



Amended, November 6, 2017

Please note that policies which have been fully implemented are shown in gray.

Durham Comprehensive Plan

Chapter 7 Conservation and Environment Element

Durham City-County Planning Department

The Durham Comprehensive Plan

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Conservation and Environment Element



The conservation of natural resources and protection of valuable open spaces are important in maintaining and improving the high quality of life that Durham residents desire. The community’s natural resources and open spaces can be viewed as its “green infrastructure.” The purpose of the Conservation and Environment Element of the Durham Comprehensive Plan is to promote the responsible use, protection and restoration of Durham County’s green infrastructure. The Element contains goals, objectives and policies necessary for their long term maintenance and protection. They focus on water quality, air quality, floodplain protection, energy conservation, important habitats and rare species, open space planning, and farmland preservation.

Summary of Issues

- 1. Protection of Natural Features.** New development can significantly impact natural features, such as floodplains, streams, steep slope areas, wetlands and natural vegetation. Land use policies and regulations should strike a balance between achieving broader community objectives of environmental protection and protecting ecosystem integrity while recognizing the rights of private property owners.
- 2. Protection of Natural Inventory Sites.** Typical of many communities, Durham faces the problem of how to accommodate new development while protecting its natural heritage. Many of the Natural Inventory sites are protected: at least partially in public or institutional ownership and managed as natural areas, forestlands or wildlife habitat. Durham should promote regulations that accommodate new development while protecting Inventory sites.
- 3. Water Supply and the Vulnerability of Aquatic Species.** Durham faces two potentially conflicting public objectives. The City needs to develop a new and cost-effective raw water supply to address anticipated future needs. At the same time, Durham wants to take steps to prevent degradation of the habitat of these important aquatic species.

4. **Air Quality.** Degraded air quality resulting from increases in ozone, particulate matter, and other pollutants can be anticipated due to increases in population, resulting in additional vehicle miles traveled. This can have an impact on Durham's quality of life for many residents who exercise or have sensitivity to air quality. Poor air quality can also affect Durham's ability to recruit new businesses. Durham must identify ways to best address complicated air quality issues while not stifling economic growth and development.
5. **Protection of Open Space.** Durham residents have consistently expressed a desire to protect valuable open spaces. Durham should take steps to identify important open spaces to protect, and implement programs that preserve environmentally important green spaces and create valuable, multi-purpose open spaces.
6. **Farmland and Development Pressures.** The high value of suburban development in Durham places great development pressure on existing farms. Durham should put in place policies that protect farmland to enhance diversity of land uses, preserve the rural landscape and lifestyle, and minimize costs for infrastructure extension.

Goal 7.1, Natural Environment

Provide a high quality natural environment. Minimize undesirable effects from development on air quality, water quality, and natural resources. Protect and preserve floodplains, natural inventory sites, and open space.

Objective 7.1.1. Monitoring Environmental Quality

Monitor the quality of Durham's natural environment in order to identify trends in environmental quality, provide a basis for assessing possible actions to improve environmental quality, and publish the results on a regular basis in order to educate local officials and the general public about environmental issues.

Policy 7.1.1a. Environmental Indicators. The City-County Planning Department, the City Public Works Department, and the County Engineering and Environmental Services Department, and the City Department of Water Management, in conjunction with other City and County Departments, shall identify and publish a set of environmental indicators as proposed by the City-County Sustainability Office or the Public Works Department through the City and County Strategic Plans to establish a baseline and regularly monitor and assess changes in the quality of Durham's natural environment.

Objective 7.1.2. Water Quality

Minimize the impacts of development on water quality and enhance the present water quality in Durham's streams.

