

Charleston Green Team Strategic Plan

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TABLE OF CONTENTS

- 1. INTRODUCTION 1
- 2. OPERATIONAL PROJECTS 3
- 3. IMPLEMENTATION PROJECTS 10
- 4. ACTION PLAN 18
- REFERENCES 22
- APPENDIX A: RESOLUTION CREATING THE GREEN TEAM 24
- APPENDIX B: BYLAWS OF THE GREEN TEAM..... 27

FIGURES

- Figure 1: Example of procedure flowchart for a city advisory body..... 4
- Figure 2: Bike Charleston’s East-West Bikeway Connector Project13
- Figure 3: Zero-vehicle households in Charleston14
- Figure 4: Bike-share system in Boston15

TABLES

- Table 1: High-priority projects18
- Table 2: Medium-priority projects20
- Table 3: Low-priority projects21

ABBREVIATIONS

AARP	American Association of Retired Persons
EECBG	Energy Efficiency and Conservation Block Grant
EV	electric vehicle
IIJA	Infrastructure Investment and Jobs Act
IRA	Inflation Reduction Act
KRT	Kanawha Valley Regional Transportation Authority
PODA	Private Outdoor Designated Area

1. INTRODUCTION

In fall 2020, the Charleston City Council adopted Resolution 386-20 to create the City's Green Team (City of Charleston, 2020). The Green Team consists of seven Charleston residents appointed by the mayor. They are charged with advising both the City administration and City Council's Environment & Recycling Committee on ways to maximize the City's sustainability efforts.

In February 2021, the first Green Team was appointed. Since then, its mission has been to advise on the topics of energy efficiency, land use, greenspace, water resources, transportation, litter and waste management, and recycling. The Green Team is also tasked with educating the public about various sustainability topics and City initiatives.

In the three years since its establishment, the Green Team has had many accomplishments, such as recommending an energy benchmarking ordinance that passed in 2021 and initiating the City's Tree City USA designation. The Green Team has also worked with City administration to roll out city recycling bins, initiate the Bird Scooter program, fund a bicycle feasibility study, and install two electric vehicle (EV) chargers in public parking garages. Increased public outreach was also accomplished through the Green Team's improved Facebook page.

Although Green Teams are present throughout the country, Charleston's Green Team is unique because of City Council's leadership and its substantial investment in the Environment & Recycling Committee's and Green Team's initiatives. In 2022, City Council created the Green Initiative Fund and allocated \$250,000 to prioritize and fund sustainability initiatives for the city.

In early 2024, the Green Team engaged Downstream Strategies to facilitate a strategic planning process, which ultimately led to this strategic plan. Downstream Strategies began by reviewing the Green Team's founding documents, including the resolution establishing the Green Team (City of Charleston, 2020) and the Green Team's bylaws (Charleston Green Team, 2023a).

Another key document was the set of recommendations and priorities submitted by the Green Team's executive team to Mayor Amy Goodwin (Charleston Green Team, 2023b). This document helped identify the Green Team's previous priorities, projects, and recommendations.

The document review also included plans and reports from other green teams and similar entities from nearby cities, including Asheville, North Carolina (City of Asheville, 2009); Boone, North Carolina (Town of Boone, North Carolina, 2024); Greenville, South Carolina (City of Greenville, 2023); Knoxville, Tennessee (City of Knoxville Office of Sustainability, 2021); Lexington and Fayette County, Kentucky (City of Lexington and Fayette County, 2012); Morgantown, West Virginia (Morgantown Municipal Green Team, 2022); and Richmond, Virginia (City of Richmond-RVA Green 2050, 2020). While focused on Maryland, Alper et al. (2011) provide general insights for developing a green team that were found to be applicable to Charleston.

Building upon the document review, Downstream Strategies facilitated a kickoff meeting and two strategic planning sessions with the Green Team. At the kickoff meeting, held virtually on April 17, 2024, the Downstream Strategies project team and Green Team members met and reviewed tasks and timelines. At the first strategic planning session, held virtually on May 6, 2024, the project team conducted activities and facilitated discussions to help understand and craft the Green Team's vision and goals and to generate a list of potential projects. At the second strategic planning session, held in person on June 10, 2024, the Green Team finalized their vision, goals, and projects. The Green Team also prioritized its final list of projects and identified potential partners and timelines.

This strategic plan synthesizes information gleaned from these strategic planning sessions and the document review. It is a high-level guide that describes the Green Team’s vision and goals and outlines how these will be achieved by implementing specific projects.

The vision provides the Green Team’s overarching sustainability destination. It is the Green Team’s vision of Charleston’s future after it has successfully implemented its projects and met its goals.

Green Team vision

We envision a connected, vibrant, and sustainable Charleston that is the climate resilience leader in West Virginia, where all citizens can thrive.

The Green Team has developed six broad goals for achieving its vision. These include three operational goals that will allow the Green Team to become more effective, plus three implementation goals related to climate resilience, transportation and land use, and waste.

Operational goals

- Goal 1: Map and formalize the Green Team’s procedures and actions
- Goal 2: Increase and retain Green Team participation
- Goal 3: Engage the community

Implementation goals

- Goal 4: Increase energy efficiency and climate resilience
- Goal 5: Improve transportation connections and land use
- Goal 6: Reduce waste

Chapter 2 of this strategic plan describes specific projects that the Green Team has identified to implement its operational goals, and Chapter 3 describes projects for its implementation goals.

The action plan in Chapter 4 identifies the priorities and timelines for each project and provides additional information on partners and potential funding sources.

2. OPERATIONAL PROJECTS

Goal 1: Formalize the Green Team's procedures and actions

Enacting the Green Team's vision requires a well-organized, smoothly functioning group. The resolution establishing the Green Team (See Appendix A) and the organization's bylaws (See Appendix B) provide important starting points (City of Charleston, 2020; Charleston Green Team, 2023a). However, the Green Team has expressed the need for more explicit procedures to clarify how it works and to facilitate participation by more members of the community.

Project 1.1: Develop procedures for communicating with City Council, administration, and staff

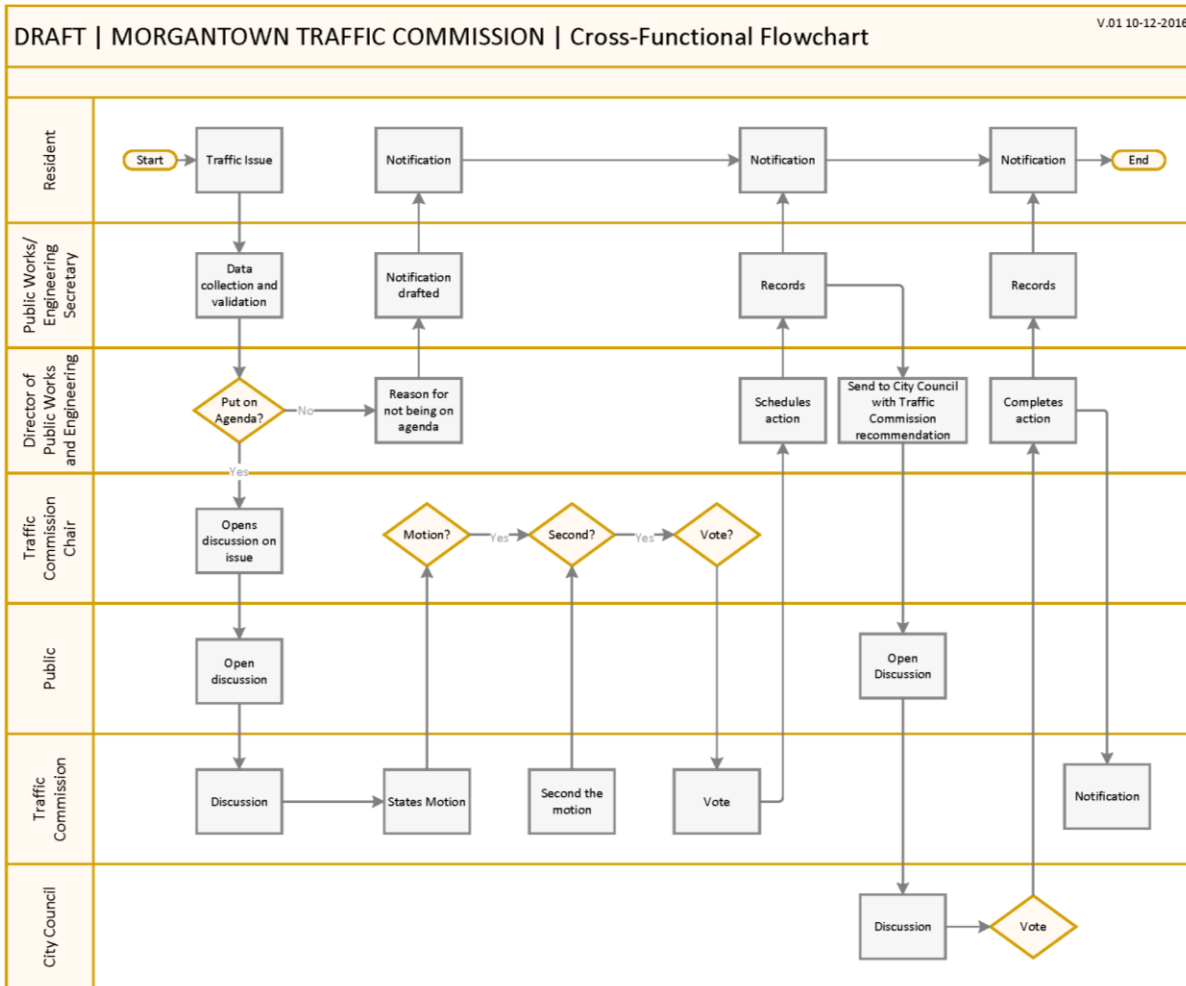
According to the resolution creating the Green Team, its overarching purpose is to provide recommendations to City administration and City Council's Environment & Recycling Committee. The resolution states that the Green Team's advice is to be provided periodically or at the request of the mayor or the chair of the Environment & Recycling Committee, and it further states that its recommendations shall be in writing and directed to the mayor, city manager, director of public works, and chair of the Environment & Recycling Committee.

