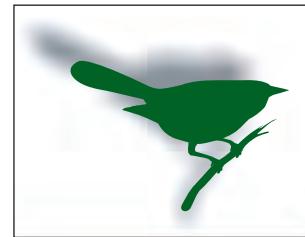


# IMPLEMENTATION



## INTRODUCTION

The Green Infrastructure Plan will employ a variety of implementation mechanisms including legislative changes to applicable ordinances; policy guidance to be included in master plans and sector plans; guidance for state and local land acquisition programs; and direction for mitigation and development incentives. Environmental stewardship by private and public landowners will also be very important to the successful implementation of this plan.

As applications for land development are submitted, they will be evaluated for the potential contributions that can be made to the implementation of this functional master plan. Just as land development proposals are evaluated for conformance with master and sector plans, pending development applications will be evaluated for conformance with the Green Infrastructure Plan.

## STRATEGIES AND RECOMMENDATIONS

The following are the specific strategies and recommendations for each policy to ensure effective plan implementation.

### ***Policy 1***

Preserve, protect, enhance or restore the green infrastructure network and its ecological functions while supporting the desired development pattern of the 2002 General Plan.

#### ***Strategies***

- 1.1 Identify opportunities for implementation of the Green Infrastructure Plan as new master and sector plans are prepared.
  - a. Refine the boundaries of the green infrastructure network to reflect areas of local significance and consider elements such as:
    - (1) Additional opportunities for connectivity
    - (2) Corridors less than 200 feet wide
    - (3) Historic properties with environmental significance
    - (4) Specific areas in need of mitigation or restoration
  - b. Adopt recommendations contained in a Watershed Restoration Action Strategy if one has been developed for all or a part of the subject area.

- c. Evaluate the most current water quality data in conjunction with the most up-to-date land use modeling data for the area to set forth specific recommendations to help improve water quality.
  - d. Identify specific areas in the green infrastructure network in need of restoration, preservation and/or enhancement.
    - (1) Conduct a stream corridor assessment for major stream corridors within the green infrastructure network if an assessment has not been done within the past five years.
    - (2) Update the countywide catalog of targeted mitigation sites to include identified areas. **Note:** When mitigation sites are identified on private property, participation shall be voluntary, except when corrections are required as the result of on-site violations.
- 1.2 Revise applicable ordinances to allow the use of flexible design standards in the green infrastructure network to:
- Minimize impervious surfaces.
  - Reduce fragmentation of existing forests and habitats.
  - Establish new linkages through planting and/or restoration.
  - Minimize ecological impacts.
- a. Prepare and adopt flexible design standards per Table 3 to:
- (1) Allow the use of conservation subdivision designs where appropriate.
  - (2) Eliminate the use of lot-size averaging and varying lot sizes.
  - (3) Minimize road impacts.
  - (4) Allow alternative designs in areas where development is targeted such as centers, corridors and the Developed Tier to maximize utilization of the property while maintaining and/or restoring the integrity of ecological systems.
- b. When flexible design standards are allowed:
- (1) Ensure that septic systems are adequate to support any proposed flexible designs where sewer and water is not available.
  - (2) Require shared septic systems<sup>19</sup> and septic systems built in areas of special concern<sup>20</sup> to utilize biological nutrient reduction technology to minimize impacts to water quality.

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<sup>19</sup> Two or more buildings sharing one septic system.

<sup>20</sup> Areas of special concern are defined as areas with high water tables or marginal soils; sites with failing on-site disposal systems (OSDS); OSDS that have been identified as significant contributors of nutrient pollution, areas adjacent to reservoirs, wellhead protection sites, areas with a high concentration of domestic wells or conventional on-site disposal systems, karst (i.e., limestone) geology, and the Chesapeake Bay Critical Area.

- (3) Require permanent protections to be placed on areas intended for preservation.
- (4) Ensure that the public has physical and/or visual access to the preserved areas, where appropriate, through the provision of views from an existing or proposed roadway or trail.
- (5) Ensure that roadways are adequate to meet projected travel volumes and emergency vehicle access requirements and provide options such as pervious surfaces for areas of occasional vehicle access.

