

Protecting Natural Resources and Preserving Rural Character

The best way to protect critical natural resources is to acquire the land as open space. The current Plan of Conservation and Development discusses the natural resources that make Middletown unique. The plan includes an open space plan, which identifies proposed open space corridors. Open space acquisition efforts over the past 15 years have focused on acquiring these unique natural resources within these identified corridors. Figure 7.1 is the City's official open space plan.

In 1990 the City owned 967 acres of parks and open space. This represented 3.5 % of the city's total land area. As a result of recommendations encompassed in the 1990 Plan of Development, the City acquired 1,317 acres of land as permanent city-owned open space between 1990 and 2006. The City's aggressive open space policies have resulted in 2,284 acres of publicly owned parks and open space. An additional 851 acres were donated to land trusts and homeowners associations. The City's investment of \$8 million in bond funds leveraged millions in State funds and private donations resulting in a 224 % increase in the amount open space in the City of Middletown. Figure 7.2 displays the open space acquisitions since 1990



Guida Conservation Area

The University of Connecticut studied the increase in developed land for all Connecticut towns from 1985 to 2002. The study revealed that in 1985, 21.8 % of Middletown's land was developed. The article stated that the figure increased to 25.2 % developed land in 2002. This translates into 885 acres being developed during the 17-year period from 1985 to 2002.

Middletown has established itself as one of the leaders in open space preservation in Connecticut. Middletown has permanently preserved 2,186 acres of land from 1990 to 2006. The amount of permanently preserved open space (2,186 acres) was more than twice the increase in developed land during similar periods of time!

For the past 16 years, the City focused on land acquisition to accomplish both environmental protection and growth control. As shown on Figure 7.3, these open spaces are scattered throughout the community and

there is a large (>50 acres) undeveloped and publicly accessible open space area within one mile of every home in Middletown!

Table 7.1 Permanently Protected Land Status as of 2007

Total Permanently Protected Open Space ** 3,134 acres

Inland Wetlands * 2,933 acres**

Total 6,067 acres

Percentage of land in town classified as Open Space/Wetlands 22%

****Does not include schools, Wesleyan / Long Lane –Utility Land.-
CVH watershed land

A.) Preserving Rural Character

While there has been significant investment in open space in the last 16 years, the vast majority of the properties purchased have been woodlands. As the Commission reviewed each area of town, it became apparent that there are farms and "farm corridors" which face significant development pressure. These prime agricultural soils, with gentle slopes and well-drained soils, are also ideal for development. Figure 7.4 displays those farms taking advantage of the State's Chapter 490 preferential tax program.

Understanding that Middletown's farm corridors contribute greatly to the City's diversity, the City should begin a dialogue with local farmers to better understand their current situation and their willingness to sell the development rights. The City has received a Farm Viability Grant from the State Department of Agriculture to begin that dialogue and develop a comprehensive farmland preservation strategy.

The acquisition of development rights is certainly the best way to preserve working farms. In this way, farmers can continue to own and farm their properties and the City can be assured the farms are permanently protected. Since the farm viability study is complete, the City should pursue a referendum authorizing the issuance of bonds for farmland preservation. The State of Connecticut is also very interested in farmland preservation. The State program can be used to leverage additional funding. The Department of Environmental Protection's program provides a 65% matching grant for the purchase of open space or development rights.



Higgins Farm

Middletown benefits from its rural character and therefore needs to retain it. The rural areas of Middletown are threatened by suburban development: Farmers have an absolute right to develop their land in accordance with underlying zoning, and there is no fiscally responsible way that Middletown could preserve all of these areas.

However, we recognize the value that farms and farmland contribute to the quality of life in a community. Some of the values of farmland preservation result in open space, watershed protection, the reduced burden on town services as compared to residential development, the availability of locally grown products, agri-tourism, the educational component of having farms intermingled in an urban environment.