The Green Team has noted that more specific procedures would be helpful for three types of communication:

1. from the Green Team to the City about the Green Team's projects and activities;
2. from the Green Team to the City about relevant issues or policies brought to its attention by Charleston residents, businesses, and organizations; and
3. from the City to the Green Team about relevant regulations or policies initiated by City Council, for which the Green Team could provide advice.

The resolution and bylaws provide little detail about the form of these communications, other than that its recommendations must be made in writing. For this reason, the Green Team will develop explicit procedures detailing its process for engaging with City entities. Figure 1 provides an example of a flowchart from the City of Morgantown's Traffic Commission. The flowchart can serve as an example for the Green Team to use as it formalizes its communication procedures with the City.

Figure 1: Example of procedure flowchart for a city advisory body



Source: City of Morgantown (2024).

Project 1.2: Develop process for presenting quarterly and annual reports to the mayor, city manager, and City Council

As stated above, the resolution creating the Green Team provides broad guidance on the form of communications from the Green Team to the City. To formalize this process, the Green Team will develop a process and template for quarterly reports—including an annual report—to the mayor, city manager, and City Council.

The quarterly reports will likely be less formal than the annual report, but as required by the resolution, all reports will be in written form.

To present these reports, the Green Team will communicate with the City Clerk’s Office to place these reports on City Council agendas on a quarterly basis. The Green Team will then share written reports ahead of time, according to the requirements of the City Clerk. The Green Team chair, or his or her designee, will present the reports to City Council

Project 1.3: Organize at least one meeting per year with the mayor, the chair of the Environment & Recycling Committee, and Green Team members

Although the resolution and bylaws do not require a specific number of meetings with the mayor and the chair of the Environment & Recycling Committee, the Green Team feels that it would be helpful to organize at least one meeting per year, outside of the quarterly reports to Council. These meetings would be opportunities to spend additional time, not available when presenting to Council, to discuss City regulations and policies, Green Team projects and activities, grant opportunities, or other items of interest. In addition to the mayor and the chair of the Environment & Recycling Committee, these meetings may also include other City leaders and staff, as appropriate.

Project 1.4: Formalize internal procedures

The Green Team will also formalize its internal procedures so that it can function effectively and efficiently. Initial procedures identified by the Green Team include:

- **Voting by proxy.** From time to time, it proves difficult for the Green Team to achieve a quorum at its meetings. The Green Team will consider amending its bylaws to allow voting by proxy.
- **Creating committees and task groups.** The Green Team may expand the use of committees (See Project 2.1) and task groups (See Project 2.2); however, neither committees nor task groups are mentioned in the bylaws. The Green Team will consider amending its bylaws to identify standing committees and provide for the appointment of ad hoc committees and task groups.
- **Storing and sharing information.** The Green Team is interested in efficient methods of storing information and sharing it among Green Team members and the public, while ensuring that the methods comply with the West Virginia Open Governmental Proceedings Act and any other applicable laws.

Goal 2: Increase and retain Green Team participation

Green Team members serve as volunteers with limited time to commit to Green Team activities. While the number of voting members is limited to seven, the number of advisory members is not limited. Increasing and retaining Green Team participation will allow for more people to work toward achieving its goals and implementing its projects.

Project 2.1: Create committees

The Green Team resolution and bylaws are silent about creating committees; however, the Green Team already has three standing committees:

- **Communications Committee.** The Communications Committee maintains the Green Team's Facebook page, creates exhibits for use at events, develops marketing materials, and produces videos.
- **Energy Efficiency and Conservation Block Grant (EECBG) Committee.** The EECBG Committee works with the City to secure and implement the City's EECBG grant.
- **Stuff Committee.** The Stuff Committee developed the "What do I do with all this stuff?" handout, which has suggestions for donating or recycling items left by a deceased loved one.

Creating additional committees focused on priority issues, or refocusing existing committees, will allow Green Team members and advisory members to take ownership of specific issues.

Communications Committee. While it already exists, a set of broader responsibilities for the Communications Committee can include:

- developing marketing materials such as posters, flyers, and pamphlets, and exploring partnerships with marketing firms or local universities to create consistent branding (See Project 3.1);
- distributing marketing materials;
- planning the annual forum (See Project 3.2);
- maintaining the Green Team’s Facebook page and any other social media;
- developing social media guidelines or policies; and
- representing the Green Team at events.

Ordinance Review Committee. The Green Team will consider creating an Ordinance Review Committee with responsibilities that include:

- attending City Council meetings to identify ordinances or initiatives that the Green Team should be aware of, and reporting back to the Green Team (See Project 1.1) and
- recommending the creation of task groups, as appropriate, for the Green Team to use to engage with specific ordinances or initiatives (See Project 2.2).

Grants Committee. The Green Team will consider creating a Grants Committee with responsibilities that include:

- identifying specific federal, state, and private funding opportunities that directly tie into the Green Team’s strategic plan and/or the City’s comprehensive plan;
- considering whether the Grants Committee, or a task group that may include non-committee members, is the most appropriate vehicle for the Green Team to use to pursue the opportunity;
- if the Grants Committee is deemed to be the most appropriate entity to pursue the opportunity, communicating with the appropriate City department and staff to discuss the opportunity and gauge their interest in pursuing it;
- if the City is interested in pursuing it, providing support as needed to fully develop the grant proposal; and
- providing information about grants considered and pursued to be included in the Green Team’s quarterly and annual reports (See Project 1.1).

Project 2.2: Create task groups

While standing committees provide a more formal structure for Green Team members and advisory members to work together, task groups provide opportunities for outside citizens to contribute substantially to the Green Team’s success. Task groups can be created to take ownership of specific projects or defined tasks and can include Green Team members and advisory members as well as passionate citizens.

For example, a task group could be charged with pursuing a specific grant opportunity, in cooperation with the relevant City department and staff (See the Grants Committee in Project 2.1). Or a task group could be charged with creating a list of qualified practitioners (See Project 3.6).

Project 2.3: Expand advisory membership

According to the resolution establishing the Green Team, it is composed of seven members, plus two *ex officio* members: the chair of the Environment & Recycling Committee and the Director of Public Works. While the resolution is silent on advisory membership, the bylaws provide that: “The Green

Team may also have non-voting advisors who attend the meetings and provide guidance.” The Green Team appoints advisory members. While consultation with the mayor is not required, the Green Team will notify the mayor when advisory members are added or removed.

The Green Team will expand its advisory membership, which will allow for people with a broader range of expertise to serve on committees and might make an interested member of the public more likely to accept a role on a task group. Advisory members will be encouraged to attend regular Green Team meetings as needed, as well as meetings of committees and task groups on which they serve.

