| 23% | Black | 2% | 22% | 2% | 21% | 22% | 47% | 19% | 45% | 31% | 28% | 17% | 30% | 35% | 20% | 61% | 37% | 58% | 44% | 42% | 44% | 82% | 73% | | | | | | | | |
| 5% | Asian | 4% | 8% | 19% | 1% | 0% | 0% | 14% | 0% | 9% | 19% | 8% | 11% | 1% | 3% | 7% | 2% | 0% | 3% | 10% | 3% | 2% | 5% | | | | | | | | |
| 10% | Hispanic | 1% | 18% | 1% | 24% | 4% | 4% | 6% | 8% | 15% | 7% | 12% | 9% | 5% | 27% | 1% | 6% | 32% | 20% | 4% | 34% | 0% | 3% | | | | | | | | |
| 5% | Other race | 1% | 5% | 25% | 9% | 3% | 0% | 10% | 6% | 1% | 0% | 0% | 13% | 2% | 6% | 1% | 3% | 3% | 9% | 0% | 1% | 5% | 9% | | | | | | | | |
| 6% | Unemployment | 18% | 7% | 0% | 7% | 6% | 4% | 8% | 10% | 6% | 4% | 8% | 10% | 0% | 6% | 0% | 6% | 11% | 6% | 0% | 2% | 8% | 4% | | | | | | | | |
| 8% | Persons with Disabilities | 3% | 11% | 7% | 8% | 8% | 12% | 12% | 13% | 9% | 16% | 19% | 13% | 4% | 9% | 6% | 8% | 14% | 13% | 24% | 7% | 9% | 8% | | | | | | | | |
| \$79,693 | Per Capita Income | \$98,754 | \$39,075 | \$71,008 | \$69,071 | \$38,911 | \$47,680 | \$53,636 | \$62,820 | \$77,686 | \$84,615 | ##### | \$78,623 | ##### | \$57,104 | \$86,018 | \$85,283 | \$19,648 | \$35,618 | \$51,065 | \$37,857 | \$42,775 | \$44,356 | | | | | | | | |
| 14,517 | Households | 318 | 140 | 246 | 226 | 227 | 480 | 376 | 666 | 655 | 308 | 285 | 664 | 295 | 627 | 289 | 357 | 404 | 382 | 142 | 244 | 362 | 303 | | | | | | | | |
| 62% | Owner Occupied | 100% | 52% | 79% | 100% | 38% | 44% | 33% | 10% | 40% | 48% | 42% | 46% | 75% | 33% | 63% | 42% | 21% | 44% | 44% | 87% | 65% | 94% | | | | | | | | |
| 14% | Low Income | 4% | 16% | 24% | 18% | 32% | 17% | 22% | 31% | 12% | 22% | 9% | 4% | 27% | 3% | 10% | 28% | 65% | 30% | 0% | 31% | 42% | 14% | | | | | | | | |
| 2% | Limited English Speaking | 0% | 0% | 0% | 13% | 3% | 0% | 0% | 3% | 8% | 0% | 9% | 3% | 0% | 0% | 0% | 3% | 5% | 0% | 0% | 0% | 0% | 0% | | | | | | | | |
| 19% | Spanish | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 36% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | | | | | | | | |
| 39% | Indo-European | 0% | 0% | 0% | 100% | 100% | 0% | 0% | 100% | 36% | 0% | 100% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | |
| 42% | Asian-Pacific Island | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 29% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | |
| | Health Indicators | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16% | Low Life Expectancy | 13% | 13% | 10% | 16% | 16% | 18% | 18% | 15% | 15% | 17% | 17% | 17% | 16% | 16% | 16% | 16% | 18% | 18% | 21% | 21% | 21% | 21% | | | | | | | | |
| 4.5% | Heart Disease | 4.2% | 4.2% | 4.7% | 4.9% | 4.9% | 3.9% | 3.9% | 3.9% | 4.2% | 4.2% | 3.8% | 3.8% | 3.8% | 4.0% | 4.2% | 4.2% | 4.2% | 5.6% | 5.6% | 5.4% | 5.4% | 5.4% | | | | | | | | |
| 9.8% | Asthma | 9.1% | 9.1% | 8.9% | 9.1% | 9.1% | 10.2% | 10.2% | 10.8% | 10.8% | 10.0% | 10.0% | 10.0% | 9.1% | 9.8% | 9.8% | 9.8% | 13.1% | 13.1% | 11.0% | 11.0% | 11.0% | 11.0% | | | | | | | | |
| 6.1% | Cancer | 6.2% | 6.2% | 7.3% | 7.1% | 7.1% | 4.7% | 4.7% | 4.8% | 4.8% | 4.9% | 4.9% | 4.9% | 6.2% | 5.9% | 5.9% | 5.9% | 4.2% | 4.2% | 6.2% | 6.2% | 6.2% | 6.2% | | | | | | | | |
| 7.9% | Disabilities | 3.9% | 3.9% | 6.8% | 7.4% | 7.4% | 12.5% | 12.5% | 10.7% | 10.7% | 13.5% | 13.5% | 13.5% | 3.8% | 7.6% | 7.6% | 7.6% | 12.2% | 12.2% | 9.2% | 9.2% | 9.2% | 9.2% | | | | | | | | |
| | Other Indicators | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5% | Flood Risk | 6% | 3% | 0% | 1% | 1% | 24% | 17% | 6% | 12% | 22% | 10% | 0% | 1% | 0% | 7% | 7% | 1% | 0% | 11% | 8% | 0% | 9% | | | | | | | | |
| Yes | Housing Burden | No | No | No | No | No | No | No | No | No | No | No | No | No | Yes | Yes | Yes | No | Yes | Yes | Yes | No | No | No | | | | | | | |
| Yes | Food Desert | No | No | No | No | No | No | No | No | No | No | No | No | No | Yes | No | No | No | Yes | Yes | No | No | No | No | | | | | | | |
| 5% | Under age 5 | 2% | 8% | 10% | 7 | 3% | 2% | 3% | 0 | 2 | 6 | 0 | 2 | 0 | 7 | 3 | 1 | 12 | 8 | 0 | 2 | 4 | 5 | | | | | | | | |
| 13% | 65 and over | 12% | 6% | 13% | 9 | 6% | 10% | 10% | 15 | 13 | 4 | 26 | 9 | 21 | 18 | 14 | 23 | 8 | 11 | 16 | 6 | 17 | 12 | | | | | | | | |
| | Overburdened Community | No | Yes | No | Yes | No | Yes | No | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | | | | | | | | |

Sources: E|Screen Community Profiles

NOTE: CT 71, BG 1 & 2 are EPA IRA Disadvantaged Communities (<https://www.epa.gov/ejscreen/ejscreen-map-descriptions#ct71>)

Methodology:

Using EPA's Environmental Justice Screening and Mapping Tool, Version 2.2, (E|Screen), certain Block Groups within the Township of Montclair were selected based various indicators compared to New Jersey's normal. For example, the Demographic Index provides the average of low-income and people of color within a block. Additionally, the Heat Island/Overburdened Communities Analysis Map from NJHazAdapt (<https://njhazadapt.rutgers.edu/#>) was reviewed to include any overburdened communities not selected based on the above.

Links:

EPA E|Screen: <https://ejscreen.epa.gov/mapper/>

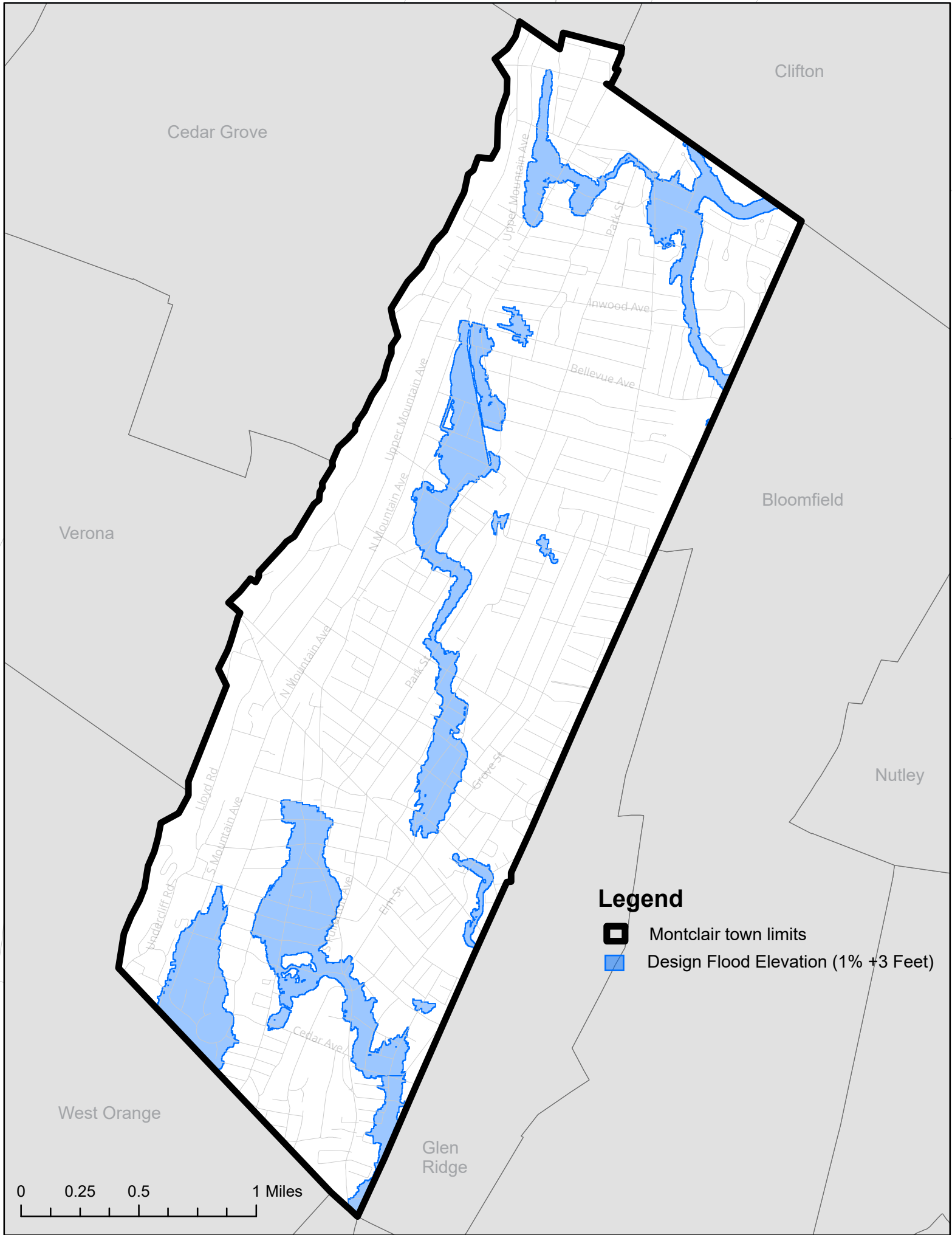
E|Screen Map Descriptions: <https://www.epa.gov/ejscreen/ejscreen-map-descriptions>