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As rural areas are developed, it is absolutely essential that the development be in harmony with the existing rural landscape. Middletown's existing regulations are a recipe for suburban development. Wide roads, with 110-foot diameter cul-de-sacs, complete drainage systems, concrete sidewalks, street lights and concrete curbs do not help preserve rural character. It is well accepted that wide roads and suburban type developments:

- Increase vehicular speed and the amount of impervious area;
- Decrease infiltration into the groundwater which cleanses the runoff;
- Directly inject urban pollutants, oils, gas, litter and pet waste directly into nearby water bodies;
- Increase the costs associated with land development and decrease housing affordability;
- Require elaborate drainage systems, including large detention ponds;
- Are often out of character with surroundings; and
- Unnecessarily increase maintenance costs for snow plowing, streetlights and repaving.

In areas of low-density, developing such road designs do not make sense environmentally or economically. It makes no sense to require 200 feet of paved road, concrete curbs and concrete sidewalks along every lot in the city's rural and undeveloped areas. This is true particularly when new

roads come off of 18 to 20 foot existing roads with no sidewalks, curbs or drainage systems.

<u>Existing Collector Roads</u>
Atkins Street. - 18 to 20 feet
Ballfall Road - 20 feet
East Street -22 feet
Margarite Road - 18 feet
Arbutus Street- 18 to 20 feet
Maromas Road - 18 to 20 feet
Bear Hill Road-18 feet

A rural road standard with narrower, curbless roads with drainage swales along the side, which also encourages the preservation of stone walls, and the placement of homes into the tree lines rather than in the middle of fields will go a long way towards preserving rural character. A rural road standard would also reduce the amount of impervious area; slow traffic; increase infiltration into the groundwater; require urban pollutants, oils, gas, litter, pet waste to be filtered through the grass and soil before reaching nearby water bodies; require a relatively simple drainage systems, eliminating the reliance on unsightly detention ponds with standing water and mosquito concerns; and it will greatly reduce maintenance costs which will save taxpayers money.



A rural road in Maromas

Because of Middletown's diverse landscape, Middletown needs two (2) sets of development regulations: the existing suburban-style subdivision regulations for the RPZ, and R-15 zones, and in the R-30, R-45 and R-60 zones, a new rural subdivision regulation.

It is a common misconception that larger lots will preserve rural character. This plan does not advocate an increase in minimum lot size. It is well accepted that larger lots result in a less efficient pattern of development, including a greater fragmentation of the landscape, a requirement for more road frontage and longer runs of utility lines. To avoid the negative effects of large lot development, this plan strongly advocates for

regulations which provide for a higher density more appropriate pattern of development, which at the same time preserves more land as open space.

Regulations need to be developed which allow the type of development that will preserve the City's rural character. It is important that the development using the -rural design-standards-be-an outright-permitted use in-rural areas -This will send a strong message to the development community by promoting the desired pattern of development and discouraging the standard cookie cutter type subdivision.

B.) Protecting Water Quality

The city currently has strong regulations to protect its public drinking water supplies as discussed in the 1990 Plan of Conservation and Development (POCD).

There is now a need to provide further protection for all its water resources, beyond those which serve as a source of public drinking water.

Since the adoption of the 1990 POCD, the elimination of non point source pollution (NPSP) has become a significant issue.

NPSP is the runoff from impervious surfaces, such as roads and parking lots, into adjacent wetlands and water bodies. For Middletown, the most notable of these are the Connecticut River, the Coginchaug River, the Mattabasset River, Sumner Brook and their associated wetlands and tributaries.

The goal is to reduce the amount of harmful nutrients, road salt and sand, construction sediment, organic matter, pesticides and other pollutants that reach the water bodies and harm aquatic life or make the watercourse unsuitable for recreation.