Project 2.4: Hold outreach sessions

The Green Team will hold community outreach sessions at neighborhood association meetings, civic clubs, and other venues. These sessions will not only provide a platform to promote the Green Team’s work and hear from the community, but they will also help identify candidates for advisory members or task group participants.

Project 2.5: Formalize the nominating process for Green Team membership

According to the Green Team resolution and bylaws, its members are appointed by the mayor, with input from the Environment & Recycling Committee. The resolution and bylaws do not provide a specific role for the Green Team regarding the appointment process. The Green Team will formalize a process for nominating people for Green Team membership, for consideration by the mayor.

In contrast, the resolution and bylaws do allow the Green Team to remove members by a majority vote. The mayor also has the ability to remove members. The Green Team will formalize a process for removing members who are consistently not participating in Green Team meetings and activities.

Goal 3: Engage the community

The resolution and bylaws establishing the Green Team provide that the Green Team shall: “[e]ngage in community outreach and education on sustainability initiatives and events.” Community engagement is critically important in the Green Team’s success, because community members are the people who will take steps to achieve the Green Team’s goals. Also, the more the community is engaged and supportive of the Green Team’s efforts, the easier it will be to attract and retain Green Team members. Community engagement should include residents, business owners, and organization leaders, as well as others such as university students and faculty and K-12 teachers, administrators, and students.

Project 3.1: Create marketing materials

Creating marketing materials is a cross-cutting project that applies to several of the implementation projects below. The Green Team will create posters, flyers, and pamphlets, as appropriate, on a variety of topics, including, for example:

- energy efficiency,
- renewable energy,
- locations of recycling centers or waste collection sites along with contact information and hours of operation,
- Green Team events or aligned events like Bike to Work Day, and
- the Green Team itself and its accomplishments.

Marketing materials would benefit from consistent Green Team branding. To create marketing materials and branding, the Green Team will explore partnerships with marketing firms or local universities such as West Virginia State University Media Studies, University of Charleston's Digital Media Design Studies, or West Virginia University Graphic Design.

Project 3.2: Organize a forum to exchange ideas

The Green Team will organize an annual forum to provide a venue to share ideas related to its goals and projects. Topics may include energy efficiency, renewable energy, creative reuse, recycling, transportation, or other topics.

It would be a natural fit to plan the event to take place around Earth Day. The first event could, for example:

- document where Charleston is now with respect to the Green Team's goals and projects;
- introduce competitions and incentives that people can participate in over the following year;
- provide space for aligned nonprofits to provide resources to connect with the public, including organizations working to promote solar installations or energy efficiency;
- recognize important and creative projects (See Project 3.3);
- provide resources such as grant opportunities;
- provide networking opportunities for green job seekers;
- showcase and support the development of green workforce programs and new green businesses such as the LIFT Center planned for the East End;
- provide an opportunity for practitioners and policymakers to share ideas and successes; and
- solicit ideas from the public regarding the Green Team's priorities.

Documenting the event via social media and/or a website would allow for key information to be archived so that it is available to the public after the event.

Project 3.3: Provide recognition for important and creative projects

The Green Team will create an annual award program to recognize important and creative projects or milestones related to Green Team goals. Topics may include energy efficiency, renewable energy, innovative transportation solutions, creative reuse and recycling, or other topics. Awards and recognition will not just provide positive reinforcement to community members; they will also offer marketable opportunities for the Green Team to gain recognition.

One example from Lexington, Kentucky's is the annual Mayor's Award, which recognizes local businesses that have made great strides in reducing their energy consumption (City of Lexington and Fayette County, 2012).

Awards and recognition will be provided at the annual forum (See Project 3.2).

Project 3.4: Launch education and awareness events

Separate from the annual forum described above, the Green Team will launch education and awareness events. For example, events could include:

- student field trips to places like Magic Island to plant trees where there is little tree canopy and
- training on energy efficiency and renewable energy for professionals such as real estate agents and contractors.

The Green Team will also conduct outreach to K-12 schools to participate in these education and awareness events, as well as other Green Team activities such as awards and recognition opportunities for students (See Project 3.3).

Project 3.5: Recommend programs for sustainability designations and/or certifications

The Green Team will research possible city designations similar to Tree City USA (Arbor Day Foundation, 2024) that are national in scope and have a credible program to recommend to City Council. Initial options include the development of LEED-certified buildings (United States Green Building Council, 2024), the installation of SITES-certified landscapes (Green Business Certification Inc., 2024), targeted efforts to improve Charleston’s American Association of Retired Persons (AARP) livability index (AARP, 2024), the United Nations’ SDG Cities certification (United Nations, 2024), and accreditation of park and recreation departments (National Recreation and Park Association, 2024).

Project 3.6: Create lists of qualified practitioners

The Green Team will develop lists of qualified practitioners, which may include, for example, professionals and contractors, for a range of activities related to Green Team goals. Topics may include energy efficiency (energy audits or retrofitting), renewable energy, native landscaping, or other topics. These lists can also be used as a resource for residents that may be looking for green jobs.

Partner organizations may have already compiled similar lists. City offices may be included on appropriate lists if they provide relevant public-facing information and if they express an interest in being included.

3. IMPLEMENTATION PROJECTS

Goal 4: Increase climate resilience

Climate resilience is central to the Green Team’s responsibilities. According to the resolution and bylaws, the Green Team’s responsibilities include the following:

- investigating appropriate and cost-effective opportunities for implementing energy efficiency measures in all aspects of Charleston’s public buildings, including benchmarking, operational changes, and changes in maintenance or capital improvements;
- facilitating Charleston residents reducing environmental impacts through...energy use...; and
- researching and facilitating the use of clean, renewable energy within the City.

Also, with an unprecedented amount of federal funding available to address climate change in the federal Infrastructure Investment and Jobs Act (IIJA) and Inflation Reduction Act (IRA), the Green Team has new opportunities to consider for reducing greenhouse gas emissions while securing new local jobs and improving the quality of life for Charleston residents.

Project 4.1: Promote adoption of solar at residences, businesses, and nonprofits

Even before the IRA passed in 2022, the pace of solar installations at West Virginia residences, businesses, and nonprofits was increasing. Passage of the IRA has created new incentives, including:

- an increase in the solar investment tax credit to 30 percent, which can benefit residences and businesses;
- a direct pay option that allows nonprofits that do not pay federal tax to directly monetize the value of the solar investment tax credit; and
- a \$106 million Solar for All grant to the West Virginia Office of Energy, which will facilitate the adoption of solar by low- and moderate-income households.

Other entities also provide funding or support for the adoption of solar, including:

- the Appalachian Solar Finance Fund, which provides funding to help overcome barriers to the installation of solar at certain nonprofits and businesses; and
- West Virginia-Solar United Neighbors, which organizes solar cooperatives to make bulk purchases from solar developers at reduced prices.

For these and other programs, the Green Team will develop marketing materials (See Project 3.1) to promote the adoption of onsite solar at residences, business, and nonprofits.

Project 4.2: Encourage energy efficiency upgrades at residences, businesses, and nonprofits

In addition to deploying solar, significant opportunities exist for energy efficiency upgrades at residences, businesses, and nonprofits, and new incentives are provided in the IRA. The Green Team will encourage the adoption of energy efficiency measures by:

- identifying qualified energy efficiency practitioners to perform energy audits and to install energy efficiency measures (See Project 3.6),
- providing educational materials and training opportunities for real estate professionals and contractors regarding energy efficiency benefits and practices (See Projects 3.1 and 3.4), and
- supporting Coalfield Community Action Partnership in its efforts to facilitate home weatherization (Coalfield Community Action Partnership, 2024).

Project 4.3: Promote adoption of energy efficiency upgrades and solar at City buildings

Cost savings can be realized by adopting energy efficiency upgrades and solar at City buildings, and new federal programs such as the direct pay option for the solar investment tax credit make these projects even more cost-effective than ever. The Green Team will work with appropriate City departments and staff to identify relevant funding opportunities and facilitate their adoption.

Project 4.4: Encourage the use of electric vehicles

Increasing the use of EVs would reduce greenhouse gas emissions, but widespread adoption of EVs depends on the efficient deployment of EV infrastructure. While federal programs encourage the purchase of EVs, local governments can accommodate the transition to EVs by implementing policies to support the development of charging infrastructure and to remove barriers to EV use in Charleston.

