## Village of Dobbs Ferry, New York



### Climate Action Plan

# Local Actions for Reducing Greenhouse Gas Emissions and Strengthening Our Community





Approved by:

The Dobbs Ferry Board of Trustees

September 26, 2017

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The Dobbs Ferry Energy Task Force

www.DobbsFerry.com

## Credits & Acknowledgements

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- Dobbs Ferry School District
- Mercy College
- Master's School
- St. John's Riverside Hospital
- St. Christopher's, Inc.
- Garden Club of Dobbs Ferry
- MetroNorth Railroad
- Churches and Synagogues
- Dobbs Ferry local businesses
- Dobbs Ferry community residents

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- New York State Department of Environmental Conservation
- New York State Energy and Research Development Authority
- New York State Climate Smart Communities



In 2009, New York State established the Climate Smart Communities (CSC) program as a unique state and local partnership to reduce greenhouse gas emissions, save taxpayer dollars and advance community goals for health and safety, economic vitality, energy independence and quality of life. This partnership includes six New York State agencies that jointly sponsored the CSC Program, including the New York State Energy Research and Development Authority (NYSERDA), the Department of State, the Department of Environmental Conservation, the Department of Health, the Department of Transportation, and the Public Service Commission.

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### **Executive Summary**

Global climate change is one of the most complex and difficult challenges facing the world today. It is expected to have immediate, short and long-term impacts on a wide range of concerns including economic development, human health, infrastructure, energy, transportation, food security, and ecosystem management.

Global climate change refers to the existing and potential impacts of increasing greenhouse gas (GHG) emissions. This is caused by changes in the natural carbon cycle and human activity (principally, the burning of fossil fuels), resulting in the warming of the Earth's surface and atmosphere. Some of the main characteristics of climate change are:

- increases in average global temperature (global warming)
- changes in cloud cover and precipitation
- reduction or melting of ice caps and glaciers
- rises in ocean temperatures and acidity
- an increase in the frequency and intensity of extreme weather events.

Responses to the impacts of global climate change are broadly focused around two distinct measures:

- **Mitigation** Measures aimed at reducing GHG emissions that are responsible for the rise in global surface temperatures
- Adaptation- Measures related to coping with or adapting to a range of adverse climatic impacts such as sea-level rise; increase in the frequency and intensity of extreme weather-related events; destruction of low-lying coastal and marine ecosystems; and coastal zone inundation, which is expected to accompany the rise in global surface temperatures.

At the global level, intergovernmental negotiations on climate change resulted in the 1992 United Nations Framework Convention on Climate Change, which aimed to "stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system." This framework also provided

guidelines for international negotiations and protocols on climate change.

On December 12, 2015, 195 countries pledged to undertake action that would keep the global average temperature rise "well below 2 degrees Celsius". Known as the **2015 Paris Agreement** (Paris Conference Outcome & Agreement), this agreement is the first fully inclusive yet completely voluntary global climate change accord to cover all United Nations member states.

To be clear, the Paris Agreement is not a binding legal agreement for UN member states. Its future success hinges entirely on the level of "ambition" behind each country's voluntary pledge related to climate action. Every Paris Agreement signer was required to submit "Independent Nationally Determined Contributions.. The participating counties are expected to update their goals every five years, with steady increases in their national ambitions to curb climate change.

Three of the world's largest aggregate GHG emitters – China, the United States and India—ratified the Paris Agreement, which took effect on November 4, 2016. However, on June 1, 2017, the new administration formally announced its intention to withdraw, while leaving open the option of re-negotiating the Agreement.

New York State is already experiencing the adverse impacts of climate change, and has made climate mitigation and adaptation one of its top priorities. Over 130 local governments have adopted the NYS Climate Smart Communities (CSC) Pledge to reduce greenhouse gas emissions and prepare for the effects of a changing climate.

In 2009, New York State Executive Order No. 24 set a goal of reducing GHG emissions in the state by 80 percent below 1990 levels by the year 2050. The Order also created the New York State Climate Action Council

charged with formulating a detailed <u>Climate Action Plan</u> for achieving the GHG reduction goals.

The State also developed a New York State Energy Plan, which, along with private sector innovation and investment fueled by the "Reforming the Energy Vision (REV)" policy, aims to achieve the following clean energy goals by 2030:

- 40% reduction in greenhouse gas emissions from 1990 levels
- 50% of energy generation from renewable energy sources
- 23% decrease in energy consumption in buildings from 2012 levels.

On June 2, 2017, Governor Andrew Cuomo issued Executive Order No. 166, entitled "Redoubling New York's Fight Against the Economic and Environmental Threats Posed by Climate Change and Affirming the Goals of the Paris Climate Agreement." As per this Order, NYS reaffirmed its commitment to reducing the greenhouse gas emissions of 1990 levels by 40% b 2030, and 80% by 2050, "across all emitting activities of the economy". The Dobbs Ferry Climate Action Plan (CAP) is in accordance with this Executive Order.



Through this Climate Action Plan, the Village of Dobbs Ferry is joining other local communities in developing a grassroots response to climate change. The Dobbs Ferry CAP seeks to implement community-driven actions that will result in reduced energy demand and GHG emissions across five Focus Areas - Built Environment (including Energy); Waste and Recycling; Transportation; Gardens, Trees and Local Food; and Water. The CAP outlines Dobbs Ferry's environmental protection priorities, which were identified in a series of Community Conversations. It also seeks to advance local goals for energy savings, public health, safety, and environmental well-being.

The CAP recommends common sense approaches to improving air quality, lowering energy costs, enhancing transportation and accessibility, and reducing the community's carbon footprint. It is our hope that the recommendations in this plan, once implemented, will benefit our village for years to come. While the CAP alone cannot solve the climate change crisis, government policies and practices can dramatically reduce local GHG emissions, making a real difference for future generations.



#### Introduction: A Call for Local Climate Action

The Village of Dobbs Ferry has worked in close partnership with the New York State CSC Program in preparing this CAP. In so doing, Dobbs Ferry has joined an increasing number of local governments in New York State that are committed to addressing climate change by reducing GHG emissions and providing relevant sustainability measures at the local level.

In May 2008, the Village created the Dobbs Ferry Energy Task Force (ETF). The ETF is composed of local residents appointed by the Mayor who are committed to improving the environmental sustainability of the Village. The ETF's mission is: "To help Village government, residents, businesses and institutions become more sustainable by saving energy, using resources and renewable energy more effectively, and taking steps to become better stewards of the environment." The ETF promotes energy efficiency and renewable energy use, waste reduction and recycling; sustainable transportation; and appropriate land use. The group has built a strong partnership with elected officials, municipal staff, educational and not-for-profit (non-governmental) institutions, and local businesses.

In 2009, with help from a Pace Law School intern, the ETF completed a municipal GHG inventory for the baseline year 2007. This inventory showed the energy usage of each facility and each department. It was the first time energy consumption had been analyzed in the Village.

Also in 2009, the Village adopted the Climate Smart Communities pledge, establishing a target for reducing municipal GHG emissions by 20% (using the 2007 baseline numbers). In 2013, the Village adopted a new target of reducing community GHG emissions by 20% from 2010 levels by 2020. In 2014, the Village verified that it had reduced emissions from buildings and streetlights by over 40% from 2007 levels through clean energy projects.

