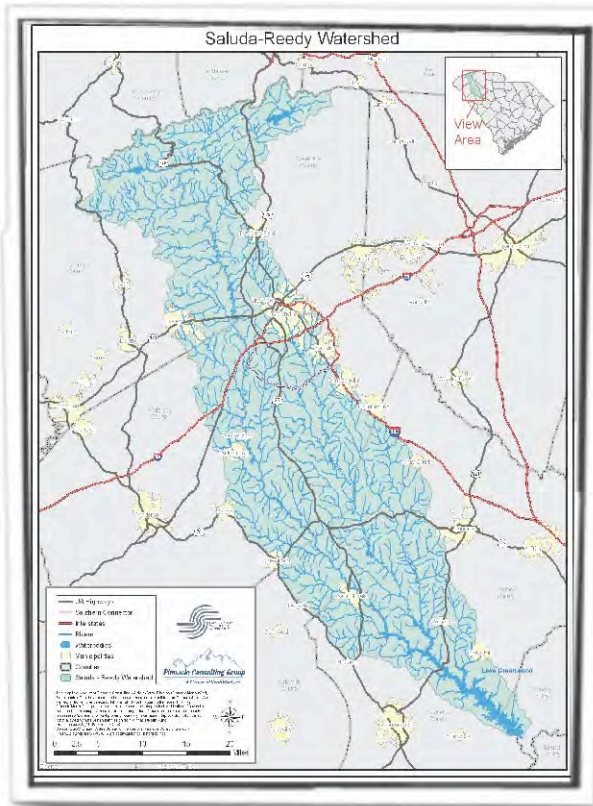


# Market-Based Mechanisms for Promoting Low-Impact Development, Mitigating Legacy Stormwater Discharges, and Restoring Urban Floodplains in the Saluda-Reedy Watershed, SC.

Upstate Forever

Greenville, SC

*The Saluda-Reedy Watershed: An area of significant growth and development.*



## The Greenville area and the Saluda-Reedy Watershed

Seated among the foothills of the Blue Ridge Mountains in the northwest corner of South Carolina, Greenville is the most populous county in the state. Its origins centered on textile manufacturing, which developed along the many streams and rivers in the county.

Over the past thirty years, Greenville has diversified and expanded to become the commercial, cultural, and recreational heart of the "Upstate" corner of South Carolina. Its location mid-way between Atlanta and Charlotte has added to the desirability of the area. As a result, rapid growth has begun and is projected to continue. In 2006, the population of the Greenville Metropolitan Area, which encompasses approximately 800 square miles, was estimated at 600,000. The metro area experienced a growth rate of 25% during the years spanning 1990-2005.

The Saluda-Reedy Watershed (HUC 03050109), located in the heart of this region, runs from the Blue Ridge Mountains to the shores of Lake Greenwood.

## The Reedy River

The Reedy River basin originates along the northern fringe of the Greenville metro area, flows southward through downtown, and continues for about 40 miles through increasingly rural lands until emptying into Lake Greenwood. The upper watershed is moderately to heavily urbanized, and the river has been the focus of a major economic and cultural renaissance in this area. The Reedy is a classic piedmont stream, which shows all the signs of an impaired stream system: flashy hydrology, scouring and bank instability, and heavy sediment loads. The most significant contributors to water quality problems in the Reedy are "legacy" stormwater discharges from older urbanized areas that were developed before stormwater controls were required, as well as poor stormwater and erosion control on new sites.

*Reedy River in Falls Park, downtown Greenville.*



*Table Rock Reservoir is located along the Saluda River in northern Greenville County.*



## The Saluda River

The Saluda River watershed is far less developed than the Reedy. It originates in the mountains along the SC-NC line, and its headwaters include some of the cleanest streams in the state. Upon leaving the mountains, it enters the piedmont and flows through largely rural areas with intensively farmed river bottoms and forested hills. It passes along the western edge to the rapidly developing Greenville metro area before continuing about 40 miles through largely rural lands to Lake Greenwood. Though the Saluda watershed is still about three-quarters forested, existing agricultural impacts combined with extreme development pressure have recently put the Saluda on

the 303(d) list as well. According to the South Carolina Department of Health and Environmental Control, the fact that the most common type of impairment is biological indicates that the principal water quality problem in the Saluda is sediment. While a portion of that sediment comes from the agricultural areas in the upper watershed, the most rapidly growing source is poor erosion control and stormwater management in the area of development close to metro Greenville.

## The Grant Project Concept

### COMPONENT 1: LID decision-making tool

The first component will create an Excel-based decision-making tool that helps developers assess both the water quantity and quality benefits as well as the probable financial outlay or cost savings from any combination of water quality-related low-impact development techniques as implemented on their development site. The tool will use a point-based system analogous to but distinct from LEED certification, in which the number of points associated with any given LID technology correspond to quantifiable increments of improvement in stormwater quality and reduction in stormwater quantity.

### COMPONENT 2: Stormwater banking program

The second component will work with Greenville County to develop a pilot program that offers developers a residential density bonus in exchange for incorporating stormwater-related LID techniques to meet a specific points target via the decision-making tool described above and paying into a locally administered stormwater banking program where the amount paid into the fund is a function of the LID score achieved (the higher the score, the lower the payment). The County will then use the funds generated to produce greater net water quality and quantity benefit by retrofitting uncontrolled stormwater discharges from older (pre-NPDES) developments within the same watershed.

### COMPONENT 3: Floodplain restoration bank

The third component of the grant will work with the City of Greenville to offer developers a density bonus if they purchase credits from a Floodplain Restoration Bank. The funds from the restoration bank will be used to finance the acquisition and restoration of floodplain land and adjacent undeveloped lands along the Reedy River and associated tributaries. Restoration work will focus on restoring floodplain and wetlands function along the Reedy River and its tributaries, thus improving water quality throughout the Reedy River corridor.