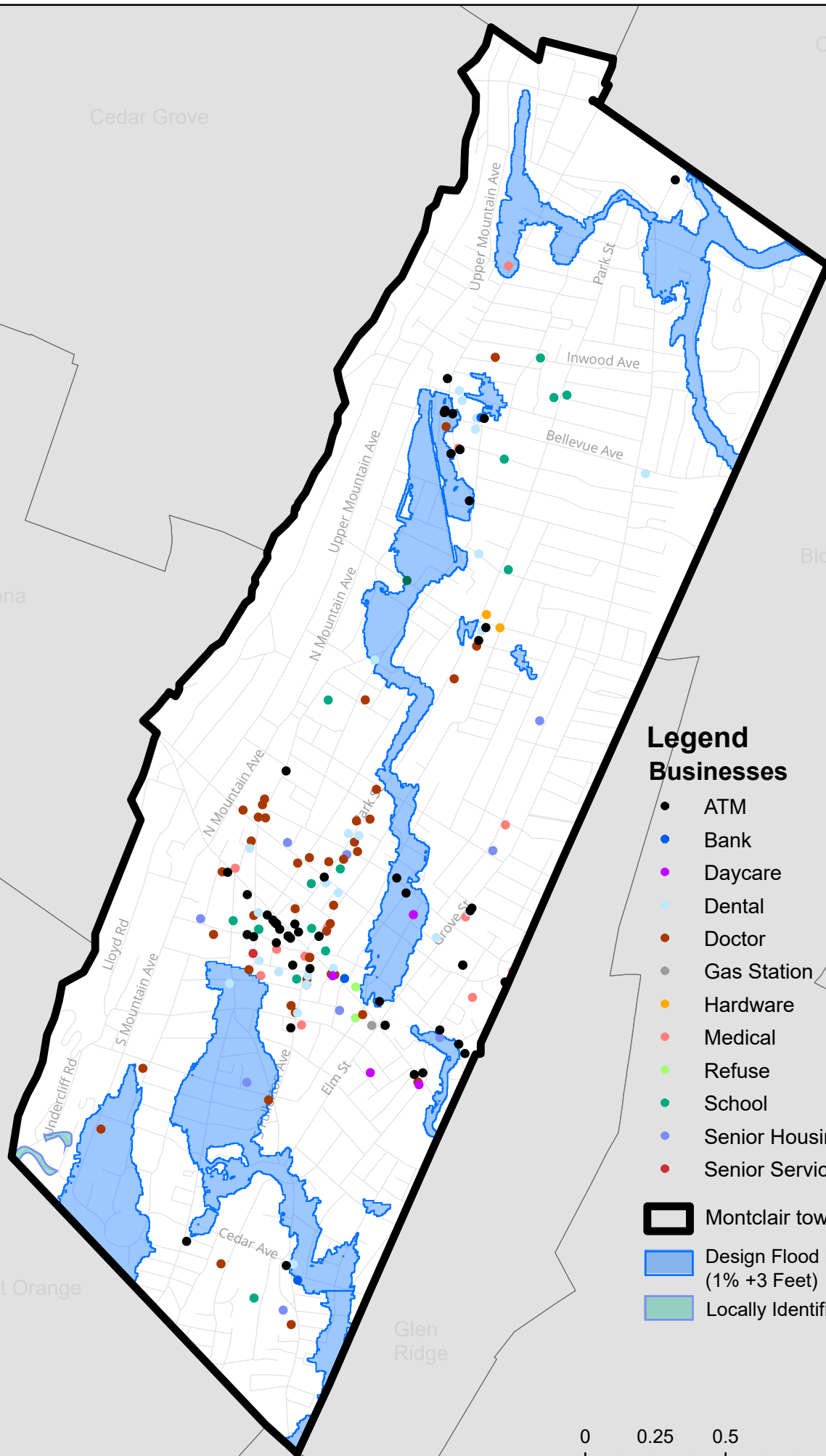
APPENDIX B

MAPS

APPENDIX B

MAPS

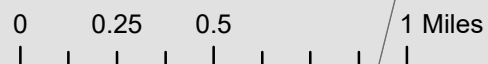


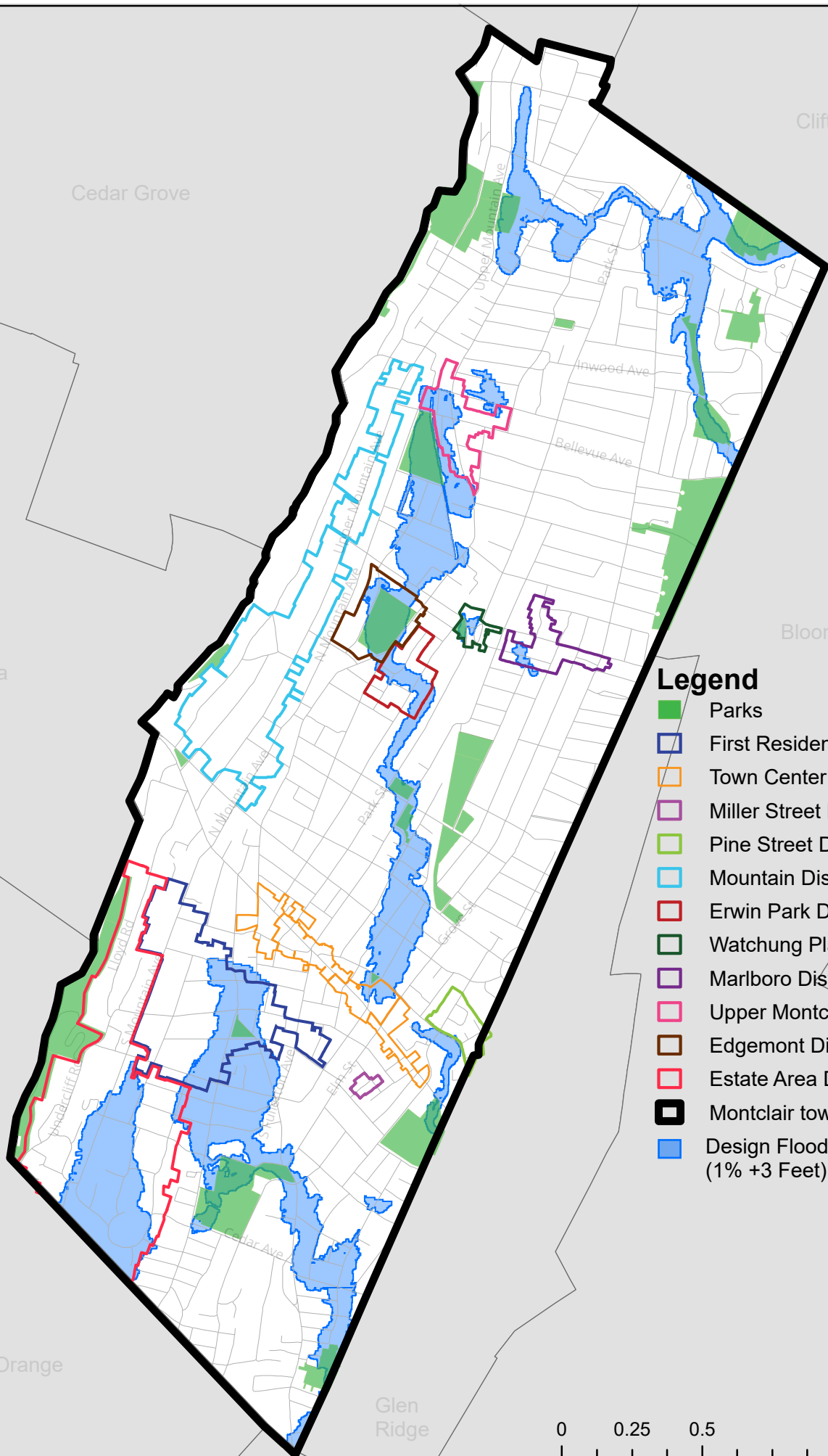


Legend Businesses

- ATM
- Bank
- Daycare
- Dental
- Doctor
- Gas Station
- Hardware
- Medical
- Refuse
- School
- Senior Housing
- Senior Services

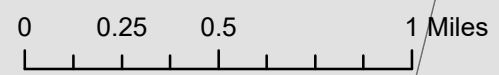
- ▭ Montclair town limits
- ▭ Design Flood Elevation (1% +3 Feet)
- ▭ Locally Identified Flooding

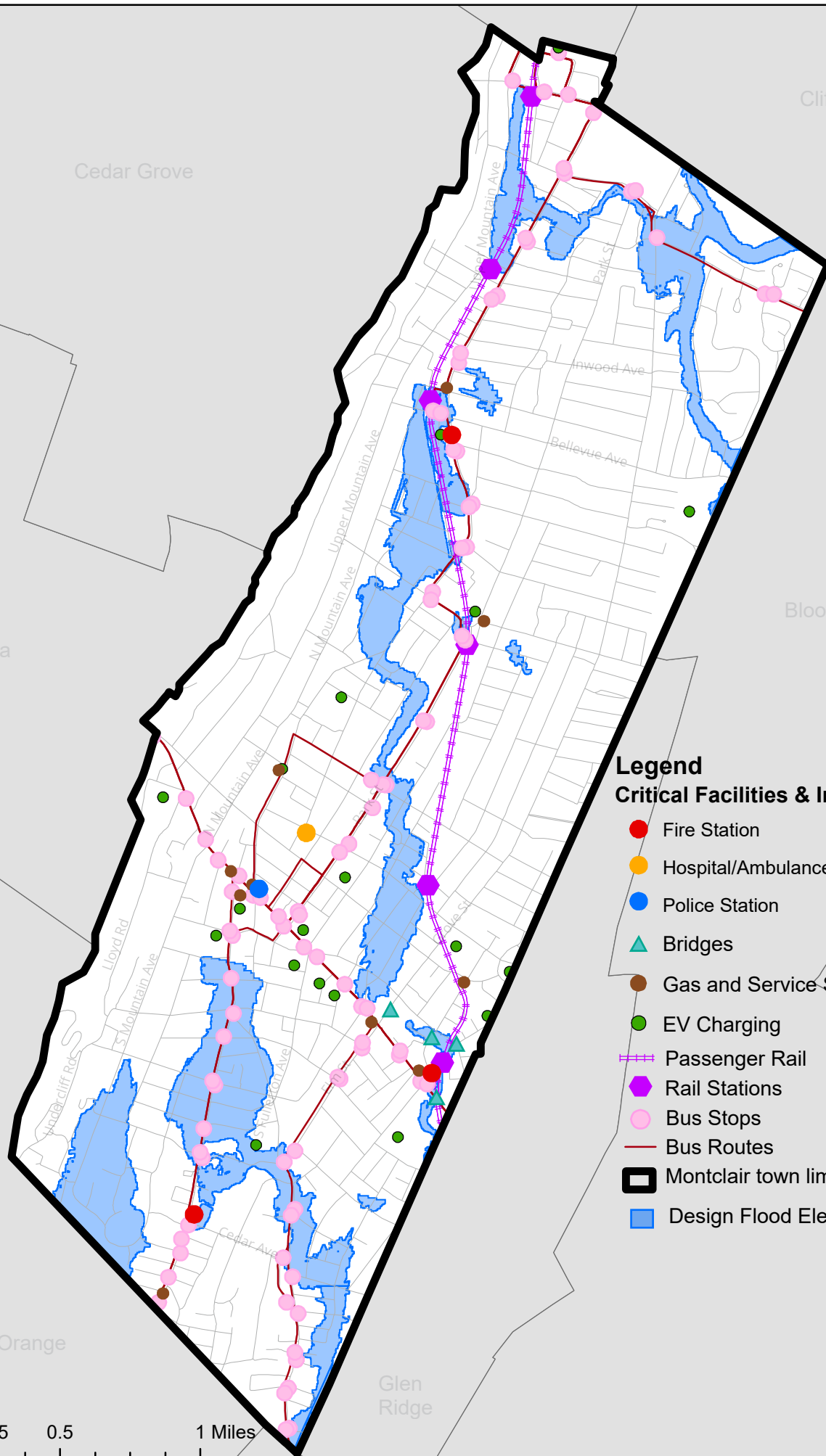




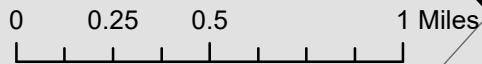
Legend

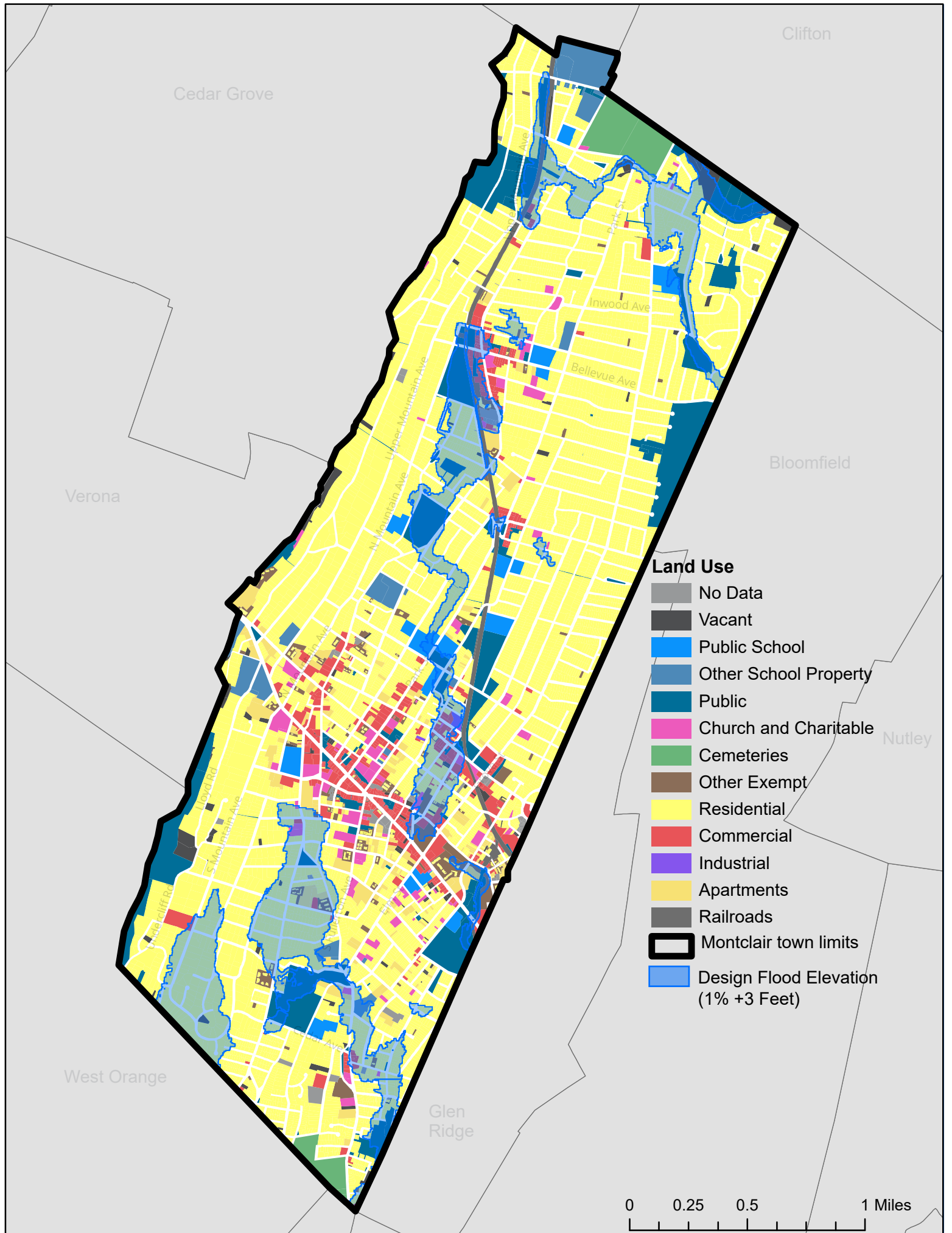
- Parks
- First Residential District
- Town Center District
- Miller Street District
- Pine Street District
- Mountain District
- Erwin Park District
- Watchung Plaza District
- Marlboro District
- Upper Montclair District
- Edgemont District
- Estate Area District
- Montclair town limits
- Design Flood Elevation (1% +3 Feet)

