Table 6.0 Rehabilitation and Enhancement Projects		
Project Type	**Description**	**Number of Projects Identified in 2005**
Stormwater Retrofits	Retrofits apply new science to impervious surface and existing stormwater facilities such as detention ponds, that only minimally improve water quality and reduce the runoff. Retrofits include modifying facilities to increase stormwater infiltration, and alter stormwater storage or conveyance systems (e.g., remove curbs and gutters, or unbury ("day light") streams that were put into pipes and covered (built over). Retrofit techniques often maximize the use of soils and vegetative materials, reduce impervious cover, and create other land use opportunities besides stormwater management.	58
Creek Rehabilitation	Stream rehabilitation practices enhance stream stability, structure, function, and appearance. Rehabilitation techniques include simple stream cleanups, bank stabilization, grade controls, in-stream habitat enhancement (e.g., vegetation plantings), and removal of fish barriers.	17
Discharge Prevention	The aim of discharge prevention is to keep sewage and other pollutants out of the creek. These discharges may be caused by illicit wastewater connections, failing septic systems, leaky sewers, industrial releases, and transport spills. Rehabilitation techniques find, fix, and prevent the illicit discharges, beginning with surveys of known and new stormwater or other pipes to identify suspicious discharges for further investigation.	32
Riparian and Upland Reforestation	Riparian and upland projects restore the quality of forests and wetlands within, and outside stream corridors, respectively. Trees, shrubs, and other vegetation stabilize stream banks, regulate stream temperature, remove pollutants from runoff, and provide habitat for aquatic and terrestrial wildlife. Reforestation techniques include vegetation planting, improvement of soil quality for vegetation growth and stormwater infiltration, removal of invasive species, promotion of natural forest growth, and discontinued mowing. The riparian efforts are commonly called *buffer projects*. They typically are accompanied by conservation easements or purchase/transfer of development rights on private lands.	38 & 4
Habitat and Open Space Protection	Although reforestation and creek rehabilitation enhance wildlife habitat, the key to significant open space improvement is increased areas of undeveloped, contiguous landscape. This is accomplished through approaches such as dedication of preserved lands, conservation easements for land use protection, adoption of better site design and low impact development techniques with accompanying ordinances, sprawl hindrance (i.e., through directed growth management), and emphasis on urban infrastructure and services renewal.	3
Pollution Sources Control	Pollution sources control is achieved through reduction/prevention of pollution from residential neighborhoods and stormwater hotspots (i.e., commercial, industrial, institutional, municipal or transport-related operations that produce high levels of stormwater pollutants and/or present higher potential risk for spills, leaks, and discharges). Pollution source control methods include education and/or enforcement efforts that can prevent or reduce polluting behaviors and operations. Examples: educating landowners about techniques for storing materials outdoors, reducing fertilizer and pesticide use, disposing of pet waste, and keeping stormwater runoff in yards.	6
Flood Control	Areas of Paxton Creek have declined in value, and lagged in redevelopment because of floods. Approaches for lessening the frequency and size of the floods are projects to decrease the runoff upstream, provide storage (and subsequent release) of potential flood waters, and decrease runoff in flood-prone areas. Flood control projects include preserving wide valleys and ravines where creek stormwater can be detained (such as the grounds at Harrisburg State Hospital), increasing water storage at places such as Wildwood Lake, and infiltrating stormwater rather than allowing it to run off the land.	5
Trails	Trails and greenways alongside the creek, located, perhaps, in interceptor sewer rights-of-way, can serve multiple functions. Besides providing ready maintenance access to the sewers, these trails are a relatively safe alternative to motorized transportation, promote healthy lifestyles (exercise, recreation), provide education, mitigate pollution and floods, join existing trails (Capital Area Greenbelt), and assist economic development by connecting residences, work places, entertainment sites, and shopping areas. Appropriate short, initial trail routes would be near the miniparks, as in the Herr-Walnut Streets corridor. Potential long intermunicipal connecting routes to be developed initially could be in Asylum Run from the Susquehanna Township link to the Colonial Park Mall, and in Paxton Creek North subwatershed as it extends from the west end of Paxton Church Road, near Wildwood Lake Sanctuary, to a creek headwaters in Lower Paxton Township at Centennial Acres Park.	8
Recreation and Development	Miniparks and other recreation/education sites situated along Paxton Creek can help fill the current gap in recreation opportunities in the watershed. Examples of small (1,000 sq ft) miniparks include sites with gardens and benches connected to trails, as near commerce, industrial, and residential sites, and places with historical or natural resource significance. These miniparks and other recreation sites can be sources of neighborhood pride, and help satisfy local needs for recreational experiences. These recreational initiatives can also assist economic redevelopment. Creek-based projects that remedy watershed flooding, enhance enterprise zone developments, and possibly assist a Lucknow rail yard conversion resulting in unification of Harrisburg, an expanded tax base, and improved cooperation among watershed municipalities.	8
Education	Paxton Creek is rarely the focus of efforts to build watershed awareness and knowledge. Both formal and nonformal science education under-use Paxton Creek as a teaching tool. Existing watershed resources and rehabilitation activities offer opportunities for hands-on learning, community service, and mentoring. The plan calls for additional outreach activities, such as workshops, publications, mass media, and extensive work with teachers to incorporate the watershed's rehabilitation into school activities, integrating formal and nonformal education.	5