



2018

Town of Fairfield Sustainability Plan



Town of Fairfield
Sustainable Fairfield Task Force
January 2018
Version 1.2

For a More Sustainable Fairfield: An Action Plan for Today and Tomorrow

What makes a community “sustainable?”

First and foremost, a “sustainable” community wisely manages its growth and development to safeguard the health of its environment, ensure the reliability and economical use of its natural resources, and preserve the quality of life of its residents – not just for now, but for the future as well. Sustainability matters – it shapes every part of our daily lives. And for that reason, Fairfield has made sustainability a key focus of the Town’s long-term strategic vision.

In recent years, Fairfield has launched numerous sustainability initiatives, with the support of citizen volunteers, focusing on good stewardship of Fairfield’s natural and built settings, renewable energy and environmentally-friendly transportation, water quality and waste management, and a host of other areas. In addition to the environmental benefits, such efforts are now yielding nearly \$3 million - and growing - in annual energy cost savings for the Town, with a cumulative multi-year cost saving in the tens of millions of dollars.

But the pressures of growth are rising – and new environmental threats are emerging every day. The goal of a truly sustainable future has never been more urgent – and linking and coordinating the Town’s many efforts on this front has never been more critical.

Toward that end, we are pleased to present the Town of Fairfield’s first-ever master Sustainability Plan. This plan captures, for the first time, current as well as planned initiatives designed to enhance the sustainability of the Fairfield community across 10 overarching action areas: Air, the built environment, education and outreach, energy, financial management, food, the natural environment, transportation, waste and water.

The plan is truly action-oriented, outlining specific projects, with both short- and longer-term goals, and it describes how the activities mutually reinforce each other. It details the benefits of all of the projects, not only in terms of environmental quality, but also the economic value to the Town and its residents that accrues from diligent oversight of our resources and smart development.

Importantly, the plan also shows how Fairfield’s residents can take part in the ongoing effort to improve our Town’s sustainability. The reality is that sustainability cannot simply be mandated from above; it hinges on the concerted interest and active engagement of all of us, doing what we can in our homes, on the job, and throughout our day to ensure the health and viability of the community we all share.

In that spirit, we view this plan as a dynamic, living document. We welcome comments from our fellow citizens on how we can make our plan even more robust and complete, and, in particular, we welcome ideas about ways to even better engage citizens in this important work. At regular intervals, we will report on updates and enhancements made to the plan, and provide news regarding our progress.

Sustainability is a shared responsibility – but we all share in the benefits. And there is always more that we can do, together. We encourage you to review our plan closely, let us know how we can make it even better – and consider how you can help Fairfield reach its goals for sustainability.

ABOUT THE TOWN OF FAIRFIELD SUSTAINABILITY PLAN

Fairfield's Sustainability Plan is:

- ✓ **Authored by the Sustainable Fairfield Task Force**, a group of citizen-volunteers working in cooperation with Town officials and other stakeholders to advance the broader use of clean, renewable energy sources Town-wide, help safeguard the Town's natural environment, and make Fairfield a more sustainable community
- ✓ **Designed to be comprehensive in scope**; it will eventually reflect dozens of action areas that have an impact on Fairfield's environmental health, quality and sustainability
- ✓ **Modular in format**, to ensure that its focus areas and action items are clear, concise and easily tracked
- ✓ **Transparent** in presenting its specific goals and, just as importantly, the metrics to be used to assess progress toward those goals
- ✓ **A dynamic, evolving document**, with additional focus areas and goals to be added in line with our Town's evolving needs and opportunities as well as feedback from our citizens
- ✓ ***Your plan*** – We want the entire Fairfield community to engage with and help shape our Town's sustainability efforts, and so we strongly encourage residents to offer their comments and ideas for making our efforts even more powerful and effective

How to provide input:

Comments or other input on this Plan may be provided by email to:

fairfieldcleanenergy@gmail.com

A PLAN THAT IS MODULAR AND “LIVING”

Fairfield’s Sustainability Plan has been developed in a modular format. A complete listing of all modules that are planned to be included in the Plan are identified below. The initial batch of modules that have been drafted and are included in this version of the plan are identified as “included below.” As future modules are drafted, the plan will be updated accordingly.

