

1 Paxton Creek - Watershed of Promise

The Setting

Paxton Creek is a small watershed at the state capital of Pennsylvania. The waterway forms in and flows through parts of four municipalities: Lower Paxton and Susquehanna Townships, Penbrook Borough, and the City of Harrisburg. Stormwater runoff from its 27 square miles area drains to the Chesapeake Bay. It is a creek with 2 mouths and 7 arms (tributaries). This urban creek carries twice the nutrients and 15 times the suspended solids washed off a forested landscape. Figure 1.0 depicts the watershed, subwatersheds, municipalities, and their locations in the state. Table 1.0 displays facts about the watershed.

Paxton Creek resources built early Harrisburg. Watershed forests were cut to make lumber, its farms produced food, its waters ground grains and sawed logs, and its clays became building bricks. Its people provided labor for business, government, and industry. Creek wetlands absorbed floods. Various reaches of the creek served simultaneously as sewers, water supplies for industry, and recreation.

For 200 years Paxton Creek was the economic facilitator and transport crossroads of the area. It was the destination of the Army of Northern Virginia, before the Confederates were stopped at Antietam and Gettysburg. Paxton Creek supported dozens of industries from iron making to beer brewing. Paxton Creek was a focus of Harrisburg's renaissance during the "City Beautiful Movement" in 1900-1915 as sewers, water filtration plants, asphalt roads, and parks were built. The creek's lower part was dammed and channelized.



Clogged Creek Channel

Table 1.0 Paxton Creek Facts

- ☑ Urban watershed with an average 30% impervious cover (asphalt and concrete surfaces of roofs, roads, and sidewalks).
- ☑ Watershed of inter-basin transfers: where most domestic water is supplied from outside the watershed, and wastewater goes to neighboring 'sheds.
- ☑ Where stormwater runoff has cut the creek banks and bottom to bedrock in places.
- ☑ Home of the large Wildwood Lake, a superb wetland with American Lotus, a plant species found at one of only two places in the Commonwealth.
- ☑ Home of the Paxton Boys, famed militiamen also known for a massacre of friendly Indians during the French and Indian War (1760s).

Adapted from Healthy Creek Project document: What's Your Paxton Creek IQ?

In subsequent decades industry and infrastructure declined, and Harrisburg lost population. Further declines occurred as farms were replaced by homes, businesses, and roads in the last half century.

Paxton Creek has become little more than a stormwater drain, and a conduit for floodwaters from the Susquehanna River, made worse by runoff from upstream communities.

Paxton Creek is both a stream of shame and a promising opportunity. Joining Harrisburg's revival and changes to the other watershed municipalities, rehabilitation of the creek can improve the quality of life of both its peoples and creatures. This can be done by constructing a 50-mile green corridor to protect the creek, reduce pollution, process waste (at reduced cost), replenish well waters, enhance transportation, aid economic redevelopment, increase wildlife and natural habitat, soothe urban stress, and provide recreation within walking distance of homes in most neighborhoods—all this with implementation of the Paxton Creek Rivers Conservation Plan (RCP).

"Paxton Creek is both a stream of shame and a prospect of immense promise at Pennsylvania's capital."

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Paxton Creek mainly flows from the top of Blue Mountain to its southern boundary roughly paralleling Route 22, and from near Linglestown and Mountain Road westward to the railroad at Sixth Street in Harrisburg, encompassing part of the Capitol complex and southward into the Susquehanna River near Steelton, and also north of Wildwood Lake into the river. Reinforcing Dauphin County's plan, the RCP is the only plan addressing integrated, multiple dimensions of the watershed. It has a limited three-part focus: protection of watershed resources; solutions for watershed problems; enhancement of watershed attributes.

The RCP does not seek to restore the watershed. Three centuries of land degradation and future needs make this impractical. The plan addresses protection and rehabilitation of resources (floodplains, water quality), and enhancement of others (recreation, education).

In addition to using simpler words with many images to make communication easy, the RCP has other unique features absent from some Rivers Conservation Plans. It aims at assisting watershed goals such as economic redevelopment. An example: The RCP presents a conceptual design for trails and miniparks in the New Baldwin economic enterprise zone (channelized creek reaches near Cameron Street in Harrisburg) to enhance business and commercial opportunities. The RCP will also look backwards as well as forward at itself. Example: the RCP will consider the potential for subwatershed plans such as the Paxton Creek North plan to meet watershed goals, through water treatment models that compare BMP performance expectations with the plan's quantitative objectives (pounds of pollutants avoided/removed).



Community Watershed Planning

The RCP integrates creek-related concerns of all the watershed municipalities, addressing the connection of woodland buffers along the creek, an interconnecting trails system among municipalities, and flooding concerns in Harrisburg. The plan provides recommendations that compliment the watershed's Act 167 stormwater plan. It may also lay the groundwork for a stormwater management utility for watershed municipalities that could occur in the intermediate future. Upon adoption by municipalities, the RCP will be submitted for listing on the Pennsylvania Rivers Conservation Registry.

The nearly two dozen Geographical Information System (GIS) maps prepared during the RCP development that will be available through Pennsylvania State Data Access are a significant resource for both the area and state.



BMPs Tour to Maryland

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Figure 1.0
Paxton Creek Watershed

