SHARPSBURG ECODISTRICT













ROADMAP

Adopted on January 4, 2021 by the Sharpsburg Ecodistrict Collaborative and the Sharpsburg Neighborhood Organization

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TABLE OF CONTENTS

Introduction

District Boundary

Priority-Based Asset Map

Census of Local Plans

Ongoing & Imminent Activities by Others

Priorities & Objectives

Indicators

Existing Conditions & Baseline Performance Assessment

Existing Local Targets & Parallel Efforts

Roadmap Horizon Year

District Build-Out Estimate

Horizon Year Performance Targets

Potential Strategies

Strategies Assessment & Ranking

Responsibilities, Funding, & Implementation Schedule

Appendices

INTRODUCTION

The Sharpsburg Ecodistrict was established in 2016 by Sharpsburg Neighborhood Organization (SNO) to enhance quality of life for Sharpsburg residents by boosting the community's environmental performance, improving the local economy, and increasing social equity. Sharpsburg is part of the Triboro Ecodistrict, which is an effort to promote coordinated sustainable community development throughout the Boroughs of Sharpsburg, Etna, and Millvale. In 2017, SNO engaged evolveEA to lead the development of the **Sharpsburg Community Vision Plan** (SCVP) (Appendix A). After two years of technical analysis, community engagement, and scenario planning, the Sharpsburg Community Vision Plan launched in January 2019. The Plan presents the community's vision for the next ten years, and includes development principles, urban systems recommendations, and placemaking projects to guide Sharpsburg's future. The document also acts as the basis for the Sharpsburg Ecodistrict's Roadmap and for SNO's five-year work plan.

The Imperatives of social equity, climate protection, and resilience are deeply embedded into the Sharpsburg Community Vision Plan. Within these overarching Imperatives, the Sharpsburg Ecodistrict focuses on six quality of life areas: equity, food, water, energy, air, and mobility. These six quality of life areas are shared among the three Triboro Ecodistrict communities and were selected by residents as being most critical in affecting their quality of life. Through the Ecodistrict planning process, community members worked to create vision statements for each of the six quality of life areas that reflect their vision for a connected, resilient, thriving, and empowered Sharpsburg.

Figure 1: Community-crafted Vision Statements for each Quality of Life Area.

Quality of Life Area	Vision Statement
Equity	Sharpsburg is a community of opportunity where we thrive as individuals and collectively.
Food	Sharpsburgers will have access to affordable and healthy food and will be connected to a regional food network.
Water	Sharpsburg will integrate and celebrate water as an asset throughout the community.
Energy	Sharpsburg will strive to become an energy independent community.
Air Quality	Sharpsburgers will breathe clean air indoors and outdoors.
Mobility	Mobility is essential for all generations and should improve quality of life and advance the economy.

The Sharpsburg Ecodistrict Roadmap preparation process was informed by the SCVP community engagement process, the recommendations in the Plan itself, the outcomes from Sharpsburg's participation in the 2019 EcoDistricts Incubator in Millvale, PA, as well as activities that have occured in the community over the past four years. For an extensive list of community engagement events that contributed to the Roadmap, please see <u>Appendix</u> B Sharpsburg Ecodistrict Community Engagement Summary.

The Sharpsburg Ecodistrict Roadmap was adopted by the Sharpsburg Neighborhood Organization Board and Sharpsburg Ecodistrict Collaborative on January 4, 2021 through a consensus-based process where each Board member had one vote and each Collaborative member had one vote. In anticipation of the vote, each organization was provided a copy of the Sharpsburg Ecodistrict Roadmap and the Sharpsburg Community Vision Plan so that they could review the document and verify its alignment with the Sharpsburg Ecodistrict's goals. The Sharpsburg Ecodistrict Roadmap was adopted with all in favor. The Roadmap will now formally become a part of the Sharpsburg Community Vision Plan as an appendix item.

DISTRICT BOUNDARY

The Sharpsburg Ecodistrict boundary aligns with the legal municipal boundary of the Borough of Sharpsburg (see Figure 1), an area of approximately 0.63 square miles of land area.



Figure 1: Map of Sharpsburg highlighting the district boundary in a white outline.

PRIORITY-BASED ASSET MAP

Sharpsburg is rich with existing assets, and is working to build from these existing assets while filling gaps. A detailed map of the Sharpsburg Ecodistricts assets can be found in Appendix C Sharpsburg Priority-Based Asset Map. The Sharpsburg Priority-Based Asset Map is an interactive map that displays the Sharpsburg Ecodistricts assets, organized by the EcoDistricts Protocol Priority areas as well as socioeconomic, physical, and organizational categories. Assets are also organized based on degree of control; Primary assets are located within Sharpsburg and are controlled within Sharpsburg, secondary assets are located in Sharpsburg but are controlled by an entity outside of Sharpsburg, and tertiary assets are located outside of Sharpsburg and are controlled by an entity outside of Sharpsburg.

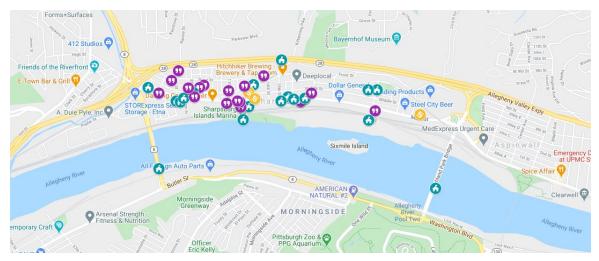


Figure 2: Screen capture of the Sharpsburg Ecodistrict's Priority-Based Asset Map.

CENSUS OF LOCAL PLANS

The following table and narrative describes existing policies, programs, and plans on the municipal, regional, and county scales that are applicable to the Sharpsburg Ecodistrict.

Figure 3: Existing policies, programs, and plans on the municipal, regional, and county scale that are applicable to the Sharpsburg Ecodistrict.

Existing Policies, Programs, and Plans	Geography
Sharpsburg Climate Action Plan (Draft June 2020)	Municipal (Sharpsburg)
Sharpsburg Floodplain Management Ordinance (No. 14-06)	Municipal (Sharpsburg)
Sharpsburg Stormwater Management Ordinance (No. 18-12)	Municipal (Sharpsburg)
Sharpsburg Complete Streets Resolution	Municipal (Sharpsburg)
Sharpsburg Community Vision Plan	Municipal (Sharpsburg)
ARTEZ Community Perception Survey	Municipal (Sharpsburg)
ARTEZ Housing Market Analysis	Municipal (Sharpsburg)
Sharpsburg Blight Reduction Recommendations Report	Municipal (Sharpsburg)
Borough of Sharpsburg Long Range Plan	Municipal (Sharpsburg)
Millvale, Sharpsburg, & Etna Joint Comprehensive Plan (River Bend)	Municipal (Triboro)
Sustainable Pittsburgh Regional Indicators	Regional (City of Pittsburgh)
City of Pittsburgh Resilience Plan	Regional (City of Pittsburgh)
City of Pittsburgh Climate Action Plan (PCAP) 3.0	Regional (City of Pittsburgh)
City of Pittsburgh Roadmap to Zero Waste Study	Regional (City of Pittsburgh)

Allegheny County Health Department (ACHD) Environmental Justice Report	County (Allegheny County)
Allegheny County Health Department (ACHD) Health Equity Briefs	County (Allegheny County)
PA State Incentives for Renewables and Efficiency	State (Pennsylvania)
PA Climate Action Plan	State (Pennsylvania)

Sharpsburg Climate Action Plan (DRAFT)

The Borough of Sharpsburg Climate Action Plan (CAP) is currently in draft form with an anticipated completion in early Fall 2020. The CAP was produced in partnership with Penn State University and ICLEI. It is informed by a greenhouse gas emissions inventory that was completed in Fall 2019. The CAP outlines a path to reduce Sharpsburg's GHG emissions 65% by the year 2050.

