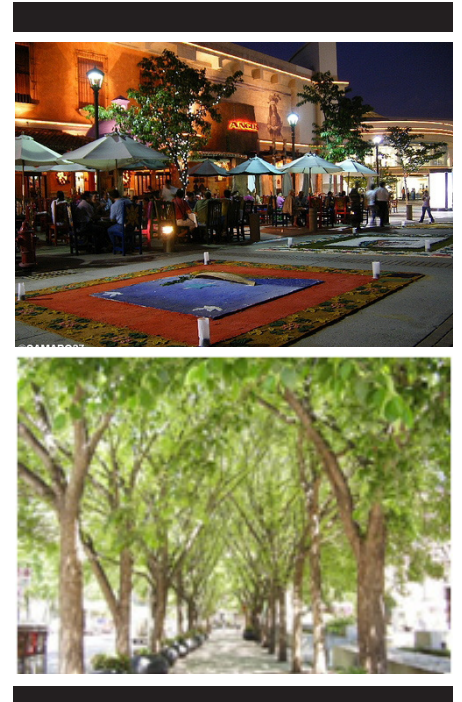


environment

Natural Systems

Wheaton will grow greener through redevelopment by creating a sustainable community that conserves energy and uses roofs and green spaces to filter stormwater and purify air. The following recommendations focus on increasing livability by integrating natural features into the built environment, while optimizing land use within the existing development footprint. These techniques will be partially implemented through the environmental incentives in the CR Zones. Sensitive environmental areas are protected through the Planning Board's *Guidelines for Environmental Management of Development in Montgomery County*.

- Connect the built and natural environments by:
 - reinforcing relationships to local natural resources through visual and functional connections
 - creating green links, through plantings and signage, along Windham Lane to Sligo Creek Park and along Blueridge Avenue to Wheaton Regional Park
 - using native plants and creating habitat for appropriate urban wildlife in parks and open spaces.
- Increase tree canopy cover by:
 - identifying unused right-of-way and publicly owned land for increased plantings by the County
 - using advanced planting techniques such as constructed soil and interconnected tree pits to increase the soil area for tree roots along new streets and sidewalks
 - incorporating trees into stormwater management and roof and terrace plantings
 - establishing a minimum of 30 percent tree canopy cover for any new surface parking in the CR Zones during the development review process
 - retaining the existing green buffer between the Mall Ring Road and adjacent properties to reduce the impact of new development.
- Minimize and mitigate impervious surfaces by:
 - using Environmental Site Design to reduce runoff from all impervious surfaces, including roofs, terraces, and paving
 - building new streets and retrofitting existing roads as green streets, with urban stormwater management facilities in the right-of-way
 - encouraging small properties to share stormwater management facilities
 - protecting existing remnant streams.
- Raise awareness of water flow through increased visibility by:
 - referencing the streams that historically flowed through Wheaton in public art and water features
 - creating visible, interactive, and educational stormwater management facilities.



Energy

Land use can reduce energy consumption through energy efficient design and multi-modal transportation options. Mixed-use areas reduce vehicle miles travelled by combining destinations in a walkable area. Infill development increases the efficiency of existing infrastructure, making better use of limited resources. Auto use is further reduced by options to walk, cycle, or use transit. In addition, energy use can be minimized by upgrading older buildings to be more energy efficient and requiring new buildings to meet high efficiency standards.

Carbon emissions are directly related to carbon-based energy production and consumption. Increased carbon emissions have been tied to the human contribution to climate change, thus increasing the importance of minimizing the use of non-renewable energy.

This Plan will minimize per capita energy use through its compact, mixed-use development pattern and opportunities for infill development.

- Reduce energy consumption through site and building design techniques that:
 - meet the minimum energy efficiency standards of 17.5 percent less than the calculated baseline performance, or meet the appropriate American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) advanced energy design guidelines for new buildings
 - allow renovated buildings to meet energy efficiency standards of 10.5 percent less than the calculated baseline performance, or meet the appropriate ASHRAE advanced energy design guidelines.
- Reduce energy use by:
 - Providing more daylighting through building orientation, light shelves, baffles, clerestories, windows, and skylights
 - integrating geothermal and passive solar systems to reduce energy consumption.
- Encourage local energy production through solar, wind, or other techniques and fuels.

Water and Sewer

The Washington Suburban Sanitary Commission (WSSC) provides public water and sewer service to the Wheaton Plan area. Wheaton is served by the Rock Creek and Sligo Creek sewer systems. The *Water Resources Functional Plan* demonstrates that water supply and sewer service are generally adequate, although WSSC has identified some weak points.

As Wheaton is a high point in the County, the Plan area includes a four-tower water storage facility, and a pair of large water mains running east-west across the area. Projects here may be asked to set back their development some distance from those mains, with the specific dimension to be determined at development approval. The location of these mains may affect road improvements, and improvements to the mains may need to be included in road projects.