Policy 7.1.2a. Sedimentation and Erosion Control. The County Engineering and Environmental Services Department shall continue to regulate land-disturbing activity to control accelerated erosion and sedimentation in order to prevent the pollution of water and other damage to lakes, watercourses, and other public and private property. No person shall initiate any land-disturbing activity that uncovers more than 12,000 square feet without a Land Disturbance Permit or more than 20,000 square feet without having an erosion control plan approved by the Sedimentation and Erosion Control Office that:

- i. Identifies critical areas on the site subject to severe erosion and offsite areas vulnerable to damage;
- ii. Limits time of exposure;
- iii. Limits exposed areas;
- iv. Controls surface water originating upgrade of the exposed areas;
- v. Controls sedimentation; and
- vi. Manages stormwater runoff to control the velocity at the point of discharge to minimize accelerated erosion of the site and increased sedimentation of the stream.

(See Policy 9.4.4a, Sedimentation and Erosion Control.)

Policy 7.1.2b. Sedimentation and Erosion Control and Rare Mussels Habitat. The County Engineering and Environmental Services Department shall continue to enforce a level of sedimentation control that will protect the water quality and the habitat of rare mussel species in the Little River, the Flat River, and the Eno River watersheds.

Policy 7.1.2c. Stream Buffers. Through the Unified Development Ordinance, continue to require undisturbed, naturally vegetated buffers of at least 50 feet on land adjacent to intermittent and perennial streams and prohibit most development activities in order to protect water quality. Through the Unified Development Ordinance, limit the ability to utilize land in stream buffers to meet minimum lot size requirements, and allow development and platting of lots in stream buffers only in limited, strictly regulated conditions. (See Policy 9.1.4f. Stream Buffers.)

Policy 7.1.2d. Low-Impact Development. To reduce development impact on stream-water quality, the City Public Works and County Engineering and Environmental Services Departments shall keep current on and encourage low-impact development (LID) design.

Low impact development (LID) refers to an ecologically-friendly approach to site development and stormwater management. LID aims to preserve open space and minimize land disturbance; protect drainage ways, vegetation, soils, and sensitive areas; re-examine the use and sizing of traditional site infrastructure and customize site design to each site; incorporate wetlands, stream corridors and mature forests as site design elements; and decentralize and micromanage stormwater at its source.

Policy 7.1.2e. Permanent Buffer Protection. The City Public Works Department, the Soil and Water Conservation District and the County Engineering and Environmental Services Department shall seek grant funds from the NC Clean Water Management Trust Fund, the NEDEQ Division of Mitigation Services Ecosystem Enhancement Program and other funding sources to purchase buffered easements or accept donated buffered easements in order to increase the amount of stream buffer areas in permanent protection.

Policy 7.1.2f. Wetland Restoration The City Public Works Department, the Soil and Water Conservation District and the County Engineering and Environmental Services Department shall work in conjunction with the NCDEQ Division of Mitigation Services, the United States Department of Agriculture, and other funding sources to explore opportunities for stream and wetland restoration projects on streams in Durham.

Policy 7.1.2g. Stream Restoration. In order to protect water quality and stream habitat, the City Public Works Department and the Soil and Water Conservation District, the State of North Carolina, in conjunction with local nonprofit organizations, shall research, propose, and implement programs to restore streams and natural stream vegetation in the floodplain habitat of Durham.

Policy 7.1.2h. Collaborative Partnerships for Water Quality. The City-County Planning Department, the City Public Works Department, the Soil and Water Conservation District and the County Engineering and Environmental Services Department shall collaborate with and support the efforts of local nonprofit organizations to improve stream water quality.

Policy 7.1.2i. Rainwater Capture. The County Engineering and Environmental Services Department, the Soil and Water Conservation District, and the City Public Works Department shall research, propose, and implement cost share programs such as the Community Conservation Assistance Program (CCAP) and other funding sources. The results will help to capture and store runoff from impervious surfaces using above and/or below ground capture devices such as rain barrels, cisterns, rain gardens and green roofs.

Policy 7.1.2j. Stream Flow Restoration. In order to protect water quality and stream habitat, the County Engineering and Environmental Services Department, the City Public Works Department, the Soil and Water Conservation District, the State of North Carolina, and other agencies, in conjunction with local nonprofit organizations, shall research, propose, and implement programs to reduce peak flows and enhance base flows in streams receiving stormwater discharges.