The Green Team will work to reduce zoning barriers by reviewing the City's Zoning Ordinance to identify any barriers to establishing EV charging stations on private property or the City's rights-of-way.

Also, the Green Team will provide input on updating the City's Comprehensive Plan to encourage EV use by facilitating the development of EV charging stations and infrastructure.

Further, the Green Team will engage with the City's Planning Department on best practices for EV readiness.

Project 4.5: Support conversion from natural gas to clean electricity

The use of natural gas appliances can worsen both indoor and outdoor air quality (Michanowicz et al., 2022; Seals and Krasner, 2020). By providing access to cleaner energy sources, indoor air quality can be improved while reducing energy costs.

The Green Team will educate the public about the cost and health benefits of electric appliances. In addition, the Green Team will educate the public about the IRA's available rebates to replace natural gas appliances with electric appliances. Finally, the Green Team will encourage the Mayor's Office of Economic and Community Development to carry information about the IRA's rebates and help navigate citizens through the process (See Project 3.1).

Goal 5: Improve transportation connections and land use

Project 5.1: Identify policy barriers to a connected transportation system

Connected transportation systems that include active transportation like pedestrian and bicycle trips reduce air pollution and greenhouse gas emissions. Furthermore, connected systems require less space and resources compared to systems designed primarily for automobile trips.

One important step forward to a connected transportation system is the Capital Connector Project, which recently received a \$25 million RAISE grant to reconstruct Kanawha Boulevard and Greenbrier Street and eliminate approximately almost six acres of road surface, build separated shared-use paths for bicyclists and pedestrians, improve lighting, enhance stormwater management, and build new transit bus stops with shelters (United States Department of Transportation, 2024).

Many communities use land-use and development regulations to support active transportation networks and encourage pedestrian and bicycle trips. Regulations may include a mix of incentives

and requirements to enhance transportation access and connectivity, provide on-site facilities for bike parking and storage, develop safe travel ways for multiple transportation types, and require sidewalk installation and connectivity.

While recommending new regulations and incentives is the ultimate goal, the Green Team will first identify policy and regulatory barriers and opportunities in the Zoning Ordinance for a connected, active transportation system. For example, on commercial corridors, the Zoning Ordinance can limit the number of conflicts between pedestrians and vehicles by requiring shared driveways and reducing unnecessary curb cuts on sidewalks.

Project 5.2: Research and provide education on a Complete Streets Policy

At the state level, West Virginia’s Complete Streets Act recognizes the importance of public transportation, bicycles, and pedestrians to the transportation system. It states that “all transportation projects receiving federal or state funds should strive to improve safety, access, and mobility for users of all ages and abilities, including pedestrians, bicyclists, public transportation vehicles and their passengers, motorists, movers of commercial goods, persons with disabilities, older adults, and children”.¹ Specifically, it encourages traffic engineers to consider road designs to accommodate pedestrian, bicycle, and transit transportation for a complete transportation system.

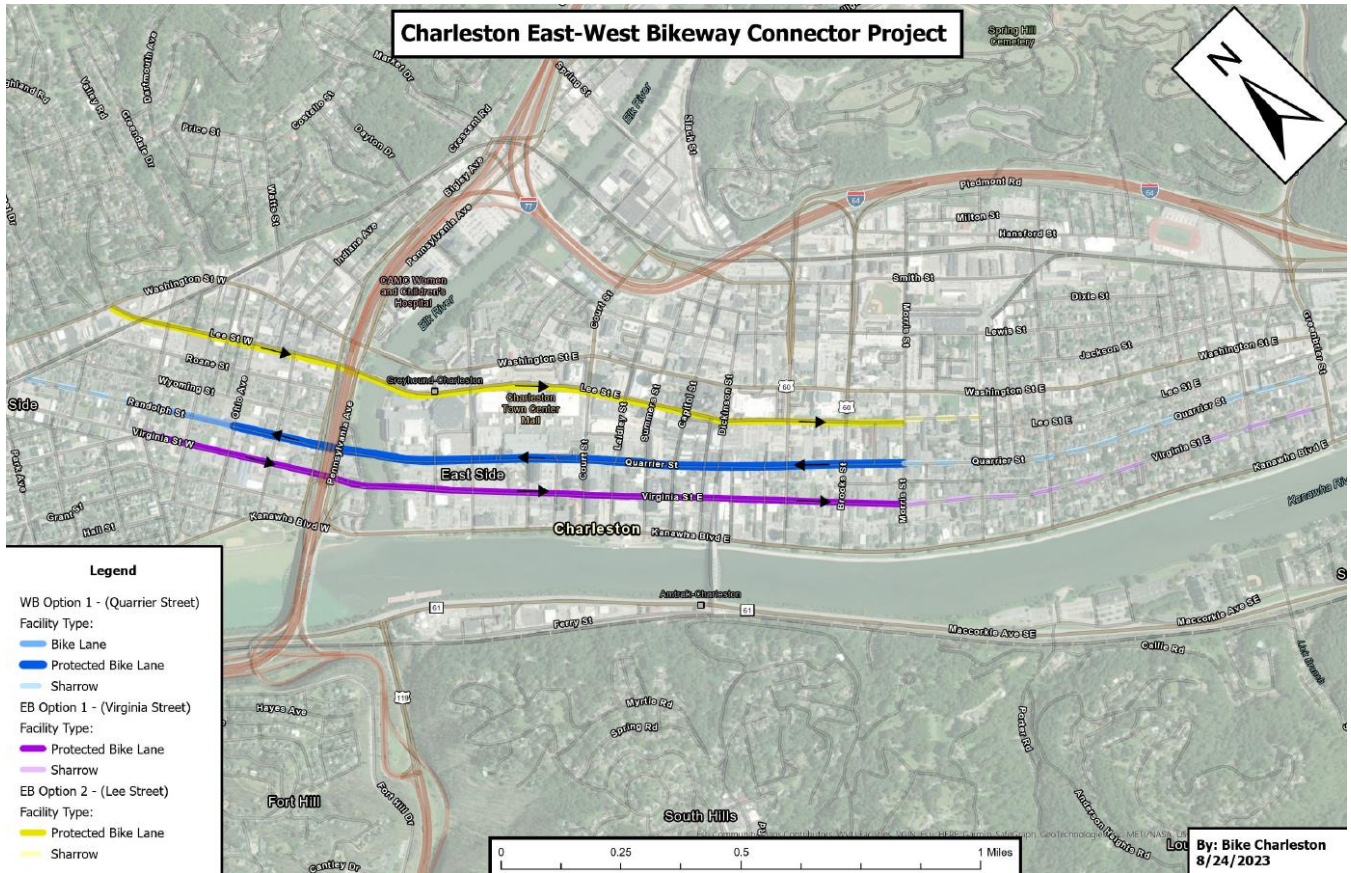
As a first step, the Green Team will educate the public and City Council on the benefits of Complete Streets, with a goal to pass a Complete Streets Policy. The policy would promote an efficient and interconnected multi-modal transportation system that ensures that the safety and convenience of all users of the transportation system are accommodated. An official Complete Streets Policy could complement the state’s Complete Streets Act and further guide projects that leverage the City’s and Green Team’s funds for street projects in Charleston.

Project 5.3: Implement the East-West Bikeway Connector Project

Bike Charleston has proposed the establishment of two bike corridors that will connect the East End to the West Side of the city. The project will support Charleston in becoming a bike-friendly community, with a combination of bike boulevards and speed control measures in residential areas and protected bike lanes in high traffic areas. Virginia Street, Quarrier Street, and Lee Street are currently being considered for implementation (See Figure 2). The Green Team will regularly discuss and track implementation of the City’s plans for bicycle routes, and it will offer continued support for the East-West Bikeway Connector Project through each design phase until completion.

¹ §17-4A-1(b) of West Virginia Code.

Figure 2: Bike Charleston’s East-West Bikeway Connector Project



Source: Bike Charleston (Undated).

Project 5.4: Increase access to greenspace, including the riverfront

The Green Team will work to increase access to greenspace by identifying additional potential neighborhood parks. Specifically, it will engage with the Charleston Land Reuse Agency to locate properties for neighborhood pocket parks, evaluate the condition of existing parks, and promote native vegetation at these sites when and where possible. Due to the cost of securing and maintaining additional greenspace, the Green Team will also work to identify appropriate funding for these efforts.