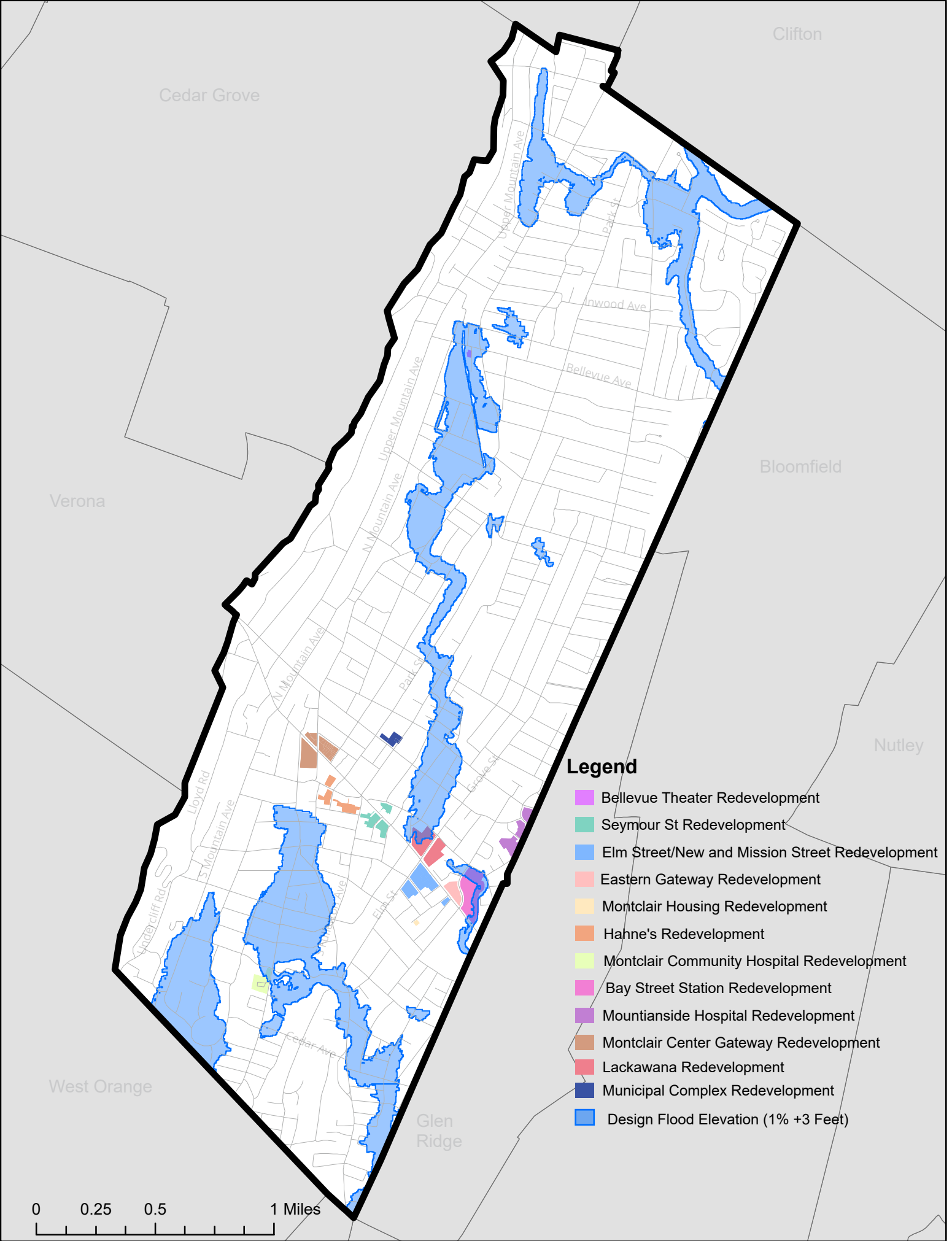


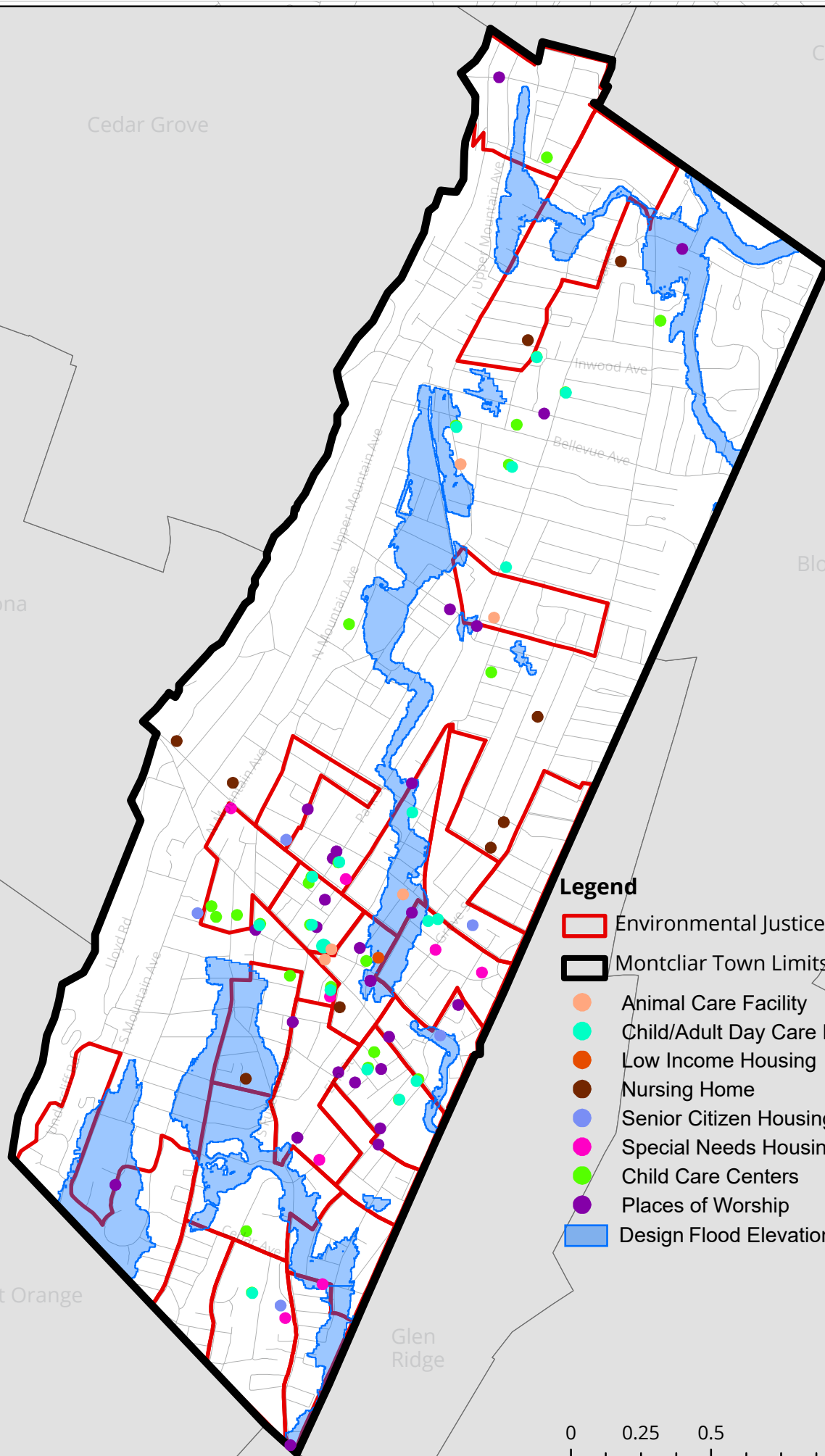


- Legend**
Critical Facilities & Infrastructure
- Fire Station
 - Hospital/Ambulance
 - Police Station
 - ▲ Bridges
 - Gas and Service Stations
 - EV Charging
 - +—+—+— Passenger Rail
 - Rail Stations
 - Bus Stops
 - Bus Routes
 - ▭ Montclair town limits
 - Design Flood Elevation (1% +3 Feet)



