

5 RCP Goals, Objectives, and Strategies

Goals

Goals are important for establishing guidance and setting benchmarks of plan progress. The RCP goals reflect the types of watershed problems and stakeholder desires identified for Paxton Creek. (Table 5.0) These goals can vary among different subwatersheds and their component parts.

Issue Category	Goal
Water Management	Improve Water Quality; Reduce Stormwater Runoff and Diminish Flooding;
Natural Resources	Reduce Erosion with Sedimentation, and Rehabilitate Creek Channels; Conserve and Rehabilitate Riparian Habitat and Contiguous Forest;
Open Space and Sprawl	Protect Open (Green) Space, Large Tracts and Mountain Land;
Culture and Development	Support Urban Redevelopment; Enhance Creek-based Recreation;
Education and Outreach	Promote Watershed Awareness, Understanding, and Stewardship; Conduct Creek-based Education.

An effective RCP needs local commitment for identifying locally important concerns, and providing support for the long term implementation of the plan's objectives. The RCP addresses nine goals set by stakeholders for the rehabilitation and enhancement of Paxton Creek watershed.

- ☑ **Improve Water Quality** by reducing pollutant loads, and treating stormwater runoff.
- ☑ **Reduce Stormwater Runoff and Flooding** through less impervious cover and more onsite infiltration.
- ☑ **Decrease Channel Erosion and Rehabilitate Creek Reaches** to reduce clogged waterways, enhance runoff storage, restore floodplain function, and improve wildlife habitat.
- ☑ **Conserve and Expand Contiguous Forest** in a continuous network of creek buffers to stabilize banks, remove pollutants, provide shade, and enhance wildlife habitat.
- ☑ **Protect Open Space, Mountain Lands and Large Undeveloped Tracts** for ground water infiltration and protection, and opportunities for recreation and greenways transportation.

- ☑ **Support Urban Redevelopment** to reduce sprawl and make areas more livable through watershed retrofit, removal of impervious cover, adoption of conservation development techniques, and watershed improvements such as flood controls and trails.
- ☑ **Enhance Creek-based Recreation** to increase the parks, public open space, and outdoor recreation opportunities in the watershed.
- ☑ **Promote Watershed Awareness, Understanding, and Stewardship** which are crucial to watershed protection, rehabilitation and enhancement.
- ☑ **Perform Creek-based Education** on watershed awareness, creek curriculum, and practices to solve creek problems and improve lives.

“STORMWATER - the bane of Paxton Creek (and most urban watersheds)”

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Objectives, Strategies and Tactics

Objectives, strategies, and tactics are crucial in reaching RCP goals. One builds upon another. At the top are goals, or broad statements for change, as in Paxton Creek's second goal to reduce stormwater runoff. Related objectives may be to reduce impervious cover, by as much as 25% (*achievement objective*) and by retrofitting old sites (*management objective*). Strategies are approaches to meeting these objectives. In this case the strategy would be to use public-private partnerships involving municipalities, businesses, and PCWEA. Tactics are specific actions guided by the strategies. Tactics might include an outreach campaign, lobbying, securing grants, using volunteer labor, or soliciting in-kind supplies and equipment.

Some objectives can serve the needs of more than one goal, similar to multiple tactics serving a single strategy. Those objectives that can be measured quantitatively are most desirable for assessing RCP progress, and for communicating results to partners and the public.

Subwatershed Focus

Most watershed improvements occur at specific sites in subwatersheds. Effective RCP management at this level requires appropriate goals for individual subwatersheds. The subwatershed goals and associated objectives, strategies, and tactics are based on community needs, existing subwatershed characterization data, and information analysis. They are the basis upon which PCWEA coordinators will choose appropriate management tools.

For initial guidance during Phase I of the RCP implementation, the goals are organized in three proposed management groups or themes: creek protection, rehabilitation, and enhancement. This classification approach (Table 5.1) mainly relates to the subwatershed water quality and habitat, caliber of water bug (macroinvertebrate) communities, impervious cover, and unique features.

Table 5.1 Subwatershed Differences and Approaches

Themes/Goals	Subwatersheds	Characteristics	Objectives and Strategies
Protection Improve water quality; conserve and expand forest; protect open space, reduce erosion and sedimentation;	Black Run (BR) Linglestown (LT) Lucknow (LK) Mountindale or Fox Run – (MT) Upper Paxton Creek North (PCN)	Good macroinvertebrate community 10-25% impervious cover (IC) Most have headwaters on natural landscape Suburb Location	Conduct land conservation, water quality and infiltration retrofits; Perform Better Site Design and LID in new developments; Develop riparian buffers with transfer of development rights (TDRs) & conservation easements; Increase erosion and sediment controls;
Rehabilitation Improve water quality; rehab creek channels; reduce erosion & sedimentation; conserve and expand forest; enhance recreation;	Asylum Run (AR) Devonshire (DT) Paxtonia (PT) Lower Paxton Creek North (PCN) Wildwood Lake (WLN)	Fair or poor macroinvertebrate populations mainly reflecting habitat >25% IC Most headwaters in developed areas	Improve water quality via IC retrofits; Rehabilitate stream channels; Conduct pollution prevention and awareness education; Detect illicit discharges; Develop miniparks and public trail system; Construct buffers with TDRs & conservation easements;
Enhancement Improve water quality; reduce stormwater runoff & floods; support urban redevelopment; conduct creek education; enhance trails and recreation; improve sewers.	Paxton Creek (PC)	56% IC Poor habitat and water quality for biota Stream has been channelized and concrete lined Sewage discharges likely Combined sewer overflows and many pollution sources	Detect and remediate illicit discharges; Remove IC and overburden; Focus on stewardship; Promote conservation landscaping and buffers; Educate the public with creek and outdoor emphasis; Reduce combined sewer overflow outlets; Actively encourage infill and redevelopment; Conduct awareness and pollution prevention education.