Applicable Imperatives & Priorities: This plan addresses Place (housing), Prosperity (innovation), Health and Wellbeing (food systems), Connectivity (mobility), Living Infrastructure (natural features), and Resource Regeneration (air and climate, water, and waste).

Sharpsburg Floodplain Management Ordinance (No. 14-06)

Sharpsburg's Floodplain Management Ordinance was adopted by Borough Council in September 2014 and complies with FEMA requirements. The intention of this ordinance is to:

- Promote the general health, welfare, and safety of the Borough of Sharpsburg.
- Encourage the utilization of appropriate construction practices in order to prevent or minimize flood damage in the future.
- Minimize danger to public health by protecting water supply and natural drainage.
- Reduce financial burden imposed on the community, its governmental units, and its residents, by preventing excessive development in areas subject to flooding.
- Comply with federal and state floodplain management requirements.

Applicable Imperatives & Priorities: This ordinance is related to Living Infrastructure (managing stormwater for ecosystem health, improving natural features), as well as Resource Regeneration (improving water quality), and Resilience (preventing shocks and stresses).

Sharpsburg Stormwater Management Ordinance (No. 18-12)

Sharpsburg's Stormwater Management Ordinance was adopted by Borough Council in November 2018 to promote health, safety, and welfare within the Municipality and its watershed by minimizing the harms and maximizing the benefits of stormwater. This requirements in this ordinance are intended to:

- Meet legal water quality requirements under state law, including to protect, maintain, reclaim, and restore the existing and designated uses of the waters of this Commonwealth.
- Preserve natural drainage systems.
- Manage stormwater runoff close to the source, reduce runoff volumes and mimic pre development hydrology.
- Provide procedures and performance standards for stormwater planning and management.
- Maintain groundwater recharge to prevent degradation of surface and groundwater quality and to otherwise protect water resources.

- Prevent scour and erosion of stream banks and streambeds.
- Provide proper operation and maintenance of all stormwater management best practices that are implemented within the municipality.
- Provide standards to meet NPDES permit requirements.

Applicable Imperatives & Priorities: This ordinance is related to Living Infrastructure (managing stormwater for ecosystem health, improving natural features), as well as Resource Regeneration (improving water quality), and Resilience (preventing shocks and stresses).

Sharpsburg Complete Streets Resolution

The Borough of Sharpsburg adopted a Complete Streets Resolution in July 2017. The intention of this resolution is to better integrate physical activity into the daily lives of those who live in and visit the Borough of Sharpsburg through an increased emphasis on various active transportation modes. This will ultimately contribute to improved health, reduced traffic congestion, improved air quality, a reduction of harmful environmental impacts, and the creation of an economically vibrant and sustainably progressive community. Various recommendations are included in the resolution, such as bicycle parking, crosswalks, and transit shelters.

Applicable Imperatives & Priorities: This resolution primarily addresses Health and Wellbeing (active living and safety) and Connectivity (street network and mobility).

Sharpsburg Community Vision Plan

The Sharpsburg Community Vision Plan launched in January 2019, and acts as the community's roadmap to shape their future and guide development in the borough for the next five to ten years. The Plan showcases Sharpsburg's identity, people, culture, and ambitions, and envisions a community of opportunity where all people are connected, thriving, resilient, and empowered to be the best they can be. The Plan includes development principles, urban systems recommendations, and placemaking projects to guide Sharpsburg's future. The document also acts as the basis for the Sharpsburg Ecodistrict's Roadmap and for SNO's five-year work plan.

Applicable Imperatives & Priorities: This Plan addresses the three Imperatives (Social Equity, Resilience, and Climate Protection), as well as all Priority and Priority Objective categories.

ARTEZ Community Perception Survey

ARTEZ performed a community perception survey in 2015 to understand how residents perceive Sharpsburg. Interviewees consisted of a random sample of residents that volunteers visited to perform the survey. The key findings from the survey results include the following perceptions:

- Sharpsburg is a safe neighborhood where the houses are in fair or good quality.
- Sharpsburg is a social neighborhood where neighbors are friendly and enjoy spending time outdoors interacting with one another.
- Amenities such as the library, banks, and public transportations are easy to access, however, amenities such as mental health services and social benefit programs are not convenient to get to.

Applicable Imperatives & Priorities: This survey addresses Equity, Place (engagement and inclusion, culture and identity, public spaces, and housing), Health and Wellbeing (active living and safety), and Street Network (street network and mobility).

ARTEZ Housing Market Analysis

ARTEZ performed a housing market analysis in 2015 assess the current needs and opportunities within the Sharpsburg, Etna, Millvale, and Blawnox housing markets. These four communities were chosen because they have the greatest need for new and better quality housing stock. This study analyzes the housing market and identifies housing needs and housing market demand for affordable units within these four municipalities, which has helped to prioritize investment.

Applicable Imperatives & Priorities: This survey addresses Place (housing).

Sharpsburg Blight Reduction Recommendations Report

In November 2016, SNO kicked off its first resident working group, dedicated to addressing resident concerns about vacant blighted properties and improving property conditions throughout Sharpsburg, in partnership with the Pittsburgh Community Reinvestment Group (PCRG). The volunteer group analyzed Sharpsburg blight and property survey data, studied best practices in blight remediation from across the country, and in spring 2017 developed a five-year resident-driven blight reduction plan to be implemented by SNO and supporting partners.

Applicable Imperatives & Priorities: This report addresses Place (engagement and inclusion, public space, and housing) and Health and Wellbeing (safety).

Borough of Sharpsburg Long Range Plan (1957)

Prior to SCVP and River Bend Joint Comprehensive Plan, the Borough of Sharpsburg Long Range Plan was the most recent vision plan for the borough of Sharpsburg (completed in 1957). The Plan provides information regarding Sharpsburg's history, population, land use, economy, utilities, traffic and streets, central business district, industry, community facilities, housing, urban renewal, and implementation.

Applicable Imperatives & Priorities: This plan addresses Place (culture and identity, public spaces, and housing), Prosperity (economic development), and Connectivity (street network and mobility).

Millvale, Sharpsburg, & Etna Joint Comprehensive Plan (River Bend)

Completed in 2014, the River Bend Joint Comprehensive Plan includes Millvale, Etna, and Sharpsburg. The plan addresses issues of governance and long term planning related to municipal operations, land use, transportation, etc. This initial collaboration allowed each Borough to share a zoning map to better distribute zoning requirements across the three Boroughs and led to the Triboro Ecodistrict Initiative.

Applicable Imperatives & Priorities: This plan addresses Equity, Place (public spaces and housing), Prosperity (economic development), Health and Wellbeing (food systems), Connectivity (street network and mobility), Living Infrastructure (connecting residents to nature and improving natural features), and Resource Restoration (land use recommendations and gardens to improve air quality).

Sustainable Pittsburgh Regional Indicators

The regional nonprofit, Sustainable Pittsburgh, has developed a set of regional indicators that can be both a dataset and a benchmark for the municipality. The indicators are organized by People, Planet, Place, and Performance (P4) and many of the recommendations and data address equity issues.

Applicable Imperatives & Priorities: These indicators address social equity (racial equity, poverty, social capital, cost of living, and equity of political representation); place (crime, housing, land use, cultural life, and voting); prosperity (unemployment, graduation rates, and wages); health and wellbeing (general health, health care accesses, infant health, recreational opportunities, and mental health); connectivity (internet access and mobility); living infrastructure (water quality: combined sewer overflows and bromide and total dissolved solids, ecosystem health, and environmental ethics); and resource regeneration (air quality, energy use, waste and recycling, and toxic emissions).