In 2011, a "Green Team" (chaired by the Deputy Village Administrator/Village Clerk) was created to identify opportunities to improve the environmental performance of municipal operations. The Village obtained a grant from "Clean Air -Cool Planet" to engage the firm Green Team Spirit to help organize, strategize and set goals. The work of the Green Team has focused on increasing energy efficiency and advancing best practices in day-to-day village operations such as recycling, printing, and managing the use of electronics (e.g. lights, computers).

In 2014, the Village earned New York State's Climate Smart Communities' Bronze Certification, the highest level yet awarded through this program. In January 2017, Dobbs Ferry was designated a Clean Energy Community through the State of New York. Dobbs Ferry is the first village in the state to receive this designation (and the second community with a population of less than 40,000). Not only was this a point of pride, it also made the Village eligible for state funding for energy efficiency projects.

Dobbs Ferry has also taken an active and early role in partnering with other communities to champion environmental and energy sustainability. It was a founding member of the Southern Westchester Energy Action Consortium (SWEAC), and 2010, of Sustainable Westchester, SWEAC's successor.

In accordance with the CSC program, Dobbs Ferry recognizes the adverse impacts and risks that climate change poses to our community. By choosing to act—through the initiatives and actions identified in this CAP--the Village of Dobbs Ferry is taking a proactive leadership role in sustainable practices aimed not just at addressing climate change, but also in providing benefits to its residents.

In formulating the CAP, the Village affirms that:

- Local government policies and community-driven best practices can reduce GHG emissions from a range of sources;
- Partnerships with other municipalities, county government, and the State of New York can help the Village of Dobbs Ferry mitigate and adapt to climate change.

As a baseline, the CAP identifies GHG emissions from local government operations and community activities within our borders. It addresses the major sources of emissions in five focus areas and sets objectives and strategies that both the Village and the community can implement to achieve greenhouse gas reductions. The CAP is the logical and practical outcome of Dobbs Ferry's early leadership in developing efficient and cost-effective initiatives aimed at improving energy sustainability, measures that improve community life and make good business sense.



MAYOR HARTLEY CONNETT, VILLAGE CLERK AND CLIMATE SMART
COMMUNITIES COORDINATOR, LIZ DREAPER, AND ENERGY TASK FORCE CHAIR
NINA ORVILLE WITH CLIMATE SMART COMMUNITIES AWARD, .

### An Overview of Village Action and Commitment

The Climate Action Plan is a logical outcome of Dobbs Ferry's active involvement in New York State's environmental initiatives. Our elected officials and municipal staff have worked closely with community stakeholders and state agency representatives to develop efficient and cost-effective sustainability measures that benefit residents and conserve local resources.

The key focus areas of the CAP reflect areas in which Dobbs Ferry has already undertaken extensive work and has a proven track record of achievement. Past and current initiatives in these areas are highlighted below.

#### Built Environment (Including Energy)

Dobbs Ferry has undertaken numerous initiatives and projects focused on the built environment, energy efficiency and production of renewable energy.

In 2009, an event was held at Village Hall which brought together architects, building inspectors, contractors and other building professionals, and introduced attendees to NYSERDA's Home Performance Program. Local residents were also given information about renewable energy services and systems and the benefits of energy efficiency.

In 2010, the Village adopted land use regulations, including a new Zoning Ordinance, Vision Plan, and Design Guidelines. These regulations encourage contextual development in areas served by existing infrastructure. This aligns with state and federal mandates for projects using public funding, including those allocated under the Community Development Block Grant program.

That same year, the Village secured funding from NYSERDA to assess energy efficiency and renewable energy options for municipal facilities.

This effort positioned the Village for additional funding opportunities for the most promising of these projects. It also helped the Village identify investment priorities in the absence of grant funding. The assessments conducted in 2010 continue to serve as a baseline for energy usage of individual facilities.

Municipal clean energy projects have included:

- In 2011 (and continuing in 2012), Dobbs Ferry became the first municipality in Westchester County to install a significant number of LED street lights, replacing almost half of its lights with the new technology. The Village included a provision in its vendor contract to allow other communities to benefit from its contract. In addition, Dobbs Ferry shared its experience with LED streetlights in workshops and webinars, encouraging other municipalities to undertake this important energy improvement. (The City of Yonkers, for instance, indicated that hearing of Dobbs Ferry's experience was critical in encouraging the City to undertake full streetlight conversion the following year.) In 2015, the Village completed the conversion of its streetlights to LED.
- In 2012, the Village completed the full retro-commissioning of the Dobbs Ferry Public Library's heating and cooling systems and installed new lighting controls and LED lights in this facility.
- Solar PV, totaling 68 kW, was installed on two municipal buildings (the Library and the Department of Public Works) with project completion in 2012. The Library installation includes an educational display providing information about the solar energy generated.
- LED lighting was installed in the Dobbs Ferry Community Center in 2012.
- In 2014, the Village installed LED lighting throughout Village Hall and the Police Station.

The Village of Dobbs Ferry has developed financial parameters for energy-related investments. These parameters stipulate that projects with a payback of five years or less will be funded, six to 10 years will be considered, and projects with a payback beyond that timeframe will not be pursued unless they provide other benefits in addition to financial return. These guidelines continue to provide clarity on which projects to implement and exemplify the philosophy championed by Mayor Connett that "Environmental sustainability is good business."

Dobbs Ferry's climate leadership and willingness to invest its own funds in financially sound clean energy projects has enabled the Village to secure almost \$500,000 in energy-related grants.

A comprehensive software program - UtilityTrac - was piloted in 2012 and 2013 to track energy consumption and provide a benchmark for municipal buildings in the Village. Use of this software, which can measure cost avoidance from energy projects as well as GHG emissions,

is being implemented again by the Village in 2017.

In 2016, Dobbs Ferry collaborated with neighboring Hastings-on-Hudson on *Solarize Hastings-Dobbs Ferry*, as part of the Solarize Westchester (www.SolarizeWestchester.com) initiative. As a result of this outreach campaign to residents and commercial property owners, 85 homes in the two villages will start generating their own solar power in the coming months.

These homes represent over



500 KW of solar power and will produce over 550,000 kWh per year of clean, renewable energy, significantly reducing the homeowners'

electric bills and reducing demand from the electric grid. Over the previous 12 years, 35 solar photovoltaic systems had been installed throughout Hastings and Dobbs Ferry; with the addition of the new solar systems, the Solarize campaign will have more than tripled the number of solar homes in the two communities. More than 475 homeowners requested information about the opportunity to install solar, and installers conducted more than 200 site visits to evaluate homes' solar potential. As of June 2017, there are 69 solar installations in the Village.

Dobbs Ferry is collaborating with Sustainable Westchester's Municipal Solar Buyer's Group to assess additional solar PV opportunities for municipal properties.

In 2016, the Village passed a local law requiring annual energy benchmarking of most municipal buildings. The reporting requirements of this law will ensure that the continued performance of the buildings will be analyzed and future opportunities for improvement are more likely to be captured.

Also in 2016, the Village adopted the New York State Unified Solar Permit, aligning Dobbs Ferry's already streamlined permit process with the process recommended by the State. The Village is integrating this permit into its online permitting portal, further improving the efficiency of the system. We believe that the Village will be the first in the State to allow the Unified Solar Permit to be completed online.