Further, the Green Team will investigate options and implement projects to green the riverbank and riverfront to enhance it as a natural and community asset, including opportunities to provide for nonmotorized boat access to the Kanawha River and Elk River. Along with boating access, nonmotorized boat rights-of-way could be further developed to designate a water trail in Charleston and make river recreation more inviting. Enhancing recreation options available on the Kanawha River can support efforts to naturalize and preserve it through future planning efforts.

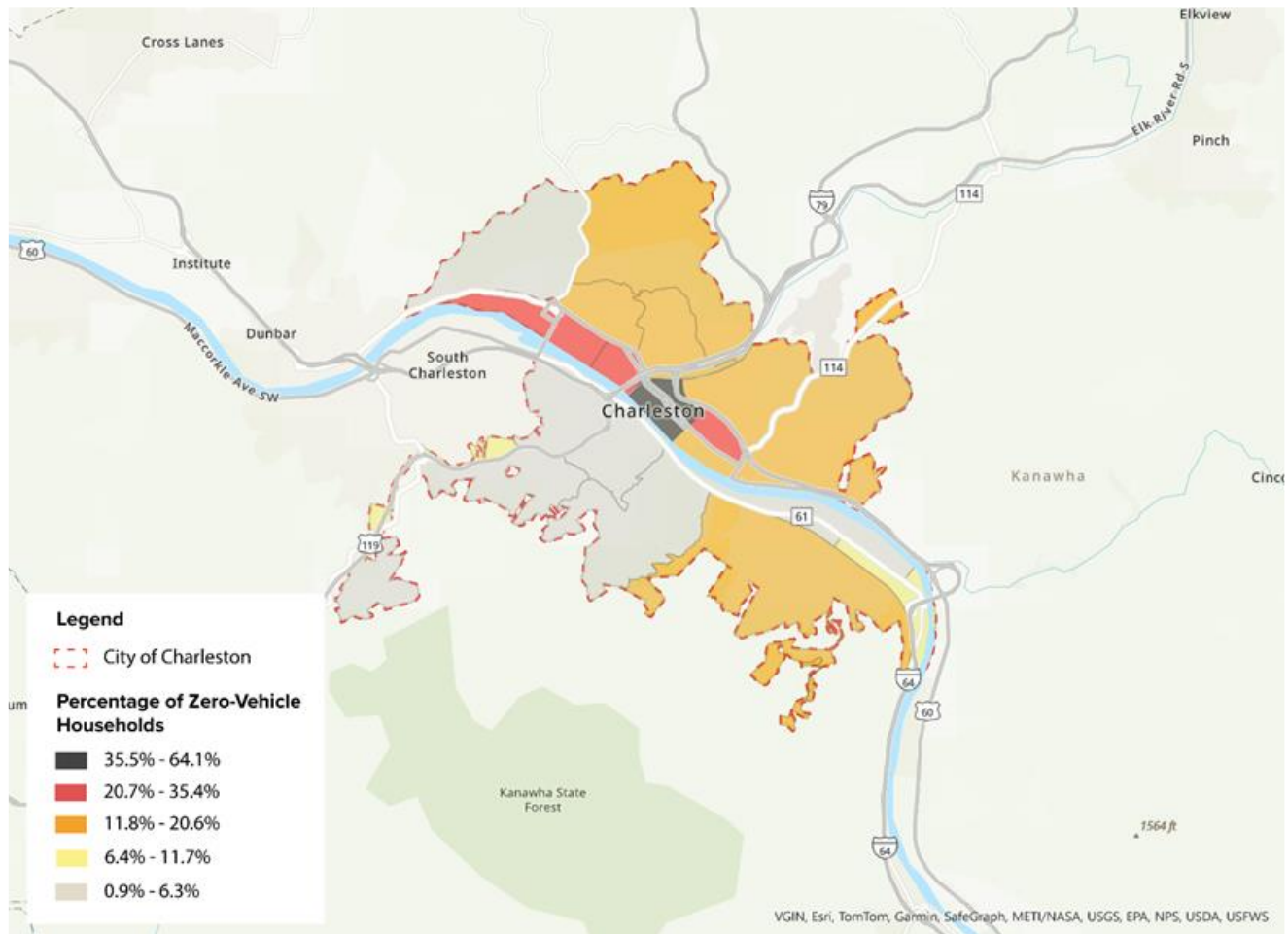
Project 5.5: Identify and prioritize needs in areas of disinvestment

According to a recent study (Regional Intergovernmental Council, 2024), many neighborhoods surrounding the downtown area have a high number of zero-vehicle households (See Figure 3). This creates the need for safer streets, a reliable public transit system, and access to greenspace for

isolated communities. By understanding which areas have been disinvested in, the Green Team can work with community members to identify specific challenges faced when traveling and commuting.

The Green Team will investigate areas that have high rates of zero-vehicle households and challenges accessing public transportation and will use this information to support efforts towards improving accessibility, safety, and greenspace in these areas.

Figure 3: Zero-vehicle households in Charleston



Source: Regional Intergovernmental Council (2024).

Project 5.6: Promote walkability and pedestrian safety

The Vision Zero Network is a campaign and nonprofit project recognized in the United States and Europe that works to educate and advocate for safe mobility for all. Whether “walking, bicycling, driving, riding a scooter, using a wheelchair, or riding transit,” Vision Zero seeks to eliminate fatalities and severe injuries related to mobility (Vision Zero Network, Undated). The campaign facilitates opportunities for citizens and policy makers to understand the value of complete streets while providing community advocates with tools to help implement safe systems. The network convenes leaders to develop strategies to make Vision Zero a reality on the ground. By partnering with the Vision Zero Network, The Green Team can receive assistance to facilitate safer streets in Charleston.

The Green Team will work to identify areas of conflict between vehicles and pedestrians, such as a lack of sidewalks or unsafe sidewalks. It will also locate gaps in existing pedestrian networks, provide education on national bicycle and pedestrian safety standards, and propose possible solutions to City Council, with support from the Vision Zero Network.

Project 5.7: Research feasibility of expanded micromobility programs

Micromobility is a method of transportation using lightweight vehicles such as scooters or bicycles that may be borrowed through short-term rental programs. In 2023, Charleston City Council adopted its first micromobility program by approving Resolution 805-23, which authorized a Shared Vehicle Operating Agreement between the City and Bird Global, Inc. These Bird Scooters can be rented through a mobile phone app and are helping to create a more livable city by reducing car trips, traffic, and greenhouse gas emissions (City of Charleston, Undated).

Charleston’s Bird Scooter program could be complemented by a bicycle sharing program, especially as the Capital Connector Project and the East-West Connector Project move toward implementation. Bike-share programs place docking stations around a city and allow users to pay to use bicycles for a period of time. Generally, bike-share programs may be publicly owned and operated by a contractor or run by a nonprofit organization.

The City of Wheeling launched the state’s first bike-share program in 2019 (City of Wheeling, 2019). The City of Huntington also recently established a free bike-sharing program called Bike Surf that is run through a user-friendly app (West Virginia Department of Tourism, 2024).

The Green Team will evaluate the feasibility of expanding micromobility programs in Charleston to include bike sharing as an additional option to scooters, to facilitate safer streets, reduce vehicular traffic, and lower greenhouse gas emissions. To build upon the body of knowledge already garnered, the Green Team will include the Mayor’s Office and the City Manager’s Office in these efforts.

Figure 4: Bike-share system in Boston



Source: Triple Pundit (2020).

Project 5.8: Partner with the Beautification Commission to protect and enhance the city’s tree canopy

Increased tree canopy will help cool and reduce extreme heat in the city’s public areas. The Green Team will collaborate with the Municipal Beautification Commission and the Tree Board to protect and enhance the city’s tree canopy.

Goal 6: Reduce waste

Project 6.1: Improve recycling options

According to the resolution and bylaws, the Green Team’s responsibilities include “[facilitating] Charleston residents reducing environmental impacts through recycling.” As such, the Green Team will work with appropriate entities, including the City and the Kanawha County Solid Waste Authority, to support the continued investigation into more cost-effective methods of recycling. The Green Team will also promote waste reduction policies and education for City operations.

Further, the Green Team will identify ways to recycle or reuse hard-to-recycle items, including by reaching out to organizations already working on this topic such as the ReUse Corridor Working Group (Central Appalachian Network, 2024)

The Green Team will also continue to research and distribute reuse and recycle resources for the “stuff” that people accumulate and need to purge when someone dies, moves, downsizes, or experiences other life-changing events (See the Stuff Committee in Project 2.1 and Project 3.1 regarding the creation of marketing materials).