The Inland Wetlands and Watercourses Agency (IWWA) has put a great deal of focus on storm water quality when reviewing development applications. These diligent reviews should continue and should be focused on requiring best management practices to protect the water resources, including but not limited to bio-filters, grass swales and detention ponds with plant uptake in a treatment train approach, where applicable. Additionally, measures should be taken to improve infiltration and to encourage sheet flow by reducing the amount of impervious surfaces and increasing the use of pervious concrete and asphalt.

While it is within the IWWA purview to regulate new development, by far the largest amount of degraded storm water reaching the city's water bodies comes from existing roads and parking areas which have been built with absolutely no consideration of storm water quality and watercourse preservation.

The State has adopted detailed regulations, which require municipalities to address NPSP concerns. The State's Phase 2 Non Point Source Regulations required the city's Public Works Department to develop a Stormwater Management Plan in 2004 and update the plan annually. The city should do all that is possible to implement this plan by identifying and eliminating non-point source pollution coming from the city's drainage outfalls. New drainage systems should include best management practices for storm water quality and, as economically feasible, existing drainage systems should be regularly maintained and retrofitted to include best management practices.

Enforcement is also critical. The IWWA regulations allow municipalities to strictly enforce soil erosion and sediment controls and identify locations of extreme and documented sources of non-point source pollution and seek corrective measures.

C.) Protecting the Coginchaug Greenway Corridor Amendment

The Coginchaug River in Middletown begins at Wadsworth Falls State Park at the Middlefield town line, passes through Veterans Memorial park, winds its way around the North End peninsula where it merges with the Mattabeset River, and then extends all the way to the mouth of the Mattabeset River where it joins the Connecticut River. This greenway corridor deserves special attention by the Middletown Planning and Zoning Commission and by other city agencies because of its important biological resources, its unique ecological services in the floating meadows at the Middletown/Cromwell border, connection to Wilcox Island, and opportunities for providing public access to green space in the heart of Middletown's urban areas.

As discussed above, the elimination of runoff from impervious surfaces, such as roads and parking lots, is a primary step for protecting water quality and biological resources in the Coginchaug River. Increased development and paved areas along the Washington Street corridor and around Palmer Field Stadium pose a significant risk to water quality in the Coginchaug River. Construction of bridges of any type across the river, including pedestrian bridges, also pose a risk to water quality because the placement of bridge supports destabilizes stream banks and leads to increased erosion. The Inland Wetlands and Watercourses Agency should pay close attention to potential impacts of any proposed development projects, including bridges, on the Coginchaug River.

Runoff and seepage from the North End peninsula, including the transfer station and the closed landfill, also have the potential to impact water quality in the Coginchaug and Mattabeset Rivers and the floating meadows. The floating meadows play a critical role in improving the water quality that enters the Connecticut River; they act as a filter that filters out contaminants coming from the Coginchaug and Mattabeset Rivers. The Inland Wetlands and Watercourses Agency should pay close attention to proposed development projects on the North End peninsula to make sure that runoff that could harm the habitat or functional value of the floating meadows is minimized. Construction projects that could impact the Mattabeset River, such as a possible extension of a sewage pipeline, should be carefully designed to minimize harm to sensitive habitats.

A further need is to avoid the dumping of snow, road salt, and sand in any location where the runoff from the melting snow can enter a sensitive waterway such as the Coginchaug River. The addition of large amounts of salt and sand into the River permanently changes the stream bottom habitat and create conditions unsuitable for invertebrates and fishes. The City should designate a location for dumping snow that avoids degrading aquatic resources, such as the current location in Veterans park.

Creation of a Green Corridor

The City has the opportunity to facilitate creation of a green corridor along the Coginchaug River between Veterans Memorial park and the North End peninsula. This green corridor could be created through acquisition of conservation easements or open space land from willing property owners along the river. Establishing this corridor would protect water quality and riparian habitat from development in perpetuity, thus protecting the Coginchaug River for future generations of Middletown residents. The corridor could be anchored by

maintaining the closed landfill at the North End peninsula in a manner that promotes environmental and human health and safety, while protecting the landfill's value to wildlife.