As noted above, Dobbs Ferry's designation as a Clean Energy Community (CEC) made the Village eligible for state funding for energy efficiency projects. In the spring of 2017, an application was submitted for energy improvements to the Embassy (Community) Center. Because we were one of the first CEC of our size in New York State, we are eligible for this \$100,000 grant.

#### Waste and Recycling

In 2010, the Energy Task Force completed an extensive analysis of waste practices in Dobbs Ferry, including opportunities to reduce waste volume (e.g., Pay As You Throw and decreasing the frequency of trash pick-up). The results of this study, by Neil Whitehouse, were presented to Village officials and shared with relevant representatives of Westchester County government and other local municipalities. That

Rain Barrel \$75

Compost Bin \$55

Compost Bin & Rain Barrel Sale

Saturday, July 9, 2011

Green Home-Makeover at Wholesale Price!

Reserve by Wednesday, July 6th, 4pm

You must pickup on July 9th

Rain or Shine, Cash or Check ONLY

To reserve, fill out form and send to:

fax to 914-375-2153, call 914-375-2151.

Yes, Place an order for me!

COMPOST BIN at \$55 each

RAIN BARREL at \$75 each

(circle quantity): 1,2,3,

(circle quantity): 1,2,3,

Sponsored By

same year, with input from the ETF, the Village purchased 10 additional public recycling receptacles for the downtown area.

In 2011, the Village partnered with SWEAC to host a compost bin and rain barrel sale.
Discounted compost bins and rain barrels were available for purchase for community residents.

To educate the community, the ETF

created a flyer with detailed information about the recycling process currently in place. This useful tool is available on the Village website and has been shared at a numerous community events. The <a href="Dobbs Ferry Recycling">Dobbs Ferry Recycling</a> page on the village website also provides concise information about our recycling program.

In addition, the Dobbs Ferry "Green Team" has identified several ways to reduce the waste associated with printing. Residents are now able to pay taxes online and receive the village calendar and Board agenda by e-mail. Dobbs Ferry obtained a \$14,000 grant to digitalize its Board minutes from 1873-present. The project was completed at the cost of

\$7,000. With the remaining funds, the Village has started to digitalize other records, such as permitting documents.

Finally, in 2015, in line with New York State's *Beyond Waste* plan, the Village adopted a target goal of reducing solid waste generated within the Village by 20% by 2020. This reduction in waste would create significant environmental and financial savings for the Village.

#### Transportation

Most of Dobbs Ferry's population in the 19<sup>th</sup> century lived in the vicinity of Broadway (Route 9), Main Street, and the two regional rail line stations. Walking, bicycling, horse and rail were the way most people traveled. The 20<sup>th</sup> century advent of the automobile, coupled with suburban development away from the Village core increased dependence on cars, driving up energy use, GHG emissions and pollution. The Putnam Railroad, with two stations along the eastern border of Dobbs Ferry, shut down, while the sidings at the current MetroNorth train station became a commuter parking lot. The development of housing far from schools led to busing for younger children, while older ones were increasingly driven to school.



Previous page: Early 1900s Dobbs Ferry Train Station on Hudson Line (now MetroNorth). Sidings for train storage in background is now commuter car parking lot

By the 1990s, this dependence on cars led to motor vehicle traffic numbers in the Village accelerating far faster than population growth. The public buses, too far from suburban homes and slowed by increasing traffic congestion, declined in ridership. Station quality for buses failed to keep pace with MetroNorth regional rail. Walking and bicycling reached a low point when elementary school officials discouraged parents from letting their children walk or bicycle to school.





LEFT: LOW-QUALITY BEE-LINE BUS STOP. UNSHOVELED SNOW AND UNPAVED STOP MEANS RIDERS OFTEN FORCED TO STAND IN MOTOR VEHICLE LANE.
RIGHT: HIGHER QUALITY METRONORTH RAIL STATIONS WITH FULLY-ENCLOSED PLATFORM SHELTERS FEATURING PUSH-BUTTON HEAT.



BEE-LINE BUSES STUCK IN TRAFFIC ON BROADWAY (ROUTE 9). REAR OF BUS ON RIGHT IS BLOCKING CROSSWALK

In 2001, the first effort to reverse this trend appeared. A Village-appointed Sidewalk Committee was formed and recommended the construction of sidewalks to make walking safe. It prioritized enhancing sidewalks in the traditional centers, followed by the extension of sidewalks into suburban neighborhoods without sidewalks. This led to the construction of sidewalks on streets connecting Broadway and Main Street in the mid-2000s.

The Village expanded the number of crossing guards on duty every school day during school arrival and departure times, and now the count is 11. These guards are posted at particularly dangerous intersections to protect children from motorists. Some of the intersections are signalized with dedicated pedestrian phases, but even these are considered insufficient to protect pedestrians from motor vehicles.



CARS BLOCKING CROSSWALKS AND INTERSECTION, JUSTIFYING NEED FOR CROSSING GUARDS TO PROTECT PEDESTRIANS.

From 2003 to 2010, the Village facilitated an extensive community engagement process to revise the Vision Plan (also known as the Master Plan). This process revealed that a large number of residents desired safe and practical alternatives to driving. Recommendations for improving walking, bicycling and transit in the Village were included in the final Vision Plan adopted by the Village in 2010.

In 2007, the Village's Energy Task Force tied reductions in energy usage with reductions in the number of cars on the streets. Concurrently, the Village's Traffic Committee expanded its area of concern from solely mitigating motor vehicle congestion to encouraging walking, bicycling, and transit use. And the Dobbs Ferry School District's Parent-Teacher-Student Association (PTSA) began to advocate for improved street designs so children could walk and cycle safely when crossing guards were not on duty.

In 2012, the Village adopted a Complete Streets policy to make our streets function for all modes of transportation – walking, bicycling and transit – not just cars and trucks. This followed the adoption by New York State of a similar state Complete Streets policy in 2011. The Rivertowns Square 17-acre mixed-use development project includes a number of Complete Streets elements, and the project's mitigation funds paid for the Village's 2015-2016 efforts to install road diets, traffic-calming speed humps, and sidewalks in adjacent neighborhoods and near Springhurst Elementary School.

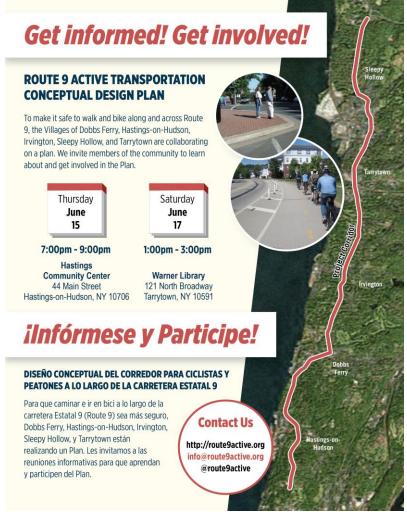


RAISED CROSSWALK, ROAD DIET, AND NEW SIDEWALK INSTALLED IN 2016

The Village received a 2013 Safe Routes to School grant from the New York State Department of Transportation to study safety for the pedestrians, bicyclists and transit-users of Broadway (NYS Route 9) and the Old Croton Aqueduct Trailway, together referred to as the Broadway Corridor. This study is still ongoing in 2017.

