

## **D Kelly O'Day**

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**From:** "D Kelly O'Day" <dkod@comcast.net>  
**Date:** Monday, March 18, 2013 1:34 PM  
**To:** "Howard Neukrug" <Howard.Neukrug@phila.gov>  
**Subject:** PWD Floatables in Tacony Creek

Howard:

I'd like to discuss my concerns about PWD's potential contribution of trash to the Tacony Creek and my suggestion for how to determine whether significant trash loads are coming from PWD's CSO and MS4 outfalls in the Tacony Creek.

### **Reasons for Concern About PWD Floatables Contribution:**

I started looking at Tacony creek trash around Tacony Creek Park last August and quickly jumped to the conclusion that the CSO's must be the source. I was just as quickly convinced by Joanne Dahme and Bob Serpente that PWD's inlets were trapped and could not be contributing much floatable material to the Tacony.

As I continued to walk the Creek, I found more and more trash and I found clear evidence of 2 PWD separate storm sewer outfalls with clear evidence of trash:

- T-080-02 You can find my photo surveys [here](#)
- T-080-03 and [here](#).

These 2 outfalls show that some trash is getting through the trapped inlets and being discharged to Tacony Creek from these 2 separate system outfalls. No idea on whether this is an isolated situation or an example of a more common problem.

My next step was Mill Run Creek and the extensive trash build-up downstream of Cheltenham Ave. My photo survey is [here](#). The trash pattern makes me suspect some trash is coming from PWD outfall, however, there is also a 15" Cheltenham storm sewer outfall close to Cheltenham Ave so it will take additional analysis to pin down PWD and Cheltenham loads.

My most recent survey of Rock Creek is consistent with my concern about PWD trash, the photo survey is [here](#). Having looked at the pattern of creek trash and drainage to Rock Creek, I suspect PWD contribution may be significant.

So I have 2 PWD MS4 outfalls with trash; 2 creek segments with extensive trash and mix of PWD and Cheltenham outfalls, so no proof one way or the other.

### **Spacing of Tacony Creek Trash Creek**

As I try to figure out where the Tacony Creek trash comes from, I keep returning to the spatial distribution of trash along the Tacony. If you walk from Adams Ave to Whitaker Ave, you notice a significant increase in creek trash as you proceed downstream, with dramatic a dramatic increase just upstream of Roosevelt Blvd, near T-08. While the Lower Tookany Creek has a trash load, it is simply not enough to explain the Tacony trash load. There is a significant trash contribution in the City, more than I believe can be explained by illegal dumping and overland flow trash contributions.

### **How Can We Monitor Outfall Trash Contributions?**

We need hard data to see whether or not PWD outfalls are contributing significant trash loads to the Tacony Creek. Here is a simple proposal to get some basic data.

I propose that we use a series of simple, rugged time lapse cameras at key outfalls to photographically monitor outfalls discharges to qualitatively assess trash discharges from the target outfalls. I am testing a field time lapse camera ([link](#)) and believe that these relatively inexpensive (\$175) units could help to show the outfall conditions during/ after rain events. While we can not get quantitative measurements, the camera could qualitatively resolve the question of whether or not PWD outfalls are contributing trash to the Creek. Time lapse photos of an outfall over several storms that showed no trash discharge would remove the outfall as a suspect source. On the other hand, photos that show an outfall had trash discharge would indicate that that outfall needs further evaluation.

I would like to do a joint test of this approach with PWD. I will furnish the camera and my time, I ask that PWD assign an engineer to work with me to set up the camera in a reasonable test situation on a PWD Tacony Creek outfall. The goal is to determine whether PWD could use time lapse photography to help evaluate potential trash discharges outfalls. These "[trail cameras](#)" run on batteries, are water proof and can be left unattended for extended periods. My biggest concerns with this approach are camera theft and the ability of the camera to pick up bags and other trash in the outfall discharge.

I'm ready to go, I just need a designated PWD partner, plan for which outfall to monitor, some camera concealment and a rain storm.

While this may seem like a small item in PWD's large agenda, creek trash is a large problem and it would be a good idea to get the best information we can on outfall trash discharges that we can.

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