

September 2010

Tookany/Tacony Frankford Watershed Partnership Problem Statement

Sarah: As you know, the Philadelphia Water Department is working to limit the amount of stormwater discharged into our streams. Stormwater's a big problem because when it runs into streams it brings with it all the pollution it picked up along the way. Also, the huge amount of water scours the stream beds and undercuts trees along the stream, ruining the habitat for plants and animals.

Katie: Isn't there also a problem with the sewer system in Philadelphia?

Sarah: Right. In many parts of the city there are combined sewer systems where stormwater and sewage share the same pipes. A long time ago, waste water from homes flowed right into the creeks. That was ok when there were just a few houses, but as the city grew it became a problem. So now rainwater and sewage are both routed into pipes that run along the edge of the creeks and lead to the sewage treatment plant.

Ashley: What's the problem with that?

Sarah: When the system was built around 100 years ago it worked pretty well. Only once in a very great while was there enough rain so that sewage and stormwater overloaded the pipes and had to overflow into the creek. Now there are too many paved surfaces, and the excess stormwater cannot soak into the land where it is naturally cleaned and filtered by plants. Instead, it runs off into the pipes, where it combines with sewage water. So now, pretty much every time it rains, the pipes overflow and raw sewage goes into the creek.

Katie: Isn't the city building new sewers and underground detention tanks to hold stormwater after it rains?

Sarah: Yes, but it's really expensive and disruptive to dig up pipes all over the city. We need to create less stormwater runoff to begin with. That's what the Green City, Clean Waters plan is all about. Green infrastructure would replace some of the impervious surfaces with trees and plants and keep water on site rather than letting it flow into the sewers. There are two issues to deal with: holding back the volume of water, and cleaning the water by eliminating trash and pollutants and using plants as filters.

Ashley: What's our part in this?

Sarah: We want to work with our partners and the community to promote a collaborative approach to watershed greening.

Ashley: It seems like an overwhelming problem, especially since so many of our creeks are buried underground and people don't really know or care about them.

Katie: Maybe we could pick one neighborhood and start small, say 5-6 projects just to serve as a model that can be copied by other neighborhoods.

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Sarah: That's a good idea. The new building code for Philadelphia says that the first inch of rain that falls on a site must be captured on site. That's a good goal for our projects to aim for. We need to be able to estimate how much water each of the projects can handle so we know what kind of impact we're making.