Most recently, Dobbs Ferry, Hastings-on-Hudson, Irvington, Tarrytown and Sleepy Hollow received a 2017 grant from The New New York

Bridge project of the New York State Thruway (the Tappan Zee bridge replacement) to continue studying the Broadway Corridor and improve walking, bicycling and transit.



ROUTE 9 (BROADWAY CORRIDOR) COMMUNITY ENGAGEMENT MEETINGS FLYER

Working with parent volunteers, the Dobbs Ferry School District has developed a successful Safe Routes to School program, which has included: a "walk-bike-scoot" to school month every year. The district

also secured federal funding to construct a stairway connecting Springhurst Elementary School to Beacon Hill Drive, a heavily-populated neighborhood that was previously not easily accessible by foot. The Village enhanced safety at the elementary school stairway by creating a slow zone, with speed humps on either side of the crosswalk at the top of the stairs. The district has also restored crosswalks to historic trails leading to school, and installed speed bumps on its driveways to slow motorists.

In addition, the district also allocated funds to create a staircase with a bicycle channel connecting the Middle School/High School campus to the Old Croton Aqueduct Trailway.

The Dobbs Ferry PTSA has stepped up advocacy and education around walking and bicycling to school. From 2015 to 2017, it has conducted a mapping project to identify routes children use to walk and bike around the Village to school, friends' homes, and other destinations. The purpose is to resolve safety problems, and to preserve historic safe routes.



GATEHOUSE TRAIL, PART OF A MINI-NETWORK ENABLING CHILDREN TO REACH SPRINGHURST ELEMENTARY SCHOOL SEPARATED FROM CAR TRAFFIC.



STAIRWAY WITH BICYCLE CHANNEL CONNECTING MIDDLE SCHOOL/HIGH SCHOOL CAMPUS WITH THE OLD CROTON AQUEDUCT TRAILWAY



One of two Speed Humps used to create a Traffic Calming Slow Zone around the crosswalk to the top of the Springhurst Elementary School Stairway



STAIRWAY LEADING TO SPRINGHURST ELEMENTARY SCHOOL. THE SHELTERED STAIRS ARE EASIER TO MAINTAIN IN WINTER



THE SCHOOL DISTRICT HAS EXPANDED THE NUMBER OF BIKE RACKS AT SCHOOLS.



BIKE RACK WELL-SITUATED NEXT TO ENTRANCE AT STOP & SHOP SUPERMARKET, ALTHOUGH NOT SHELTERED FROM WEATHER LIKE THE NEW HIGH SCHOOL RACKS.

The Village and other institutions operate shuttles to meet various needs. The Village runs an evening shuttle from the MetroNorth station. Mercy College, Children's Village, the Masters School, St. John's Hospital, and, more recently, the residences at Rivertowns Square, all run shuttles. The Vision Plan recommended knitting together these independent services into a unified, increased frequency and span, shuttle system open to all.

In 2015, the Village required Mercy College to create a Transportation Demand Management plan as part of new campus developments. This plan requires the College to continuously implement strategies to reduce motor vehicle trips and report periodically to the Village. As part of one new building, the College created a "bike room" for bicycle storage and showers and lockers for long-distance bike commuters. It also agreed to build a sidewalk connecting the College to the nearby MetroNorth regional rail station, and resurface the Old Croton Aqueduct Trailway portion running through its campus.



A MERCY COLLEGE SHUTTLE, ONE OF MANY PRIVATE SHUTTLES OPERATING IN THE VILLAGE

In 2016, following a spate of pedestrian and bicyclist fatalities and injuries in Dobbs Ferry and nearby municipalities, the Villages of Irvington, Hastings-on-Hudson and Dobbs Ferry jointly promoted a coordinated safe driving public awareness campaign called "Slow Down Rivertowns."



LAWN SIGN FOR INTER-VILLAGE SAFE DRIVING CAMPAIGN



Warning sign against Texting and Driving at the gateway intersection in Dobbs ferry

The School District's PTSA developed its own "PACE Car" safe driving campaign. Both campaigns were modeled on efforts in Irvington and received support from leaders in that adjacent community.



SAFE DRIVING PLEDGE FORM FOR DF-PTSA PACE CAR CAMPAIGN

While pedestrian safety is a high priority, the Village is also exploring ways to make transportation more energy efficient. One method currently under discussion is developing guidelines for fuel-efficiency in the Village's municipal vehicle fleet. We envision that these resource guidelines will provide guidance as individual vehicles in the fleet are scheduled to be replaced.

In 2009, the Village received a grant to help purchase a hybrid bucket truck for the Department of Sanitation. The bucket runs on battery power, eliminating the need to run the engine when the bucket is in use.

And, in 2015, two Electric Vehicle Charging Stations were behind Village Hall on Main Street with support from a NYSERDA grant.

#### Gardens, Trees and Local Food

The growing popularity of Farmers' Markets, community gardens and CSAs (Community Supported Agriculture) reflects the public's demand for locally-grown food that is healthy for both the environment and ourselves. Many in our community also recognize the importance of protecting our trees and green spaces, not only for aesthetic reasons, but also for protection against the adverse impact of climate change.

Over the past several years, the Village has partnered with various civic and environmental organizations to promote sustainability through a focus on gardens, trees and local foods. These efforts include the following.

In 2011, Dobbs Ferry and SWEAC (Southern Westchester Energy Action Consortium) hosted an educational event for landscapers and property owners about the benefits of leaf mulching, as promoted through the <a href="Love 'Em and Leave 'Em program">Love 'Em program</a>. That same year, the Village adopted the practice of mulching leaves on municipal property and in 2013



passed a resolution encouraging other property owners in the Village to mulch in place as well.

In the spring of 2015, Village officials and residents celebrated the re-opening of the newly renovated Dobbs Ferry Waterfront Park. The two-year multi-million-dollar project incorporated measures to mitigate coastal zone inundation and the expected rise in the level of the Hudson River. These included native plants and a re-built shoreline with new riprap.



The Village of Dobbs Ferry supports a weekly Farmer's Market from June to October, which provides local residents with access to locally-sourced food grown or distributed by small businesses and farmers.

LEFT: DOBBS FERRY WATERFRONT PARK

RIGHT: WEEKLY FARMERS' MARKET



The Village is a founding member of the Rivertown's Tourism Board, which works to attract sustainable tourism by promoting the unique asset of the Old Croton Aqueduct Trail. This inter-municipal public-private initiative is sponsored by local businesses and includes the Metropolitan Transportation Authority as a partner.

Springhurst Elementary School has become a leader in recycling, composting and gardening. The school's Outdoor Classroom, with almost 30 organic garden beds, has given students the chance to get their hands dirty—literally. This early exposure to growing food is fostering healthy eating habits, promoting physical activity, and raising environmental awareness.

Thanks to the efforts of the school and a committee of teachers and parents, a food waste audit was conducted at Springhurst. The audit allowed the school to measure the waste generated at its cafeteria and follow up with one of the most advanced recycling and composting systems in Weschester County. Through the Compost Kids initiative, students learn about the science of composting and how they are helping the environment.