The Jonah Center for Earth and Art has worked with the City of Middletown to begin realizing the vision of a protected green corridor along the Coginchaug River. Acquisition of the Salafia Property by the City of Middletown in 2006 was a key step in creating this corridor. Future acquisitions of property or easements would provide permanent protection for the wide variety of wildlife, including deer, bear, beaver and herons that use the corridor.

Development of the corridor for passive recreation, including facilitating canoe/kayak access along the river and possible creation of a footpath, would provide important outdoor recreational opportunities for citizens of Middletown in the heart of Middletown's urban area. Opportunities may exist to connect new hiking trails in Veterans Memorial Park with recreational opportunities along the Coginchaug River. Any recreational development such as trail construction should be done in a manner that does not impair water quality or the value of the corridor for wildlife habitat.

D.) Air Pollution

Air quality is a complex issue to address – air pollution comes from many sources, is difficult to measure, has numerous indirect effects and requires combinations of different types of programs to reduce. Many air pollutants fall as precipitation and contribute to ground water and surface water degradation. Thus, air pollution causes and/or exacerbates environmental damage as well as human illness. Middletown has air quality issues that need to be addressed. For example, the Greater Hartford Area, including Middletown, has been labeled a serious ozone non-attainment area by the EPA. Ozone is a byproduct of the chemical reaction between heat and sunlight and air pollutants such as volatile organic compounds (VOCs) and nitrogen oxides (NO_x). Motor vehicles, paints, solvents, chemical plants, and gasoline stations all produce VOCs, while motor vehicles, power plants, and burning fossil fuels create NO_x. Ozone is a prime ingredient in smog, which, when inhaled, can aggravate a number of health problems including acute respiratory problems and asthma. In fact, the incidence of asthma hospital stays and visits are greater for Middletown residents than for those of any other contiguous town except for Meriden.

In Middletown, the main source of air pollutants is from the combustion of fossil fuels from motor vehicles; it also is generated by heating and cooling systems in homes and businesses. Characteristics and patterns of development (“urban form”) can influence transportation choices and therefore air quality. The problem of air pollution is greatly exacerbated by traffic congestion and by idling, which not only increases emissions but reduces gas mileage as well. Vehicles idling 10 seconds or more create more

emissions than those that have been turned off and restarted. CT State law now regulates idling of buses and other vehicles. Air pollution is also generated by yard maintenance activities such as mowing with a gas engine lawn mower. Running a gas mower for one hour emits the same quantity of air pollutants as eight new cars driving 55 mph for one hour. In addition, air pollution from mowing is generated on the ground level, where it will have the most impact on public health, especially for sensitive individuals such as those with asthma. Electric mowers reduce emissions from gasoline combustion, oil use, spills of oil and gas, and unburned emissions, and depending on the source of electricity, can have a smaller carbon footprint (EPA). Air pollution generated by the power plant is subject to regulation and control, while mower emissions have no controls. Application of lawn care chemicals is another source of yard-generated air pollution since pesticides can significantly volatilize for up to 72 hours after application.

The air pollution generated by Middletown is not contained within our borders. Carbon dioxide and other greenhouse gases are associated with global warming and associated impacts such as sea level rise, loss of habitat and biodiversity, spread of various diseases (both in humans and other organisms) and significant changes to weather patterns.

There is no central authority within the City of Middletown with a focused mandate to reduce air pollution in the City or to limit new sources. The Health Department is empowered to pass on resident complaints about air pollution to the State Department of Health for investigation. However, the Health Department does not typically comment on development proposals. Some City activities— such as those of the City’s Clean Energy Task Force, and Project Green Lawn (an educational campaign aimed at reducing the use of lawn care chemicals) may result in reductions of air pollution, but these activities are not part of a broader coordinated effort to improve air quality.