City of Pittsburgh Resilience Plan

Adopted in 2017, Pittsburgh's OnePGH resilience plan was launched after two years in the Rockefeller Resilient Cities program. The plan addresses many of the same issues as Sharpsburg and, although there is no shared jurisdiction, the future of Sharpsburg is affected by the successes and failures across the rivers. The issues are organized by people, planet, place, and performance.

Applicable Imperatives & Priorities: This plan addresses resilience (shocks, stresses, and resilience planning) and prosperity (access to opportunity and economic development).

City of Pittsburgh Climate Action Plan (PCAP 3.0)

The City of Pittsburgh recently adopted the PCAP 3.0, which includes a carbon inventory and strategies for improvement. Within this plan are 2030 District Goals that set national standards for high performance buildings by committing properties to 50% reduction in energy use, water consumption, and transportation emissions by 2030, while improving indoor air quality. The Sharpsburg Ecodistrict can use the PCAP 3.0 as a resource and potential model to reduce the Borough's carbon footprint and transition to carbon neutrality.

Applicable Imperatives & Priorities: This plan is focused on Resource Regeneration (reducing greenhouse gas emissions, renewable energy, and reducing waste). It also touches upon Health & Wellness (food system).

City of Pittsburgh Roadmap to Zero Waste Study

The City of Pittsburgh completed the 2017 study to understand how to improve its municipal services. The study can be referenced by Sharpsburg but has no jurisdictional authority. Applicable Imperatives & Priorities: This study addresses health and wellbeing (food systems; living infrastructure (ecosystem health); and resource regeneration (waste).

Allegheny County Health Department (ACHD) Environmental Justice Index

ACHD compared federal and state environmental justice criteria with a locally weighted index that identified communities like Sharpsburg as "Environmental Justice" communities. Applicable Imperatives & Priorities: This index addresses social equity (median household income and racial demographics); place (housing vacancy); prosperity (educational attainment); living infrastructure (proximity to green space); and resource regeneration (air quality).

Allegheny Health Department (ACHD) Health Equity Briefs

At the county level, the Allegheny County Health Department has published Health Equity Briefs (published in 2018) on Health Access, Chronic Disease and Risk Behaviors, Environment, Maternal and Child Health, and Mental Health and Substance Use that describe the causes of differences in the quality of health across different populations and municipalities in Allegheny County, including Millvale. The briefs identify disparities related to chronic diseases, access to healthcare, the environment, maternal and child health, and mental health and substance abuse. Applicable Imperatives & Priorities: These briefs primarily address Health and Wellbeing and Equity.

PA State Incentives for Renewable and Efficiency

At the state level, there are a number of different incentives for renewables and efficiency to encourage individuals to be more energy efficient and transition to alternative fuel for their homes and/or vehicles. These include tax credits, rebates, and loan programs, including but not limited to Tax Credits for Consumer Renewable Energy and Energy Efficiency Products, the Alternative Fuel Vehicle (AFV) Rebate Program, and the Keystone Home Energy Loan Program. The Sharpsburg Ecodistrict will consider these programs as options to share with the community when pursuing initiatives to reduce resident energy burden and encourage the use of alternative fuel. Applicable Priorities: These incentives are focused on Resource Restoration (reducing greenhouse gas emissions, renewable energy, and energy efficiency).

PA Climate Action Plan

The Pennsylvania Climate Action Plan is required by the Pennsylvania Climate Change Act of 2008. The Department of Environmental Protection and the Climate Change Advisory Committee (CCAC) completed this Plan in 2019. The Plan identifies GHG emission and sequestration trends and baselines in the Commonwealth; evaluates cost-effective strategies for reducing or offsetting GHG emissions; it identifies costs, benefits, and co-benefits of recommended reduction strategies; and recommends legislative changes needed to implement the Plan. Applicable Priorities: This Plan addresses Prosperity (economic development); Health and Wellbeing (health and food systems); Connectivity (mobility); Living Infrastructure (natural features and ecosystem health), and Resource Regeneration (air and climate, water, and waste).

It can be seen from the review of local plans that there are several Priorities that are not currently being addressed. The Sharpsburg Ecodistrict Roadmap seeks to align with existing plans and fill gaps in the areas of Place (engagement and inclusion), Prosperity (access to opportunity, economic development, and innovation), Health and Wellbeing (active living, safety, and food systems), Connectivity (street network, mobility, and digital network), Living Infrastructure (natural features, ecosystem health, and connection with nature), and Resource Regeneration (air and climate, water, and water).

ONGOING & IMMINENT ACTIVITIES BY OTHERS

The following figure (figure 4) and narrative describes important ongoing and imminent activities by organizations other than SNO that have been considered during Roadmap preparation because of their significance to the Sharpsburg Ecodistrict.

Figure 4: Ongoing and imminent activities by other organizations that are significant to the Sharpsburg Ecodistrict.

Ongoing and Imminent Activities	Description and Applicable Priorities
Riverfront 47+ (Mosites Co.)	Riverfront 47 is a proposed mixed-use development that stretches along the Allegheny River from Aspinwall into O'Hara and Sharpsburg. It is expected to include ~500 housing units, light industry, and retail shops, however, the programming is still being determined. A timeline for completion has not yet been determined. The project is expected to contribute to Place by providing housing and public space, Prosperity by

	creating jobs, Connectivity with the development of the Three Rivers Heritage Trail through the site (see below), and Living Infrastructure by re-connecting the community to the Allegheny River.
Three Rivers Heritage Trail	In the future (timeline TBD), local and regional bike/pedestrian advocacy partners will extend the Three Rivers Heritage Trail from Millvale through Etna to Sharpsburg and Aspinwall. This trail will improve Connectivity as well as support a connection to nature, as related to Living Infrastructure .
Second Harvest Thrift Store	Second Harvest is a community thrift store and gathering place that is anticipated to open in Sharpsburg on Clay Street in 2020. The Thrift Store will contribute to Place by providing a gathering place for community members, Prosperity by creating jobs, Health and Wellbeing by collecting and distributing food donations to food-insecure households, and Resource Regeneration by encouraging material reuse, which minimizes waste production.
Local Business Development	Sharpsburg is welcoming many new businesses to the Borough, including 4FourSix Distillery, ZYNKA Gallery, Sara's Pets and Plants, Redhawk Coffee, and others. These businesses support Prosperity by creating jobs in Sharpsburg, Place by providing access to arts and culture, and Living Infrastructure by connecting the community with nature and animals.

PRIORITIES & OBJECTIVES

The Sharpsburg Ecodistrict Roadmap contains a series of community-identified principles (with program and policy recommendations), urban systems (with project recommendations), and places (with place-based project recommendations). The goals of these principles, urban systems, and places reflect the objectives described in the EcoDistricts Certified Handbook. While the Sharpsburg Community Vision Plan is not organized by the EcoDistrict priorities, the goals of the SCVP do address the priority objective categories. The goals have been slightly modified and supplemented to more explicitly address the priority objective areas, in alignment with the community-established goals.