Objective 7.1.3. Floodplain Protection

Protect Durham's floodplain areas from inappropriate development in order to maintain the carrying capacity of the floodplain, improve water quality, provide wildlife habitat, and reduce potential threats to human life and damage to property.

Policy 7.1.3a. Floodplain Protection. Through the Unified Development Ordinance, prohibit most development in Special Flood Hazard Areas, as identified by the Federal Emergency Management Agency (FEMA). The Unified Development Ordinance shall allow development and platting of lots in Special Flood Hazard Areas only in limited, strictly regulated, and special conditions.

Policy 7.1.3b. Floodplain Determination. The City Public Works Department shall model Special Flood Hazard Areas based on full build-out conditions (rather than existing conditions) in order to better identify and protect the Special Flood Hazard Areas from adverse impacts of development and to protect property from damage.

Objective 7.1.4. Air Quality

Work to improve air quality to meet and exceed the National Ambient Air Quality Standard and to anticipate future air quality problems using measures with multiple benefits as much as possible.

Policy 7.1.4a. Greenhouse Gas Emissions Local Action Plan The City-County Sustainability Office, in conjunction with other City and County Departments and the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization, shall implement the Greenhouse Gas Emissions Local Action Plan adopted by the City and County in September 2007, as may be updated from time to time.

Policy 7.1.4b. Impervious Surface Shading. Through the Unified Development Ordinance, require shading of impervious surfaces, such as streets and parking lots, in the Suburban, Urban, Compact Neighborhood and Downtown Tiers in order to reduce glare and heat build up within these areas.

Policy 7.1.4c. Tree Canopy. The City-County Planning Department shall research and propose development regulations and/or programs to increase and target tree canopy in the Suburban and Urban Tiers in order to reduce air pollution, improve water quality, improve the quality and reduce the quantity of stormwater runoff, ameliorate heat retention, and provide aesthetic benefits to Durham residents.

Policy 7.1.4d. Alternative Transportation and Fuels for City and County Vehicles. Support alternative transportation in order to maintain air quality, preserve natural resources, reduce reliance

on oil, and save money through lower fuel costs. The City Fleet Management Department and the County General Services Department shall implement a program for using non-gasoline “alternative fuels” in City and/or County vehicles.

Objective 7.1.5. Energy Conservation and Greenhouse Gas Reduction

Reduce the amount of energy consumed for heating and cooling of buildings in order to reduce heating and cooling costs and reduce greenhouse gas emissions.

Policy 7.1.5a. Energy Consumption in City, County and Schools Buildings. The City-County Sustainability Office, the City General Services Department, the County General Services Department, and the Durham Public Schools shall establish ongoing programs, appropriately staffed, to identify opportunities for cost-effective energy conservation in all public buildings.

Policy 7.1.5b. Energy-Saving Designs. The City General Services Department, the County Engineering and Environmental Services Department, and the Durham Public Schools shall ensure that new facilities planned by the City and County incorporate energy conservation features in accordance with Leadership in Energy and Environmental Design or other high performance or green building standards.

Policy 7.1.5c. Million Solar Roofs Initiative. The Durham County Cooperative Extension Service shall maintain its partnership in the Million Solar Roof Initiative and shall develop and staff programs to promote residential, commercial, institutional and industrial energy savings.

Policy 7.1.5d. Green Building Program. The City-County Sustainability Office, with assistance from the Environmental Affairs Board, shall encourage builders of new residential construction to adopt innovative building practices that achieve energy efficiency improvements above the minimum energy code and other sustainable building practices by developing a voluntary rating system, such as the Home Energy Rating System, so that an analysis can be given to the homebuyer and/or lender of anticipated energy usage.

Policy 7.1.5e. Energy-Efficient Financing Programs. The City and County shall work with community partners to develop innovative programs and financing mechanisms to reduce barriers to increasing energy efficiency in existing residential and commercial buildings.

The Million Solar Roof Initiative (MSRI) is a US Dept. of Energy effort to facilitate the installation of solar energy systems on US buildings. The MSRI is designed to support states and local communities as they develop a strong commitment to the sustained deployment of solar energy technologies.