**Table 3: Locations Appropriate for Flexible Design Standards**

Tier	Within the Green Infrastructure Network			Outside the Green Infrastructure Network
	Regulated Area*	Evaluation Area	Network Gap	
Rural	n/a	yes	yes	yes
Developing	n/a	yes	yes	no
Developed	n/a	yes	yes	no

\*Development is not allowed in the regulated areas of the network.

- 1.3 Strengthen regulations where environmental conditions warrant and provide greater flexibility where development is targeted.
  - a. Strictly limit development impacts within the regulated areas in the Rural Tier and outside of approved growth centers and corridors in the Developing Tier to activities such as those that are absolutely necessary and unavoidable for road and utility crossings in new subdivisions.
  - b. Allow impacts to regulated areas as appropriate within the Developed Tier, centers and corridors, and where needed to accommodate planned development on constrained sites. Mitigation for these impacts should be provided as close to the area of impact as possible.
  - c. Increase minimum regulated stream buffer widths to 75 feet except in the Developed Tier and growth centers and corridors, where minimum buffer widths remain at 50 feet.
  - d. Revise the Zoning Ordinance to protect environmentally sensitive areas for projects entering the development process during all types of land development proposals, not just projects entering during the preliminary plan process.
  - e. Revise the definition of expanded stream buffers to include sensitive habitat areas countywide, not just in the Patuxent River basin.
  - f. Apply the same review process for all stream impacts countywide.
- 1.4 Provide incentives to encourage nonregulatory compliance with plan objectives in the evaluation areas.
  - a. Establish a voluntary transfer of development rights program to protect elements of the green infrastructure network.



- b. Establish a county program for the purchase of development rights for land within the evaluation areas of the green infrastructure network.
  - c. Amend appropriate regulations to allow density bonuses when projects are designed to maximize preservation of evaluation areas.
- 1.5 Ensure that areas of connectivity and ecological functions are maintained, restored and/or established within the green infrastructure network.
  - a. Reduce fragmentation of undeveloped woodlands by revising the Woodland Conservation Ordinance to place a greater emphasis on the value of retaining connected woodlands.
  - b. Protect plant, fish, and wildlife habitats and maximize the retention and/or restoration of the ecological potential of the landscape by prioritizing habitat cover types in the Woodland Conservation Ordinance.
  - c. Evaluate connectivity within the green infrastructure network when reviewing and approving specific land use projects.
  - d. Strategically target off-site mitigation to restore, enhance and/or protect the green infrastructure network using the countywide catalog of mitigation sites.
  - e. Coordinate implementation with adjoining jurisdictions and municipalities and other regional green infrastructure efforts. If a municipality has an approved local green infrastructure plan, ensure that mitigation resulting from activities within the municipality supports the local plan.
  - f. Protect existing resources while providing mitigation.
  - g. Protect and restore native species within Prince George's County.
- 1.6. Ensure that special conservation areas (SCAs) (Map 2) and the critical ecological systems supporting them are protected.
  - a. Identify critical ecological systems supporting the SCA and ensure these areas are maintained and/or protected during the development review process to provide ongoing support to the SCAs.
  - b. Prioritize use of public funds to protect and restore SCAs and the ecosystems supporting them.
- 1.7 Continue public acquisition of land and easements in stream valleys designated in the Land Preservation Parks and Recreation Plan.
  - a. Seek additional funding sources for acquisition and conservation easements.
  - b. Coordinate with land trusts to achieve plan goals.
- 1.8 When public facilities and infrastructure are constructed to support the desired development pattern of the 2002 General Plan, ensure that immediate and future impacts to the green infrastructure network are minimized, if not avoided.