Generally speaking, air quality can be improved through a combination of reducing vehicle and stationary emissions, increasing efficiency of heating and cooling, and using alternative energy sources. Improvements to local air quality will come from a combination of local actions that can be facilitated by the Planning and Zoning Commission. As the last agency to review development applications, the Planning and Zoning Commission can play a powerful role in improving air quality by applying air quality standards and goals. However, there are numerous other agencies – such as the Health Department, and the Departments of Public Works and Planning, Conservation and Development – that should

take appropriate action. Ultimately, Executive branch endorsement of air quality goals and measures is critical to implementing changes that will improve air quality.

Regarding monitoring

It will be difficult to determine whether or not actions taken to reduce new sources of air pollution and to improve air quality have been successful without period monitoring of air quality and human health. This requires establishing a “baseline” against which future sampling is compared. This is also important in determining whether air quality is worsening.

- Baseline measurements of air quality should be taken with the assistance of appropriate local and state agencies (e.g. DPH) at “hotspots” (e.g. City Hall, Newfield Street, Washington Street, River Road) as well as other sites less proximate to vehicle or power plant emissions.
- The local Health Department should have an understanding of the extent of respiratory disease in Middletown by keeping informed of hospital statistics regarding asthma and other respiratory illness, and perhaps statistics by area practitioners. Particularly helpful would be a study to determine whether or not there are clusters of asthma/respiratory occurrences in certain areas of the City. The City should seek assistance from outside sources to accomplish this assessment, which should also include information from current findings in the literature.
- Periodic monitoring of identified “hotspots” should be conducted to monitor effects of activities such as further development, or changes to traffic patterns.
- Baseline and subsequent air quality monitoring for common vehicle pollutants should be required of developers for projects of significant size or type to impact air quality (drive-through, large residential complex).

Regarding New Development, Public Projects and Building Code

A comprehensive plan for addressing air quality issues in the City is outside the scope of these recommendations. We therefore first recommend that:

- Appropriate City Departments (e.g. Planning, Conservation and Development, Health) should work together to conduct (or contract an individual or private firm to conduct) a study to:
 - Assess what actions have been recommended or taken by other municipalities to address air quality and energy conservation/efficiency issues and decide which would be appropriate for Middletown to adopt
 - Generate novel approaches to reducing air pollution in Middletown
 - Create a plan for adopting changes that includes a timeline and an assessment of priorities
 - Codify language for appropriate departments and commissions (e.g., code changes, ordinances, regulations, etc.)
 - Train city staff and commissioners to apply new requirements; educate commissioners about their power to request and make changes that will serve air quality needs
 - Educate developers and related businesses (e.g. contractors) about air quality requirements
 - Monitor the success of air quality requirements

With or without this comprehensive plan the following recommendations can be acted on:

- Applications to the Planning and Zoning Commission should include an assessment of the proposed project's impact on local air quality (through direct emissions, energy use, and transportation needs) and measures taken to reduce that impact. The Commission should be empowered and required to consider this assessment when rendering a decision.
 - Proposed activities should adhere to "air friendly" development patterns that encourage shorter travel times from residences to businesses, work and

recreation – these may include higher residential densities (preferably within a matrix of undeveloped buffers) and mixed land use. Applications to the Planning Department and P&Z , as well as publicly funded projects, should include an assessment of how well the proposed activity meets these goals, and/or what actions (inclusion of bus stop shelter, sidewalks, bike path, etc.) will be taken to make the activity more “air friendly”.

- Applications and public projects should be required to assess their energy efficiency; guidelines on energy efficiency should be produced and distributed to developers, businesses and institutions; a workshop on energy conservation measures for existing buildings and new construction for municipal departments, developers and building managers should be held to “kick-off” new requirements.
- Action should be taken on the current Plan’s recommendation that “The Commission should strengthen “Performance Standards” in the Zoning Code in order to limit the number of point source emissions of air pollution. Additionally, the Commission should amend the Zoning Code to allow for the incorporation of air quality impact criteria for proposed uses in order to better understand and mitigate the potential air pollution from the proposed development.”
- Publicly funded building or renovation activities should be viewed as demonstration projects for our business, institutional and residential communities and should pursue the highest goals for energy efficiency and air quality.
- Only clean industries should be welcomed because of Middletown’s poor air quality. The City should inform itself about large emission sources, such as power plants, and help ensure compliance with all air emission standards.