Objective 7.1.6. Habitats and Rare Species Protection

Identify and protect sites that provide habitat for biologically significant plant and animal species and serve as critical corridors for animal movements.

Policy 7.1.6a. The Natural Heritage Inventory. The City and County shall adopt and include by reference in the Durham Comprehensive Plan the North Carolina Natural Heritage Program Inventory of Significant Natural Heritage Sites as a source of information about the location and importance of special places and species in Durham County, and shall use the North Carolina Natural Heritage Program Inventory of Significant Natural Heritage Sites as a guide to biological significance.

Policy 7.1.6b. Development Review and the Natural Heritage Inventory. The City-County Planning Department and other City and County Departments shall review development proposals in relation to the Natural Heritage Inventory to preserve Natural Heritage Inventory sites and encourage new developments to avoid the sites by using infill development, planned developments, cluster developments, conservation-by-design subdivisions, and other means.

Policy 7.1.6c. Preservation and Management Plans. The City-County Planning Department and the County Engineering and Environmental Services Department shall prepare or participate in the preparation of detailed plans for the preservation and management of publicly owned sites identified in the Natural Heritage Inventory.

Policy 7.1.6d. Regular Natural Heritage Inventory Updates. The City-County Planning Department shall update and maintain data on the Natural Heritage Inventory as received from the North Carolina Department of Environment and Natural Resources as necessary to retain the accuracy of the information.

Policy 7.1.6e. Natural Heritage Inventory Sites and Property Owner Contact. The County Engineering and Environmental Services Department shall contact and work with owners of properties containing Natural Heritage Inventory sites to propose acquisition of conservation easements or other protection measures to ensure preservation of Natural Heritage Inventory sites.

Policy 7.1.6f. Invasive Landscape Plants. Through the Unified Development Ordinance, prohibit the use of invasive landscape plant species and support the use of native plant species where possible.

Policy 7.1.6g. Wildlife Corridors. The City-County Planning Department and the City Transportation Department shall

encourage roadway crossings that funnel wildlife traffic over or under roads to improve migration corridors and to reduce wildlife and vehicle conflicts. These departments should work with the North Carolina Department of Transportation to consider this issue on state roadways.

Objective 7.1.7. Drought-Resistant Community

Adopt conservation practices and policies to ensure that Durham becomes and remains a drought-resistant community.

Policy 7.1.7a. Water Demand Generation Rates. The City-County Planning Department shall utilize the most recent information on water demand, as provided by the Water Management Department to determine and report the impact of the proposed zoning and plan amendment changes on water demand.

Policy 7.1.7b. Water-Wise Landscaping. The City-County Planning Department shall utilize the Durham Landscape Guidelines to encourage the efficient use of water in landscaping and irrigation practices. The City-County Planning Department shall research and propose changes in the Unified Development Ordinance to promote preservation of existing trees, water reclamation and groundwater recharge.

Goal 7.2, Open Space

Provide ample open and green spaces for Durham residents and wildlife and protect important open spaces in Durham County from the impacts of development.

Objective 7.2.1. Open Space Level of Service Standards

Establish and maintain appropriate level of service standards for open space in the City and County.

Policy 7.2.1a. Open Space Level of Service Standards. Through the Unified Development Ordinance, continue to require preservation of open space appropriate to the intensity of development in the Rural, Suburban, and Urban Tiers, consistent with Table 7-1, Open Space Level of Service Standards.

Table 7-1, Open Space Level Of Service Standards

Tier	Minimum Open Space Required	
	Residential	Nonresidential
Rural	40%	--
Suburban	15%	10%
Urban	5%	3%

Policy 7.2.1b. Interconnected Open Spaces. The City-County Planning Department shall develop a plan to interconnect open and green spaces where possible, including many of the larger areas designated for open space in open space plans and large undeveloped large tracts to reduce isolation resulting from fragmentation.

Objective 7.2.2. Open Space Planning

Through systematic, community based planning processes, identify important natural, cultural, historic and open space resources in Durham County and establish plans for their long term preservation and protection.