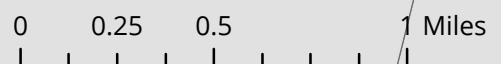


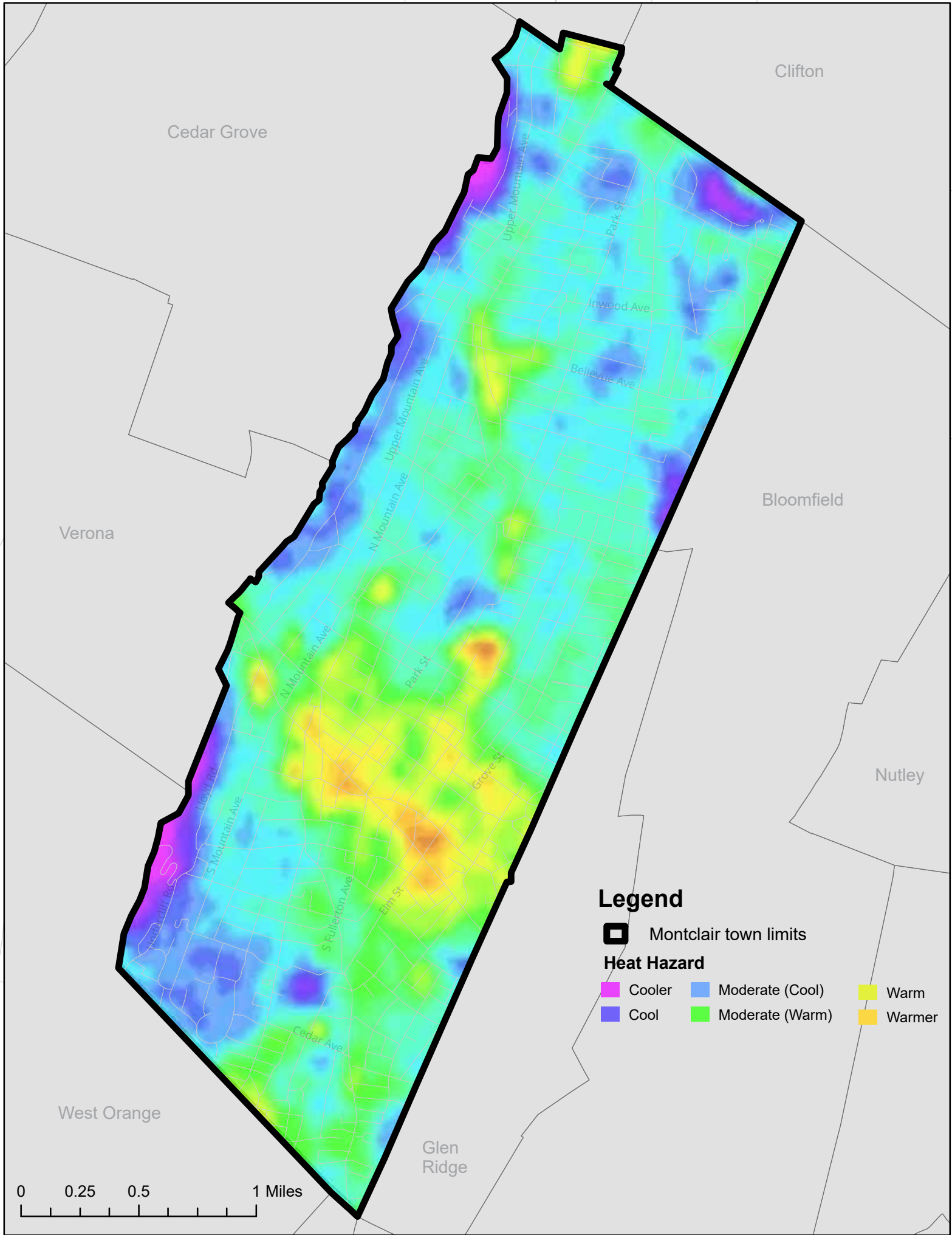


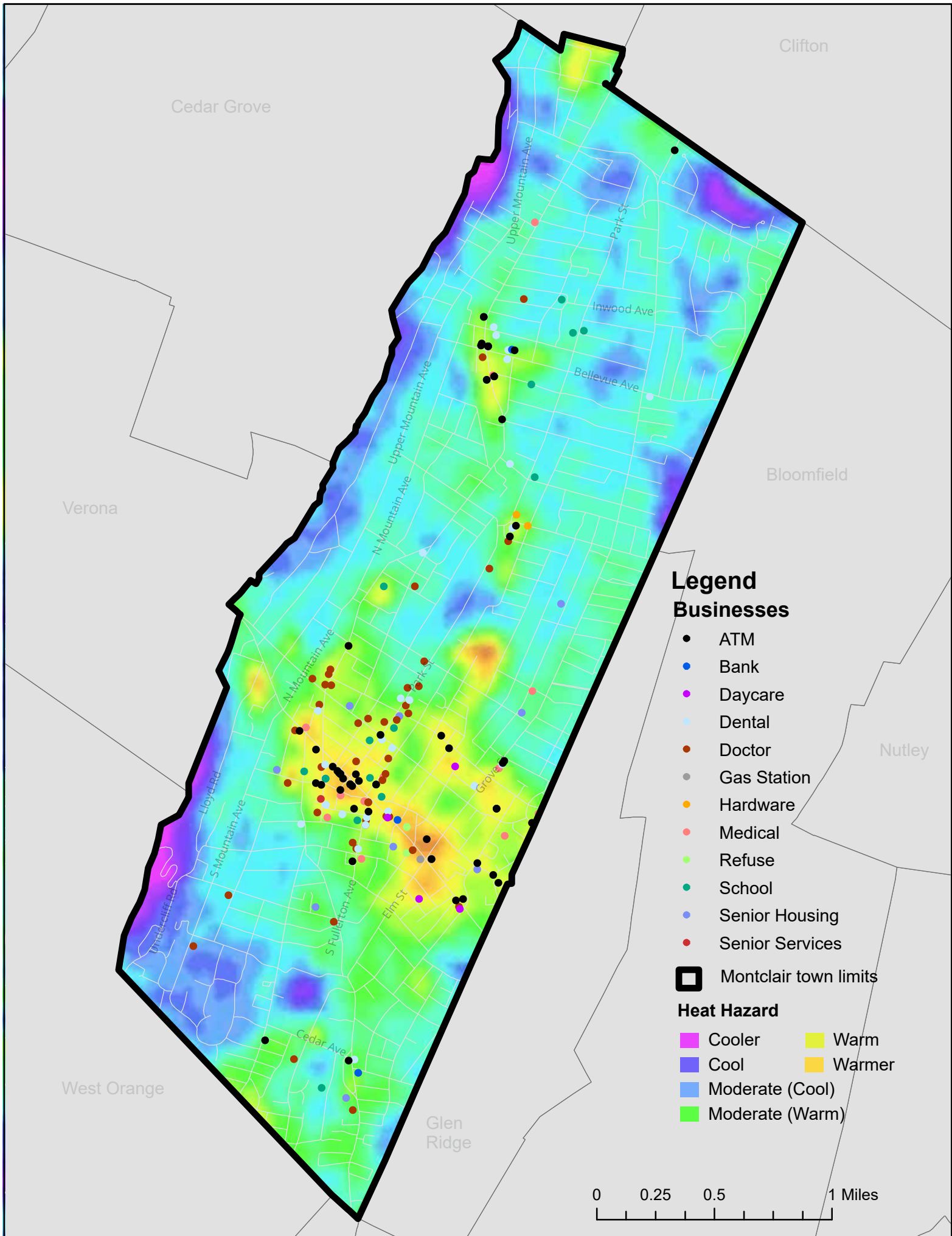


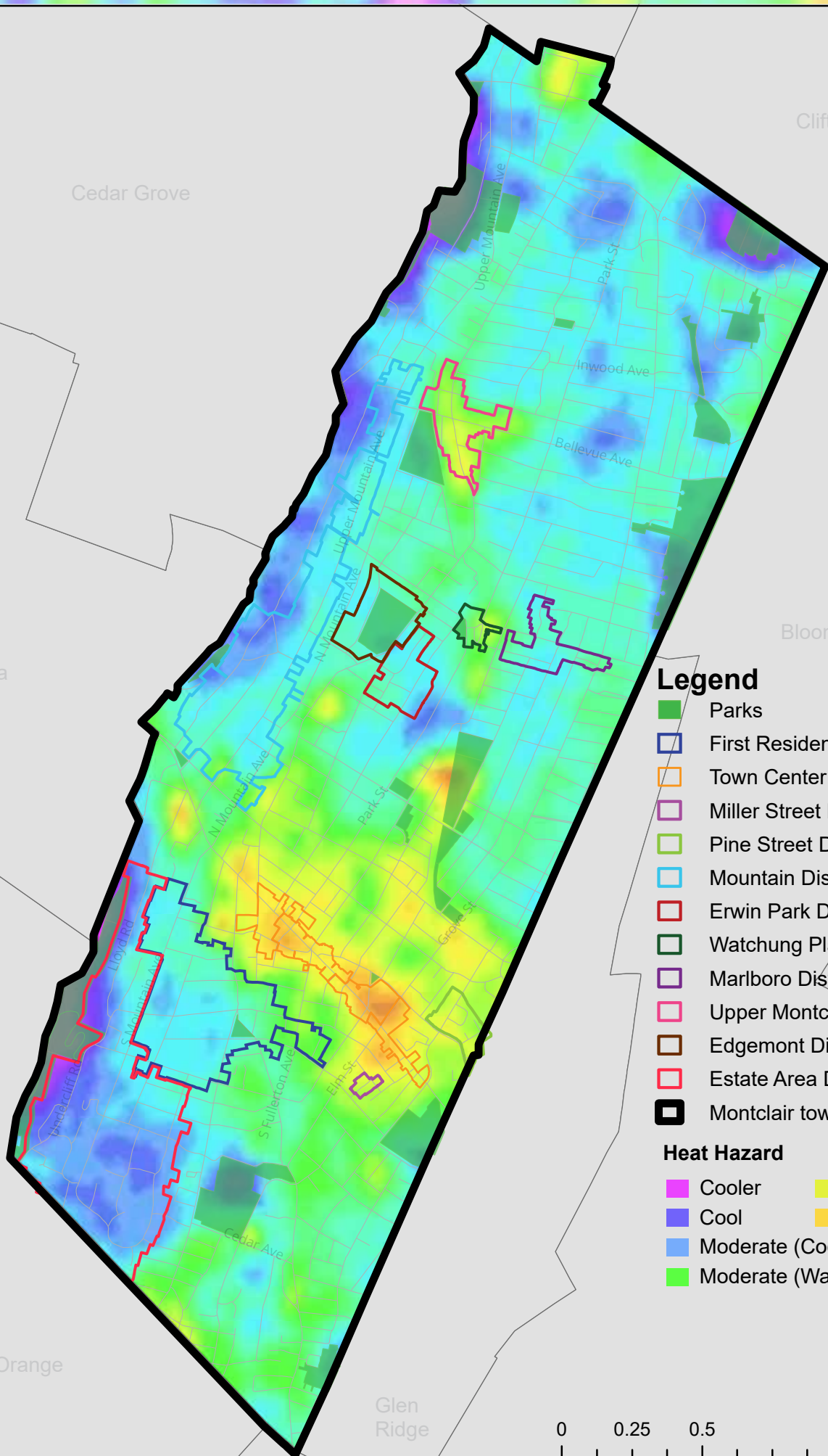
Legend

- Environmental Justice Vulnerability Scan
- Montclair Town Limits
- Animal Care Facility
- Child/Adult Day Care Facility
- Low Income Housing
- Nursing Home
- Senior Citizen Housing
- Special Needs Housing/Group Homes
- Child Care Centers
- Places of Worship
- Design Flood Elevation (1% +3 Feet)







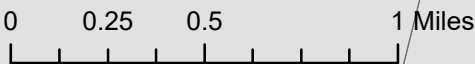


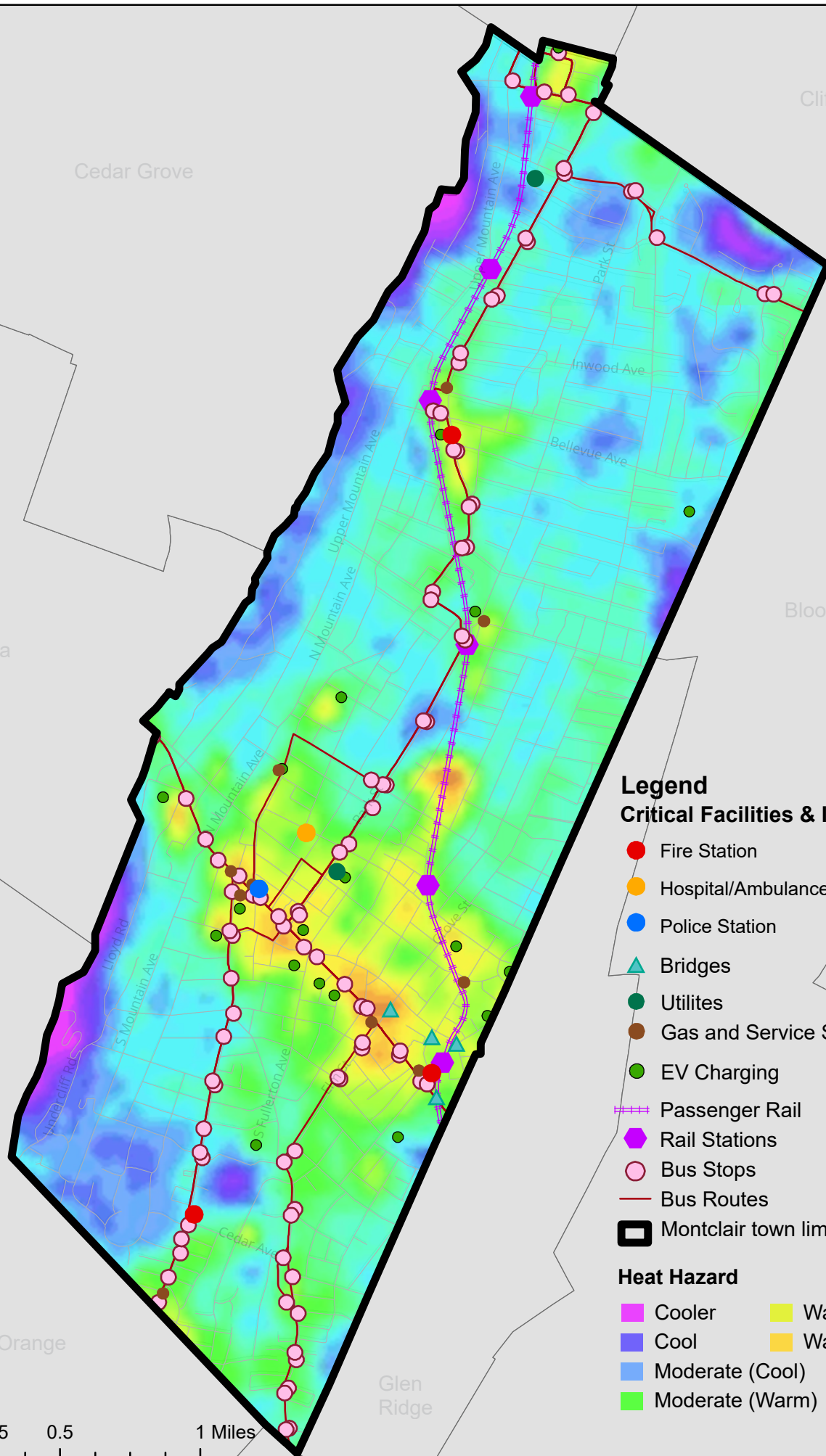
Legend

- Parks
- First Residential District
- Town Center District
- Miller Street District
- Pine Street District
- Mountain District
- Erwin Park District
- Watchung Plaza District
- Marlboro District
- Upper Montclair District
- Edgemont District
- Estate Area District
- Montclair town limits

Heat Hazard

- | | |
|-----------------|--------|
| Cooler | Warm |
| Cool | Warmer |
| Moderate (Cool) | |
| Moderate (Warm) | |



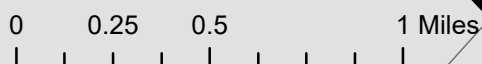


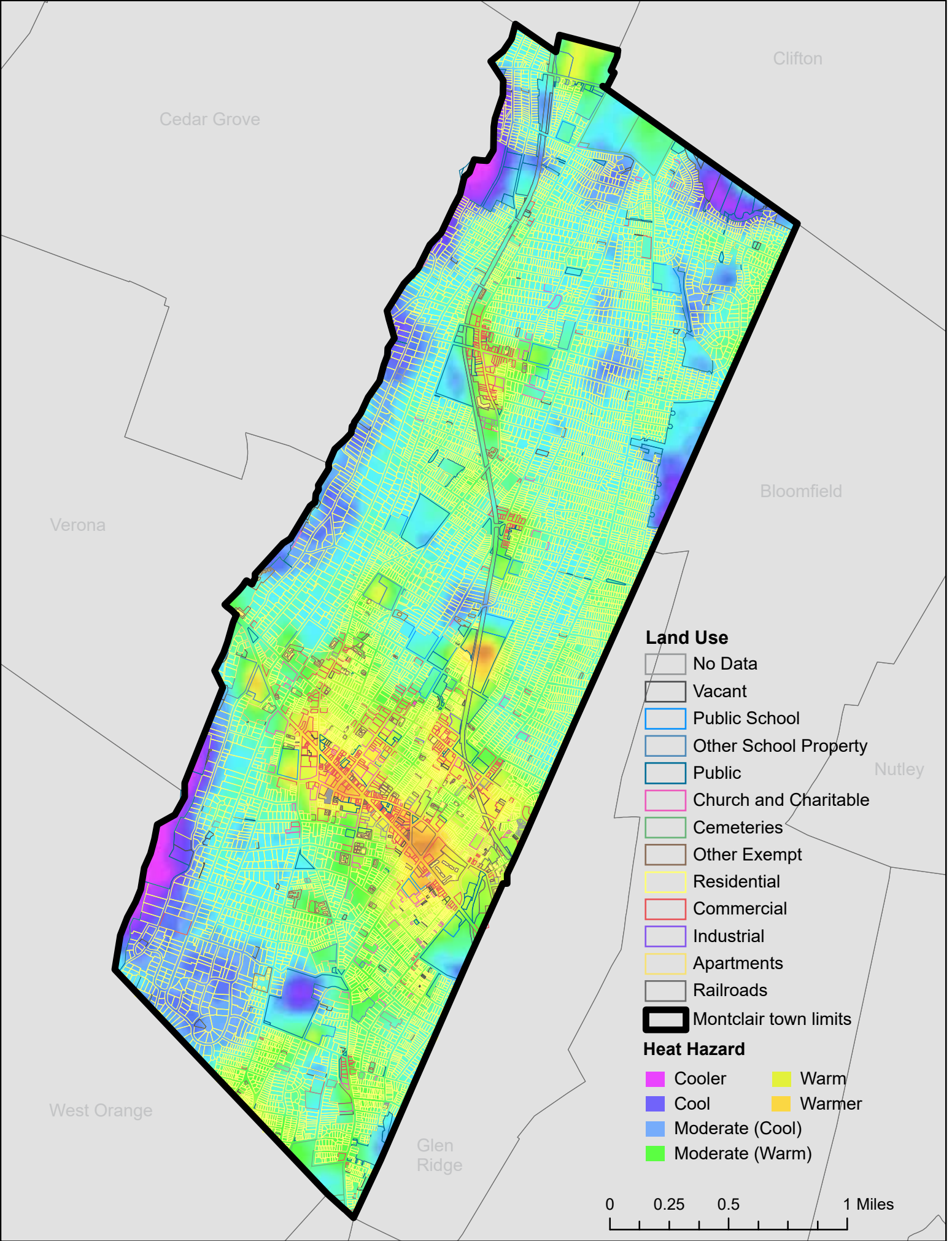
Legend
Critical Facilities & Infrastructure