Roots and Wings is a 2012 sustainable living initiative of South Presbyterian Church. In addition to educational and outreach activities such as movies, workshops, and speakers, Roots and Wings runs a community garden that allows parishioners and members of the public to grow their own organic food.

In 2015, Roots and Wings began a partnership with Rexcroft Farm, a seventh generation family farm in Athens, New York to offer a CSA to residents of the Rivertowns. By becoming a member of this CSA, participants are able to purchase a "share" of the harvest from a regional farmer, giving them access to fresh produce and allowing them to support small regional farms.



"ROOTS AND WINGS" CSA DAY!

The Garden Club of Dobbs Ferry is an active community group, serving as a forum for sharing land use and gardening ideas, hosting relevant guest speakers, and supporting local environmentally beneficial community improvement projects.

#### Outreach

Central to all the work of the Dobbs Ferry Energy Task Force has been outreach, engagement and collaboration with Village staff and elected officials, residents, businesses and institutions. The Village will only be successful in these efforts to the extent that the need for action - and the myriad benefits of responding to the challenge - are clear. The Energy Task Force has therefore organized numerous community events. These include:

 The Dobbs Ferry Climate Leadership Summit in 2010 featuring Dobbs Ferry residents who are national environmental leaders as well as those working on the local stage,

- Two events for businesses (one for contractors focused on energy efficiency training and another for businesses and commercial property owners focused on opportunities to save through energy efficiency and renewable energy measures),
- Two events focused on residential energy efficiency
- Participation in numerous local events and festivals, including the Ferry Festa,
- Sustainable Dobbs: Practical Solutions with a Global Perspective, an community-wide event in 2014.
- The Eagle Awards, granted to sustainability leaders in Dobbs Ferry by the Village and the Energy Task Force.



#### The Climate Action Plan Process

The Climate Action Plan is a natural step in our Village's efforts to reduce greenhouse gas emissions and create a more sustainable community. It builds on the strong partnerships we have developed with the State of New York, other municipalities—especially those in Westchester County—and local stakeholders.

The CAP takes advantage of practical and proven approaches to improving air quality, lowering energy costs, enhancing transportation and accessibility, reducing the community's carbon footprint, and advancing sustainable practices related to land use and water. All actions that are described in the CAP are intended to benefit the Village of Dobbs Ferry and its residents for years to come.

It is important to note that the challenge of addressing global climate change requires concerted global, national and local action at all levels and in multiple sectors. Dobbs Ferry cannot address climate change by itself; however, local government policies and practices and community actions can dramatically reduce GHG emissions from a range of sources.

In developing the CAP, the Energy Task Force used the New York State Climate Smart Communities (CSC) Climate Action Plan Template, along with the CSC Climate Action Planning Guide. Both documents were developed through the CSC Regional Coordinator Pilot Program to assist local governments in developing strategic plans for reducing GHG emissions.

The CAP goals and targets are based on public input, including extensive discussions with Village officials and community stakeholders. Using these conversations as a guide, the ETF prepared a CAP that focuses on five action areas that will be described at length in Section Three. In addition to these five focus areas, the CAP envisions an overarching outreach and education effort that will build awareness and increase community participation in the CAP.

To ensure inclusion and transparency in the planning process, the ETF hosted a series of five well-publicized Community Conversations—one for each focus area. These forums, which were held at the Dobbs Ferry Public Library, were sponsored and publicized by several community organizations, schools, and local businesses.

At these events, participants had the opportunity to provide feedback on such question as:

- How do our transportation choices affect our carbon footprint?
- How can we make Dobbs Ferry a more walkable, more bikefriendly community?
- How much waste do we generate in Dobbs Ferry?
- How effective are our recycling efforts?
- How can we, as a village, reduce waste?
- Given that our library and our DPW building have already gone solar —what else can we do, individually and as a community to improve energy efficiency/savings and reduce GHGs emissions?
- How can we shape our built environment (from buildings to parks, parking lots to playgrounds) to ensure that we are creating a sustainable future?
- Where is food being produced and sold in our community?
- How can we ensure that everyone in the community has access to fresh, affordable food that's healthy for our bodies and sustainable to our planet?

At each gathering, all suggestions and comments from community members were recorded. These were later listed on a CAP spreadsheet that was formulated to prioritize community recommendations and action items suggested by the State. A two or three-person team from the ETF analyzed the recommendations in each focus area, assigning a

point value to each item. This prioritized list was then discussed by the Dobbs Ferry ETF as a whole with a view toward further refinement. Finally, each recommendation was given a qualitative value of High, Medium or Low to reflect how well it meets the CAP criteria. The results of this final step are shown in the Focus Area charts below.



Waste session at Sustainable Dobbs, May 10, 2014

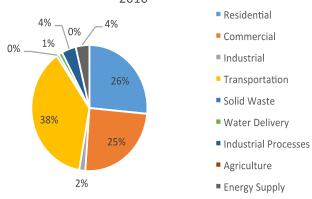
### Community GHG Inventory Assessment

**TABLE 1: COMMUNITY GHG INVENTORY** 

Identify & List GHG Emissions Sectors Below:	Enter the Unit of Measurement (Example in MTCO₂e)
Residential	26,720
Commercial	24,904
Industrial	1,688
Transportation	38,047
Solid Waste	631
Water Delivery	1,058
Industrial Processes	4,037
Agriculture	8
Energy Supply	3,838

#### FIGURE 3: COMMUNITY GHG INVENTORY

VILLAGE OF DOBBS FERRY
COMMUNITY GHG EMISSIONS BY SECTOR
2010



The community GHG inventory is an important component of the Climate Action Plan. It identifies sources of emissions from community activities and establishes a baseline from which future emissions reductions and progress can be measured. New York State conducted regional greenhouse gas (GHG) emissions inventories for the baseline year 2010. The GHG emissions from Dobbs Ferry were calculated as a part of the regional GHG inventory for each of the community sectors listed in Table 1. (MTCO<sub>2</sub>e stands for metric tons of carbon dioxide equivalents.)

Figure 3 shows the breakdown of GHG emissions by sector. The built environment (residential, commercial and industrial) is the Village's largest source of GHG emissions, comprising approximately 53% of 2010 community emissions. The emissions come from fossil fuels used in heating, cooling and other uses of electricity. Improving the efficiency of our buildings will significantly reduce their climate impact.

Transportation accounts for 38% of GHG emissions in the Village. Improving vehicle efficiency and reducing vehicle use through public transit, walking and cycling will reduce transportation-related emissions.

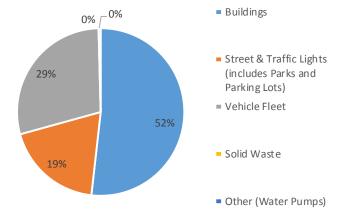
Although emissions directly related to solid waste appear low (4%), this number does not take into account the impact of manufacturing and transporting the materials that end up in our solid waste stream.