A new transfer station is slated to open in 2025, which may improve recycling options for city residents. The Green Team will help disseminate information regarding new reuse or recycling opportunities afforded by the transfer station.

With the prevalence of formerly mined lands in Kanawha County and neighboring counties, the Green Team will also investigate the potential use of compost on former mine lands and explore the feasibility of a composting campaign to help reclaim these sites.

Project 6.2: Promote waste reduction at events

The Green Team will collaborate with City Council and event organizers to provide proper means for waste reduction during Charleston events. These events could include Live on the Levee, Sternwheel Regatta, FestivALL, Charleston Dirty Birds baseball games, concerts, and conferences. While large events generate the most solid waste, waste reduction is also appropriate at smaller events and venues.

In addition, Charleston recently designated several Private Outdoor Designated Areas (PODAs), where people can carry beverages outside of the restaurant or bar from which it was purchased. These beverages can only be purchased in special plastic PODA cups. The Green Team will also work with the City to identify options to reduce waste generated by these additional disposable cups.

Project 6.3: Raise public awareness on composting and recycling

The Green Team will facilitate a marketing campaign to educate citizens on how, what, and why to recycle and compost. This will include developing materials specifically tailored to different types of recycling campaigns, such as those at schools, businesses, and events (See Project 3.1).

The Green Team will also engage with the University of Charleston to implement better recycling and composting receptacles on campus and work with interested students to facilitate campus-wide incentives for students and faculty to utilize the receptacles. There are several existing environmental clubs and student organizations that the Green Team can engage with to further campus-wide initiatives.

Further, the Green Team will support similar activities at K-12 schools. Incentives and awards can help move this along (See Project 3.3). Creating competitions and rewards among schools or individual classrooms can provide opportunities to raise public awareness on composting and recycling at a young age.

Awareness can also be raised at private businesses by providing recognition for important and creative projects or milestones related to composting and recycling (See Project 3.3).

4. ACTION PLAN

Implementing the Green Team’s vision, goals, and projects is best achieved through an action plan. The purpose of the action plan is to prioritize and guide the Green Team’s efforts in a systematic and comprehensive way.

The Green Team assigned a priority and a timetable to each project. Table 1 includes the high-priority projects, color coded into short-term projects (lightest shade of green), medium-term projects (middle shade), and long-term projects (darkest shade). Table 2 and Table 3 include the medium-priority and low-priority projects with the same color coding for the timelines.

- Short-term projects
(less than one year to complete)
- Medium-term projects
(2–3 years to complete)
- Long-term projects
(4–5 years to complete)

Table 1: High-priority projects

Project	Partners	Potential funding sources	Next steps
Operational Projects			
1.1: Develop procedures for communicating with City Council, administration, and staff	City attorney, city clerk, city manager, mayor	N/A	Create a cross-functional flowchart to map and communicate the appropriate times to communicate with City Council and staff.
2.1: Create committees	Mayor, City Council, city clerk	N/A	Establish the recommended committees based on priority. For example, the Ordinance Review Committee should be established first since developing procedures to communicate with City Council is a high priority for the Green Team.
3.1: Create marketing materials	West Virginia State University Media Studies, University of Charleston's Digital Media Design Studies, West Virginia University Graphic Design	N/A	Identify frequently asked questions to answer in marketing materials; create Green Team branding; partner with local marketing firms or universities.
Implementation Projects			
5.1: Identify policy barriers to a connected transportation system	City Planning, KRT, Bike Charleston, WV Division of Highways	Fed. Transit Admin.'s Areas of Persistent Poverty Program, Fed. Highway Admin.'s Active Transportation Infrastructure Investment Program	Collaborate with the City's Planning department to identify opportunities and issues in the Zoning Ordinance for a connected transportation system.
5.2: Research and provide education on a Complete Streets Policy	Bike Charleston, City Planning, WV Connecting Communities	US Dept. of Transp.'s Safe Streets and Roads for All Grant Program, US Fed. Transit Admin.'s Flexible Funding for Transit and Highway Improvements	Reach out to other jurisdictions like Morgantown to learn about the lessons learned when implementing Complete Street policies.
5.3: Implement the East-West Bikeway Connector Project	Bike Charleston	N/A	Continue meeting with Bike Charleston and City staff about the progress of the Connector Project.

4.1: Promote adoption of solar at residences, businesses, and nonprofits	WV Office of Energy	Business Energy Investment Tax Credit, Low Income Home Energy Assistance Program, Fannie Mae Green Financing Loan Program	Research West Virginia's Solar for All program and promote participation in the program to City Council.
4.2: Encourage energy efficiency upgrades at residences, businesses, and nonprofits	WV Community Advancement and Development, Coalfield Community Action Partnership	ENERGY STAR Financing, Low Income Home Energy Assistance Program, Weatherization Assistance Program, Energy-Efficient New Homes Tax Credit for Home Builders	Identify qualified professionals to perform energy audits.
4.3: Promote adoption of energy efficiency upgrades and solar at City buildings	City manager, Building Commission; Public Works; Traffic, Parking and Transportation	State and Community Energy Programs, EPA's Climate Pollution Reduction Grants, US Dept. of Energy Loan Programs	Review City's benchmarking report to help strategize and recommend which solutions to pursue first.
4.4: Encourage the use of electric vehicles	City Planning, WV Electric Auto Association	National Electric Vehicle Infrastructure Formula Program, Fed. Highway Admin.'s Congestion Mitigation and Air Quality Improvement Program, EPA's Clean School Bus Program	Collaborate with the City's Planning department to identify opportunities and issues in the Zoning Ordinance for promoting EV readiness.
5.4: Increase access to greenspace, including the riverfront	City manager, Public Works, Parks and Recreation, Charleston Land Reuse Agency, WV Rivers Coalition, WV Division of Natural Resources	N/A	Collaborate with the Land Reuse Agency regarding the potential of repurposing vacant lots into neighborhood pocket parks.
5.5: Identify and prioritize needs in areas of disinvestment	Mayor's Office of Economic and Community Development, City Planning	Low Income Home Energy Assistance Program	Begin cultivating relationships with citizens in these areas.
5.6: Promote walkability and pedestrian safety	KRT, Bike Charleston, Kanawha County Board of Education,	US Dept. of Transp.'s Safe Streets and Roads for All Grant Program	Research and promote the Vision Zero Network's Safe System approach for equitable mobility. Begin collecting data in the city of conflict areas between vehicles and pedestrians.
6.1: Improve recycling options	Kanawha County Solid Waste Authority, ReUse Corridor Working Group	WV Department of Environmental Protection's Recycling Assistance Grant Program	Partner with the Solid Waste Authority to investigate cost-effective methods of recycling.
6.2: Promote waste reduction at events	Recycling Coalition of WV, Kanawha County Solid Waste Authority	WV Department of Environmental Protection's Recycling Assistance Grant Program	Research procurement policies that encourage vendors to reduce waste at City sponsored events.
6.3: Raise public awareness on composting and recycling	Public Works, Kanawha County Board of Education, Kanawha County Public Library, Recycling Coalition of WV	WV Department of Environmental Protection's Recycling Assistance Grant Program	Develop marketing materials and facilitate a campaign to educate citizens on how, what, and why to recycle and compost.

Table 2: Medium-priority projects

Project	Partners	Potential funding sources	Next steps
Operational Projects			
1.2: Develop process for presenting quarterly and annual reports to the mayor, city manager, and City Council	City clerk, mayor, city manager	N/A	Create a report template to streamline and communicate pertinent information to City Council and staff.
1.3: Organize at least one meeting per year with the mayor, the chair of the Environment & Recycling Committee, and Green Team members	Mayor	N/A	Invite the mayor to Green Team meeting after presenting the annual report to discuss upcoming priorities and projects.
2.3: Expand advisory membership	Mayor	N/A	Maintain a list of interested subject matter experts like landscape architects or transportation planners to invite to attend certain committee or project meetings.
2.5: Formalize the nominating process for Green Team membership	City clerk, mayor	N/A	Update the bylaws to provide provisions on the nominating process.
1.4: Formalize internal procedures	City attorney, city clerk	N/A	Work with the city clerk about the policies and the sharing information for other City boards.
2.2: Create task groups	N/A	N/A	Maintain a list of interested citizens who are willing to help on specific projects.
2.4: Hold outreach sessions	Rotary clubs, WV Center for Civic Life, neighborhood associations	N/A	Begin contacting organizations that are sympathetic to Green Team initiatives to help mobilize Green Team projects.
3.2: Organize a forum to exchange ideas	WVU College of Law Center for Energy and Sustainable Development, U.S. Green Building Council	N/A	Organize informal coffee klatches, green drinks, or meet-ups for networking and exchanging ideas.
3.3: Provide recognition for important and creative projects	U.S. Green Building Council	N/A	Ask Green Team members to nominate projects or businesses that have made strides in sustainability in Charleston.
3.4: Launch education and awareness events	WV Association of Realtors, Home Builders Association of WV	N/A	Identify Green Team members with school aged children who are willing to organize an event with science teachers; contact Home Builders Association of WV regarding future Energy Training opportunities.
3.5: Recommend programs for sustainability designations and/or certifications	AARP, National Recreation and Park Association	N/A	Research the feasibility of obtaining the designations and/or certifications mentioned in Project 3.5.