Category	Subcategory	Status
Energy	Conservation	In progress
	Renewables	Included
Food		Included
Water	Drinking Water	Included
	Wastewater & Stormwater	In progress
Waste		In progress
Natural Environment	Parks & Open Spaces	Pending
	Wetlands & Coastline	In progress
	Forests & Uplands	Included
Built Environment	Homes	In progress
	Buildings & Facilities	In progress
	Landscaping	Pending
Air		Pending
Transportation	Automobiles	Included
	Biking & Walking	Included
Financial	Purchasing	Pending
	Investing	Pending
Education & Outreach		Included

Renewable Energy

In 2005, the Town pledged to reduce its municipal energy usage and to obtain 20% of its electricity from renewable sources by 2020. A 2014 aerial survey of Fairfield homes indicated that approximately 5,000 Fairfield homes have rooftop solar potential. With current incentives and market conditions, “going solar” has tremendous economic benefits for Fairfield residents.

Progress to date:

- Completed 32 solar energy projects on Town buildings
- ~30% of Town’s electricity comes from renewable sources
- 400 Fairfield homes have gone solar
- Four Town-wide solar programs
- First commercial C-PACE projects
- 2 microgrids (1 built, 1 in design), first Town in CT with microgrid
- Fuel cell provides green power and heat for wastewater treatment plant
- Town saves \$2.8M/year on energy costs
- Annual savings projected to rise to over \$3.2M in 2018

Benefits of clean renewable energy:

- Reduction of greenhouse gas emissions, which contribute to climate change
- Reduction of toxic emissions from burning of fossil fuels
- Improved air quality and public health
- Improved energy stability and security
- Money savings on electric bills



Riverfield Elementary solar system (2016)

2020 Plan Goals:

- 40% of Town electricity from renewables
- 5 large-scale clean energy projects (>500 kW each)
- 500 residents with solar power at their homes, including low-income
- Support state renewable policies (incl. wind, geothermal)

Long Term Goal: 100% of energy in Fairfield (Town, business, residents) from renewable sources by 2050

Approach: Leverage federal and state incentives. Use power purchase agreements for Town solar projects. Use community outreach and community solar for residents.

FOR MORE INFORMATION

Clean Energy Action Plan (2014)

Lead: Sustainable Fairfield Task Force

References:

www.energyinformative.org/benefits-of-solar-panels

Food

Our food system is very complex. The average plate of food travels 1500 miles; much food is treated with pesticides with unclear effects on human organs; over 4 million tons of food is wasted annually in the U.S.

But in recent years, farmers' markets, CSA's, and other outlets for local farmers have shown strong growth in response to consumer demand. The USDA estimates that locally-sourced food sales to restaurants, retailers and regional distributors have tripled.

Progress to date:

- Multiple Farmers' Markets: June – October-Weekly
- Farm to School Network provides local produce during growing season
- Stop & Shop, Whole Foods and Trader Joe's have increased local food access
- Restaurants like BGood promote local food sources and have local beers

Benefits of local food infrastructure:

- Local food is fresh and tasty
- Local fresh fruits and vegetables are more nutritious and support community health
- Supports farmers and builds local economies
- Local food systems generally mean less energy, emissions and food miles associated with our food
- Local food supports genetic and ecosystem diversity
- Local food helps preserves undeveloped land.
- Adds value to the community
- Growing veggies at home is more cost effective than buying and helps lower income families gain affordable access



Many of Fairfield's restaurants serve food from local

2020 Plan Goals:

- More residents growing some sort of food at home
- More restaurants sourcing local produce/ingredients when available
- Encourage schools to have productive school gardens
- Deeper food rescue program
- Free classes on composting, square foot gardening, raised beds
- Baseline survey and compare with surrounding/similar towns
- More community garden plots
- Work closer with "Farm to School"

Long Term Goals: Increase local food production, working farm, residents growing more food, local food access at grocery stores, schools, hospitals, universities, restaurants, Increase CSAs . More diversity in farmers' markets – honey, herbs, and seeds.

Approach: Educate the community on benefits of local food and food rescue. Establish guidelines for grocery stores and restaurants on food sourcing.

FOR MORE INFORMATION

Seven Generations Ahead
Food Rescue US

National Farm to School Network

<https://www.usda.gov/documents/3-Infrastructure.pdf>

<http://www.worldwatch.org/globetrotting-food-will-travel-farther-ever-thanksgiving>

Drinking Water Supply and Quality

Fairfield is in a region of relative water abundance, but we've always had droughts as well as flooding. Climate scientists project that future episodes of drought and flooding are likely to intensify. In addition, our water supply is at risk from increasing population and commercial development.

Each day, Fairfield uses about 9 million gallons of drinking water from several watershed areas for commercial and residential use. Aquarion maintains about 300 miles of water main in Fairfield; the oldest mains are about 80 years old.

