

Dear Mr Bahr,

This testimony is about irregularities in sewer capacity evaluation in regards to the Jones Falls Sewershed that I believe violate Adequate Public Facility Ordinances, the 2005 Consent Decree with Baltimore County (BCCD), and the Jones Falls Sewershed Repair, Replacement and Rehabilitation (SRRR) Plan. I believe these irregularities also affect the stormwater system efficacy. Recently, an example of adequate public sewer capacity evaluation by Baltimore County Department of Public Works for permitting new development was provided to me. This was as a result of a subpoena requesting documentation for evaluating adequate public sewer capacity for a housing development project in East Towson called Red Maple Place that would discharge additional sewage to the Jones Falls Sewershed.

This documentation is inconsistent with specific requirements for long-term capacity/peak flow management evaluation in the BCCD, adequate sewer capacity evaluation in EPA and sewer literature, and standards for professional and competent sewerage management. It has also been concealed despite numerous documented requests, including requests by MDE, Delegate Dana Stein, and others, including PIAs, for over three years.

BCCD and EPA literature requires using wet weather/peak flows capacity evaluation using a calibrated hydraulic model based upon future conditions in order to evaluate system deficiencies, especially SSOs (sanitary sewer overflows).

Rainfall-dependent infiltration and inflow is a scourge of sewer systems, causing excessive sewage flows, surcharging and SSOs. However, the Baltimore County documentation, only recently disclosed – and purporting to be all that was available with respect to the County's evaluation of potential project impacts on the Jones Falls Sewershed, indicates:

- their capacity evaluation is under essentially dry weather conditions (only base infiltration - no inflow or storm impact evaluations)
- their population is only based on "recent" levels (2017), not adjusted for reasonable future conditions (and appears to exclude population associated with the largest tributary - Roland Run - interceptor)

The attorney who sent the subpoena that forced the production of the heretofore secret documentation, followed up in a call with the responsible Department of Public Works (DPW) sewer engineer and a County attorney, where DPW confirmed:

- dry weather conditions are their standard for capacity evaluation for new development
- they don't consider wet weather/storms and peak flows that result from them (INFLOW column in their tables are blank)
- they don't consider future conditions with respect to population and employment growth additions to Jones Falls Sewershed
- based upon this, they only look at percentage full over 100% during dry weather flow as inadequate capacity, ignoring the requirements for evaluation of the significant effects of wet weather conditions.

I reviewed this with an independent engineering expert who confirmed this is woefully inconsistent with standards (and logic) as evidenced by the percent full (of capacity) for pipe segments in Lake Roland Park during dry weather and wet weather, including a number of those that were over 100% of capacity

for all five rainstorms evaluated by RK&K in 2012 (Baltimore County's own sewer design policy maximum is 90%).

Here is one example from the County's RK&K analysis of pipe 6888-6887 that flows for 2,927 feet under Lake Roland:

- the attached DPW's tables say this pipe is 48.73% full based on 2017 conditions
- the 2012 RK&K reports said for dry weather flows under future conditions, this was between 40-50% full
- the 2012 RK&K reports said for wet weather flows under future conditions, this was:
  - 102% for a 2 year/6-hour storm
  - 125% for a 2 year/24-hour storm
  - 125% for a 10 year/6-hour storm
  - 142% for a 10 year/24-hour storm
  - 144% for a 20 year/24-hour storm

I am providing more information for your investigation and evaluation in the Appendix that follows. My questions to you are:

- how can a previously concealed method actually used by the County internally for capacity evaluation for new development be so different from what is clearly prescribed by EPA/MDE?
- what, if any, information does DPW have to show that their rejection of RK&K's analysis of sewer incapacities during heavy storms was appropriate?
- what assurances could possibly be provided that this previously concealed dry weather flow methodology has any efficacy and reliability for achieving the goals and objectives of the 2005 Consent Decree and stormwater permits?
- Are there consequences for stonewalling and concealing information requested by state officials and citizens over two-three years?

Thank you for your consideration of this written testimony.

Sincerely, Tom McCord  
Thomas B. McCord  
902 Malvern Avenue Towson, MD 21204

#### Appendix

##### 1. Documentation from Baltimore County of adequate public sewer capacity evaluation for Red Maple Place

1. JF45580Maple for Towson Run interceptor (converges with Roland Run and Upper Jones Falls interceptors at manhole 6888)
2. JF450000Maple for Upper Jones Falls interceptor that includes Towson Run flow and continues to its exit at Baltimore City line

2. Note the cumulative population reflected on page 1 column 4 of JF450000Maple is 53,112, which is <60% of the 90,000 population used in RK&K's 2012 SRRR Plan the Baltimore County said was from year 2000

3. Note the manhole numbers of pipe segments reflected on page 5 of JF450000Maple columns 2 and 3, and the percent full in column 11; compare these to wet weather percents on the graphic (3rd attachment) for some of these pipe segments from the 2012 RK&K work

4. The 2012 RK&K work used very old and outdated population and employment data and excluded substantial planned Towson growth (that DPW has said requires a relief sewer for Towson Run) for its future 2025 conditions. What would the RK&K long-term capacity/peak flow management evaluation and SRRR for the Jones Falls Sewershed reveal if based upon reasonable population and employment assumptions? The 2020 Triennial Review?

