

From: [Greg Smith](#)
To: [Clerk of the Council; Brown, Donna J.](#)
Cc: sustainhyattsville@gmail.com
Subject: Suffrage Point DSP 21001 - Supplemental Comments Regarding Climate Change and Floodplains Part 2
Date: Monday, March 4, 2024 5:04:29 PM
Attachments: [DPIE and the Planning Board Relied on Highly Obsolete Data.docx](#)
Importance: High

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Dear Ms. Brown,

Please confirm receipt of the attached comments.

Sincerely,

Greg Smith
(240) 605-9238

DPIE and the Planning Board Relied on Highly Obsolete, Decades-Old Precipitation Data

Stormwater management plans and FEMA floodplain maps and risk projections generally rely on precipitation data that are appallingly obsolete and on models that often ignore potential sources of flooding. The National Oceanographic and Atmospheric Administration's Atlas 14 is "the precipitation bible" for managing stormwater and mapping 100-year floodplains. Engineers and agencies use those data to guesstimate the intensity, duration, and frequency of storms, and so-called "100-year storms" are used to map 100-year floodplains.

The problem is that the precipitation data in the Atlas 14 volume that covers Maryland, the District of Columbia, and about a dozen other states in Mid-Atlantic Region and the Ohio River Basin are no newer than 2000, and much or most of the data are much older than that. Relying on data that obsolete may be akin to scheduling major surgery based on X-rays that are a quarter-century old.

In its June 26, 2023 report entitled [*The Precipitation Problem*](#), the First Street Foundation found that roughly 75 percent of the weather stations covered by Atlas 14 nationwide presented precipitation data from 1980 or earlier, and roughly 15 percent presented data from 1965 or earlier. Comparing our climate reality with Atlas 14's projections, First Street also found that *Atlas 14's so-called 100-year storms already are occurring every 13 years in Baltimore and every 21 years in DC*. While this report is not in the Planning Board record, its findings are highly relevant.

Technical Memoranda Issued by DPIE in February 2022 and July 2023 Require Engineers to Use Higher Rainfall Intensities to Delineate Floodplains and Design Stormwater Facilities

In responding to the Council's May 2023 remand of DSP 21001, DPIE issued Werrlein a new Floodplain Waiver Letter on July 25, 2023. DPIE based that waiver on the July 2018 Floodplain Study that Dewberry developed for Werrlein. In their responses to the Council's remand, DPIE and Dewberry have stated that Dewberry's Floodplain Study matches FEMA's, which means that it suffers the same serious flaws – relying on badly obsolete precipitation data, and ignoring several potential sources of flooding on this property and in the surrounding community.

DPIE is well aware that the Atlas 14 precipitation data the County has relied on are obsolete. On July 28, 2023, just *three days* after it issued that Waiver Letter, DPIE issued a critical revision to Techno-gram 007-2016, requiring engineers and agencies mapping 100-year floodplains to use updated precipitation data with a significantly higher rainfall intensity – 15 percent higher – 24-hour storms. This followed a February 2022 revision of Techno-gram 007-2016, in which DPIE required engineers and agencies to use the same higher intensity when designing certain stormwater management systems. Here is a relevant excerpt from DPIE's July 28, 2023, revision. Please see Climate Exhibits for a copy of that techno-gram.

TECHNO-GRAM

**007-2016
REVISED**

SUBJECT: Application of 24-hour rainfall intensity of 8.5 inches versus 7.4 inches in computing discharge for 100-year storm events

PURPOSE: The purpose of this Techno-gram is to change the requirements pertaining to 24-hour rainfall intensity of 8.5 inches versus 7.4 inches in computing discharges for 100-year storm events

SCOPE: The scope of this Techno-gram is to establish the revised stormwater management requirements as required per the Prince George's County Code, Section, 32-180 and administered through the Prince George's County Department of Permitting, Inspections and Enforcement (DPIE)

The following is a revision to this previously issued Techno-gram 007-2016. This change in rainfall requirements shall apply for all calculations submitted to Prince George's County Department of Permitting, Inspections and Enforcement (DPIE). The 24-hour rainfall intensity of 7.4 inches and Type II rainfall distribution constitutes the historic precipitation standard used in Natural Resources Conservation Service (NRCS) Soil Conservation Service (SCS) Methodology to compute the 100-year discharge in Prince Georges County, Maryland. The original techno-gram issued in February of 2022 required the use of the higher 8.5-inch rainfall intensity for storm drain and stormwater management systems. With the issuance of this techno-gram, the 8.5-inch rainfall intensity shall be used for all systems, including floodplain studies and major culverts and bridges.

Last Edited Date July 28, 2023

To our knowledge, there is no evidence in the record that Werrlein, DPIE, Planning staff, or the Planning Board made any attempt to address this serious issue. On cross-examination at the Planning Board's hearings, neither Werrlein's representatives nor Planning or DPIE staff identified any evidence that Werrlein or the agencies had incorporated recent precipitation data, considered projections of climate-driven storms, or otherwise taken climate change into account.

If or when Werrlein's stormwater management or flood mitigation fail, the company will have pocketed its profits, and the public will be left bearing the social, environmental, and economic costs. Even if the people who buy those luxury townhouses perched on top of multiple feet of fill stay high and dry, at least for a while, people who live nearby on lower land probably won't be so lucky. Neither will our local parks, streams, and roads.

So why have DPI