Progress/Achievements to date:

- Consistent supply of water for homes and businesses
- Water is monitored for general quality as well as regulated and emerging contaminants
- Watershed protection through partnership with DEEP, Aquarion, and the Nature Conservancy

Challenges Ahead:

- Ensuring that water supply and quality keeps pace with residential, municipal, and commercial development
- Ensuring reliable water delivery infrastructure
- Ensuring proactive response to drought conditions

Benefits of mindfully managing our water supply:

- Lower water bills
- Lower energy costs to make hot water
- Lower operating costs of wastewater treatment facility translates into lower taxes
- Creates a cushion against drought conditions
- Protecting the quality of our water means protecting our health and safety
- Stewardship of a precious and finite natural



Aspetuck Reservoir

2020 Plan Goals:

- Reduce Town water use by 5-10%
 - Residential and commercial conservation measures, e.g., low-flow toilets, fixing leaks, rain barrels, etc.
 - Water-efficient landscaping
- Initiate process to develop Town drought ordinance
- Maintain effective fire prevention program
- Ensure a reasonable water main replacement program
- Support the watershed management partnership
- Ensure that regulated and emerging contaminants are adequately monitored

Long-Term Goal: Standards for greywater separation and use

Approach:

- Education on residential and commercial water conservation actions
- Emphasis on water-efficient landscaping strategies

FOR MORE INFORMATION

<http://www.aquarion.com/CT/WaterQualityReports>

<http://www.aquarion.com/CT/waterconservation>

<http://www.aquarion.com/CT/Monitoring>

<http://www.aquarion.com/CT/landmanagement>

http://www.ct.gov/waterstatus/lib/waterstatus/pdf/state_of_ct_model_water_use_restriction_ordinance-final.pdf

Forests & Trees

For the purposes of this plan, the term Forest includes all trees on public and private land in Fairfield, including trees in the right of ways along Town roads. Trees are a large part of Fairfield's history and sense of community. The Town has long recognized its responsibility as a steward of its forest resources, acting to protect and enhance the many environmental, cultural, and economic benefits of trees. In the 1800s, Fairfield residents Annie B. Jennings and Mabel Osgood Wright were pioneers in forest management. The example they set continues today.

Progress to date:

- [Tree City USA](#) designation since 1988
- [Town of Fairfield Forestry Committee](#) since 2006
- [Town of Fairfield Community Forest Action Plan](#) in 2014
- Over 1,100 acres [town-owned open space](#) parcels
- Town of [Tree Planting](#) and [Commemorative Tree](#) Programs

Benefits of trees:

- Energy efficiency due to shade and wind block
- Calming, health benefits
- Aesthetic character / appeal
- Economic
- Water filtration
- Flood and Erosion control
- Health and Safety
- Improved commerce
- Habitat
- Shade
- Carbon sequestration
- Air and water purification
- Stream-flow regulation
- Educational / discovery opportunities
- Edible plants, nuts, and berries
- Mitigate climate change problems



Tree City USA ceremony

2020 Plan Goals:

- Maintenance: tree health, infrastructure hardening
- Tree Planting: increase number of trees planted and assessment of trees planted in the program
- Education and Outreach: signage project throughout town in collaboration with pertinent Town and civic groups
- Address invasive plants, insects, and diseases
- Diversity of species and age of trees

Long Term Goal:

- Increase Town Open Space acquisition and maintenance

Approach:

- Informational Outdoor Exhibit Panels
- Seasonal Tree Walks
- Workshops

FOR MORE INFORMATION

[I-Tree Tools](#)

[Town of Fairfield Forestry Management Plan](#)

Automobiles

About 50% of a typical two-car household's carbon emissions is from transportation sources. Use of mass transit, bikeability, and walkability offer opportunities to reduce transportation emissions, as would choosing fuel-efficient vehicles. But recently, electric vehicle technologies have become prominent; EVs now represent over 1% of US vehicle sales. Given their efficiency (4-5 times that of a gasoline car), EVs will play an increasingly key role in reducing emissions.

Progress to date:

- First Town EV obtained in 2015 (Nissan Leaf)
- Annual EV Showcase since 2015
- Over 15 EV chargers in Town
- 56 EVs registered in Town
- Propane equipment used for Town landscaping
- EV course offered annually to community
- Anti-idling signage at schools
- Deflector shields on buses

Benefits of sustainable transportation:

- Reduction of greenhouse gas emissions, which contribute to climate change
- Reduction of toxic emissions from burning of fossil fuels, improving air quality and public health
- Reduce traffic congestion via transit-oriented design (TOD) and carpooling
- Save time, money on travel



Level 2 EV charging station at Sherman Green installed in 2012

2020 Plan Goals:

- 3 Town-owned EVs, replacing older fleet vehicles
- 200 registered EVs
- Promote EVs, efficiency, rideshare
- Get car sharing service (e.g., Zipcar)
- Start replacing school buses with natural gas or propane fuel
- Support state efforts for mass transit, TOD, and ridesharing
- Formally oppose state efforts to widen I-95 for capacity reasons

Long Term Goal: 100% of transportation from sustainable sources by 2050, reduce traffic

Approach: Leverage federal and state incentives. Add EV chargers to solar projects and building renovations. Continue EV outreach and education. Communicate with state and federal legislators about transportation issues.