5. Baltimore County has said a relief sewer is needed for Towson Run because of substantial Towson growth and, after many surveys, included a phase of this in the 2017 Triennial review, which was constructed. However, if you look at

1. JF45580Maple pages 5 and 6 column 11 for percent full of the pipe segments, with only few exceptions for smaller pipes, they are all under Baltimore County's maximum design standard of 90%, and
2. the RK&K graphs for 10 and 20 year/24-hour storms in 2nd and 3rd page of the 3rd attachment, there are no relief sewers reflected for Towson Run - only for Upper Jones Falls and downstream to City. Therefore
3. the population (and employment) growth for years 2025-2030 must be substantial (and based upon wet weather conditions) in order to require planning/construction of a Towson Run relief sewer that was not called for in the largest storm evaluated by RK&K and SRRR

6. As a result of a meeting with MDE and Secretary Ben Grumbles on 5/25/2018, where it was indicated that the SRRR Plan for the Jones Falls Sewershed was invalid, Secretary Grumbles asked Dana Stein's office and the Adequate Public Sewer Workgroup to provide questions for MDE to send to Baltimore County Department of Public Works (DPW) for an meeting that occurred on 8/23/2018. It was a very disappointing meeting, with DPW continuing to stonewall and not address the attached questions provided them

7. In 2019 an administrative law judge ruled against the Bluestem development solely on the basis of inadequate sewer capacity based upon testimony of an independent sewer engineering expert largely about evidence from the 2012 RK&K work. This was upheld upon appeal. In those proceedings, DPW represented that there had been independent modeling of potential sewer flow capacities on which it relied (other than the RK&K report)—but never produced any such documentation in response to numerous document requests. We now have good reason to believe it was nothing more or less than the dry weather flow calculation produced in the Red Maple proceedings.

8. In 2019, a retired utility contractor for sewer spotted evidence of an SSO in Lake Roland Park at the very manhole where RK&K had predicted SSOs exceeding 1 million gallons in large rainstorms. Baltimore County reactions were bizarre but after some publicity the SSO was ultimately reported to MDE

9. An example for how documentation for Red Maple compares to RK&K's work for pipe 6882- 6883 below the Lake Roland Dam, where SSOs > 1 million gallons were predicted in large rainstorms, and evidence of an unreported SSO was discovered in 2019, follows:

1. the attached DPW's tables say this pipe is 50.96% full based on 2017 conditions

2. the 2012 RK&K reports said for dry weather flows under future conditions, this was >50% full
3. the 2012 RK&K reports said for wet weather flows under future conditions, this was:
  1. 357% for a 2 year/6-hour storm
  2. 440% for a 2 year/24-hour storm
  3. 450% for a 10 year/6-hour storm
  4. 456% for a 10 year/24-hour storm
  5. 456% for a 20 year/24-hour storm

10. Senator Chris West convened a meeting with DPW on 9/3/2019 that included Dana Stein's office and yours (Izzy Patoka's for District 2), where the extended failures to get answers was addressed by Dana Stein's office. DPW said they would provide (auditable) capacity analyses and population and employment numbers

11. Nothing requested for documentation of sewer capacity evaluation and updated and reasonable population and employment has been provided except for the attached spreadsheets for Red Maple

12. We have also noted DPW inconsistencies about representative rainfalls, force majeure thresholds used by DPW in BCCD reporting for excessive rainfalls, and that we don't believe they know what level of storms are and aren't protected by their SRRR work

Our well tested hypotheses: The SRRR for the Jones Falls Sewershed has been/is invalid and must be updated under the 2005 Consent Decree, and remain under the full review and approval of EPA/MDE. Baltimore County capacity evaluation for permitting substantial new development, in violation of all standards of good practice (including those mandated by BCCD), has been illegally based upon only dry weather flows and excludes reasonable future population and employment assumptions. Rainfall data and information for public review is absent. DPW does not provide assurances that violations of the Clean Water Act and Maryland water pollution laws won't occur. As a result, there is, and has been, inadequate public sewer capacity for permitting continued development, which violates APFO and Smart Growth policy.

Further on rainfall data and information: DPW published an article "When it rains it floods - why now?" that states "an astounding 71 percent" increased (intense, multi-day events) rainfalls in our region. This article was in context of DPW stormwater management, but is at clear odds with their various representations on rainfalls for County sewer evaluation and plans. In the SRRR submitted to EPA/DOJ/MDE, the County decided not to address the worst predicted overflows from the more severe storms evaluated by RK&K under the Decree. Its rationale for doing so, violated the intent of the BCCD, and was technically unsupported by any County evaluation. Despite being told orally that the County did not believe it had any documentation to support its claim that it had performed a technical evaluation justifying its rejection of the RK&K analysis for those heavy storms, a concerned citizen group gave the County an opportunity to show anything it might have to support its decision, by providing a detailed request pointing to the many specific issues it would have had to address if any such analysis had been performed. Requests were also made for specific rainfall history data and clarity as to what the County threshold is for characterizing rainfalls as force majeure due to excessive rainfalls. We have yet to receive ANY of the requested information.