Figure 5: The Sharpsburg Ecodistrict's goals as related to each EcoDistrict Priority Objective Category. Please note that this is not a comprehensive list of Sharpsburg's goals. Also, the goals below have been slightly modified and supplemented to more explicitly address each of the priority objective areas. More information on the Sharpsburg Ecodistrict Roadmap Priorities & Objectives can be found in Appendix A Sharpsburg Community Vision Plan and Appendix D Sharpsburg **Ecodistrict Roadmap Recommendations**

EcoDistrict Priority	EcoDistrict Objective	Sharpsburg Ecodistrict Goal (equivalent to EcoDistricts Objective)	SCVP Crosswalk
Place	Engagement & Inclusion	Engagement of the Sharpsburg community in Ecodistrict planning and project implementation is robust and inclusive	N/A
Place	Culture & Identity	The existing character of Sharpsburg is stabilized and strengthened	Urban System #3
Place	Public Spaces	Public spaces connect people to nature and each other	N/A

Place	Housing	Affordability of existing housing is maintained and additional affordable housing options are developed	N/A
Prosperity	Access to Opportunity	Community prosperity increases through wealth building, education, and wellness	Principle #3
Prosperity	Economic Development	New development is leveraged to benefit existing residents and the local economy, enabling Sharpsburgers to shape their own future	Principle #1
Prosperity	Innovation	Mutually beneficial relationships are established between new development and the community	N/A
Health & Wellbeing	Active Living	Pedestrians are prioritized by making walking, biking, and public transportation easier and safer	Urban System #2
Health & Wellbeing	Health	Health care facilities are accessible and high-quality	N/A
Health & Wellbeing	Safety	Roads and sidewalks are improved to enhance safety and encourage alternative transportation	N/A
Health & Wellbeing	Food Systems	Food is easily accessible, healthy, and affordable	N/A
Connectivity	Street Network	The street network supports all modes of transportation, including walking, biking, and public transportation	N/A
Connectivity	Mobility	Sharpsburg residents have mobility options that are reliable, safe, and affordable	N/A
Connectivity	Digital Network	Sharpsburg residents of all ages and incomes have equitable access to public wi-fi	N/A
Living Infrastructure	Natural Features	Natural features are enhanced and protected	N/A
Living Infrastructure	Ecosystem Health	Flooding is reduced due to green infrastructure projects	N/A
Living Infrastructure	Connection with Nature	Existing green assets and new green space form a green network, improving the connection between people and nature	Urban System #1
Resource Regeneration	Air & Climate	Energy efficiency, renewable energy, and mitigation strategies reduce carbon emissions and improve air quality	N/A
Resource Regeneration	Water	Water quality is improved and people are reconnected physically and mentally to the river	Urban System #4
Resource Regeneration	Waste	Waste is diverted from landfills through robust recycling and composting programs	N/A

INDICATORS

The Sharpsburg Community Vision Plan contains a series of community-identified metrics and goals for each of the six principles, including the six Quality of Life issue areas. These metrics and goals are equivalent to the indicators described in the EcoDistricts Certified Handbook. The

Sharpsburg Community Vision Plan, while not organized by the EcoDistrict Priorities, does include at least one metric or goal for each of the priority objective categories, as shown in Figure 6. Where necessary, the metrics and goals have been slightly modified and supplemented to more explicitly address the priority objective areas, in alignment with the community-established goals.

Figure 6: The Sharpsburg Ecodistrict's metrics and goals as related to each EcoDistrict Priority Objective Category. Please note that this is not a comprehensive list of Sharpsburg's metrics and goals. Also, where necessary, the metrics and goals below have been slightly modified and supplemented to more explicitly address each of the priority objective areas. More information on the Sharpsburg Ecodistrict's metrics and goals can be found in Appendix A Sharpsburg Community Vision Plan and Appendix E Sharpsburg Ecodistrict Indicators.

EcoDistrict Priority	EcoDistrict Objective	Sharpsburg Ecodistrict Indicators (equivalent to EcoDistricts Objective)	SCVP Crosswalk
Place	Engagement & Inclusion	# of unique and total Sharpsburg Ecodistrict participants	Principle #1
Place	Culture & Identity	# of times the Sharpsburg Ecodistrict is positively mentioned in the regional media annually	Principle #4
Place	Public Spaces	# of community events programmed annually for outdoor public spaces, including streets	N/A
Place	Housing	Median rent and median home sale price	Equity indicator
Prosperity	Access to Opportunity	# of Sharpsburgers participating in job training programs	Principle #3
Prosperity	Economic Development	# of businesses in Sharpsburg	Principle #1
Prosperity	Innovation	# of businesses or projects that establish a Community Benefits statement or agreement	Principle #2
Health & Wellbeing	Active Living	# of painted crosswalks in the public realm	Principle #5: Mobility
Health & Wellbeing	Health	% of residents with health insurance (including medicaid and medicare) & fatal and non-fatal opioid overdoses	Principle #3
Health & Wellbeing	Safety	# of reported transportation crashes annually	Principle #5: Mobility
Health & Wellbeing	Food Systems	# of people accessing fresh, healthy food & # of people educated on healthy food preparation or consumption who improved their knowledge, awareness, skills, or attitude	Principle #5: Food
Connectivity	Street Network	# of ADA compliant ramps in the public realm	Principle #5: Mobility
Connectivity	Mobility	# of bike racks	Principle #5: Mobility
Connectivity	Digital Network	# of metrics tracked in publicly available community dashboard	Principle #6

Living Infrastructure	Natural Features	% of shade tree canopy coverage	Principle #5: Air
Living Infrastructure	Ecosystem Health	# of green infrastructure projects implemented and \$ spent on green infrastructure projects	Principle #5: Water/ Resilience indicator
Living Infrastructure	Connection with Nature	Acres of public green space	N/A
Resource Regeneration	Air & Climate	MWh/year of renewable energy generated within Sharpsburg	Principle #5: Energy/ Climate Protection indicator
Resource Regeneration	Water	# of people educated on water safety impacts and prevention who improved their knowledge, awareness, skills, or attitudes & gallons of stormwater retained through green infrastructure	Principle #5: Water
Resource Regeneration	Waste	# of recycling and compost drop-off sites	Principle #5: Food

EXISTING CONDITIONS & BASELINE PERFORMANCE ASSESSMENT

The existing conditions of the Sharpsburg Ecodistrict are documented in the Sharpsburg Community Vision Plan. This includes:

- **Demographics** page 10
- Land use page 45
- **Housing** page 13, 26 31
- **Employment** page 18, 32 33, 54
- Education facilities and programs page 11, 32 34, 98
- Recreation facilities and programs page 11 12, 81 85
- Historic and cultural resources page 11 13, 17, 95 99
- Health and human services page 32 34, 40, 46, 87 93
- **Public safety** page 48 49, 87 93
- Transportation (all modes) page 48 49, 87 93
- Water supply- page 42 43
- Wastewater treatment page 42 43
- Rainwater management page 42 43, 72 73, 84 85, 105, 118, 132
- Solid waste management page 40, 50
- **Natural environment** page 81 85, 101 105
- **Climate** page 44 45, 46 47

In addition to the information provided in the Sharpsburg Community Vision Plan, supplemental information about land use, employment, education facilities and programs, and public safety is provided below.

Land Use

A land use map can be found in the Sharpsburg Community Vision Plan on page 45, which is also displayed below (Figure 7). Sharpsburg is 0.63 square miles, with 0.48 square miles of land area and 0.15 square miles of water area (the Allegheny River). Sharpsburg contains 1,185 residential buildings (totaling 2,436,825 square feet), 277 commercial buildings (totaling 1,413,358 square feet), and 27 industrial buildings (totaling 682,311 square feet). Sharpsburg also contains steep wooded hillsides and urban green space (totaling approximately 2,153,000 square feet).

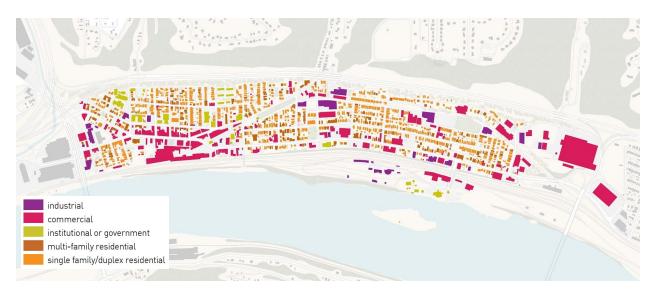


Figure 7: Sharpsburg land use map distinguishing between residential, commercial, industrial, and wooded hillside or green space land uses.