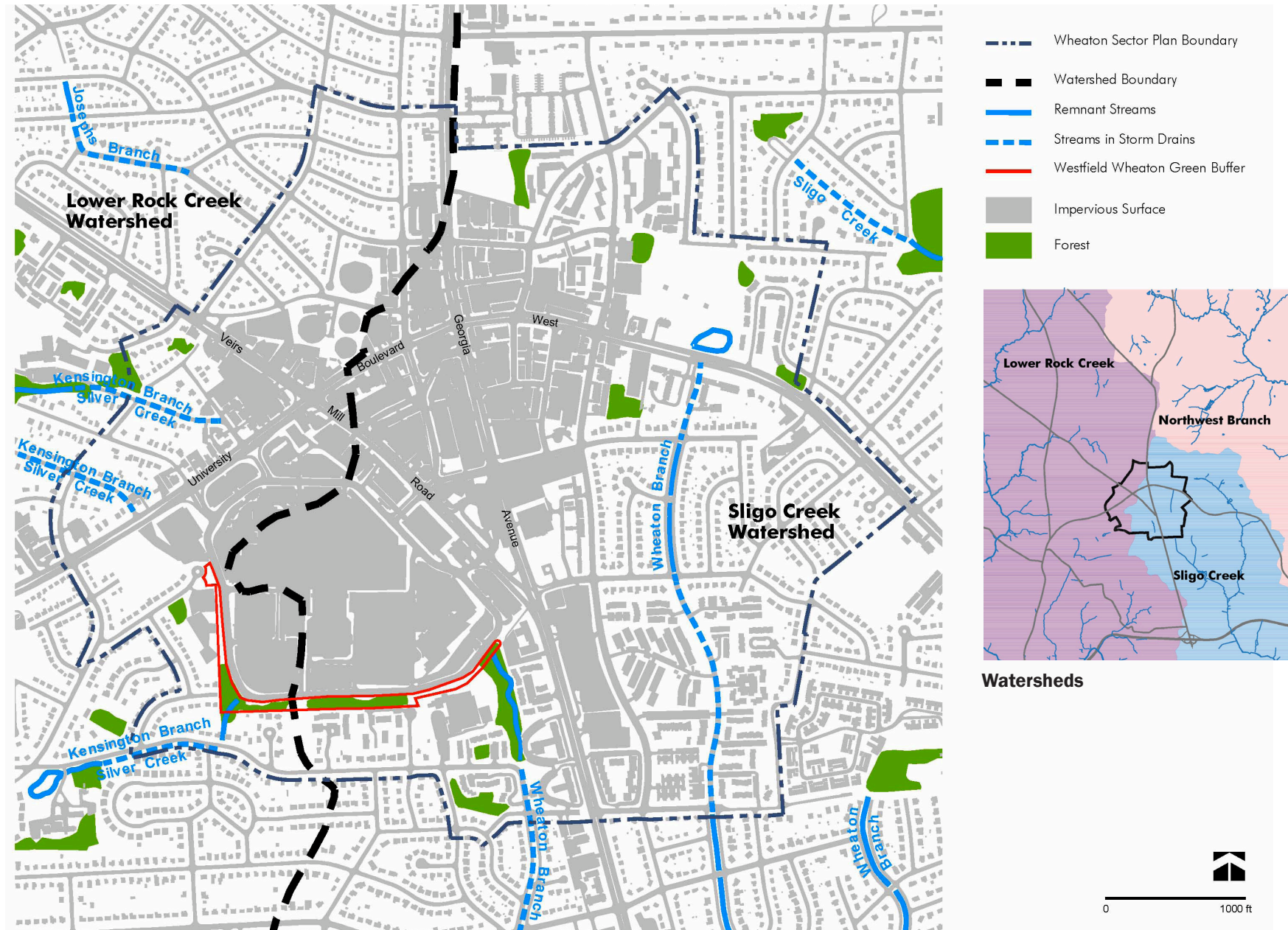
Some structural repair and sewer rehabilitation work will be done as part of WSSC's Sewer Basin Repair Replacement and Rehabilitation plans for Rock Creek and Sligo Creek. These plans are subject to approval by the Maryland Department of the Environment, and the work may include future capacity expansion as required by WSSC.

WSSC's sewer modeling has identified deficient capacity in some sections of the Rock Creek trunk sewer under the design storm or significant wet weather conditions (and with existing and future demographics). The Sligo Creek sewer basin, particularly in the downstream sections in Prince George's County, has deficient capacity with the potential for overflow problems under significant wet weather conditions in the near future, regardless of additional growth. Significant growth in Wheaton and other areas that drain to the Sligo Creek trunk system will require sewer system improvements.

- Require development proposals that generate over 100,000 gallons per day of wastewater (approximately 700 housing units or 3,500 employees) to undergo testing. Applicants would be required to work with WSSC to plan improvements to the conveyance system if the modeling results exceed WSSC's adopted policy.
- Require applicants to construct local sewer system capacity improvements to satisfy capacity issues identified with private development proposals. The larger improvements to the system would be done through the CIP.
- New facilities or other development projects that generate significant new sewer flows in the Anacostia basins (County basins that drain to the Anacostia No. 2 Wastewater Pumping Station and are conveyed to the D.C. Water and Sewer Authority's Blue Plains Wastewater Treatment Plant) will depend on completion of the Anacostia Storage Facility (Project S 89.22) currently in the WSSC CIP and under design. The project has a projected completion date of December 2013.



Map 20 Natural Systems



Health

A well-designed community can improve the well-being and health of those who live and work there. Wheaton's redevelopment is an opportunity to build healthful features into the community.

- Provide opportunities for active and passive recreation.
- Integrate the natural environment into the built environment.
- Promote walking and cycling on safe and complete streets.
- Support healthy eating by providing a variety of choices for fresh, local food.
- Support convenient access to healthcare for both preventive and acute care.
- Support the Safe Routes to School program to encourage walking and biking to school.
- Improve pedestrian access to shopping areas, transit, recreation, and community facilities.
- Apply the Road Code's context sensitive designs to improve pedestrian mobility and enhance street connectivity.
- Identify potential community garden and urban farm sites in new development, existing parks, public easements, right-of-ways, and schoolyards.
- Encourage all new building construction to incorporate environmental features such as green roofs, green walls, and innovative urban stormwater management. Encourage retrofits of existing development to maximize environmental features.
- Support community clinics and expanded local health care facilities.
- Develop adequate bicycling and trail amenities with connections to employment and retail centers, community facilities, and open spaces.



Map 21 Existing Community Facilities and Proposed Open Spaces