Regarding Transportation

- City staff should conduct a review of and changes to transportation policy and practices (e.g. traffic and development patterns, public and alternative transportation) and develop a timeline for implementation of specific goals.
- Stoplights along Route 9 require cars to idle, which in turn creates a local and steady source of air pollution. It is thought that this situation alone significantly contributes to the City's high ozone levels. While there has been discussion in the community about reducing the number of stoplights on the segment of Rte. 9 within city limits, no action has been taken. There is potentially no greater single source of air pollution mitigation than addressing this issue. The City should take immediate steps to assess and negotiate stoplight reduction on Route 9.

Regarding Alternative Modes of Transportation

- Alternative modes such as walking and cycling should be enabled and promoted by providing the necessary infrastructure. The Planning and Zoning Code should be amended, for example, to require new development to incorporate a standard suite of actions that address alternative transportation needs, including but not limited to: safe road crossings for pedestrians and bikes, sidewalks, bike racks and bus stop shelters.
- These standards should also apply to all publicly funded road, and building, and improvement projects
- In some cases that safe access or other actions, such as designated lanes, may require actions by the State DOT or local Public Works Department or Traffic Bureau. In these cases, the City should work to ensure interagency communication and action.

Regarding air pollution generated by residents

- Appropriate City Departments should encouragement voluntary actions that will reduce local air pollution, such as organic lawn care practices, and reduced idling.

- Manual push reel mowers are gaining in popularity and generate no air pollution and no carbon emissions; the use of electric mowers can reduce local air pollution. City steps could include incentive programs for trading in gas powered mowers. The EPA has information on model programs around the country.
- Regulations should be enacted to prohibit school bus parking facilities from being located adjacent to residential neighborhoods or school buildings.
- The City should continue educational efforts aimed at reducing the application of lawn care chemicals, and should phase out entirely the use of synthetic pesticides from City properties.

Idling

- “No Idling” signs should be required at all public facilities and with sufficient placement to inform drivers at all application locations within a facility. Private businesses should be encouraged (or if law permits, required) to post signs requesting that vehicles limit idling to under 3 minutes.
- In a process that includes public input, the presence of drive-through businesses in the city should be evaluated, and short and long term goals and decisions regarding new and existing drive through facilities – including a ban - should be established.
- The City should comply in full with State Statutes regarding idling, and should educate all appropriate personnel and commissioners about the laws’ requirements, regulations and enforcement.

Beyond our boundaries

- The City should support legislative efforts to reduce state, regional, national and global production of air pollution including greenhouse gasses.

Leadership

- The City should identify a staff person or Department that is responsible for monitoring air quality, guiding changes, communicating with Middletown's citizens and implementing policy to ensure that air quality is a priority and that measurable improvements are made.

Conclusions and Recommendations

- Middletown has made great strides in its open space preservation and natural resource protection efforts. As detailed above, 25%** of Middletown's landscape is permanently preserved. If the CVH watershed land and utility lands are included, over 30%** of Middletown will remain permanently protected and undeveloped..