Employment

Sharpsburg contains approximately 213 businesses, employing about 2,091 people (equivalent to about 60% of the population). While this is a significant number of jobs, not everyone who works in Sharpsburg lives in Sharpsburg. 268 Sharpsburg residents have a morning commute of 10 minutes or less, about 17% of employed individuals who live in Sharpsburg. This indicates that while there is some alignment between Sharpsburg jobs and the skill sets and education currently possessed by Sharpsburg residents, there could be more jobs available in Sharpsburg that match the interests of Sharpsburg residents. Therefore, a majority of working residents must travel elsewhere for employment, either by choice or necessity. Sharpsburg's unemployment rate was about 4.3% prior to COVID-19, and is expected to have increased due to the pandemic. The median household income in Sharpsburg is \$36,948. (ESRI, Infogroup, 2020)

The largest industries in Sharpsburg are Retail Trade (418 people), Health Care & Social Assistance (260 people), and Manufacturing (158 people), and the highest paying industries are Information (\$53,269), Other Services Except Public Administration (\$47,917), and Professional, Scientific, and Technical Services (\$40,375). The most common job groups, by number of people living in Sharpsburg, are Sales & Related Occupations (263 people), Office & Administrative Support Occupations (208 people), and Management Occupations (131 people). (Data USA, Deloitte, Datawheel, 2018)

Education Facilities & Programs

Sharpsburg is part of the Fox Chapel School District, a nationally-recognized, award-winning school district. Public school students from Sharpsburg attend Kerr Elementary, Dorseyville Middle School, and Fox Chapel Area High School. Sharpsburg is also home to The Watson Institute, which provides education to children with special needs. In terms of educational attainment, of Sharpsburg residents who are 25 years or older, 3.1% have less than a 9th grade education, 7.9% have 9th - 12th grade with no diploma, 27.5% are a High School Graduate, 10.2% have a GED/Alternative Credential, 16.9% have some college but no degree, 10.7% have an Associate Degree, 16.4% have a Bachelor's Degree, and 7.2% have a Graduate/Professional Degree.

The community has a variety of other educational assets as well. This includes events and classes at the Sharpsburg Community Library, Volunteers of America's Youth Empowerment Program, and after school programs at local churches. There are also several job training opportunities in Sharpsburg, including programs led by Roots of Faith, the high school vocational training program, the Borough's junior councilperson program, and the teen solar fellowship.

Public Safety

General information about vehicular, bicycle, and pedestrian safety can be found on pages 48 - 49, and 87-93 of the SCVP. To expand upon this information, Sharpsburg had 35 total reported crashes in 2018, including 16 crashes along Route 28 and 19 crashes in town. Of the crashes in town, 17 required a vehicle to be towed, 0 crashes involved a pedestrian, 0 crashes involved a motorcycle, and 1 involved a bicycle. The map below (Figure 8) provides a red dot for each traffic crash that has occurred in Sharpsburg within the past ten years, including along Route 28, the 62nd Street Bridge, and the Highland Park Bridge. The map shows clusters of crashes along Route 28 and on both bridges. There have also been crashes along Main Street, particularly on the eastern and western portions of this street.

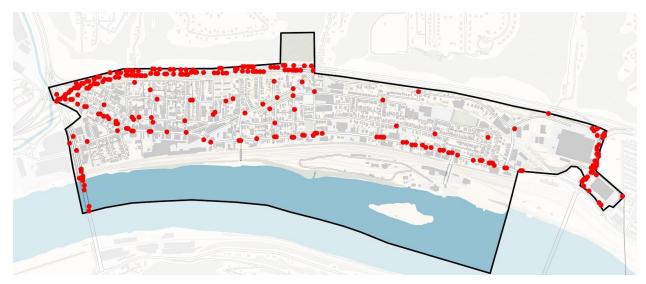


Figure 8: Locations of reported traffic crashes from 2008 - 2018.

In general, Sharpsburg is a very safe community to live in with few incidents of violent or extreme crimes. According to Sharpsburg Borough Police Department incident report data, in 2019 there were 53 counts of theft, burglary, robbery, assault, larceny, and motor vehicle theft. In 2019 there were 0 reported homicides, manslaughter, rape, or arson. Additionally, the Borough of Sharpsburg Police endeavor to have a strong and positive relationship with the community. In recent years, the department has added body cameras to its operations and created a bicycle patrol to increase approachability and visibility. The department has also demonstrated leadership and commitment to supporting residents experiencing domestic violence and those dealing with substance use disorder.

Baseline Energy Use and CO₂ Emissions Inventory

Sharpsburg's baseline energy consumption and CO2 emissions inventory was established using the ICLEI Protocol and establishes a baseline year of 2017, documented in the table and narrative below. There is no energy consumption or carbon emissions related to infrastructure (wastewater treatment facilities, landfills, etc.) within the physical boundary of Sharpsburg, and is therefore considered Scope 3 emissions. The energy baseline and CO2 emissions inventory only accounts for Scope 1 and Scope 2 emissions as described in the Global GHG Protocol and the EcoDistricts Certified Handbook (page 56).

ICLEI's GHG Emissions Inventory Protocol and Clearpath software was used to inform the baseline energy performance and CO2 emissions inventory, as well as train schedules, the Bureau of Transportation Statistics, and the Borough of Sharpsburg's utility bills. The process abides by the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories.

Figure 9: Sharpsburg's baseline energy consumption in million BTU/year for the 2017 calendar year.

Energy End Uses		Scope 1		Scope 2		Total	% of	
	Buildings Transp. Using Using	-	Transp. Using	Grid-Supplied Electricity			Annual Energy	Total Annual
	Natural Gas	Gasoline	Diesel	Buildings Using Electricity	Transp. Using Electricity	District Infra.	Use	Energy Use
BUILDINGS								
Residential	131,185	-	-	36,454	-	-	167,639	36.4%
Non-Residential	54,201	-	-	42,323	-	-	96,524	20.9%
Buildings Subtotal	185,386	-	-	78,777	-	-	264,163	57.3%
TRANSPORTATION								
On-Road Transportation	-	137,959	53,902	-	0	-	191,861	41.6%
Railroads	-	-	4,468	-	-	-	4,468	1.0%
Transportation Subtotal	-	137,959	58,370	-	0	-	196,329	42.6%
INFRASTRUCTURE								
Street Lights	-	-	-	-	-	314*	314	0.07%
Traffic Control	-	-	-	-	-	145*	145	0.03%
Infrastructure Subtotal	-	-	-	-	-	459	459	0.1%
TOTAL								
District Total	185,386	137,959	58,370	78,777	-	459	460,961	100.0%

^{*}Street light and traffic control energy consumption data is currently unavailable. The numbers above are estimated based on energy consumption in Millvale and Etna.

Figure 10: Sharpsburg's baseline CO2 emissions in metric tons/year for the 2017 calendar year.

Energy End Uses		Scope 1			Scope 2		Total	% of Total
	Buildings	Buildings Transp. Using Using	Transp. Using Diesel	Grid-Supplied Electricity			Annual CO2	Annual CO2
	Natural Gas	Gasoline		Buildings Using Electricity	Transp. Using Electricity	District Infra.	Emissions	Emissions
BUILDINGS								
Residential	6,977	-	-	4,614	-	-	11,591	33.3%
Non-Residential	2,883	-	1	5,790	-	-	8,673	24.9%
Buildings Subtotal	9,860	-	-	10,404	-	-	20,264	58.2%
TRANSPORTATION								
On-Road Transportation	-	10,193	3,944	-	0	-	14,137	40.6%
Railroads	-	-	327	-	-	-	327	0.9%
Transportation Subtotal	-	10,193	4,271	-	0	-	14,464	41.5%
INFRASTRUCTURE								
Street Lights	-	-	-	-	-	65	65	0.2%
Traffic Control	-	-	-	-	-	30	30	0.1%
Infrastructure Subtotal	-	-	-	-	-	95	95	0.3%
TOTAL								
District Total	9,860	10,193	4,271	10,404	0	95	34,823	100.0%
ADJUSTED BASE YEAR EN	MISSIONS							
On-Site Sequestration*	-	-	-	-	-	21	21	0.06%
On-Site Renewable Energy Production	-	-	-	13.7	-	1	13.7	0.04%
Excess Renewable Power Sales Offsets	-	-	-	0	-	0	0	0
Adjusted District Total	-	-	-	13.7	-	21	34,788	100.0%

^{*}In Pennsylvania, on average, trees can sequester 1.0 ton of carbon per hectare per year (t/ha/yr). (Dwyer et al., 2000: Nowak et al., 2001)

EXISTING LOCAL TARGETS & PARALLEL EFFORTS

The Sharpsburg Climate Action Plan sets a goal for Sharpsburg to reduce community wide carbon emissions 15% by 2025, 25% by 2030, and 65% by 2050. Sharpsburg will purchase carbon offsets for the remaining 35% to achieve net zero carbon emissions by 2050.