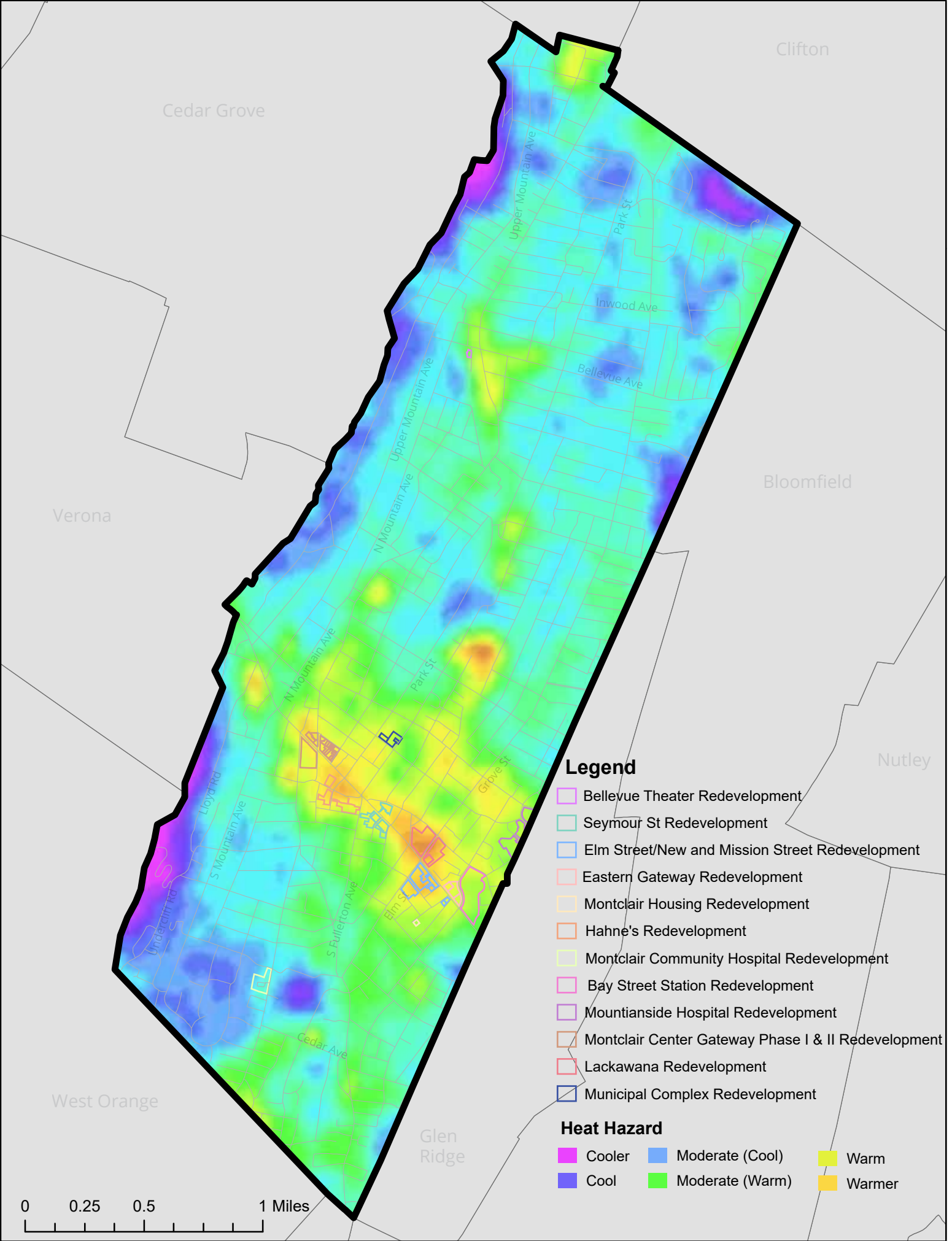
- Fire Station
- Hospital/Ambulance
- Police Station
- ▲ Bridges
- Utilities
- Gas and Service Stations
- EV Charging
- ▬ Passenger Rail
- Rail Stations
- Bus Stops
- Bus Routes
- ▭ Montclair town limits

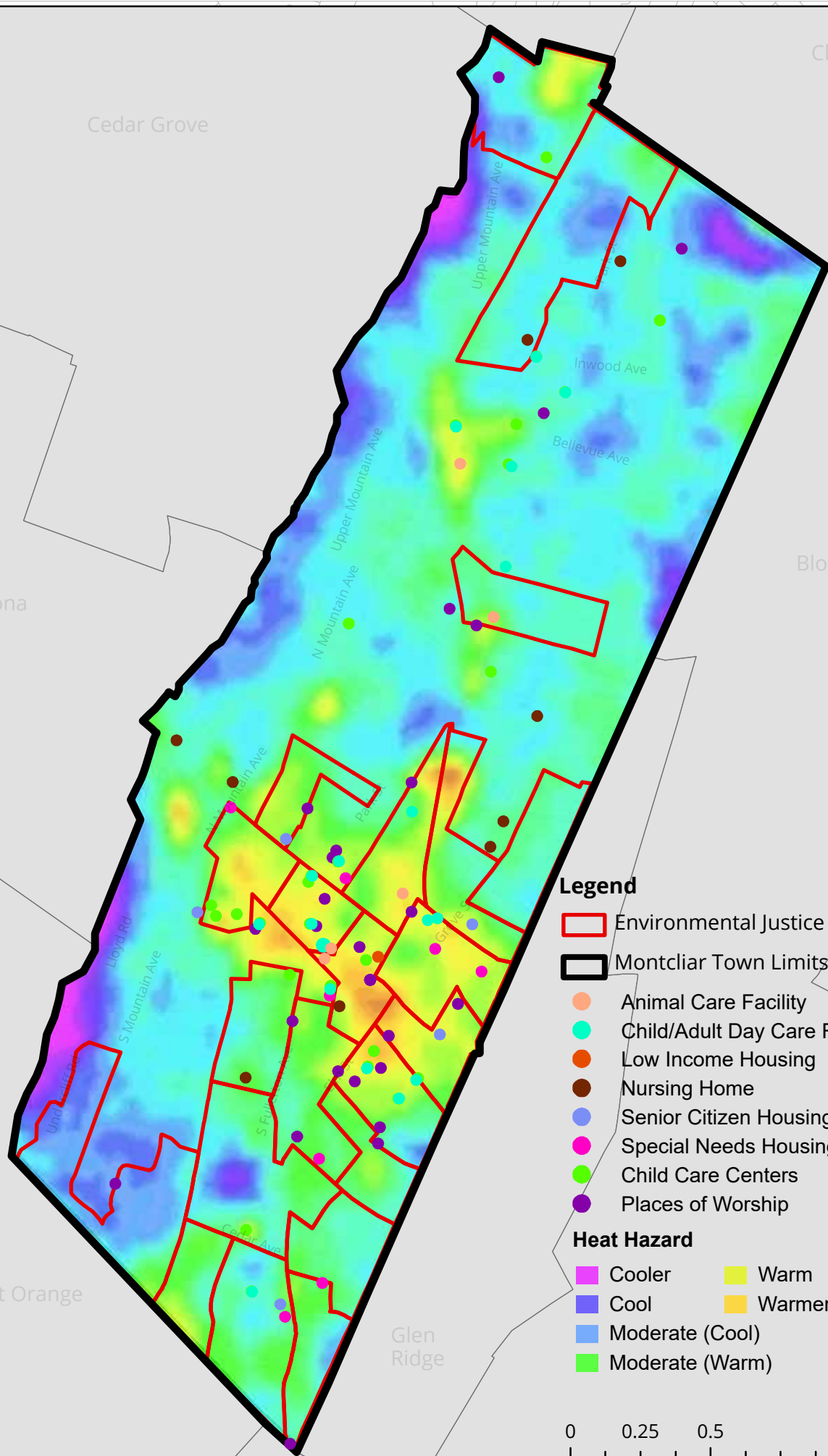
Heat Hazard

- | | |
|-------------------|----------|
| ■ Cooler | ■ Warm |
| ■ Cool | ■ Warmer |
| ■ Moderate (Cool) | |
| ■ Moderate (Warm) | |







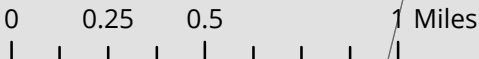


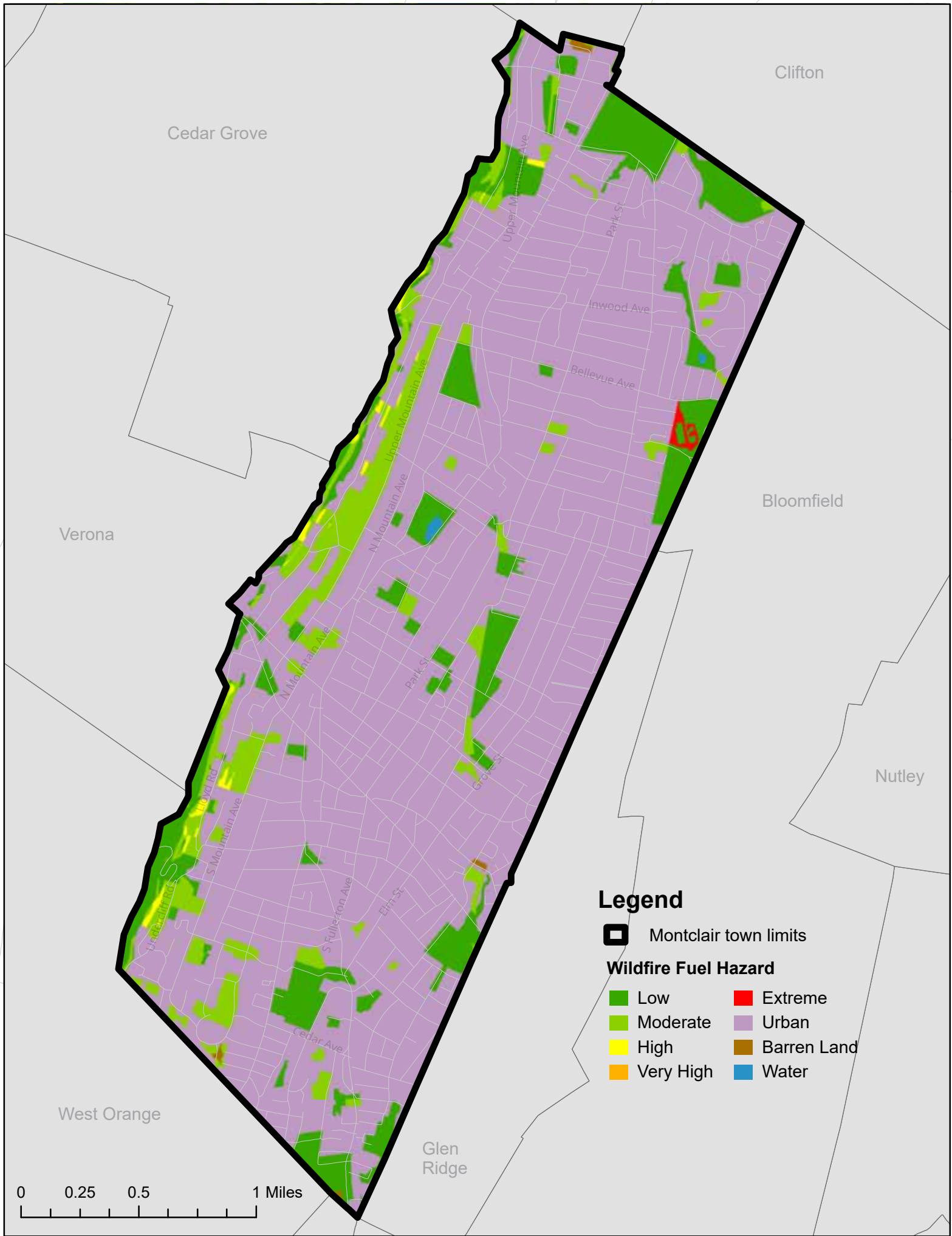
Legend

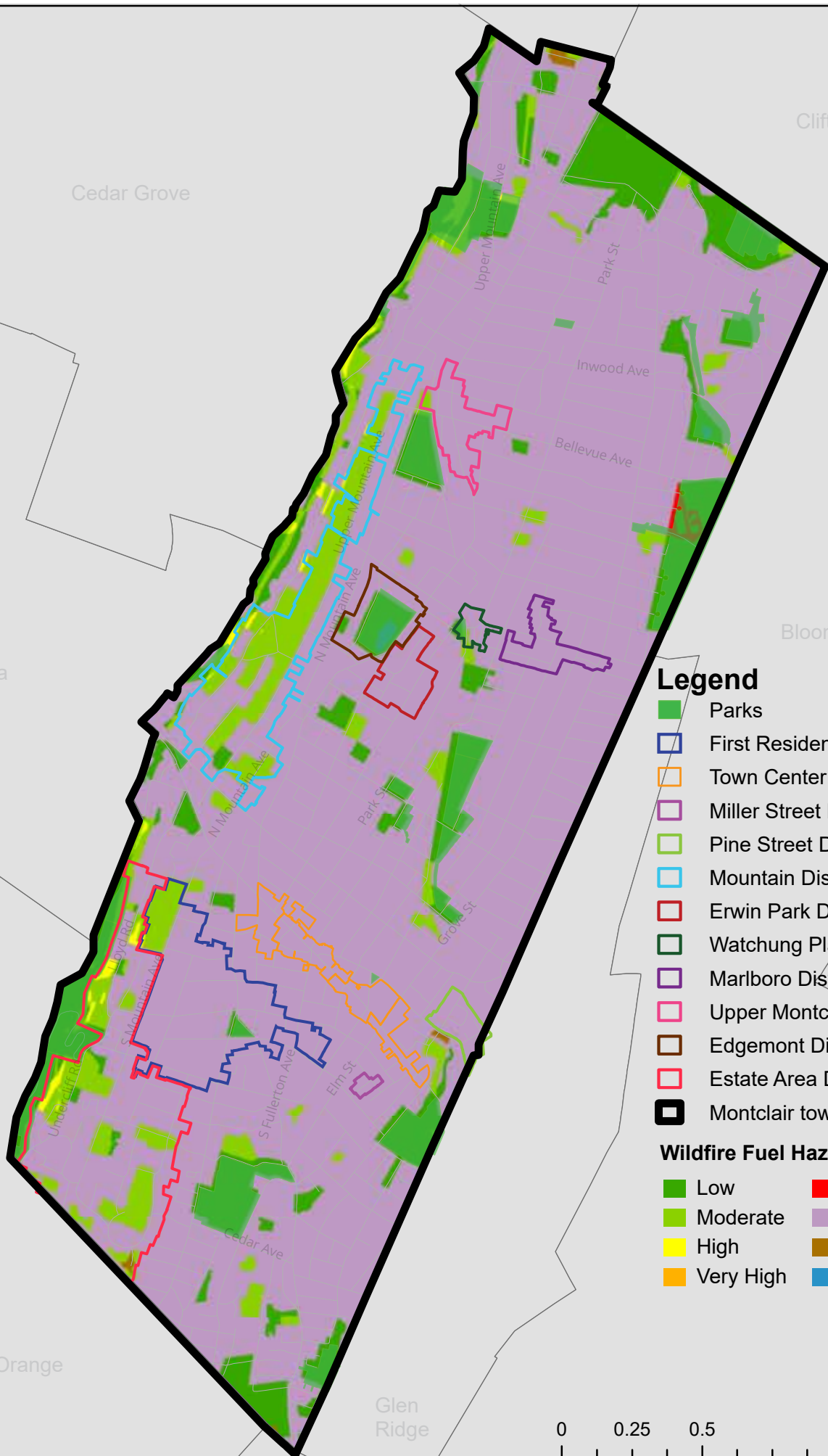
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- Special Needs Housing/Group Homes
- Child Care Centers
- Places of Worship