- a. Strategically plan and fund public infrastructure, such as stormwater management facilities and sewer and water lines, to help concentrate growth outside of the green infrastructure network in so far as possible.
  - b. Minimize fragmentation when public facilities are built in the green infrastructure network and maintain ecological functions of the network.
- 1.9 Design transportation systems to minimize fragmentation and maintain the ecological functioning of the green infrastructure network.
- a. Develop guidelines for preferred road designs, such as bridges and wildlife passages, which should be used to minimize impacts to the green infrastructure network where transportation systems must intersect or encroach into it. Revise appropriate ordinances to support the use of recommended designs.
  - b. Identify specific areas in the Master Plan of Transportation where trail systems would not be appropriate in the green infrastructure network due to ecological conflicts.
- 1.10 Create a catalog of targeted mitigation sites.
- a. Create a countywide, cross-referenced database for the identification and tracking of off-site mitigation projects for woodland conservation; stream, wetland, and ecological function restoration; and stormwater management mitigation.
  - b. Coordinate contributions of data for possible mitigation sites from all sources (e.g., county, state and federal agencies, citizens, non-profits, etc.).
  - c. Conduct stream corridor assessment surveys of major waterways and enter data into the countywide database through the master plan process.
  - d. For tracking purposes, establish a central processing agency for all mitigation.
- 1.11 Prepare an action plan for recommendations contained in this plan to identify:
- a. Who is responsible for implementing recommendations
  - b. What tasks need to be accomplished
  - c. Time frames for implementation
  - d. Resources needed for implementation
  - e. How progress will be monitored and evaluated
- 1.12 Periodically assess the progress of meeting the objectives of the Green Infrastructure Plan and update the action plan as necessary to ensure successful implementation.



- a. With the Biennial Growth Policy Update, provide available data on progress.
  - b. Evaluate the progress of the Green Infrastructure Plan every five years when water quality data is available; synchronize with updates of data used for decision-making, including the forest and woodland cover data and aerial photographs.
  - c. Update the action plan as needed.
- 1.13 Ensure full compliance with and enforcement of all existing regulations including the Chesapeake Bay Critical Area and the Woodland Conservation Ordinance.

## ***Policy 2***

Preserve, protect and enhance surface and ground water features and restore lost ecological functions.

### ***Strategies***

- 2.1. Help address compliance with total maximum daily load (TMDL) caps established by the state under the federal Clean Water Act for waterbodies in the county where water quality standards have not been met.
  - a. Target mitigation to identified point and nonpoint pollution sources in a watershed with a TMDL.
  - b. Ensure that all mitigation and/or retrofit projects in the county are appropriately credited toward meeting existing and/or future TMDL requirements.
- 2.2 Establish and/or maintain adequate buffers to protect and/or restore water quality.
  - a. Revise the regulations to increase the minimum regulated stream buffer width to 75 feet, except in the Developed Tier and in growth centers and corridors.
  - b. In the Developed Tier and growth centers and corridors, maintain the current minimum regulated stream buffer width of 50 feet.
- 2.3 Manage and treat stormwater to minimize impacts to water quality and ecological systems.
  - a. Revise applicable ordinances to allow, and where appropriate require, the use of systems and processes for managing and treating stormwater runoff that preserve and/or reestablish natural resources and systems such as reducing natural vegetation removal, reducing impervious surfaces and increasing infiltration.
  - b. Evaluate current regulations that result in the construction of required impervious surfaces. Encourage the use of innovative designs that reduce the amount of impervious surfaces.



- c. Manage and treat stormwater on-site to the fullest extent possible to maximize infiltration, restore the natural hydrologic system, improve water quality, and minimize run-off.
  - d. Coordinate watershed protection policies and programs with adjoining jurisdictions.
- 2.4 Prepare and implement major watershed management plans to address the preservation and restoration of ecological functions within watersheds.
- a. Implement the recommendations contained in completed Watershed Restoration Action Strategy plans.
  - b. Include in each area/sector plan a comprehensive watershed management section for the area that provides guidance for preservation, enhancement, and/or protection of water-related resources.
  - c. Implement the recommendations of the State's Tributary Strategy Teams and the Patuxent River Policy Plan that are applicable to the county.
- 2.5 Regularly assess water quality ratings.
- a. Evaluate the most recent data from the Assessment of Streams and Watersheds of Prince George's County water quality monitoring project conducted by the Prince George's County Department of Environmental Resources and make appropriate recommendations to improve water quality.
  - b. Periodically employ a water-quality model that evaluates how existing land uses impact water quality and use the results to determine where additional efforts and/or program changes are needed to improve water quality.

### ***Policy 3***

Preserve existing woodland resources and replant woodland, where possible, while implementing the desired development pattern of the 2002 General Plan.