Programs operated by entities other than the Sharpsburg Neighborhood Organization that serve Sharpsburg and have been included in calculating the achievement of 2030 performance targets have been described in the "Source" information that accompanies each indicator in Appendix E: Sharpsburg Ecodistrict Indicators.

ROADMAP HORIZON YEAR

The Sharpsburg Ecodistrict's horizon year for the purpose of this Roadmap is the year 2030. This is in alignment with the Triboro Ecodistrict's horizon year. The Sharpsburg Ecodistrict aims to be a net carbon neutral community by the year 2050.

DISTRICT BUILD-OUT ESTIMATE

The Borough of Sharpsburg is a densely populated community, with approximately 3,446 residents within approximately 0.63 square miles. This leaves little room for infill development or new construction projects. To account for this, building reuse is prioritized to improve underutilized buildings and bring new amenities to Sharpsburg, in addition to a few new construction projects. Over the next ten years, the Sharpsburg Community Vision Plan proposes several projects, including an expansive riverfront development, grocery store/market, Flood Improvement District, elder housing, and permanently affordable housing (community land trust).

It is anticipated that these projects will result in a slight population increase, bring new jobs to Sharpsburg, and contribute to Sharpsburg's performance targets. More specifically, the impact of these initiatives will result in a population increase of at least 80 residents (a 1.0% increase) and at least 20 new jobs (a 2.3% increase). However, it must be noted that not all place-related projects proposed in the Sharpsburg Community Vision Plan will be achieved by the year 2030, if at all. Additionally, these projects must be implemented in tandem with the Ecodistrict Recommendations to achieve the performance targets. Separate from the projects proposed in the Sharpsburg Community Vision Plan, residential population and employment growth is expected to stay relatively stable until the year 2050 (carbon neutrality year). For more information about the projects that will affect population and employment within Sharpsburg, please see below.

Riverfront Development

Over 47 acres of riverfront property is currently being developed in Sharpsburg. While the development of this enormous area of property will have a significant impact on the population and local economy, the details regarding use are still to be determined. The site will likely include commercial space and high density multi-family housing (both affordable housing and market rate housing). The property developers are working closely with Sharpsburg Neighborhood Organization

and ACTION Housing to ensure the project aligns with SCVP goals while also being financially feasible for the developer. The specific impact of this project on the Sharpsburg Ecodistrict can not be determined at this time, however, it can be assumed that both permanent and temporary jobs will be created, new housing units will lead to an increase in population, carbon emissions will increase, and the development will have a positive impact on Sharpsburg's performance targets.

Grocery Store/Market

The Sharpsburg Community Vision Plan proposes that a building near the western gateway into the community becomes a grocery store or market. A grocery store is one of the most important essential services that Sharpsburg should have to be a complete community. The grocery store/market could be located across from the Pine Creek Gateway Park to increase visibility, and would be in walking distance to Sharpsburg's core business district. The grocery store/market could be operated by Aldi, Trader Joe's, or another affordable chain food store or independent market, and would provide Sharpsburgers with access to fresh and healthy foods. The establishment of a grocery store/market would create approximately 20 new jobs and by providing an additional location to purchase food, it may decrease the number of purchases made at Green Grocer, Food Bank, and Neighborhood Table (Health and Wellbeing: Food Systems performance target). The addition of this store will increase community-wide energy consumption and carbon emissions, however, energy efficiency best practices and solar arrays will be investigated as part of this project, which would minimize the additional energy and carbon contribution to the greater community. For more information about this project, please see page 116 in the Sharpsburg Community Vision Plan.

Flood Improvement District

The Sharpsburg Community Vision Plan proposes that properties in the floodplain be designated a Flood Improvement District where building owners are provided resources and technical assistance to reduce vulnerability to future flood damage. This program is not projected to create any permanent jobs, but will create temporary construction jobs. Renovated residential and commercial buildings will contribute to reducing annual foreclosures and/or evictions (Equity Imperative performance target) and will increase the number of green infrastructure projects implemented and funding spent on green infrastructure projects (Resilience Imperative performance target). The renovation of existing buildings will provide an opportunity to implement energy efficiency best practices and investigate the installation of solar arrays, decreasing community-wide energy consumption and carbon emissions. For more information about this project, please see pages 114 - 115 in the Sharpsburg Community Vision Plan.

Elder Housing

The Sharpsburg Community Vision Plan proposes the renovation of clusters of existing buildings into Elder Housing. The number of units to be renovated is unknown at this time. The renovation of existing housing units may increase Sharpsburg's population by one or two individuals per unit as elders downsize from single family homes. This project is not projected to create any permanent jobs, but will create temporary construction jobs. This project contributes to reducing annual foreclosures and/or evictions by providing permanently affordable housing (Equity Imperative

performance target). The renovation of existing buildings will provide an opportunity to implement energy efficiency best practices and investigate the installation of solar arrays, decreasing community-wide energy consumption and carbon emissions. For more information about this project, please see page 125 in the Sharpsburg Community Vision Plan.

City of Bridges Community Land Trust

Sharpsburg, in collaboration with four other municipalities and City of Pittsburgh neighborhoods, is a founding member of the City of Bridges Community Land Trust. As part of this community land trust, Sharpsburg aims to renovate and/or build 20 new housing units over the next ten years, which can accommodate up to 80 additional residents. Three units are proposed for the site adjacent to Heinz Memorial Field, and two units are proposed as infill housing along Middle Street. The specific locations of the remaining units have not yet been established. This project contributes to reducing annual foreclosures and/or evictions by providing permanently affordable housing (Equity Imperative performance target). The addition of new housing units will increase community-wide energy consumption and carbon emissions, however, energy efficiency best practices and solar arrays will be investigated as part of this project, which would minimize the additional energy and carbon contribution to the greater community. The renovation of existing buildings will provide an opportunity to implement energy efficiency best practices and investigate the installation of solar arrays, decreasing community-wide energy consumption and carbon emissions. For more information about this project, please see the City of Bridges website and pages 27, 29, 30, 75, 137 in the Sharpsburg Community Vision Plan.

HORIZON YEAR PERFORMANCE TARGETS

The Sharpsburg Ecodistrict contains a series of indicators for each of the six Quality of Life areas. The Sharpsburg Community Vision Plan, while not organized by the EcoDistrict priorities, does include one indicator for each of the priority objective categories and for each of the Imperatives. The baseline performance and 2030 targets for each indicator are documented in Appendix E, Sharpsburg Ecodistrict Indicators.

POTENTIAL STRATEGIES

The Sharpsburg Ecodistrict Roadmap contains a series of community-identified principles (with program and policy recommendations), urban systems (with project recommendations), and places (with place-based project recommendations). These recommendations are equivalent to the EcoDistrict Certification requirement for "strategies". While the Sharpsburg Community Vision Plan is not organized by the EcoDistrict priorities, the recommendations in the SCVP do address each of the priority objective categories, as shown in Figure 11. Please see the Sharpsburg Community Vision Plan for more information about the Sharpsburg Ecodistrict recommendations.