Table 3: Low-priority projects

Project	Partners	Potential funding sources	Next steps
Operational Projects			
3.6: Create lists of qualified practitioners	WV Solar United Neighbors, Construction Project Team, Home Builder’s Association West Virginia, WV Office of Energy	N/A	Partner with WV-SUN to develop a list of qualified practitioners; Collaborate with City Planning & Construction Project Team to address anticipated questions from the public.
Implementation Projects			
4.5: Support conversion from natural gas to clean electricity	N/A	N/A	Develop materials about the cost and health benefits of electric appliances.
5.7: Research feasibility of expanded micromobility programs	KRT, Bike Charleston	Bipartisan Infrastructure Law, WV Division of Highways Transportation Alternatives Program	Evaluate the feasibility of expanding micromobility programs in Charleston like bike sharing.
5.8: Partner with the Beautification Commission to protect and enhance the city’s tree canopy	Beautification Commission	US Forest Service's Urban and Community Forestry Program, WV Division of Forestry's Community EquiTree Grants	Begin collecting and reviewing the US Forest Service's data on Tree Canopy in Charleston.

REFERENCES

- Alper, Richard, P. Favero, V. Kotzias, and M. Hughes. 2011. Growing Your Green Team- A Handbook for Sustainable Maryland Communities. https://www.igsr.umd.edu/VLC/SCD/pdfs/SMC_Green_Team_Handbook_Sept2011.pdf
- American Association of Retired Persons. 2024. AARP Livability Index for Charleston, WV. <https://livabilityindex.aarp.org/search/Charleston,%20West%20Virginia,%20United%20States>
- Arbor Day Foundation. 2024. Tree City USA. <https://www.arborday.org/programs/treecityusa/>
- Bike Charleston. Undated. East-West Bikeway Connector. Retrieved from Bike Charleston WV: <http://bikecrw.org/east-west-bikeway-connector/>
- Central Appalachian Network. 2024. ReUse Corridor Working Group. <https://www.cannetwork.org/focus-areas/reuse-corridor/>
- Charleston Green Team. 2023a. Charleston Green Team By-Laws, Adopted January 18, 2022, Revised March 15, 2023. <https://www.charlestonwv.gov/sites/default/files/non-departmental-documents/2023-03/Green%20Team%20bylaws%20Jan%202022%20revised%20March%202023.pdf>
- Charleston Green Team. 2023b. Recommendations from the Charleston Green Team Executive Team to Mayor Amy Goodwin.
- City of Asheville. 2009. Municipal Climate Action Plan. <https://drive.google.com/file/d/1gMIA9K2L7Y1gcL5j61xike62vKaef6pq/view>
- City of Charleston. 2020. Resolution No. 3820: Establishing a Green Team to provide recommendations to the City Administration and City Council's Environment & Recycling Committee. <https://www.charlestonwv.gov/sites/default/files/non-departmental-documents/2023-08/resolution.pdf>
- City of Charleston. Undated. City of Charleston News / Bird Scooters Now Available in Charleston. Retrieved from CharlestonWV.gov: <https://charlestonwv.gov/news-items/mon-07242023-1319/bird-scooters>
- City of Greenville. 2023. Sustainable GVL- Vision for a Greener Greenville. <https://greenvillesc.gov/DocumentCenter/View/20686/Sustainability-Plan-PDF?bidId=>
- City of Knoxville Office of Sustainability. 2021. Energy and Sustainability Work Plan. [https://cdnsm5-hosted.civiclive.com/UserFiles/Servers/Server_109478/File/Sustainability/Work%20Plan%20&%20Admin%20Docs/Sustainability%20Work%20Plan%20Brochure-single%20Pages%20\(2022.04.01\).pdf](https://cdnsm5-hosted.civiclive.com/UserFiles/Servers/Server_109478/File/Sustainability/Work%20Plan%20&%20Admin%20Docs/Sustainability%20Work%20Plan%20Brochure-single%20Pages%20(2022.04.01).pdf)
- City of Lexington and Fayette County. 2012. Empower Lexington- A Plan for a Resilient Community. https://drive.google.com/file/d/1GRu2bKFSIGAYScm153C6DtII_Hck1PHk/view
- City of Morgantown. 2024. DRAFT - Traffic Commission Cross Function Flowchart. <https://www.morgantownwv.gov/DocumentCenter/View/2916/DRAFT---Traffic-Commission-Cross-Function-Flowchart>
- City of Richmond-RVA Green 2050. 2020. Climate Equity Action Plan 2030. <https://www.rva.gov/sites/default/files/2023-01/ActionPlanRVAGreenClimateEquityActionPlan2030%28CEAP%29.pdf>

City of Wheeling. 2019. City of Wheeling Launches Bike Share Program.
<https://www.wheelingwv.gov/media/Press%20Releases/Bike%20Share%20Launch%20PR.pdf>

Coalfield Community Action Partnership. 2024. Weatherization.
<https://coalfieldcap.org/weatherization>

Green Business Certification Inc. 2024. The Sustainable SITES Initiative.
<https://www.sustainablesites.org/>

Michanowicz, Drew; Dayalu, Archana; Norgaard, Curis; Buonocore, Jonathan; Fairchild, Molly; Ackley, Robert; Schiff, Jessica; Liu, Abbie; Phillips, Natham; Schulman, Audrey; Magavi, Zeyneb; and Spengler, John. 2022. Home is Where the Pipeline Ends: Characterization of Volatile Organic Compounds Present in Natural Gas at the Point of the Residential End User.
<https://pubs.acs.org/doi/epdf/10.1021/acs.est.1c08298>

Morgantown Municipal Green Team. 2022. Strategic Plan.
<https://morgantownwv.gov/DocumentCenter/View/1862/Morgantown-Green-Team-Strategic-Plan-2018-2022?bidId=>

National Recreation and Park Association. 2024. CAPRA Accreditation.
<https://www.nrpa.org/certification/accreditation/CAPRA/>

Regional Intergovernmental Council. 2024. RIC Kanawha Zero Vehicle Households.
<https://www.arcgis.com/apps/mapviewer/index.html?webmap=67d06acc13cd49cf9c8908ef2a5140f8>

Seals, Brady and Krasner, Andee. 2020. Health Effects of Gas Stove Pollution.
<https://rmi.org/insight/gas-stoves-pollution-health>

Town of Boone, North Carolina. 2024. Boone Community Climate Action Plan.
<https://www.townofboone.net/DocumentCenter/View/3095/Boone-Community-Climate-Action-Plan>

Triple Pundit. 2020. With a Track Record of Success, Bike Share Programs Should Bounce Back Soon. <https://www.triplepundit.com/story/2020/track-record-success-bike-share-programs-should-bounce-back-soon/120446>

United Nations. 2024. What is the SDG Cities Certification? <https://www.sdg-cities.org/certification>

United States Department of Transportation. 2024. RAISE 2024 Fact Sheets. June.
<https://www.transportation.gov/sites/dot.gov/files/2024-06/RAISE%202024%20Fact%20Sheets.pdf>

United States Green Building Council. 2024. LEED tools. <https://www.usgbc.org/leed-tools>

Vision Zero Network. Undated. What is the Vision Zero Network?
<https://visionzeronetwork.org/about/vision-zero-network/>

West Virginia Department of Tourism. 2024. 4 Most Cycle-savvy Cities and Streets in WV.
<https://wvtourism.com/4-cycle-savvy-cities-wv/>

APPENDIX A: RESOLUTION CREATING THE GREEN TEAM

COMMITTEE REPORT

TO: Clerk of the Council of the City of Charleston, West Virginia

FROM: Council Committee on Environment and Recycling,

Your Committee on Environment and Recycling,

has had under consideration : Resolution No. 386-20: Establishing a Green Team to provide recommendations to the City Administration and City Council's Environment & Recycling Committee.