### Local Government GHG Inventory Assessment

TABLE 2: LOCAL GOVERNMENT GHG INVENTORY

Identify & List GHG Emissions Sectors Below:	Enter the Unit of Measurement (Example in MTCO2e)
Buildings	900
(includes Parks and	
Parking Lots)	329
Vehicle Fleet	502
Solid Waste	0
Other (Water Pumps)	7

FIGURE 4: LOCAL GOVERNMENT GHG INVENTORY



A local government operations GHG inventory was conducted for the baseline year 2007. This inventory accounts for emissions associated with facilities, vehicles, and other processes that are owned and operated by the Village of Dobbs Ferry. The sources of emissions related to government operations are listed in the Table 2. (MTCO<sub>2</sub>e stands for metric tons of carbon dioxide equivalents.)

Figure 4 shows the GHG emissions resulting from the day-to-day operations of a local government. Buildings are the largest single source of GHG emissions, comprising approximately 52% of the 2007 emissions. The vehicle fleet is the second largest contributor to municipal emissions, accounting for 29% and Street and Traffic Lights (including lighting in parks and parking lots) are the next largest sources of emissions at 19%. Since the baseline inventory was completed, the Village has taken steps to reduce emissions in its buildings through energy efficiency upgrades and the installation of solar electric systems on two of its facilities. In addition, the Village has converted its streetlights and traffic signals to the more energy efficient LED technology.

#### Climate Action Plan Focus Areas

Using the GHG baseline analysis and input from community stakeholders, the Dobbs Ferry Energy Task Force identified five focus areas where Village government, working in partnership with citizens and local institutions, could make a significant impact. These focus areas are:

- Transportation
- Built Environment (including Energy)
- Waste and Recycling
- Gardens Trees and Local Food
- Water

The section below provides an overview of the priority actions associated with each of the focus areas. Our goal in setting forth these priority actions is threefold:

- To streamline and integrate actions between the local government and the community to reduce GHG emissions across these sectors
- To provide opportunities for community education, outreach and involvement
- To create a framework for action by providing information about estimated implementation timeframes, costs, and potential lead stakeholders.

Transportation

- Goal 1: Conduct inventory of sidewalks, crosswalks, trails and cut-throughs to create comprehensive, active transportation network
- Goal 2: Strengthen Village's Safe Routes to School program to encourage students to walk or ride bikes and reduce traffic in school zones

Built Environment

- •Goal 1:Join Community Choice Aggregation and consider 100% Renewable default option.
- •Goal 2: Adopt an energy benchmarking requirement for government owned buildings

Waste & Recycling

- Goal 1: Create an educational campaign to encourage recycling (including e-waste), composting and overall waste reduction
- **Goal 2**: Educate community about reuse & recycling options for household goods

Gardens, Trees, & Local Food

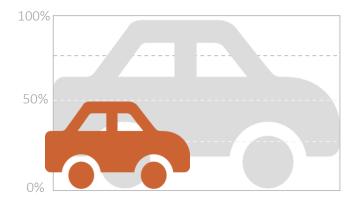
- •Goal 1: Promote the "Leaves-Love 'Em and Leave 'Em" mulch in place initiative
- •Goal 2: Promote local farmers markets and CSAs

Water

- •Goal 1: Implement a water conservation program
- Goal 2:Install water efficient fixtures in government buildings and encourage water efficient fixtures in private properties.

### Focus Area – Transportation

Transportation-related emissions are the single largest contributor to Dobbs Ferry's total GHG emissions. Motor vehicle emissions are responsible for ozone-destroying greenhouse gasses and air pollution, which affects our quality of life and impacts our health. Implementing the action items listed below will improve pedestrian and cyclist safety, encourage public transit use, and promote motor vehicle efficiency and ride-sharing, leading to fewer motor vehicles in the Village and on our streets and ultimately, lower greenhouse gas emissions.



## Focus Area - Transportation Top Priorities

- Conduct a community-wide inventory of sidewalks, crosswalks, trails and cut-throughs to create a comprehensive, active transportation network
  - Strengthen our Village's Safe Routes to School program to encourage students to walk or ride bikes and reduce traffic in school zones.
- Implement traffic calming measures (e.g. widen sidewalks, install roundabouts or speed tables) to make walking and cycling safer.
- Improve conditions and safety along Aqueduct Trail to encourage walking and cycling.
- Implement strategies that increase public transit ridership and alternative transportation modes (e.g. develop shuttle system to trains, ensure intermodality of buses and bus stops.

## Focus Area – Transportation

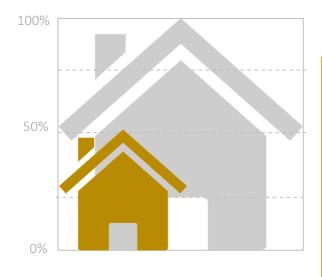
ACTION DESCRIPTION	IMPLEMENTATION CAPACITY	ESTIMATED ROI	QUALITY OF LIFE	GHG REDUCTION	FUNDING FEASIBILITY	TIMELINE
Conduct a community-wide inventory of sidewalks, crosswalks, trails and cut-throughs to create a comprehensive, active transportation network.	High	High	High	Medium	High	Short
Strengthen our Village's Safe Routes to School program to encourage students to walk or ride bikes throughout the Village and reduce traffic in school zones.	High	High	High	Medium	High	Short
Make walking and cycling safer by redesigning the streets (e.g. widen sidewalks, install round-abouts or speed tables) to reduce motor vehicle speeds.	Medium	Medium	High	Medium	Medium	Medium
Improve conditions and safety along Aqueduct Trail and at places where it intersects the streets to encourage walking and cycling.	High	High	High	Low	High	Short
Implement strategies that increase public transit ridership and alternative transportation modes (e.g. develop shuttle system to trains, ensure intermodality of buses and bus stops, require Transportation Demand Management Plans for all development.	Medium	High	High	Medium	Medium	Medium

Implement transportation technology solutions to facilitate transit use by making it more predictable.	Medium	Medium	High	Medium	Medium	Medium
Adopt a government vehicle fleet efficiency policy.	High	Medium	Low	Medium	High	Short
Raise awareness of the opportunities presented by the Dobbs Ferry, Westchester County, and New York State Complete Streets policies.	High	Medium	Medium	Low	High	Short
Develop a plan for the construction, improvements and regular maintenance of the sidewalk network, with particular concern for wheelchairs and strollers.	Medium	Medium	High	Medium	Medium	Medium
Replace government vehicles with electric, hybrid or other efficient vehicles when the opportunity arises.	Medium	Medium	Medium	Medium	Low	Long
Create a network of bus stops that include shelters from weather or are near storefronts or other public spaces that provide shelter.	Medium	Medium	Medium	Low	Medium	Medium
Raise awareness of, and enforce, the Westchester County anti-idling law.	High	Medium	Medium	Low	High	Short
Right-size the municipal fleet, including sharing vehicles across departments as appropriate and feasible.	Low	Low	Low	Low	High	Medium
Develop/Enhance plan for local trolley/shuttle service leading to more ridership.	Medium	Medium	Low	Low	Low	Medium
Create a "Buy Local/Buy Green" campaign to reduce vehicle miles traveled.	High	Low	Medium	Low	Medium	Short
Implement strategies that support biking, including possible creation of a bike share	Medium	Medium	Medium	Low	Medium	Medium

program, bike storage in buildings and on-street						
bike racks.						
Streamline permitting process for electric vehicle	Medium	Medium	Medium	Medium	High	Medium
charging stations for property owners.				- 22-2	<b>6</b>	

### Focus Area – Built Environment

The Built Environment includes all types of fuel and electricity used by residential, commercial, industrial and government buildings or facilities. The Built Environment (including streetlights) accounts for 71% of the local government GHG emissions and 53% of the community emissions. The Village of Dobbs Ferry's goals are to increase energy efficiency and the use of renewable energy sources for single-family homes, multi-family buildings, commercial businesses and government-owned buildings. Implementation of the actions listed in the CAP will position the Village to make substantial progress toward the overall emissions reduction target for the Built Environment (20% percent below the 2010 level by 2020).