Heat Hazard

- | | |
|---|---|
| Cooler | Warm |
| Cool | Warmer |
| Moderate (Cool) | |
| Moderate (Warm) | |





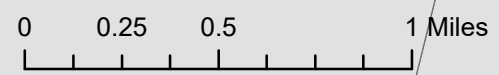


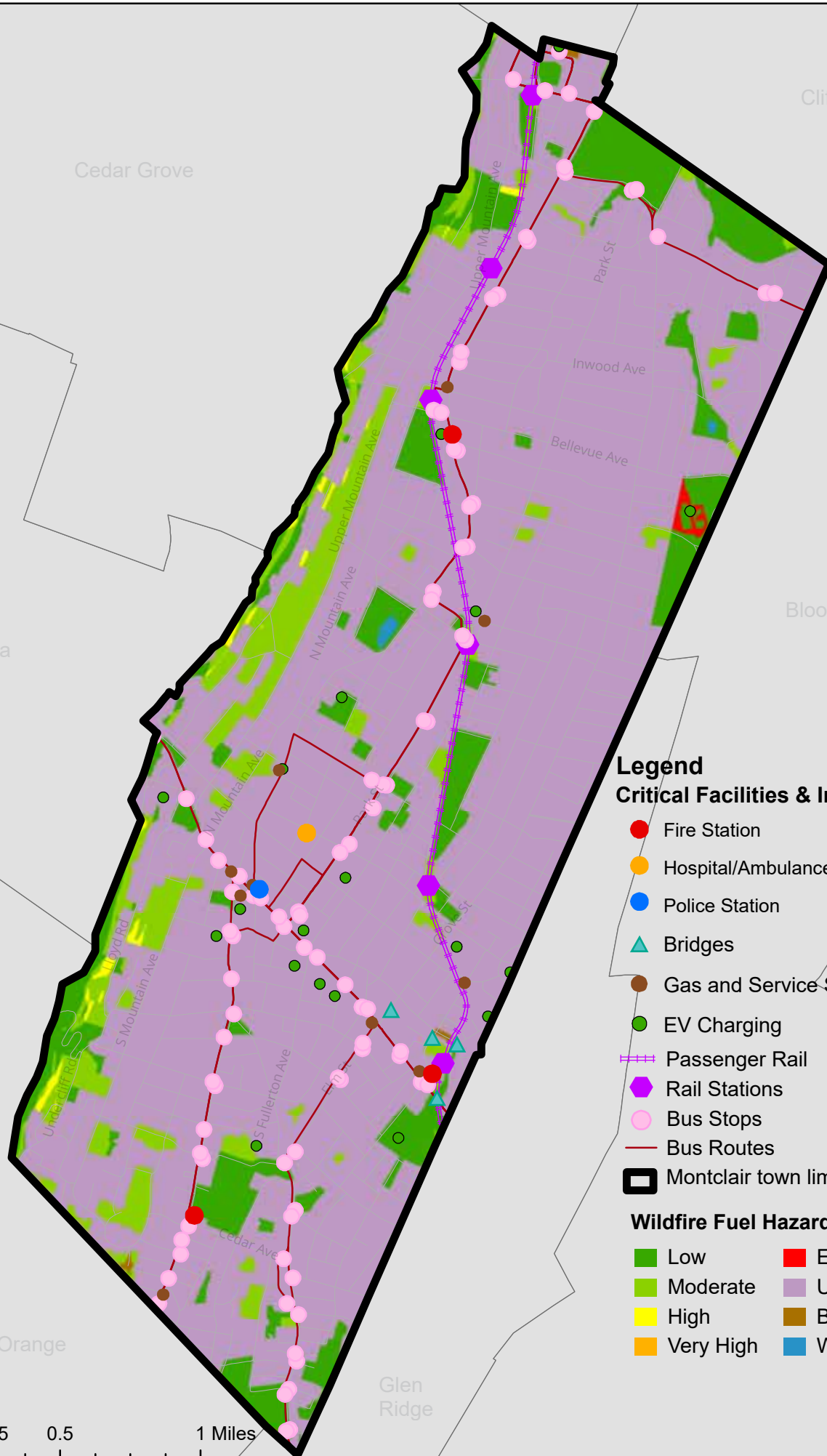
Legend

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Wildfire Fuel Hazard

- | | |
|-----------|-------------|
| Low | Extreme |
| Moderate | Urban |
| High | Barren Land |
| Very High | Water |



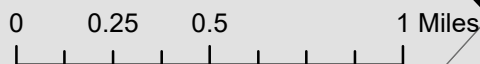


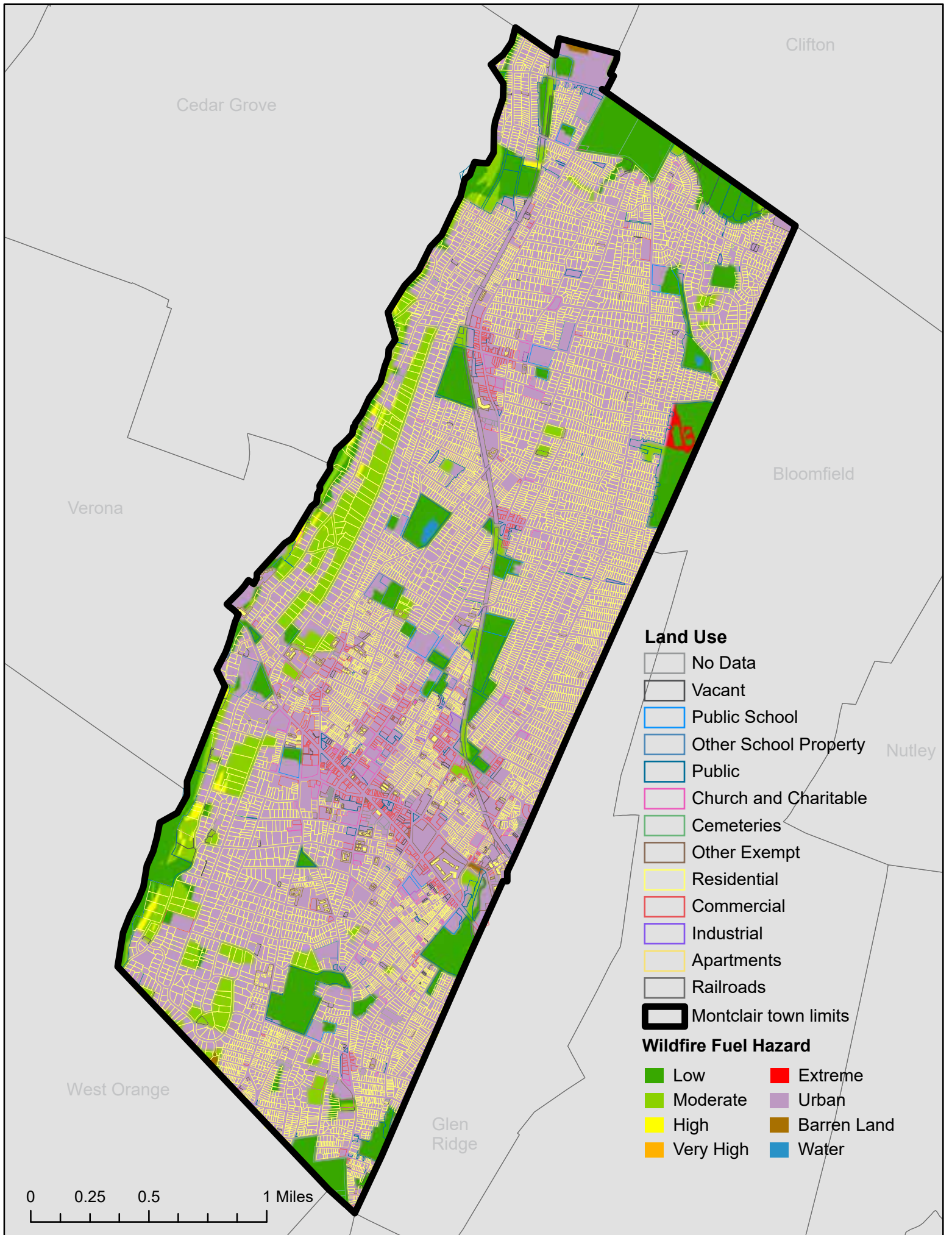
Legend
Critical Facilities & Infrastructure

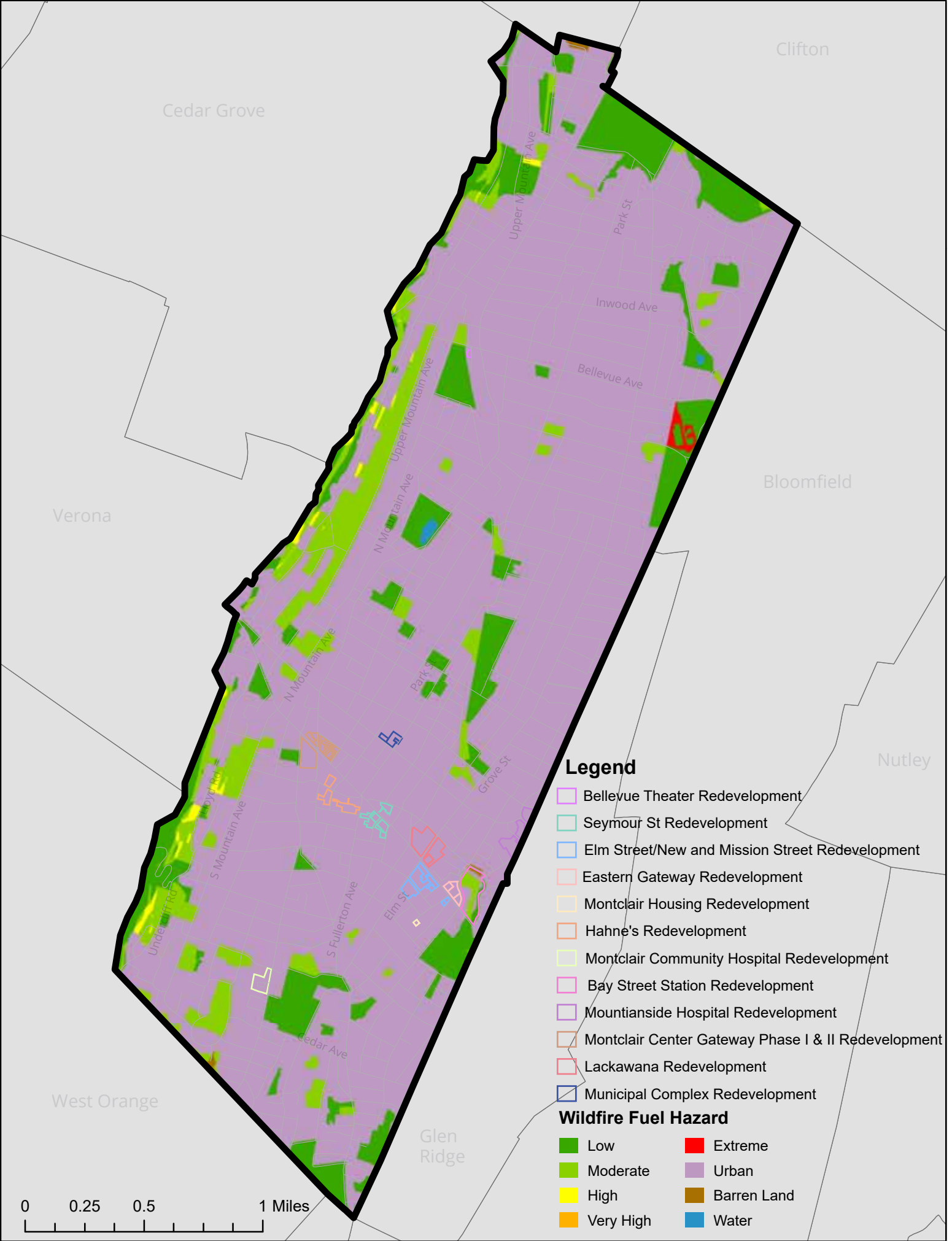
- Fire Station
- Hospital/Ambulance
- Police Station
- ▲ Bridges
- Gas and Service Stations
- EV Charging
- Passenger Rail
- ⬡ Rail Stations
- Bus Stops
- Bus Routes
- ▭ Montclair town limits