Bruce King (via phone)
Ben Adams (via phone)
Naomi Bays (via phone)
Caitlin Cook (via phone)
Bobby Haas (via phone)
Will Laird (via phone)

and reports the same to Council with the recommendation that the committee report be adopted.

John Kennedy Bailey

Chairman

Resolution No. 386-20

Introduced in Council:

Adopted by Council:

October 19, 2020

Introduced by:

Referred to:

John Kennedy Bailey

Environment & Recycling

1 Resolution No. 386-20 - Establishing a Green Team to provide recommendations to the
2 City Administration and City Council's Environment & Recycling Committee.

3
4 WHEREAS, the City of Charleston is committed to providing a healthy, safe, and
5 sustainable community seeking to optimize quality of life for its residents by assuring clean
6 land, air and water, improving working and living environments, and responsibly managing
7 waste, while conserving taxpayer funds; and

8
9 WHEREAS, the City of Charleston wishes to establish a Green Team that will lead
10 the charge to help the City of Charleston save money and at the same time leverage the
11 skills, expertise, and life experience of the team members to recommend and develop
12 policies and plans, collaborate on the implementation of programs, and assist with
13 educational opportunities to maximize sustainability.

14
15 Now, therefore, be it Resolved by the Council of the City of Charleston, West Virginia:

16
17 That a Green Team is hereby established to provide recommendations to the City
18 Administration and City Council's Environment & Recycling Committee on the sound
19 development and management of the City of Charleston's sustainability initiatives and
20 promoting their benefits.

21
22 The Green Team shall consist of seven (7) residents of the City of Charleston who shall be
23 appointed by the Mayor with input from the Environment & Recycling Committee. Members
24 shall be subject to removal by the Mayor or by the Green Team itself, by a majority vote.
25 Members of the Green Team shall continue to serve until their replacements are appointed.
26 Four members of the Green Team constitutes a quorum.

27
28 No more than two residents on the Green Team may live in the same ward. No more than
29 two members of the Green Team may be employees of the City of Charleston or elected
30 officials with the City of Charleston. The Mayor shall appoint members who are diverse in
31 race, gender, sexual orientation, and gender identity.

32
33 The Green Team shall elect a Chairperson, a Vice-Chairperson, and a Secretary from its
34 membership. If any of these positions become vacant, an election to fill the position shall be
35 held at the Green Team's next meeting, provided that all Green Team members have been

1 informed of the vacancy at least one (1) week before such meeting. The Chair of the
2 Environment & Recycling Committee and the Director of Public Works shall serve as non-
3 voting *ex officio* members of the Green Team.
4

5 The Green Team shall meet at a minimum every three months at times and places to be
6 determined by the Green Team and shall hold additional meetings as it deems necessary
7 to perform its functions. The meetings of the Green Team shall be open to the public and
8 posted publicly in advance of the meeting, in accordance with the West Virginia Open
9 Governmental Proceedings Law (W.Va. Code § 6-9A-1, *et seq.*). The agendas shall be
10 prepared by the Chairperson. The Chairperson of the Committee shall preside over all
11 meetings, and, in the absence of the Chairperson, the Vice-Chairperson shall preside.
12 When both the Chairperson and the Vice Chairperson are absent, the Secretary to the
13 Committee shall preside. Minutes shall be taken at each meeting and provided to the City
14 Clerk for archiving.
15

16 The Green Team's responsibilities shall include:
17

18 1. Periodically, or at the request of the Mayor or the Chair of the Environment &
19 Recycling Committee, provide advice on the development of regulations or policies that
20 benefit or pertain to sustainability;
21

22 2. Investigate appropriate and cost-effective opportunities for implementing
23 energy efficiency measures in all aspects of Charleston's public buildings, including
24 benchmarking, operational changes and changes in maintenance or capital improvements;
25

26 3. Facilitate Charleston residents reducing environmental impacts through
27 recycling, energy use, and other appropriate measures;
28

29 4. Research and facilitate the use of clean, renewable energy within the City;
30

31 5. Identify appropriate federal and state incentive and grant programs that
32 provide opportunities for sustainability;
33

34 6. Engage in community outreach and education on sustainability initiatives and
35 events.
36

37 The Green Team shall make all of its recommendations in writing and direct them to the
38 Mayor, the City Manager, the Director of Public Works, and the Chair of the Environment &
39 Recycling Committee. The Green Team shall not have the authority to direct the City staff
40 to take any action. In making recommendations, the Green Team shall provide an analysis
41 of the estimated or potential costs and benefits of any recommended changes or policies.
42
43

APPENDIX B: BYLAWS OF THE GREEN TEAM

Charleston Green Team By-Laws (Adopted January 18, 2022) (Revised March 15, 2023)

Purpose:

The Charleston Green Team was established on October 19, 2020 to provide recommendations to the City Administration and City Council's Environment & Recycling Committee on the sound development and management of the City of Charleston's sustainability initiatives and promoting their benefits.

Members and Officers:

The Green Team shall consist of seven (7) residents of the City of Charleston who shall be appointed by the Mayor with input from the Environment & Recycling Committee. Members shall be subject to removal by the Mayor or by the Green Team itself, by a majority vote. Members of the Green Team shall continue to serve until their replacements are appointed. All appointments to the Green Team shall be for a term of four years.

Four members of the Green Team constitutes a quorum.

No more than two residents on the Green Team may live in the same ward. No more than two members of the Green Team may be employees of the City of Charleston or elected officials with the City of Charleston. The Mayor shall appoint members who are diverse in race, gender, sexual orientation, and gender identity.

The Green Team shall elect a Chairperson, a Vice-Chairperson, and a Secretary from its membership. If any of these positions become vacant, an election to fill the position shall be held at the Green Team's next meeting, provided that all Green Team members have been informed of the vacancy at least one (1) week before such meeting. The Chair of the Environment & Recycling Committee and the Director of Public Works shall serve as non-voting *ex officio* members of the Green Team. The Green Team may also have non-voting advisors who attend the meetings and provide guidance.

Each officer is elected for a one-year term running from January to December. They are eligible to serve two consecutive terms. Elections will be held at the Green Team's December meeting.

Meetings

The Green Team shall meet at a minimum every three months at times and places to be determined by the Green Team and shall hold additional meetings as it deems necessary to perform its functions. The meetings of the Green Team shall be open to the public and posted publicly in advance of the meeting, in accordance with the West Virginia Open Governmental Proceedings Law (W.Va. Code § 6-9A-1, *et seq.*). The agendas shall be prepared by the Chairperson. The Chairperson of the Committee shall preside over all meetings, and, in the absence of the Chairperson, the Vice-Chairperson shall preside. When both the Chairperson

and the Vice Chairperson are absent, the Secretary to the Committee shall preside. Minutes shall be taken at each meeting and provided to the City Clerk for archiving.

Responsibilities:

The Green Team responsibilities shall:

1. Periodically, or at the request of the Mayor or the Chair of the Environment & Recycling Committee, provide advice on the development of regulations or policies that benefit or pertain to sustainability;
2. Investigate appropriate and cost-effective opportunities for implementing energy efficiency measures in all aspects of Charleston’s public buildings, including benchmarking, operational changes and changes in maintenance or capital improvements;
3. Facilitate Charleston residents reducing environmental impacts through recycling, energy use, and other appropriate measures;
4. Research and facilitate the use of clean, renewable energy within the City;
5. Identify appropriate federal and state incentive and grant programs that provide opportunities for sustainability;
6. Engage in community outreach and education on sustainability initiatives and events. The Green Team shall make all of its recommendations in writing and direct them to the Mayor, the City Manager, the Director of Public Works, and the Chair of the Environment & Recycling Committee. The Green Team shall not have the authority to direct the City staff to take any action. In making recommendations, the Green Team shall provide an analysis of the estimated or potential costs and benefits of any recommended changes or policies.

Amendments and Revisions

These bylaws may be adopted, amended, or repealed by the vote of a majority of the Green Team members. Such action is authorized only at a duly called and held meeting of the Green Team for which notice of the meeting and the proposed bylaw revisions has been provided.