#### ***Strategies***

- 3.1 Revise the Woodland Conservation Ordinance to help preserve, protect, enhance, and restore the green infrastructure network.
- a. Recognize the green infrastructure network as the highest priority for preservation and planting.
  - b. Place increased emphasis on minimizing forest fragmentation.
  - c. Ensure connectivity in both preservation and mitigation areas.
  - d. Maximize on-site conservation, especially in the Rural Tier.
  - e. Place increased emphasis on quality vegetation for on-site preservation.



- f. Increase the minimum size for woodland conservation areas to be in conformance with the definition of woodland in the ordinance.
- g. Evaluate the fee-in-lieu option and limit its use to appropriate parameters.
- h. Allow the use of street trees within the Developed Tier as a method of meeting ordinance requirements and increasing tree canopy coverage.
- i. Require approval of a natural resources inventory prior to submission of land development applications instead of the forest stand delineation currently required.
- j. Simplify the process to establish and revise mitigation banks.
- k. Evaluate requirements for timber harvesting and regulations related to future land development.
- l. Integrate wildlife habitat conservation principles into the ordinance and change the name of the ordinance to the “Woodland and Wildlife Habitat Conservation Ordinance.”
- m. Include provisions for the removal of invasive species on sites where development is proposed.

#### ***Policy 4***

Promote environmental stewardship as an important element to the overall success of the Green Infrastructure Plan.

#### ***Strategies***

- 4.1. Recognize that privately owned land, particularly working farms and forests, are an important component of the green infrastructure network.
  - a. Recognize the value of diverse land uses, such as woodlands, wetlands, meadows, urban forests, farms and grassland, within the green infrastructure network. Respect and encourage the diversity of land uses that comprise ecosystem networks.
  - b. Ensure information regarding the Green Infrastructure Plan is clear in that the stated goal to “protect, preserve and/or enhance” the green infrastructure network involves primarily voluntary measures implemented through the land development process.
  - c. Ensure program implementation does not prohibit intrafamily transfers.
- 4.2. Publicly recognize private efforts to support the preservation, restoration, and/or enhancement of the green infrastructure network.
  - a. Develop a local awards program to recognize development projects that use environmentally sensitive and/or energy efficient designs.



- b. Develop a local awards program to recognize exceptional efforts by private citizens to help preserve, restore and/or enhance the green infrastructure network.
- 4.3. Partner with federal, state and local agencies to increase participation of Prince George's County residents in land stewardship programs.
  - a. Coordinate with the Soil Conservation District regarding agricultural preservation programs.
  - b. Make recommendations to agencies, such as the Maryland Department of Natural Resources and the Maryland Department of Agriculture, to increase eligibility of county residents and enrollment in existing land stewardship programs, such as the Forest Conservation and Management Program and Conservation Reserve Enhancement Program.

## ***Policy 5***

Recognize the green infrastructure network as a valuable component of the county's Livable Communities Initiative.

### ***Strategies***

- 5.1. View protection and restoration of the county's green infrastructure network as a necessity and an amenity.
  - a. When making policy and land use decisions, elevate the importance of preserving, protecting, enhancing and restoring the green infrastructure network at the same level of concern as providing an interconnected network for transportation and/or public utilities.
  - b. Include in reports on land development proposals a statement regarding compliance with the Green Infrastructure Plan.
- 5.2. Market the green infrastructure network as an asset to attract and retain residents and businesses to the county.
  - a. Encourage projects to be designed to utilize the green infrastructure network as an amenity.
  - b. Prioritize developed areas for restoration potential.
- 5.3. Utilize the goal of the Green Infrastructure Plan to help revitalize and restore deteriorated areas within existing communities.
  - a. Identify vacant lots in need of restoration within the green infrastructure network and provide incentives for either restoration and/or development.
    - (1) Include the areas in the catalog of potential restoration sites and allow the area to be used as a sending area for the transfer of development rights once the area is restored.
    - (2) If these sites are to be developed, encourage the integration of the green infrastructure network into the design to maximize economic, environmental, and livable community benefits.



- b. Make public investments that enhance the public infrastructure in areas outside of the green infrastructure network to improve livability and encourage development in those areas.
- c. Provide incentives to encourage infill development and the reuse of abandoned buildings.