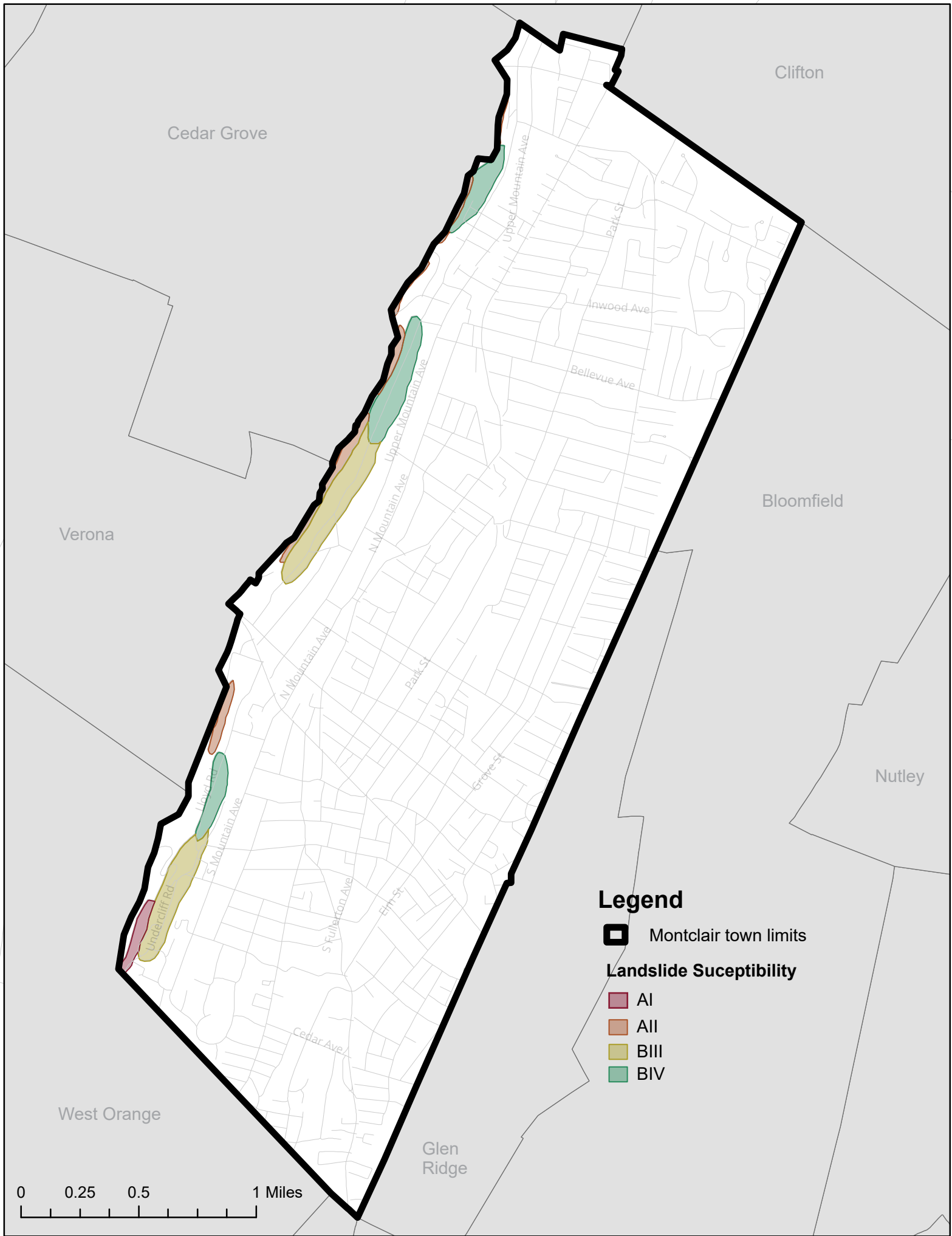
Wildfire Fuel Hazard

- | | |
|-------------|---------------|
| ■ Low | ■ Extreme |
| ■ Moderate | ■ Urban |
| ■ High | ■ Barren Land |
| ■ Very High | ■ Water |