Policy 7.2.2a. Recreation and Open Space Areas. Durham shall identify and protect Recreation and Open Space areas, as shown on Map 2-1, Future Land Use Map, including:

- i. The Special Flood Hazard Areas, as defined by the Federal Emergency Management Agency;
- ii. US Army Corps of Engineers land;
- iii. North Carolina State park land or historic sites;
- iv. Duke Forest;
- v. NCSU Hill Forest;
- vi. Privately-owned conservation lands held by local land trusts;
- vii. City or County owned land identified on an adopted open space plan;
- viii. Public land around reservoirs;
- ix. City and County Parks;
- x. Culturally or historically significant cemeteries; and
- xi. Abandoned or unused railroad corridors.

(See Policy 2.1.3b, Recreation and Open Space Defined)

Policy 7.2.2b. Preservation of Areas Designated as Open Space. Through the Unified Development Ordinance, ensure that all areas designated as open space in any plan officially approved by the governing bodies (including, but not limited to open space plans and parks plans), be protected through means such as dedication or reservation. At a minimum, this shall include permitting the public entity with authority to acquire the property the ability to place a reservation on the property for a limited period of time, ensuring that entity with sufficient opportunity to proceed with acquisition of the site if the entire site is designated as open space in the approved plan.

Policy 7.2.2c. Eno River State Park Protection and Coordination. Through the Unified Development Ordinance, the City and County shall protect the Eno River State Park by restricting uses adjacent to the Park to those compatible with recreational uses, such as

residential uses and public and private recreation and open space. The City Parks and Recreation Department and the County Engineering and Environmental Services Department shall coordinate park development and open space protection programs with the Eno River State Park and the Eno River Association.

Policy 7.2.2d. Open Space Master Plans. In order to coordinate the Durham Comprehensive Plan with open space planning, the City and County hereby adopt and include by reference in the Durham Comprehensive Plan the following open space master plans: the “New Hope Creek Corridor Open Space Master Plan, April 1991”, the “Little River Corridor Open Space Master Plan, 2001”, and the “Eastern Durham Open Space Plan, 2007” (and any future updates of these plans). (see Policy 10.1.4c, Open Space Master Plans).

Policy 7.2.2e. Flat River Open Space Plan. The City-County Planning Department, in conjunction with the County Engineering and Environmental Services Department, and the Durham Open Space and Trails Commission, shall prepare an open space plan for the Flat River basin area of Durham County. The plan shall address integrated open space objectives of continuous open space corridors, water quality, wildlife habitat protection, scenic and aesthetic considerations, recreation, and preservation of significant historic and cultural features.

Policy 7.2.2f. Open Space Master Plans. In order to coordinate the Durham Comprehensive Plan with open space planning, the City and County hereby adopt and include by reference in the Durham Comprehensive Plan the following open space master plans: the “New Hope Creek Corridor Open Space Master Plan, April 1991”, the “Little River Corridor Open Space Master Plan, 2001”, the “Eastern Durham Open Space Plan, 2007,” the “Downtown Open Space Plan,” 2014, and the “Urban Open Space Plan,” 2017 (and any future updates of these plans). (see Policy 10.1.4c, Open Space Master Plans.)

Policy 7.2.2g. Regional Coordination. The City-County Planning Department, City Parks and Recreation Department and the County Engineering and Environmental Services Department shall coordinate Durham’s open space plans with other jurisdictions’ plans and other regional open space initiatives.

Policy 7.2.2h. State Open Space Efforts. Durham City and County shall support State open space efforts, such as the NC Million Acre Initiative and the Mountain to Sea Trail, by coordinating their open space preservation efforts with the State.

Policy 7.2.2i. Open Space Collaboration. The County Engineering and Environmental Services Department shall work

collaboratively with the Durham Open Space and Trails Commission, local land trusts, the City Department of Parks and Recreation, and other community organizations to increase the amount of open space preserved. The County Engineering and Environmental Services Department shall establish and convene an open space coordination group, including the Durham Open Space and Trails Commission and various organizations and agencies involved in open space preservation, to meet regularly in order to ensure better coordination and opportunities for collaboration.

