

Hearing Statement from Thomas P. Harvey^{AICP}
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My educational background includes undergraduate degrees in Environmental Science and Landscape Architecture and a Master's in Environmental Science from SUNY College of Environmental Science and Forestry. I have chaired a local town planning board bordering Canandaigua Lake for over 30 years and have over 35 years professional planning experience including providing many educational programs for local planning and zoning boards, staff support to our County Planning Board, and managed many storm water mitigation and management projects for Ontario County.

While superstorm Sandy and the impacts of the International Joint Commission's Plan 2014 have brought the impacts of climate change on the severity and frequency of flood events to the forefront of state and national conscious, these large scale shoreline flooding events mask the upstream causes and the smaller scale events that municipalities deal with almost every day. The causes of flooding are not the shoreline; regulations and funding need to address entire watersheds. The state of our current storm water regulations, implementation of storm water facilities through local planning boards, outdated data on which storm water runoff calculations are made, and a scarcity of funding for remediation projects have all contributed and continue to contribute to a growing problem in New York State's rural areas. Specifically:

1) DEC Stormwater Phase II Regs

- a. specify new residential subdivisions be designed to the 15-year design storm. Thus, on average twice during the life of a 30-year home mortgage the storm water facilities in your neighborhood will be overburdened. Most owners have no flood insurance to cover any damage because the property is not in a flood plain. Further, those regulations only apply when more than an acre of land is disturbed, so there are no requirements for single lot development. Finally, designing storm water infrastructure to a 15-year standard just ensures creation of flooding issues as the cumulative effects move downstream.
- b. are not clear on the responsibility of landowners to accommodate existing detention and upland flow through their property. For example, Ontario County Planning worked diligently on a project straddling the border of the town of Manchester and village of Shortsville. It took us several iterations before the licensed engineer produced drawings with sufficiently sized detention ponds to replace the storm water detention that was naturally occurring on the property pre-development. If it was not for the input from the County Planning Dept. and our involvement through our Office of Economic Development, the town and village would have accepted storm water detention facilities 1/3 the size they needed to be and would have resulted in significant flooding of adjacent residential properties and storm water discharge spikes into Canandaigua Outlet.
- c. contain no requirement to model the local watershed of which a project is a part. A small stream, ditch, hillside discharge point, whatever the local area contributing flow through a property that a project will impact should be modeled and can be easily to determine the impact on downstream development and infrastructure. In example, Ontario County had direct experience with a municipality reviewing a subdivision on a hill overlooking Finger Lakes Community College (FLCC). Fourteen years ago, the County created a hydrologic model of the entire small watershed this project was located within to design storm water detention and water quality treatment for FLCC facilities. The

County was responding to complaints from downstream Canandaigua Lake shoreline owners' contentions that FLCC was the source of their flooding issues, and installed adequate facilities to mitigate FLCC property runoff. The County project did not eliminate flooding in the Canandaigua lake shoreline area because of further upland development. Now another residential subdivision was proposed upland and the town approved the first phase of the subdivision with no storm water mitigation, no SPDES general permit registration, and no SWPPP. During review of the second phase and the County and FLCC staff appearing before the local planning board with the hydrologic model, phase II was required to have rain gardens installed on individual lots to mitigate storm water runoff. While a significant step forward, the basis of design mitigates a 15-year design storm for each individual lot and there was still no acknowledgement of the need to comply with the statewide general SPDES permit nor any mitigation of phase I. And the near shore flooding continues to be a problem.

- 2) There is a lack of understanding and implementation of the DEC storm water regulations by many municipal planning boards:
 - a. Once an engineer or other design professional states, "the design meets DEC Phase II storm water requirements," local boards normally end their review of storm water management on a development application. We rarely if ever see boards require or have their municipal engineer examine the adequacy of infrastructure downstream or in the small watershed they are within as a whole. Again, once a rain event exceeds the 15-year design storm, discharge rates will exceed predevelopment conditions and the cumulative downstream impact often overburdens downstream infrastructure.
 - b. Many local boards errantly assume that since the lots get developed one at a time, and each lot is less than an acre, the project is exempt from complying with the statewide general SPDES (state pollution discharge elimination system) permit for stormwater discharges during construction and thus do not require a Storm Water Pollution Prevention Plan (SWPPP). Sadly, many engineers, surveyors, landscape architects, architects, and developers perpetuate that misinformation in their presentations to local boards to convince them that no storm water management facilities are required.
- 3) Few municipal zoning laws and subdivision regulations require no net increase in stormwater discharge rates or quantities after construction, and those that do often use a 10 or 15 yr. design storm in their requirements. The County Planning Board sees a lot of municipally approved subdivision and site grading plans that just dump stormwater AND basement sump pump and foundation drains into roadside ditches where it becomes a town, county, or state issue. We need to break that mindset about positive drainage from a site and the acceptability of dumping runoff into roadside ditches. Designing adequate storm water facilities should be mandatory for all development, even on individual lots.
- 4) The rainfall intensity for our region (used in calculating runoff amounts from design storms) is outdated. The increase in intensity and frequency of severe weather events over the last few decades bears out the need for updating the data engineers use to calculate storm water runoff during the 10, 25, 50, and 100-year storm events. Outdated runoff intensity figures result in undersized storm water management facilities, and individual deficiencies are compounded downstream.
- 5) Existing funding through Water Quality Improvement Grants is inadequate and new rules have made upland storm water management projects ineligible for funding. WQIP (Water Quality Improvement Project) grants have historically provided much needed funding for upland storm water management projects implemented by the County and several agencies within the County. WQIP program changes implemented last year divided projects into two categories,