FOR MORE INFORMATION

Clean Energy Action Plan (2014)

Lead: Sustainable Task Force

References: www.afdc.energy.gov

Biking & Walking

The Town of Fairfield recognizes the need to encourage walking and biking for recreation, transportation, exercise and quality of life. Walking and biking conserve energy, improve air quality, reduce parking needs and traffic, improve health and fitness, and invigorate the local economy through increased access to local businesses and tourism. We can achieve these community-wide benefits through institutional planning and enforcement,

Progress to date:

- Town-wide bike route plan
- Three completed bike routes including Shoreline, Mill Plain, and Library to Library*
- Establishment of Bike Share Program
- Draft of Complete Streets Policy
- Numerous education and outreach events and activities

*Library route pending signage and striping

Benefits of biking and walking for transportation:

- Reduction of greenhouse gas emissions, which contribute to climate change
- Reduction of toxic emissions from burning of fossil fuels
- Improved air quality and public health
- Save money on transportation costs
- Reduced need for parking and pressure on parking resources



In partnership with private business and led by the Fairfield Health Dept., a bike share program was launched in 2016.

2020 Plan Goals:

- In 2018, formally adopt Complete Streets Policy
- Implement at least 3 new routes pursuant to Bike-Walk-Run plan
- Implement 2 - 3 projects under Complete Streets Policy
- Annual community outreach and education
- Support state efforts for mass transit and transit oriented design

Long Term Goal: Complete implementation of bike route plan and Complete Streets plan

Approach: Implement Bike-Walk-Run plan during repaving projects. Using federal and state incentives when possible, apply Complete Streets policies to new projects. Leverage private funding and partnerships when possible. Continue outreach and education.

FOR MORE INFORMATION

Bike-Walk-Run Plan (2013)

Lead: Fairfield Bike-Ped Committee

References:

www.smartgrowthamerica.org

Community Outreach & Education

Fairfield has been a leader in environmental awareness and action. The Town (with support of various Town committees) has historically sponsored numerous activities promoting sustainability and residential energy efficiency/renewability, all supported with focused communications. Now, the Sustainable Fairfield Task Force will support ongoing outreach and education designed to enhance Town-wide involvement in the Town's overarching sustainability program as well as discrete activities geared toward developing and maintaining Fairfield as a truly sustainable community.

Progress to date:

- Traditional media outreach, social media presence to promote environmental and sustainability initiatives including:
 - Annual Earth Day celebration
 - Bike/Walk events
 - Farmer's Market
 - Town-led community solar programs, preceded by Town-wide "audit," supported by letters to eligible residents
 - Support for National Drive Electric Week
 - Renewable energy support: EV charging stations Town-wide, support for household energy audits, LED giveaways
 - Green Drinks events

Benefits of citizen outreach/education:

- Supporting broad recognition of Town's leadership in sustainability
- Creating greater community support of Town's specific sustainability initiatives
- Generating heightened awareness re: potential for personal/household sustainability
- Encouraging citizen action to support the Town's sustainability mission and achieve household sustainability, reinforcing ongoing action via "success stories"
- Creating "feedback mechanism" to better understand and respond to citizen concerns/interests re: sustainability



Fairfield Woods Library EV charger ribbon cutting

Goals: Maintain program of communications activities designed to "promote" specific initiatives; supplement opportunistic communications with ongoing program establishing the sustainability mission "context" for those activities, inviting/encouraging greater citizen involvement toward sustainability

Approach:

- Maintain current agenda of environmental/sustainability/clean energy activities with appropriate promotion
- Create and promote improved Web resource focused on sustainability mission
- Initiate annual Town-wide letter to residents; report progress, re-state goals
- Town-wide survey to establish "base line" for community knowledge/support for sustainability
- Establish signage program highlighting significant sustainability initiatives
- Conduct annual sponsored "tour" of significant sustainability projects
- Annual Town workshop focused on household Sustainability Plan.
- Explore opportunities for exhibits at Museum/History Center, Main Library, Farmer's Market
- Quarterly media column focused on sustainability issues, progress, goals
- Visibility in Fairfield Chamber Directory

FOR MORE INFORMATION

Clean Energy Action Plan (2014)

Lead: Sustainable Fairfield Task Force