Clifton

Cedar Grove

Bloomfield


Verona

Nutley

Glen Ridge

West Orange

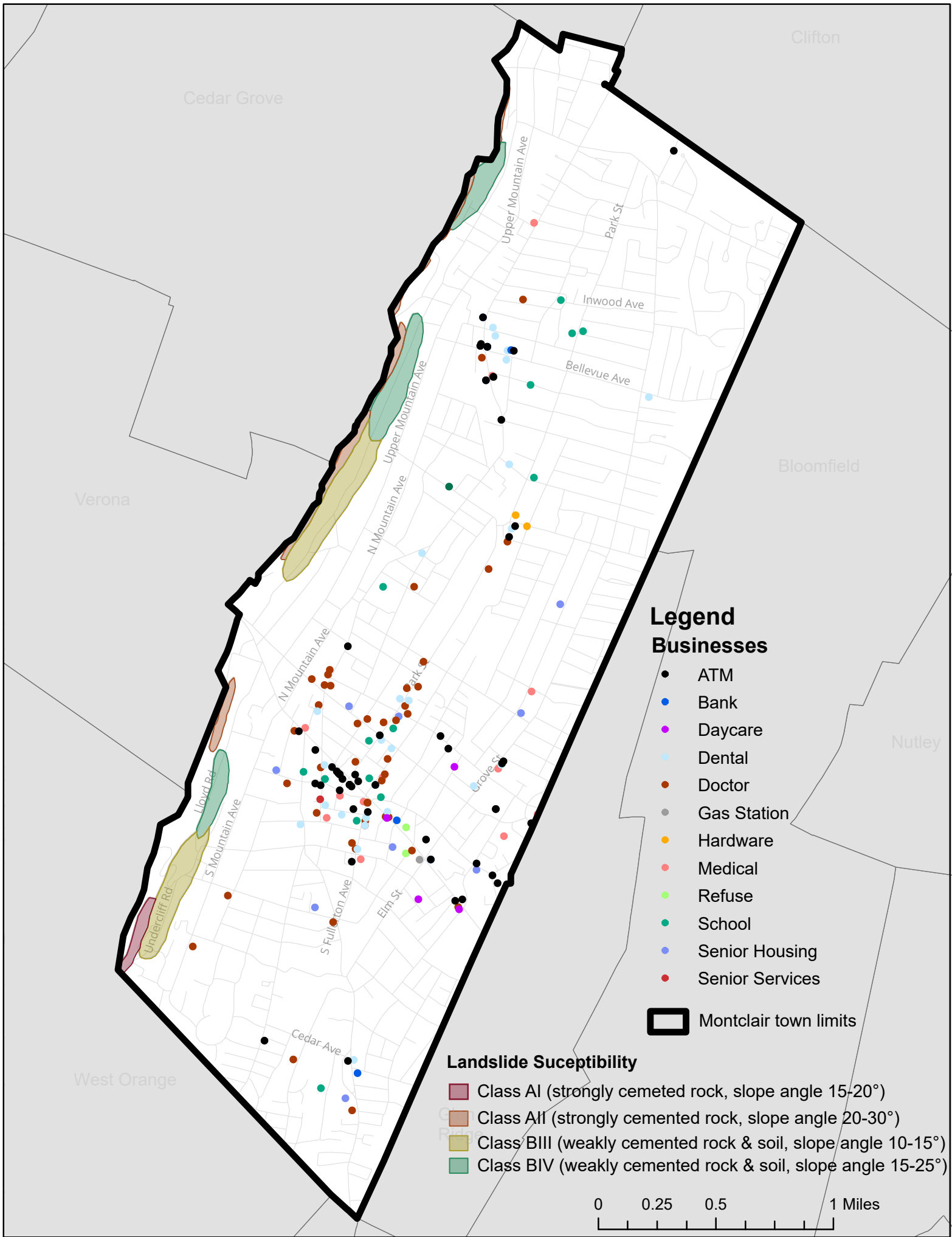
Legend

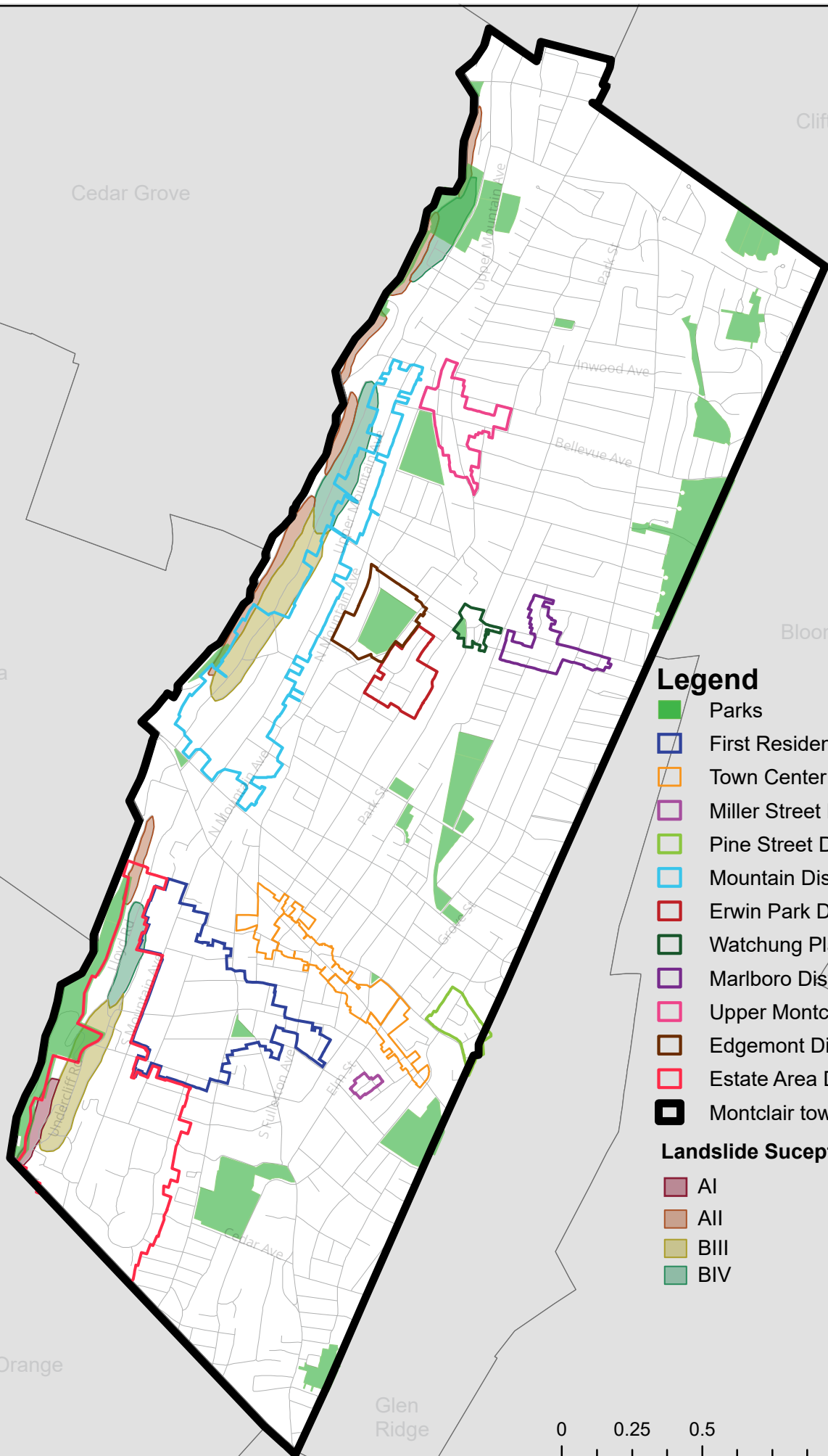
 Montclair town limits

Landslide Suceptibility

-  AI
-  AII
-  BIII
-  BIV

0 0.25 0.5 1 Miles



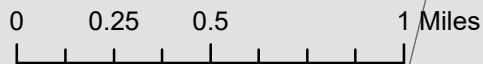


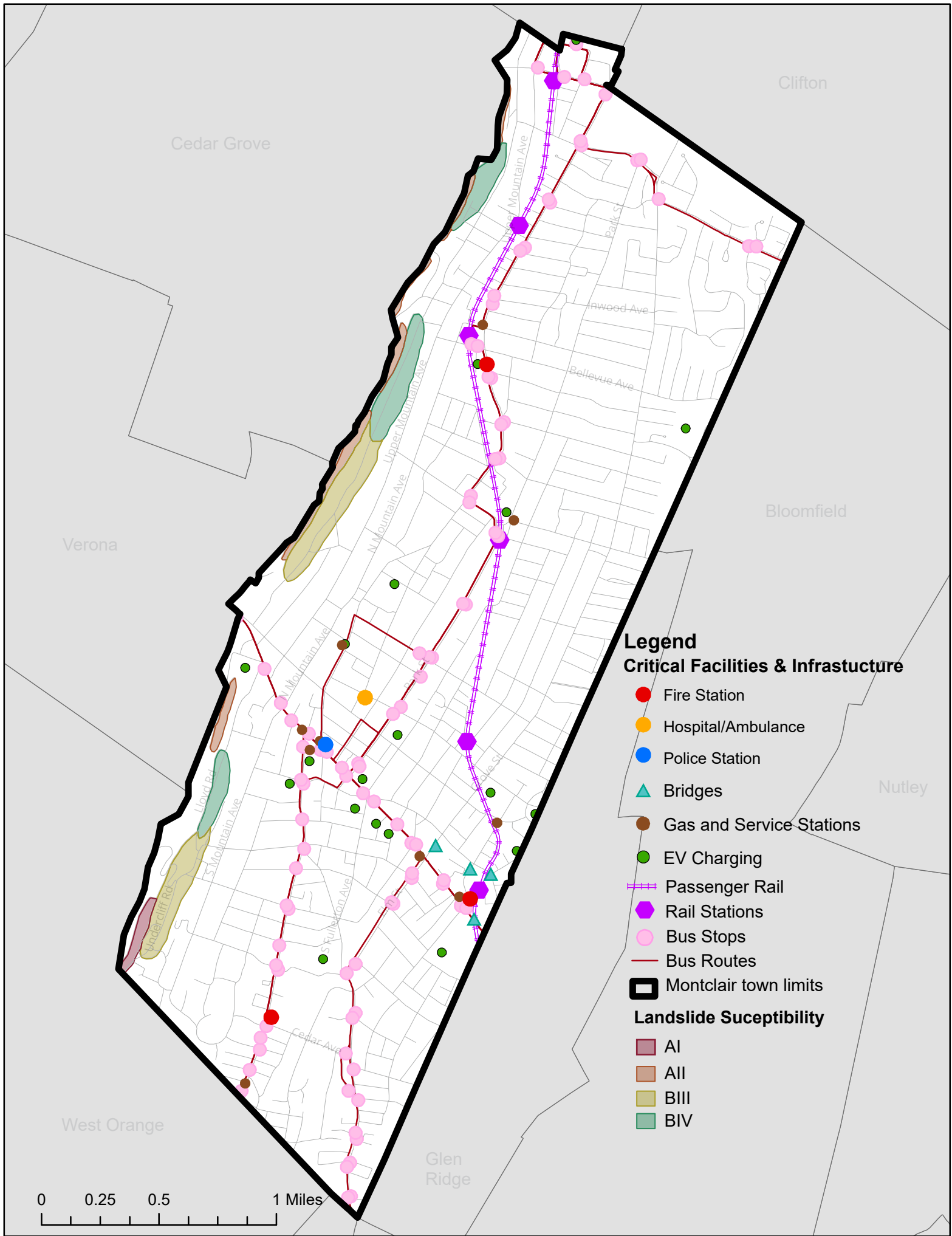
Legend

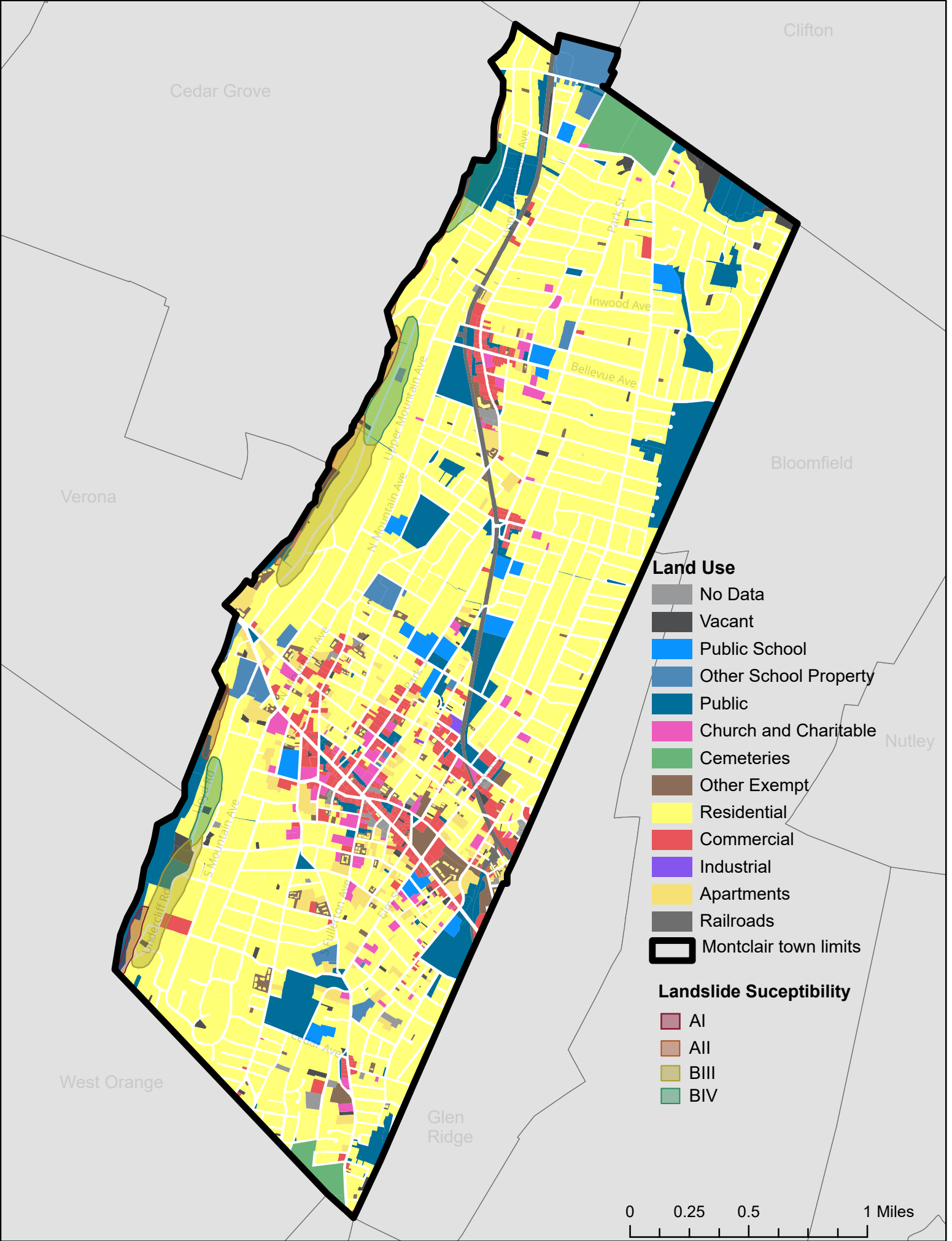
- Parks
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- Montclair town limits

Landslide Suceptibility

- AI
- AII
- BIII
- BIV







Cedar Grove

Clifton

Verona

Bloomfield

Nutley

West Orange

Glen Ridge

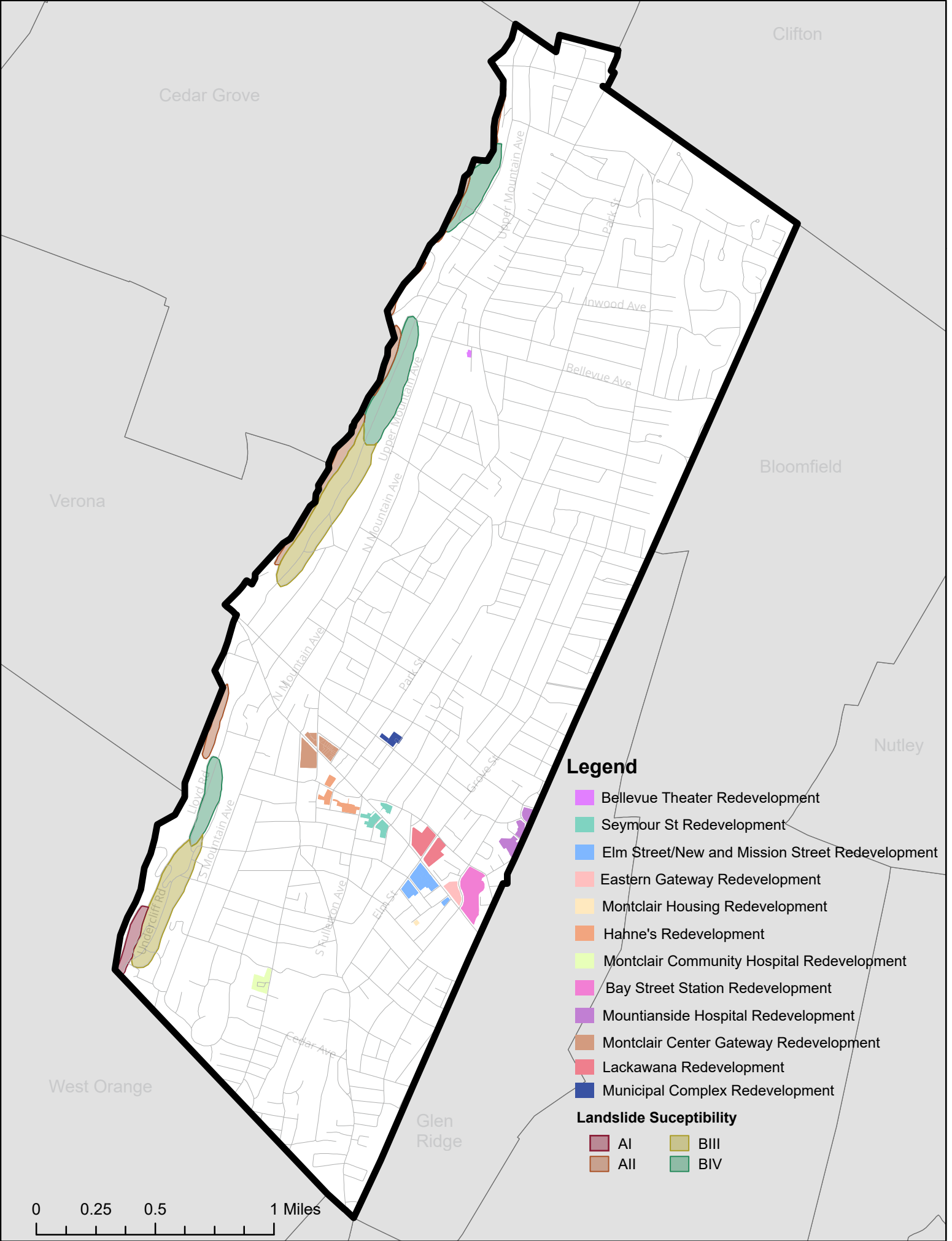
Land Use

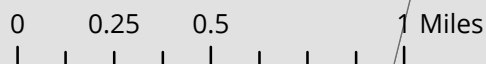
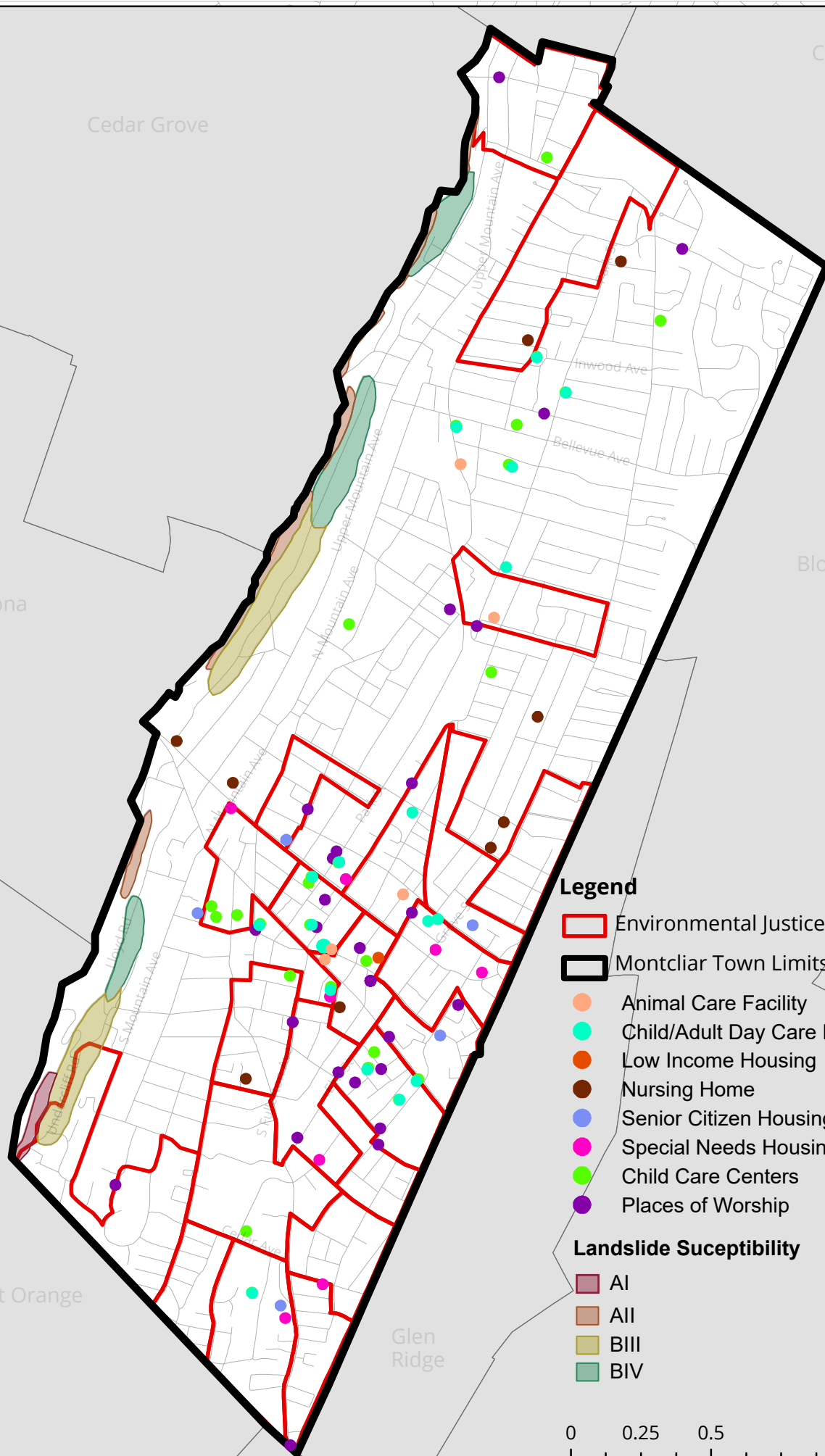
- No Data
- Vacant
- Public School
- Other School Property
- Public
- Church and Charitable
- Cemeteries
- Other Exempt
- Residential
- Commercial
- Industrial
- Apartments
- Railroads
- Montclair town limits

Landslide Suceptibility

- A I
- A II
- B III
- B IV

0 0.25 0.5 1 Miles









Note: This image was generated using AI for illustrative purposes