Policy 7.2.2j. Currently-Owned Real Estate as Open Space. The County Engineering and Environmental Services Department shall review County real estate holdings to identify those parcels that the County should retain and manage as open space. The City Parks and Recreation and General Services Departments shall review City real state holding to identify those parcels that the City should retain and manage as parks.

Policy 7.2.2k. Future Parks and Trails Database. The City of Durham General Services Department shall maintain records for the parcels and easements acquired for future parks and future greenway trails.

Objective 7.2.3. Farmland Protection and Preservation

Protect active farmland in Durham in order to enhance economic activity and preserve Durham's agricultural heritage.

Policy 7.2.3a. Farmland Protection Advisory Board. The City and County shall continue to support the Durham Farmland Protection Advisory Board as an advisory body to the City and the County related to farming and farmland preservation issues.

Policy 7.2.3b. Agricultural Priority Areas. The County shall continue to designate Agricultural Priority Areas in order to establish priorities for targeting agricultural preservation efforts. The County shall review its designation of Agricultural Priority Areas in conjunction with a review and update of the Farmland Protection Ordinance.

Policy 7.2.3c. Voluntary Agricultural Districts Program. The Soil and Water Conservation District shall continue the county's Voluntary Agricultural Districts Program where land owners voluntarily maintain their properties in farm use.

Policy 7.2.3d. Farmland Conservation Easement Purchase. The County shall continue to provide funds to purchase farmland conservation easements in Agriculture Priority Areas and aggressively seek grants and other forms of assistance to increase the funds available for farmland preservation. The County shall

also seek a dedicated source for the funding of farmland and open space capital projects.

Policy 7.2.3e. Present Use Valuation Programs. The County shall continue its Present Use Valuation Programs for agricultural, horticultural, and forest land to provide an incentive for maintaining those uses in the County by taxing land at its present use value rather than fair market value.

Policy 7.2.3f. Farmland Preservation Outreach. The County Soil and Water Conservation District and the County Engineering and Environmental Services Department shall prepare and disseminate educational materials regarding the value of farmland preservation to the Durham community.

Policy 7.2.3g. Rural Tier Agricultural Activities. Through the Unified Development Ordinance, ensure that land use regulations allow agricultural activities by right within the Rural Tier. (See Policy 2.2.1c, Rural Tier Agricultural Activities.)

Amendment History

Amended – June 26, 2006

Policy 7.1.2g, Stream Bank Vegetation Restoration. In order to protect water quality and stream habitat, ~~the County Engineering Department and the City Public Works Department and the Soil & Water Conservation District,~~ in conjunction with local nonprofit organizations, shall research, propose, and implement programs to restore natural stream bank vegetation and floodplain habitat in Durham.

Policy 7.1.3b, Floodplain Determination. The City Public Works Department, ~~in conjunction with the County Engineering Department,~~ shall model the 100-year floodplain based on full build-out conditions (rather than existing conditions) in order to better identify and protect the 100-year floodplain from adverse impacts of development and to protect property from damage.

Amended – January 5, 2009

Objective 7.1.7. Drought-Resistant Community. Adopt conservation practices and policies to ensure that Durham becomes and remains a drought-resistant community.

Policy 7.1.7a. Water Demand Generation Rates. The City-County Planning Department shall utilize the most recent information on water demand, as provided by the Water Management Department to determine and report the impact of the proposed zoning and plan amendment changes on water demand.

Policy 7.1.7b. Water-Wise Landscaping. The City-County Planning Department shall modify the Landscape Guidelines to encourage the efficient use of water in landscaping and irrigation practices. The City-County Planning Department shall research and propose changes in the Unified Development Ordinance to promote preservation of existing trees, water reclamation and groundwater recharge.