Adapted from Center for Watershed Protection (2004)

RCP Goals, Objectives, and Strategies

The Paxton Creek North subwatersheds (Upper and Lower) were selected for the initial RCP focus for multiple reasons: in addition to manageable sizes for watershed improvements, these subwatersheds together span most watershed municipalities; they constitute nearly a quarter of the watershed area; they are centrally located; they have a diverse set of representative problems and opportunities; they have undeveloped lands, and one has minimally degraded headwaters in need of immediate management or protection. They have excellent potential for demonstration projects, an important aspect when launching the RCP. Asylum Run will be the second subwatershed to be assessed; Linglestown or Paxton Creek the third; and so on.

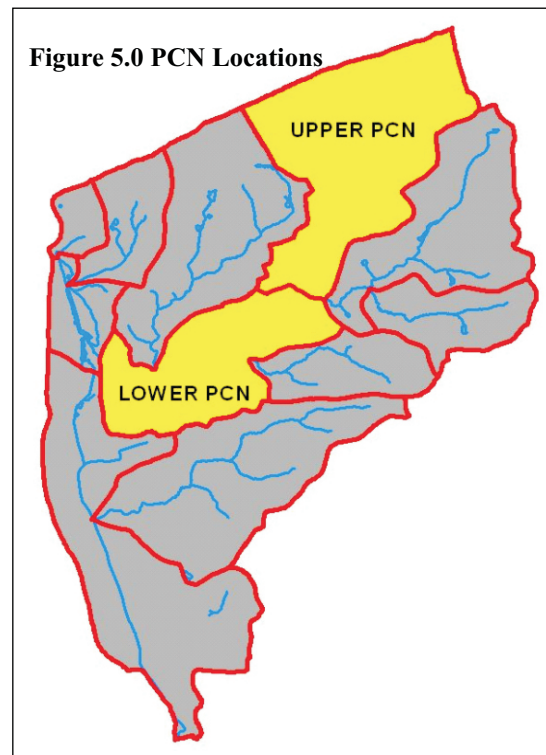
Paxton Creek North Subwatersheds

The Paxton Creek North subwatersheds (Upper and Lower) comprise the backbone for most of the subwatersheds upstream of Wildwood Lake. After headwaters form on Blue Mountain, the creek runs through Lower Paxton and Susquehanna Townships to Wildwood Lake Sanctuary in Harrisburg (Figure 5.0).

The two subwatersheds have nearly half (44%) of Paxton Creek's stream miles. Their land uses include a mixture of undeveloped lands, low and medium density residential with some business, commercial, and institutional development. A few large open tracts still exist in the upper areas of both subwatersheds. Considerably more forest occupies Upper PCN. Future residential growth is projected for the forested headwaters, as allowed in municipal zoning and ordinances. The creek is deeply incised from stormwater runoff in both subwatersheds, but less so in Upper PCN, especially in the headwater areas. Typical creek degradation (lawns mown to creek edges, outdoor storage close to creek banks, lack of protective vegetation buffers) is in evidence throughout both subwatersheds. A couple of sites are promising for potential stormwater storage.

Upper PCN subwatershed is larger in area and has less impervious cover. This subwatershed has more diverse water bug (macroinvertebrate) communities containing clean-water organisms, exhibits better water quality (that degrades as it flows downstream), and has fewer creek reaches with the worst (Priority I) bank-channel instabilities

and eroded-deforested creek habitats (138 of 6,015 feet). Except for schools, a few municipal parks, and a driving range (where errant golf balls are washed all the way to Wildwood Lake), outdoor recreation facilities are absent in areas of these subwatersheds. Many 18th and 19th century historical sites remain near Linglestown Road and Colonial Road, but they are only recognized locally. An old grist mill pond remains near the Lower Paxton-Susquehanna Township boundary. Although the Upper PCN now has the same management status as Lower PCN, (impacted), it is expected to have a different management theme upon maximum build out (rehabilitation for Upper PCN; enhancement for, Lower PCN).



These data and other information indicate that the PCN subwatersheds need additional outdoor recreation facilities, creek corridor and upland reforestation, rehabilitated creek reaches, stormwater runoff reduction, education on pollution avoidance and abatement, septic discharge prevention, and consideration of stormwater storage. As the RCP is implemented, and other subwatersheds are assessed, additional objectives and strategies for watershed improvement will be necessary.