Figure 11: The Sharpsburg Ecodistrict recommendations as related to each EcoDistrict Priority Objective Category. Please note that this is not a comprehensive list of Sharpsburg's policy, program, project, and place-based recommendations.

More information on the Sharpsburg Ecodistrict recommendations can be found in **Appendix A Sharpsburg Community Vision Plan** and **Appendix D Sharpsburg Ecodistrict Roadmap Recommendations**.

EcoDistrict Priority	EcoDistrict Objective	Sharpsburg Ecodistrict Recommendations (equivalent to EcoDistrict Strategies)	SCVP Crosswalk
Place	Engagement & Inclusion	Develop a Sharpsburg leadership cohort of people who can connect with the community about this plan, can communicate and activate people about development and progress, and who can explain how Sharpsburg relates to regional and national trends	Principle #1
Place	Culture & Identity	Create a Sharpsburg marketing campaign to brand, communicate, and control Sharpsburg's identity and story and how it is viewed by the region and beyond	Principle #4
Place	Public Spaces	Participate in and promote the riverfront trail design process	Urban System #1
Place	Housing	Establish a community land trust to preserve permanently affordable housing	Principle #2
Prosperity	Access to Opportunity	Work with local professionals and banks to provide financial empowerment classes, where residents can receive financial education	Principle #3
Prosperity	Economic Development	Advocate for complementary, sustainable clusters of businesses between Main Street and the riverfront development	Urban System #3
Prosperity	Innovation	Partner with nonprofits to investigate potential microgrid technology and municipally supplied renewable energy	Principle #5: Energy
Health & Wellbeing	Active Living	Create living streets, plazas, and other engaging pedestrian experiences	Urban system #2
Health & Wellbeing	Health	Improve indoor air quality with educational programming, free IAQ kits (including filters, best practices, etc.), and expanded access to lead/mold/asbestos abatement programs	Principle #5: Air
Health & Wellbeing	Safety	Accelerate implementation of the complete streets resolution along identified corridors	Principle #5: Mobility
Health & Wellbeing	Food Systems	Expand and improve the existing community garden and increase garden-related programming	Principle #5: Food
Connectivity	Street Network	Perform a mobility assessment to identify sidewalks and roads to prioritize for improvements	Principle #5: Mobility
Connectivity	Mobility	Create a mobility masterplan, including a parking study, transit oriented development (TOD) feasibility study, and adaptive streets plan	Urban System #2
Connectivity	Digital Network	Provide community-owned free-to-access Wi-Fi to ensure residents of all ages and incomes have access	Principle #3
Living Infrastructure	Natural Features	Create a shade tree policy, including requirements for parking lots, new development, and tree removal/replacement	Principle #5: Air
Living Infrastructure	Ecosystem Health	Develop and revise policies for new development (including parking lots) that require a certain quantity of green infrastructure	Principle #5: Water

Living Infrastructure	Connection with Nature	Improve existing green space and create network of green spaces throughout Sharpsburg	Urban System #1
Resource Regeneration	Air & Climate	Perform air quality monitoring in a variety of locations within the borough to establish a robust local baseline	Principle #5: Air
Resource Regeneration	Water	Create streamside parks to improve water quality	District #2
Resource Regeneration	Waste	Establish a municipal recycling program, including education, public recycling cans, and curbside service	Principle #5: Food

STRATEGIES ASSESSMENT & RANKING

The Sharpsburg Ecodistrict seeks to achieve all of the recommendations listed in the Sharpsburg Community Vision Plan, however, given the community's capacity, achieving all of the recommendations in such a short time frame is unattainable. The recommendations have been assessed and the results will inform the community's immediate priorities over the next three to five years. The community has prioritized recommendations that are fully within the control of the Sharpsburg Ecodistrict, align with community values, match the organizational capacity and funding available for the next three years, in addition to evaluating the benefits in regards to equity, resilience, and climate protection. The Sharpsburg Ecodistrict also considered risk, level of stakeholder support, and impact on 2030 performance targets when assessing the recommendations. See Appendix D, Sharpsburg Ecodistrict Roadmap Recommendations for the full strategies assessment.

Figure 12: Ranking criteria and scoring descriptions for Sharpsburg Ecodistrict recommendations

Ranking Criteria	Score 1	Score 2	Score 3
Technical Readiness	Few to no key steps for implementation of this project/program are in place	Some but not all key steps for implementation of this project/program are in place	All key steps for implementation of this project/program are in place
Financial Soundness	The Sharpsburg Ecodistrict has neither sufficient funds nor a fundraising plan to implement this project/program	The Sharpsburg Ecodistrict has partial funds and/or a fundraising plan to implement this project/program	The Sharpsburg Ecodistrict has full funds to implement this project/program
Risk	Implementation of this project/program has high risk of negative social, economic, or environmental consequences	Implementation of this project/program has moderate risk of negative social, economic, or environmental consequences	Implementation of this project/program has low risk of negative social, economic, or environmental consequences
Capacity to Manage	The Sharpsburg Ecodistrict will not have sufficient	The Sharpsburg Ecodistrict has sufficient capacity and	The Sharpsburg Ecodistrict has sufficient capacity and

	capacity to implement this project/program until 7+ years from now	partner support to implement this project/program within the next 4-6 years	partner support to implement this project/program within the next 3 years
Level of Stakeholder Support	Stakeholders have not expressed support for this project/program, or have expressed concern	Stakeholders have expressed moderate support of this project/program	Stakeholders have expressed enthusiastic and full support of this project/program
Impact on Targets	Implementation of this project/program would make minor progress towards fulfilling the Sharpsburg Ecodistricts six Quality of Life Vision Statements and carbon neutrality targets	Implementation of this project/program would make moderate progress towards fulfilling the Sharpsburg Ecodistricts six Quality of Life Vision Statements and carbon neutrality targets	Implementation of this project/program would make significant progress towards fulfilling the Sharpsburg Ecodistricts six Quality of Life Vision Statements and carbon neutrality targets
Contribution to Climate Neutrality Targets	Implementation of this project/program would reduce Scope 1 and Scope 2 community-wide carbon emissions slightly or not at all	Implementation of this project/program would moderately reduce Scope 1 and Scope 2 community-wide carbon emissions	Implementation of this project/program would significantly reduce Scope 1 and Scope 2 community-wide carbon emissions

There are several recommendations listed in the Sharpsburg Community Vision Plan that do not directly contribute to the goal of carbon neutrality, but indirectly or cumulatively contribute. The carbon impact of these recommendations are listed in column AF of Appendix D, Sharpsburg Ecodistrict Roadmap Recommendation. Based on the recommendations and performance targets that are directly quantifiable, it has been calculated that the community will reduce its carbon emissions by 11,857 metric tons over the next ten years. This is about 34% of Sharpsburg's baseline carbon emissions, exceeding their target of a 25% reduction in carbon emissions by **2030.** After setting the groundwork over the next ten years, Sharpsburg will re-evaluate its carbon emissions inventory and progress towards carbon neutrality as part of a planning process in 2030 that will result in updated indicators, goals, and recommendations. Depending on the nature of these future actions, Sharpsburg will purchase carbon offsets to ensure that the Ecodistrict achieves carbon neutrality by the year 2050. See below and Appendix D, Sharpsburg Ecodistrict **Roadmap Recommendation** for more detail.