Amended – October 26, 2009

Policy 7.1.5b. Energy Saving Designs. The City General Services Department, the County Engineering Department, and the Durham Public Schools shall ensure that new facilities planned by the City and County incorporate energy conservation features in accordance with ~~the Triangle J Council of Governments High Performance Leadership in Energy and Environmental Design green B green building Standards.~~

Amended – October 11, 2010

Policy 7.1.1a. Environmental Indicators. The City-County Planning Department, City and County Storm Water Services, and the City Department of Water Management ~~Department,~~ in conjunction with other City and County Departments, shall identify and publish a set of environmental indicators as proposed by the Environmental Affairs Board to establish a baseline and regularly monitor and assess changes in the quality of Durham's natural environment.

Amended – May 14, 2012 – See Appendix X

Amended – June 10, 2013

Policy 7.1.1a. Environmental Indicators. The City-County Planning Department, the City Department of Public Works, and the County Engineering Department ~~and County Storm Water Services~~, and the City Department of Water Management, in conjunction with other City and County Departments, shall identify and publish a set of environmental indicators as proposed by the City-County Sustainability Office through the City and County Strategic Plans to establish a baseline and regularly monitor and assess changes in the quality of Durham’s natural environment.

Amended – June 2, 2014

Policy 7.1.1a. Environmental Indicators. The City-County Planning Department, the City Department of Public Works, and the County Engineering Department and the City Department of Water Management, in conjunction with other City and County Departments, shall identify and publish a set of environmental indicators as proposed by the City-County Sustainability Office or the Public Works Department through the City and County Strategic Plans to establish a baseline and regularly monitor and assess changes in the quality of Durham’s natural environment.

Policy 7.1.2d. Low Impact Development. To reduce development impact on stream-water quality, the City Public Works and County Engineering Departments shall ~~research and propose changes to the City and County Stormwater Ordinances to~~ keep current on and encourage low-impact development (LID) design.

Amended – August 17, 2015

Policy 7.1.2d. Low-Impact Development. To reduce development impact on stream-water quality, the City Public Works and County Engineering and Environmental Services Departments shall keep current on and encourage low-impact development (LID) design.

Policy 7.1.4d. Alternative Transportation and Fuels for City and County Vehicles. Support alternative transportation to maintain air quality, preserve natural resources, reduce reliance on oil, and save money through lower fuel costs. The City Fleet Management ~~General Services~~ Department and the County General Services Department shall implement a program promoting use of non-gasoline “alternative fuels” in City and/or County vehicles.

Policy 7.1.5b. Energy-Saving Designs. The City General Services Department, the County Engineering and Environmental Services Department, and the Durham Public Schools shall ensure that new facilities planned by the City and County incorporate energy conservation features in accordance with Leadership in Energy and Environmental Design or other high performance or green building standards.

Policy 7.1.5e. Energy-Efficient Financing Programs. The City and County shall ~~encourage lenders to relax underwriting guidelines for homes with energy efficient features and retrofits verified by the Home Energy Rating System~~ work with community partners to develop innovative programs and financing mechanisms to reduce barriers to increasing energy efficiency in existing residential and commercial buildings.

Policy 7.1.6d. Regular Natural Heritage Inventory Updates. The City-County Planning Department shall update and maintain data on the Natural Heritage Inventory as received from the North Carolina Department of Environment and Natural Resources as necessary to retain the accuracy of the information.

Policy 7.2.2e. Flat River Open Space Plan. The City-County Planning Department, in conjunction with ~~the City Parks and Recreation Department,~~ the County Engineering and Environmental Services Department, and the Durham Open Space and Trails Commission, shall prepare an open space plan for the Flat River basin area of Durham County. The plan shall address integrated open space objectives of continuous open space corridors, water quality, wildlife habitat protection, scenic and aesthetic considerations, recreation, and preservation of significant historic and cultural features.

Policy 7.2.2i. Open Space Collaboration. ~~The City Parks and Recreation Department and the County Engineering and Environmental Services Department shall work collaboratively with the Durham Open Space and Trails Commission, local land trusts, the City Department of Parks and Recreation, and other community organizations to increase the amount of open space preserved. The County Engineering and Environmental Services Department shall establish and convene an open space coordination group, including the Durham Open Space and Trails Commission and various organizations and agencies involved in open space preservation, to meet regularly to ensure better coordination and opportunities for collaboration.~~

Policy 7.2.2j. Currently-Owned Real Estate as Open Space. The County Engineering and Environmental Services Department shall review County real estate holdings to identify those parcels that the County should retain and manage as open space. The City Parks and Recreation and General Services Departments shall review City real state holding to identify those parcels that the City should retain and manage as ~~open space parks~~.

