



Your Water, Your Future

by Dauphin County Conservation District

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A Word from our Partners featuring Swatara & West Hanover Townships

Paul Cornell, Manager of Swatara Township and Michael Rimer, Manager of West Hanover Township, took time to share their perspectives about municipal management of stormwater. What follows is the content of those interviews.



Paul Cornell, Manager
Swatara Township



Michael Rimer, Manager
West Hanover Township

Q: Please describe the various stormwater runoff issues and problems in the township.

Cornell: A significant runoff problem in Swatara Township is caused by people depositing trash in stormwater swales and inlets. We see a lot of grass clippings, leaves and brush, which block stormwater systems and result in increased flooding.

We need to educate people about stormwater runoff and how to maintain their structural stormwater Best Management Practices (BMPs). One excellent maintenance practice would be to keep inlets clean of debris. I have found that people don't think about stormwater until it's too late. They need to look at the topography and understand the dynamics of stormwater runoff. People also need to check with the municipality.

Rimer: The major issue in West Hanover Township is the stormwater impacts of past development. The question is "What are the stormwater impacts to adjacent property owners?"

Also, are developers doing what they are supposed to do to properly manage runoff? Since 1996, we have had nearly 1,200 homes constructed in the township. This magnifies current problems with outdated stormwater piping, and results in increased wear and tear on the systems, greatly increasing maintenance costs.

Another issue of managing increased runoff is encroaching on private property - who, public or private, has the responsibility to deal with stormwater problems? However, we are very fortunate in the township, as most new development is built under new stormwater regulations and is done properly.

Q: Does the township experience any stormwater damages? How frequent are these damages?

Cornell: Homes built in the floodplain prior to the establishment of floodplain regulations routinely experience flood damage. People living in the floodplain are not happy about paying for flood insurance.

We preclude building in the floodway and were fortunate to receive a Federal Emergency Management Agency (FEMA) grant to remove three houses in the floodway. We plan to purchase and remove additional houses located in the Spring and Swatara Creek floodways. In addition, we need to reduce the frequency and severity of flooding in the township. We have an Act 167 stormwater plan for Spring Creek, which has been quite successful in dealing with stormwater problems.

Rimer: We experienced some major culvert damage. This occurred in a rural area and was attributed to Hurricane Ivan. This type of damage is usually associated with the largest rain events.

(Continued on reverse)

Population by Municipality

	Swatara	West Hanover
Total Area	14.8 sq.mi.	23.4 sq.mi.
Population (2000 Census)	22,611	6,505
Population Density (per sq. mi.)	1,704	278

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Q: What is the root cause of stormwater problems in your township? What needs to be done to address these causes?

Cornell: I believe there is a great deal of public misunderstanding regarding the purpose of stormwater devices. I think the key is to educate the public about stormwater runoff. Townships can not do it alone; we need state, county, and school involvement. Hopefully, we can get new ideas incorporated in laws. We also must consider groundwater recharge and getting critical information on television.

Rimer: Nature often pushes the limits of what we can handle. We need to maintain good maintenance programs and vigorous monitoring of private systems.

Q: Do you feel state and county stormwater management efforts have been effective in controlling stormwater runoff?

If not, what could they do to increase their effectiveness?

Do you think more regulations are necessary?

Cornell: The state authorities need to be more effective and do more than dictate. The county government is effective but doesn't have any teeth.

Rimer: The Act 167 stormwater plan has been effective for the township. The state and county have been helpful to the township in drafting effective stormwater ordinances. However, we need to address retrofitting stormwater Best Management Practices. What is being done?

Q: To what degree does increased runoff from development contribute to nuisance flooding?

Cornell: Increased runoff from development has significantly contributed to flooding in the township. Our stormwater ordinance has changed over time to reflect greater runoff.

Rimer: New development does not contribute much increased runoff in West Hanover Township because of our stormwater ordinance and standards. We only have problems at excessive rain events.

Q: Is there sufficient coordination of efforts among state, county and township stormwater management officials?

Cornell: There is constant communication between the county and township.

Rimer: I believe there is sufficient communication. We are well informed on the latest stormwater issues and techniques.

Q: What do you think could be done at all levels to improve stormwater management?

Cornell: We need more coordination on implementation of Act 167. The state must make a greater commitment to supporting local stormwater management efforts. This includes funds for retrofits. We also need more mitigation work and updated floodplain maps.

Rimer: We must continue to educate our citizens and developers on the numerous benefits of protecting our water resources.

Q: Can you estimate the annual costs of stormwater damage to the township? To the general public?

Cornell: A home in the township recently experienced \$37,000 in damages from a stormwater event. It costs the township about \$60 per ton to clean up stormwater debris.

Rimer: A major storm in the township can result in approximately \$50,000 to \$100,000 in damages.



Left: Rain garden at Fairville Park, West Hanover



Left corner: Rock waterfall incorporated into the rain garden design

Q: What techniques/strategies does the township use to manage stormwater?

Cornell: The township employs our Act 167 ordinance, FEMA grants, grass lined swales and educational newsletters to manage our stormwater.

Rimer: We use a multiple approach to managing our stormwater that includes our

subdivision, zoning, open space, stormwater, and floodplain ordinances. The township strives to protect wetlands, riparian areas, and other sensitive areas. In addition, we have a regular maintenance program for our stormwater facilities.

Q: In regards to stormwater, what advice would you have for municipalities that are beginning to experience development?

Cornell: I would advise them to make sure they are part of an Act 167 plan. Also, make sure your stormwater management ordinance is strong. Work closely with the county professionals. In addition, have a competent township engineer who is very competent in stormwater management.

Rimer: They need to adopt and apply stormwater standards. They also should have a goal of maintaining quality water resources. There are effective tools out there and they should use them. Employ innovative ways to develop commercial and residential projects.

The Dauphin County Conservation District wishes to sincerely thank Paul Cornell and Michael Rimer for taking time out of their busy schedules to give us their perspective on stormwater management.

Next Issue: Stormwater Regulations