Pathway to Carbon Neutrality

- 1. Increase the use of alternative transportation and better connect Sharpsburg to the **region**. This includes the following actions:
 - P3: Provide connectivity and equitable access, both physically and virtually. Improve connectivity with transit choices
 - P5 Mobility: Perform a mobility assessment to identify sidewalks and roads to prioritize for improvements
 - P5 Mobility: Accelerate implementation of the complete streets resolution along identified corridors
 - P6: Participate in and promote the riverfront trail design process
 - S1: On-street routes and regional trails
 - S2: Complete streets and adaptive streets

- S2: Living streets and plazas
- S2: Enable mode choice
- S2: Main Street = Mobility Street
- S2: Mobility study as a path to parking management
- S4: Neighboring communities
- D1: Complete Streets Improvement
- D1: Riverfront Trail
- D2: Canal Trail
- D2: Streetscape Improvements
- D3: Canal Trail to Aspinwall

The impact of each individual action cannot be quantified at this time, however, it is reasonable to assume that the cumulative impact of these actions would increase Sharpsburg's alternative transportation rate from 35% to 40% (a 5% improvement). Assuming that these actions can achieve this goal, this will result in a **reduction of 707 metric tons of carbon emissions annually**. This is an ambitious goal for the year 2030. Additional actions will support achievement of this goal between the years 2030 and 2050.

- 2. Sequester carbon with trees and vegetation. This includes the following actions:
 - P5 Air: Create a shade tree policy, including requirements for parking lots, new development, and tree removal/replacement
 - S1: Creek connections
 - S1: Gateway parks
 - D1: Pine Creek Gateway Park
 - D3: Eastern Gateway

The impact of each individual action cannot be quantified at this time, however, the cumulative impact of these actions aims to increase Sharpsburg's shade tree canopy from 16.8% to 20% (a 3.2% increase) over the next 10 years. This will result in a **reduction of 4 metric tons of carbon emissions annually**. This estimate is informed by the Plans established for the year 2030. Additional carbon sequestration actions will be taken between the years 2030 to 2050.

- **3.** Reduce energy consumption and increase renewable energy adoption. This includes the following actions:
 - P5 Equity: Establish a green business district association to support sustainability initiatives along Main Street
 - P5 Equity: Show municipal leadership by demonstrating sustainable practices and technology at the Borough building and other public properties
 - P5 Energy: Partner with nonprofits to investigate potential microgrid technology and municipally supplied renewable energy
 - P5 Energy: Partner with energy efficiency organizations to develop an energy efficiency/weatherization program to reduce energy consumption and costs

The Sharpsburg Climate Action Plan has a goal to reduce building energy consumption by 20% over the next 10 years. The first step is energy conservation. Energy efficiency improvements on average reduce energy consumption by 15 to 30%. In Sharpsburg the energy efficiency improvements will be aggressive and deep retrofits. This will result in a **reduction of 4,053 metric tons of carbon emissions annually**. As a note, not all buildings will undergo a deep energy efficiency retrofit before 2030, but all buildings will by the year 2050.

Next, Sharpsburg will install solar panels on solar-eligible rooftops (See **Appendix E Sharpsburg Ecodistrict Indicators** for a list of projects). This will result in a reduction of **198 metric tons of carbon emissions annually.**

After the year 2030, the Sharpsburg will continue installing solar panels on solar-eligible rooftops as well as investigate the establishment of a solar farm and participation in a solar co-op. According to Project Sunroof, 78% of the roof area in Sharpsburg is solar viable. If 50% of the solar viable buildings installed solar arrays (not including those that already have solar arrays), this would result in 9,750,000 kWh of renewable energy produced annually. This will result in a **reduction of 6,894 metric tons of carbon emissions annually**. As a note, not all buildings will install solar panels before 2030, but most or all buildings will by the year 2050.

As technology evolves, Sharpsburg will utilize new smart energy technology, employ additional carbon sequestration techniques, and install additional forms of renewable energy, such as solar arrays over parking lots and wind turbines along the highways. While these ideas are mentioned in the Sharpsburg Community Vision Plan, the benefit of these initiatives cannot be quantified at this time.

Finally, Sharpsburg will purchase carbon offsets to reach their goal of carbon neutrality by the year 2050. See Table 10 below for Sharpsburg's outlined pathway to carbon neutrality.

Figure 13: Sharpsburg Ecodistrict's carbon neutrality strategies and corresponding carbon emission offsets, reductions, and sequestrations. If all recommendations are implemented, including further strategies beyond our 2030 horizon year, Sharpsburg will achieve carbon neutrality by 2050.

2050 Carbon Neutrality Strategy	CO2 (metric tons)	
2017 Carbon Emissions Baseline	34,788	
Increase alternative transportation rate	- 707 (2.03% decrease)	
Sequester carbon with trees and vegetation	-4 (0.01% decrease)	
Energy efficiency retrofits (20% by 2030)	-4,053 (11.65% decrease)	
Solarization of buildings (select projects by 2030)	-198 (0.57% decrease)	
Solarization of buildings (50% of solar eligible rooftops by 2050)	-6,895 (19.82% decrease)	
Additional strategies in years 2030-2050	To Be Determined	

Carbon offsets purchase (depending on the nature of projects occurring in the years 2030 to 2050, this number could be smaller)	-22,931 (65.92% decrease or less)
Total Carbon Emissions Removed	34,788
Net Carbon Emissions	0

RESPONSIBILITIES, FUNDING, & IMPLEMENTATION SCHEDULE

The Sharpsburg Ecodistrict seeks to achieve all of the recommendations listed in the Roadmap, however, given the Sharpsburg Ecodistricts projected capacity over the next few years, achieving all of the recommendations in such a short time frame is unattainable. The Sharpsburg Ecodistrict has prioritized the recommendations and chosen several to focus on over the next three years. These prioritized recommendations are marked in column AH of **Appendix D Millvale Ecodistrict Roadmap Recommendations**. "Green" actions have been selected by SNO and their Board as priorities for the next five years. "Yellow" actions have scored highly based on the strategies assessment. Each prioritized recommendation includes a responsible party, estimated implementation costs, potential funding source, and an implementation schedule. Implementation costs will be determined on a project by project basis and is contingent on available funding.

SIGNATORIES

This Roadmap will renew every two years without notice or review unless a majority of signatories requests that the Roadmap be reviewed. In the event that a signatory wishes to terminate this Roadmap, termination requires a majority vote from Sharpsburg Ecodistrict Collaborative members.

Signed by Sharpsburg Ecodistrict Collaborative members:

KATHLEEN STANLEY

Kathleen Stanley, Outreach Director, Roots of Faith

BONNIE DEMOTTE

Bonnie DeMotte, Executive Director, Second Harvest

SARA MARIACHER

Sara Mariacher, Manager, Sharpsburg Community Library

BRITTANY RENO

Brittany Reno, Executive Director, Sharpsburg Neighborhood Organization

KATIE POWER

Katie Power, Volunteers of America Youth Empowerment Project

Signed by Sharpsburg Neighborhood Organization Board:

SHANNA CARRICK

Shanna Carrick, SNO Board President

KACIE COPE

Kacie Cope, SNO Secretary

NANCI GOLDBERG

Nanci Goldberg

NATHAN PEARCE

Nathan Pearce, SNO Vice President

PAUL PEROWICZ

Paul Perowicz

SYDNEY RABINOVITZ

Sydney Rabinovitz

MATTHEW V. RUDZKI

Mayor Matthew V. Rudzki

Mayor of Sharpsburg Borough

SCOTT SHAFFER

Rev. Scott Shaffer, SNO Treasurer

CHARLES SMITH

Charles Smith

APPENDICES

A. Sharpsburg Community Vision Plan

The Sharpsburg Community Vision Plan presents the community's vision for the next ten years, and includes development principles, urban systems recommendations, and placemaking projects to guide Sharpsburg's future. The document also acts as the basis for the Sharpsburg Ecodistrict's Roadmap and for SNO's five-year work plan.

- **B.** Sharpsburg Ecodistrict Community Engagement Summary
- C. Sharpsburg Priority-Based Asset Map
- D. Sharpsburg Ecodistrict Roadmap Recommendations
- E. Sharpsburg Ecodistrict Indicators