Policy 7.2.3f. Farmland Preservation Outreach. The County Soil and Water Conservation District and the County Engineering and Environmental Services Department shall prepare and disseminate educational materials regarding the value of farmland preservation to the Durham community.

Amended – November 6, 2017

Policy 7.1.1a. Environmental Indicators. The City-County Planning Department, the City ~~Department of Public Works~~ Department, and the County Engineering and Environmental Services Department, and the City Department of Water Management, in conjunction with other City and County Departments, shall identify and publish a set of environmental indicators as proposed by the City-County Sustainability Office or the Public Works Department through the City and County Strategic Plans to establish a baseline and regularly monitor and assess changes in the quality of Durham’s natural environment.

Policy 7.1.2a. Sedimentation and Erosion Control. The County Engineering and Environmental Services Department shall continue to regulate land-disturbing activity to control accelerated erosion and sedimentation in order to prevent the pollution of water and other damage to lakes, watercourses, and other public and private property. No person shall initiate any land-disturbing activity that uncovers more than 12,000 square feet without a Land Disturbance Permit or more than 20,000 square feet without having an erosion control plan approved by the Sedimentation and Erosion Control Office that:

- i. Identifies critical areas on the site subject to severe erosion and offsite areas vulnerable to damage;

- ii. Limits time of exposure;
- iii. Limits exposed areas;
- iv. Controls surface water originating upgrade of the exposed areas;
- v. Controls sedimentation; and
- vi. Manages stormwater runoff to control the velocity at the point of discharge to minimize accelerated erosion of the site and increased sedimentation of the stream.

(See Policy 9.4.4a, Sedimentation and Erosion Control.)

Policy 7.1.2e. Permanent Buffer Protection. The City Public Works Department, the Soil and Water Conservation District and the County Engineering and Environmental Services Department shall seek grant funds from the NC Clean Water Management Trust Fund, the NCDEQ Division of Mitigation Services Ecosystem Enhancement Program and other funding sources to purchase buffered easements or accept donated buffered easements in order to increase the amount of stream buffer areas in permanent protection.

Policy 7.1.2f. Wetland Restoration The City Public Works Department, the Soil and Water Conservation District and the County Engineering and Environmental Services Department shall work in conjunction with the ~~NC Ecosystem Enhancement Program,~~ NCDEQ Division of Mitigation Services, the United States Department of Agriculture and other funding sources to explore opportunities for stream and wetland restoration projects on streams in Durham.

Policy 7.2.2f. Open Space Master Plans. In order to coordinate the Durham Comprehensive Plan with open space planning, the City and County hereby adopt and include by reference in the Durham Comprehensive Plan the following open space master plans: the “New Hope Creek Corridor Open Space Master Plan, April 1991”, the “Little River Corridor Open Space Master Plan, 2001”, ~~and~~ the “Eastern Durham Open Space Plan, 2007,” and the “Downtown Open Space Plan,” 2014, and the “Urban Open Space Plan,” 2017 (and any future updates of these plans). (see Policy 10.1.4c, Open Space Master Plans.)

Policy 7.2.2k. Future Parks and Trails Database. The City of Durham General Services Department shall maintain records for the parcels and easements acquired for future parks and future greenway trails.

Fully Implemented Policies

Policy	Implementation Tool
7.1.2c. Stream Buffers	UDO, section 8.5
7.1.3a. Floodplain Protection	UDO section 8.4, as amended by UDO text amendment TC05-04, Flood Damage Protection Standards, 2006.
7.1.6f. Invasive Landscape Species	UDO, paragraph 8.3.5 and 9.2.3D, UDO, section 8.5, and the <i>Landscape Manual for Durham, North Carolina</i> .
7.2.1a. Open Space Level of Service Standards	UDO, paragraph 7.2.2