## Focus Area - Built Environment Top Priorities

- Join Community Choice Aggregation and consider 100% Renewable default option.
- Upgrade interior lighting in all municipal facilities.
- Promote better land use efficiency.

## Focus Area – Built Environment

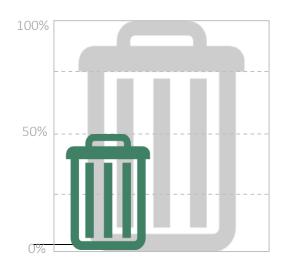
ACTION DESCRIPTION	IMPLEMENTATION CAPACITY	ESTIMATED ROI	QUALITY OF LIFE	GHG REDUCTION	FUNDING FEASIBILITY	TIMELINE
Join Westchester Power, Sustainable Westchester's Community Choice Aggregation Program, and consider 100% Renewable default option.	High	High	Medium	High	High	Short
Upgrade interior lighting in government buildings.	Medium	High	Medium	High	High	Short
Implement energy tracking software for government owned buildings.	High	High	Low	High	High	Short
Train Building Department staff on new energy code for new constructions and renovations.	High	Medium	Medium	High	Medium	Medium
Adopt energy efficiency and renewable energy program for residential and commercial property owners (e.g. Solarize and Energize).	Medium	Medium	Medium	High	Medium	Medium
Create sustainable resource-efficient site design guidelines (e.g. stormwater management. reducing heat-island effect etc.).	Low	Medium	High	Medium	Low	Medium
Encourage development of residential units that promote affordability and diversity and make more efficient use of	High	Medium	High	High	Medium	Short

existing infrastructure and mass-transit, while also preserving						
open space and environmentally valuable land areas.						
Install an Energy Management System (EMS) in government buildings (e.g. what exists in Library).	Medium	Medium	Medium	Medium	Medium	Short
Establish financing mechanism and/or investment policy for energy efficiency and renewable energy projects for government-owned facilities.	Medium	High	Low	High	High	Short
Conduct energy audits of local government buildings.	Medium	Medium	Medium	High	Medium	Medium
Create and support an energy reduction campaign or challenge for institutions and/or the Village Government.	Medium	Medium	Medium	High	Low	Medium
Establish a green or sustainability rating system for infrastructure improvement projects.	Medium	Medium	Medium	Medium	Low	Medium
Upgrade building envelope in local government buildings.	Medium	Medium	Medium	Medium	Low	Medium
Encourage upgrading of interior and exterior lighting in Dobbs Ferry institutions to LED.	Medium	Medium	Low	Medium	Medium	Short
Upgrade HVAC equipment in government buildings.	Medium	Medium	Low	Medium	Low	Medium
Serve as a host site for a renewable energy installation and enter into power purchase agreement (PPA) if sites are deemed appropriate and financial savings are available.	Medium	High	Medium	Medium	High	Short

## Focus Area – Waste & Recycling

Community waste includes the greenhouse gas emissions (or offset emissions) created from waste that is incinerated at the Wheelabrator waste-to-energy plant in Peekskill to which all Village waste is trucked. Emissions from waste are lowered due to the generation of energy from materials incinerated, however the actual environmental and climate impact of waste production is not reflected in the GHG figure. In fact, the US Environmental Protection Agency report, Opportunities to Reduce Greenhouse Gas Emissions through Materials and Land Management Practices, issued in 2009, found that "42 percent of U.S. greenhouse gas emissions are associated with the energy used to produce, process, transport, and dispose of the food we eat and the goods we use. This includes the extraction or harvest of materials and food, production and transport of goods, provision of services, re-use of materials, recycling, composting, and disposal."

For this reason, in 2015, the Village established the goal of reducing solid waste by 20% from a 2014 baseline by 2020. In 2014, 5,030 tons of municipal solid waste were disposed of (approximately 2.5 pounds per person per day) and 1,270 tons of materials were recycled (.7 pounds per person per day). The implementation of the actions listed in the CAP will position the Village to make substantial progress toward the overall waste reduction target, which will in turn reduce emissions and provide other benefits.



## Focus Area - Waste & Recycling Top Priorities

- Create an educational campaign to encourage recycling (including e-waste), composting and overall waste reduction.
- Educate community about reuse and recycling options for household goods.

<sup>&</sup>lt;sup>1</sup> "Opportunities to Reduce Greenhouse Gas Emissions through Materials and Land Management Practices" U.S. Environmental Protection Age, September 2009. https://www.epa.gov/sites/production/files/2016-08/documents/ghg-land-materials-management.pdf

## Focus Area – Waste & Recycling

ACTION DESCRIPTION	IMPLEMENTATION CAPACITY	ESTIMATED ROI	QUALITY OF LIFE	GHG REDUCTION	FUNDING FEASIBILITY	TIMELINE
Create an educational campaign to encourage recycling (including e-waste), composting and overall waste reduction.	High	High	High	High	High	Short
Educate community about reuse and recycling options for household goods (e.g. furniture, toys, etc.).	High	High	High	High	High	Short
Adopt a waste management strategy for village-wide/public events. Recycling policy by permit.	High	Medium	High	Medium	High	Medium
Evaluate reducing frequency of trash collection from two to one time per week.	Medium	High	Medium	High	High	Medium
Enforce current municipal recycling policies including use of "Oops" stickers.	High	High	Medium	High	High	Short
Involve schools and other institutions in campaigns to encourage recycling (including e-waste), composting and overall waste reduction.	Medium	High	High	Medium	Medium	Medium

Provide more waste and recycling bins in public places.	High	Medium	High	Medium	Medium	Short
Promote distribution of residential recycling bins and encourage homeowner purchase.	High	High	Medium	Medium	High	Short
Promote county-wide ban on the use of plastic bags.	High	Low	High	Medium	High	Medium
Adopt a construction and demolition waste reduction program or policy.	High	Low	Medium	High	High	Medium
Adopt a Zero Waste Initiative Policy where all products are re-used and all materials are viewed as resources.	Medium	Medium	Medium	High	Medium	Long
Promote composting and make compost bins available at low cost.	Medium	High	Medium	Medium	Medium	Short
Set up and manage a community resource center to encourage re-use of gently used or new materials that are discarded.	Low	Medium	High	Medium	Low	Medium
Adopt an environmentally-preferable purchasing policy.	High	Low	Medium	High	Medium	Medium
Create a municipal composting program.	Low	Medium	Medium	Medium	Low	Long

### Focus Area- Gardens, Trees, & Local Food

With no working farms in the Village, the impact of agriculture on greenhouse gas emissions is negligible. However, there are environmental impacts when trees are removed or left to die; food is trucked long distances instead of grown locally; vehicles are used to collect leaves that could be left in place; and synthetic fertilizers, pesticides and herbicides are used on lawns and public areas. The action items recommended below address these concerns and envision a community where everyone has access to green space and fresh, affordable, healthy food.