** THESE %S NEED TO BE CHANGED to reflect the exact amount of Permanently Protected lands

- The City should strive to permanently preserve the Connecticut Valley Hospital watershed lands (512 acres) and the utility lands (1,465 acres) in the Maromas section of the city.
- With a few exceptions, the existing open spaces are tremendously underutilized. The City needs to improve these open spaces with signage, trails and parking. The City should then promote these open spaces to the public. The improvement, management and promotion of the existing open spaces is a top priority and there should be a line item established in the city operating budget for open space management.
- **Now that a healthy percentage of the city is permanently preserved, open space acquisition efforts should be much more selective. Acquisitions should focus on the prime natural resources, which are identified in the 1990 Plan of Conservation and Development and revised maps of this current plan. Areas include Lamentation Mountain, Mount Higby, Sumner Brook Valley and other stream corridors and areas of prime agricultural soils. Linear corridors should be encouraged, and properties surrounding existing open spaces should also receive special attention.**
- Also recommended in the 1990 Plan of Conservation and Development was the creation of larger active recreation areas as opposed to small-scattered parks. The City made major investments in Thomas J. Smith Memorial Park and McCutcheon/Crystai Lake Park to service the Westfield area~ and "South Farms area, respectively.
- **The city also needs more Urban Vest Pocket Parks as well.**
- Veterans Memorial Park has tremendous potential for passive recreation. While the park once existed as the City's premier recreation area, it is now sorely underutilized. The park is in the center of the City and within walking distance of a large residential

population. The City should make a major investment in Veterans Park.

- A major investment in Veterans Park would result in three large active recreation areas. As Figure 7.5 displays, this strategy would place a large active recreation area within 2 miles of every home in Middletown.
- The City should begin a dialogue with local farmers and develop a comprehensive farmland preservation strategy. **We must recognize the diversity of family operations in Connecticut and the farms to change and adapt their operations as market demands change.**

The City will support farm businesses to contribute its economic development.

As part of this endeavor, the city will explore opportunities to lease some of those open space lands which were not acquired with federal or state restricted grants.

- The City should pursue a referendum authorizing the issuance of bonds for farmland preservation. Every city dollar spent can leverage \$2 in state financing and the bond language should provide for this leveraging.
- The Public Works Commission and the Planning and Zoning Commission need to adopt rural road standards and rural subdivision regulations.
- The new rural road standard and rural subdivision regulations need to calculate the density based on the underlying zoning and then wherever possible, based on on-site septic requirements, group the homes on half of the land area and require that the other half remain as open space.
- Open spaces should abut other open spaces **where possible**. The required road width should be 22 feet, curbs, sidewalks and cul-de-sacs should be discouraged, open drainage systems should be required, and lot areas and setback requirements should be flexible to allow creative placement of home sites.
- **Efforts should be made to encourage more trees to be planted along Middletown streets. When street trees are cut down, there should be automatic replacement of these trees.**
- **The city should pursue possibilities for intermunicipal planning with adjacent towns relative to connectivity of possible future open space and potential trail linkages and identification of important ecological areas on or near the border**
- **The Planning and Zoning Commission should propose a Scenic Road Ordinance. Maromas has several roads for which this designation would be appropriate.**

- The Conservation: Commission. Should be encouraged to follow the precedent of Conservation Commissions in other towns to designate under the State of Connecticut Greenways Program suitable Middletown corridors as greenways. For example: Lamentation Mountain, the Blue Trail, the CT River Corridor, Sumner Brook and Coginchaug.
- Consideration should be given to adopting CT Gateway regulations and possibly pursuing a legislative change so that Middletown will be a part of the Gateway.
- Cell Towers should be located so as not to compromise scenic vistas or interrupt avian flight patterns..

Air Quality Sources

- City of Middletown Plan of Conservation and Development, 1990 POCD and 2002 support documents;
<http://www.middletownplanning.com>
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- CT Department of Health, 2005 Report on Asthma.
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- *Improving Air Quality Through Land Use Activities*, published by Transportation and Regional Programs Division, Office of Transportation and Air Quality, U.S. Environmental Protection Agency, document EPA-R-01-001, January 2001.
- The Harmful Effects of Vehicle Exhaust, Environmental and Human Health,
<http://www.ehhi.org/reports/exhaust/exhaust06.pdf>
- Lawn mower emissions information;
<http://www.peoplepoweredmachines.com/faq-environment.htm>
- Lawn mower information
www.epa.gov/air/community/mowerexchange_calculator.html and
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