one for planning and design, the other for implementation. Implementation grant applications now require engineering designs to have been completed. At the same time, planning & design grants have become more restrictive and upland storm water management projects have become ineligible for funding. In example, in 2019 our Soil & Water Conservation District submitted a WQIP application for the Kashong Creek Detention and Water Quality Improvement Project. This project is identified as a priority in the Seneca Lake Watershed Management Plan to mitigate high flow rates that cause erosion that degrades water quality in a major lake tributary. The project was deemed ineligible for WQIP funding despite DEC Region 8 staff had reached out to ensure SWCD was submitting the grant application for what they considered a very important water quality improvement project. At the very time we should be doing more to replace stormwater detention within our watersheds, changes to the WQIP program have made these very projects ineligible for funding.

Either WQIP grant program requirements need to be rewritten or the state should consider making rural storm water management projects eligible under an explicitly earmarked program. Either way an increase in funding is needed as even historic WQIP funding levels are inadequate to fund the number of projects that counties and their partners are willing to design and construct. State funding is vital to retrofit existing situations that cannot otherwise be mitigated that push their impacts onto shoreline owners.

- 6) Storm water runoff from agricultural land is an issue in rural areas. The agricultural community needs to recognize its contributions to cumulative storm water impacts and additional funding needs to be made available to assist farmers in mitigating those impacts. In addition to historic ditching and drainage projects, the farming industry continues to make drainage improvements, opening old ditches, digging new ones, and tiling fields. Competition means each farm needs to maximize its yields. Larger farm sizes lead to larger farm equipment and tighter windows for finishing field work. Both historic and new drainage projects that do not include detention or recharge of groundwater add to peak flows and reduce the base flow in local streams. As a recognized normal farming practice, drainage work within County Agricultural Districts is locally unregulatable and no federal assistance programs require any type of compensating detention, ground water recharge, or other measure. It is accepted practice to outflow field tiles directly into the roadside ditch or local stream. Do not get me wrong, there are many agricultural operators who voluntarily give up land for storm water mitigation projects, but they are not the majority, and most don't give the issue a second thought.

In most rural upstate counties agriculture remains a dominant economic driver and the dominant land use in many watersheds. Agriculture is vital in preserving the rural atmosphere so important to our quality of life, but its sheer size makes it an important component of storm water management on a watershed wide basis. Thus, programs that provide funding for making drainage improvements on farms need to include provisions for creating compensating detention and recharge areas and financial support for creating them. At the same time farmers need financial assistance in creating storm water management facilities to compensate for historic drainage improvements that exist on farms. We need to expand funding for storm water mitigation on farms, promote that as part of whole farm planning, and work through our local agencies to identify farms and projects to implement.

- 7) BRIDGE NY funding needs to continue to support the replacement of undersized culverts as municipalities continue to deal with cumulative impacts of inadequate upstream storm water management. This funding stream is important for Ontario County as I am sure it is for other counties in replacing currently inadequately sized culverts to ensure our road infrastructure remains functional during major storm events. These culverts are often very large and used in lieu of small span bridges and are an important and integral part of our storm water conveyance

and management systems. Often, these facilities need to be expanded as much to accommodate additional flow as to ensure that debris does not accumulate. Allowing the purchase of permanent easements to remove debris needs to be an eligible project expense.

In summary:

- A) Expanded funding is needed to provide storm water mitigation up in the watershed where it is most effective and not just at the shoreline for both municipalities and for agricultural operators (farmers).
- B) State regulations need to be updated to ensure that new development is having a no net impact on storm water discharge rates and quality to eliminate the need for future after the fact mitigation.
- C) More education and guidance are needed for local planning boards and design professionals to clearly understand state regulations and implement storm water regulations at the local level.
- D) We need to stop approving designs for new facilities that do not adequately incorporate storm water mitigation throughout our watersheds. The problem isn't just at the shoreline.

Thank you