# Focus Area Gardens, Trees, & Local Food Top Priorities

- Promote the "Leaves- Love 'Em and Leave 'Em" mulch in place campaign.
- Promote local farmers' markets and Community Supported Agriculture.

## Focus Area – Gardens, Trees & Local Food

ACTION DESCRIPTION	IMPLEMENTATION CAPACITY	ESTIMATED ROI	QUALITY OF LIFE	GHG REDUCTION	FUNDING FEASIBILITY	TIMELINE
Promote Love 'Em and Leave 'Em leaf mulching initiative.	High	High	High	High	High	Short
Promote local farmers' markets and CSAs.	High	Medium	High	High	High	Short
Obtain Tree City USA designation.	High	High	High	Medium	Medium	Medium
Promote healthy yards initiative to discourage use of pesticides, herbicides, and synthetic fertilizers in favor of natural landscaping alternatives.	High	Medium	High	Medium	Medium	Short
Engage tree specialist to educate citizens and municipal staff on value of trees and how to protect them. Re-focus on tree pruning and care to provide for tree's health and unifying of streetscape.	High	High	High	Medium	Medium	Short

Adopt policies that support or incentivize personal and community gardens.	Medium	Medium	High	Medium	High	Medium
Offer gardening classes for beginning gardeners to empower citizens to participate in personal gardening.	High	Medium	High	Medium	Medium	Medium
Establish "Tree Fund" to allow private donations to subsidize the planting of new trees in the Village.	High	High	High	Medium	High	Short
Require shade trees, structures, and features in public spaces.	Medium	Medium	High	Medium	Medium	Medium
Protect natural areas for species migration, pollinators and ecosystem resilience.	Low	Medium	High	Low	Medium	Long
Set up a local seed swapping library.	Medium	Low	Medium	Medium	Medium	Medium
Prioritize the preservation of existing trees during the local land use approval process. When this is not practical, require planting of new native trees.	Medium	Medium	Medium	Medium	High	Medium

### Focus Area - Water

While water may be considered a minor contributor to GHG emissions, it is an important natural asset to conserve and safeguard. Water conservation results in reduced energy demand and thus lowers GHG emissions. Additionally, storm surges and rising water levels are direct results of climate change, requiring adaptation of land use patterns and preparedness planning for the relocation of critical community services. Implementation of the actions listed in the CAP will position the Village to make substantial progress towards conserving and protecting this vital resource while saving money for tax and ratepayers. Although the relationship of the proposed actions to GHG Reduction are listed as "Low", the impact on GHGs if water filtration plants become necessary, if critical infrastructure is lost or needs to be replaced, or if emergency support to protect life and property is required is significant and would change all of the "Low" designations to "High".



### Focus Area - Water Top Priorities

- Implement a water conservation program.
- Install water efficient fixtures in government buildings and encourage water efficient fixtures in private properties.
- Protect water sources and the natural aquifers.
- Prevent erosion, sedimentation, and the contamination of water courses with pollutants.
- Evaluate at-risk properties and services that can be affected by storm events, and begin long-term planning to adapt existing facilities or move them to safe areas.

## Focus Area - Water

ACTION DESCRIPTION	IMPLEMENTATION CAPACITY	ESTIMATED ROI	QUALITY OF LIFE	GHG REDUCTION	FUNDING FEASIBILITY	TIMELINE
Implement a water conservation program.	Medium	Medium	High	High	Medium	Short
Install water-efficient fixtures in government buildings and encourage water-efficient fixtures in private properties.	Medium	Medium	Low	Low	Low	Short
Identify and adopt municipal best practices related to storm water management to recharge groundwater and allow runoff from storm events to reach nearby wetlands, streams, and rivers without becoming contaminated with sewage or chemical pollutants.	High	High	High	Low	High	Short
Place labels on street catch basins indicating that the basins drain to the Hudson River and should not be used for disposal of waste oil or other substances. Village to ensure routine maintenance of sumps in catch basins to prevent waste oils	High	High	High	Low	Low	Short

and other waste from discharging						
to downstream wetlands, streams						
and rivers.						
Require Erosion and Sedimentation	High	Low	High	Low	Low	Short
Plans for all land development						
projects based on Westchester						
County's best practices.						
Identify services located in areas						
vulnerable to flooding during storm	Medium	Medium	Medium	Low	Medium	Medium
events and either move them or						
provide protective measures.						
Identify any essential services and						
infrastructure located in areas						
likely to be adversely impacted by						
rising water levels. Either move	Low	Low	High	Low	Medium	Long
them or strategize options so that			_			
their function will be unaffected						
during such emergencies						

### **Moving Forward**

Human-induced climate change is expected to impact local, regional and global society in wide-ranging and adverse ways. Water resources, agriculture, food security, human health, terrestrial ecosystems and biodiversity, and oceans and coastal zones will all be affected. Reliable scientific evidence has shown that extreme weather events associated with climate change are wreaking havoc in many countries and communities across the world, particularly in areas with low-lying and fragile coastal zones. It is vitally important that Dobbs Ferry, and communities like ours, implement adaptive policies and programs that respond to the adverse impacts of climate change, reduce climate change-related vulnerabilities and build climate resilience. These adaptation and resilience policies and measures could include developing emergency response and early warning centers, protecting water resources from sea water contamination, and coastal zone inundation prevention.

Climate change mitigation may be a challenge, but it is also an opportunity to take action and make better energy choices that will make the Village of Dobbs Ferry more stable and resilient in the future. The Climate Action Plan is a resource for all community stakeholders, including local officials, homeowners, renters, business owners, and educational institutions. It also provides a framework for implementing actions that will help Dobbs Ferry reduce its carbon footprint for future generations.

Once the Plan is adopted by the Village Board of Trustees, it will be available to members of the public on the village website (www.dobbsferry.com). Hard copies will also be available to review at the Dobbs Ferry Public Library and by request through the Village Clerk's office, at Village Hall. Periodic updates will be provided to the community through various means, including public meetings, articles and announcements in The Rivertowns Enterprise, and reports in the Mayor's newsletter.

Our Climate Action Plan has set the ambitious goal of reducing community greenhouse gasses by 20% by 2020. We will succeed only with the active participation of all stakeholders--those of you who live, work, learn, worship and play in our beautiful village. We encourage you to review this plan carefully. What issue speaks to you most? Which priorities do you want to champion? Think about how you can contribute your time, talents and passion to make this plan a reality. And once you're ready to jump in, contact the Dobbs Ferry Energy Task Force through the Village Clerk's office to get started. With the Climate Action plan as our guide, we *can* make a difference on one of the most critical environmental, economic and quality of life issues of our time.





































In 2009, New York State established the Climate Smart Communities (CSC) program as a unique state and local partnership to reduce greenhouse gas emissions, save taxpayer dollars and advance community goals for health and safety, economic vitality, energy independence and quality of life. This partnership includes six New York State agencies that jointly sponsored the CSC Program, including the New York State Energy Research and Development Authority (NYSERDA), the Department of State, the Department of Environmental Conservation, the Department of Health, the Department of Transportation, and the Public Service Commission.