Dear Ms Merchant, Commissioner Beggos and Governor Cuomo,

I write today to comment on the Wetlands Remediation Plan for Hakes Landfill Facility ID No. 8-2648-0014, attached. I will conclude with summary remarks about Casella's entire application to expand the Hakes Landfill.

Reading the wetland mitigation proposal, I was immediately alerted by the reference to 'palustrine emergent wetlands.' These are very valuable wildlife resources, largely snow free during winter, affording access to grasses and other ground-based food. <u>"Part 1: Wet land Wildlife Values</u>," Amy Marrella, Acting Commissioner, Connecticut Department of Environmental Protection, Wildlife Division, pg 20: Seeps are a relatively common Palustrine forested wetland sub-class found in the ledge rock and basalt hill areas of CT. *They are often inconspicuous in the landscape* [emphasis added]. Never the less, these shallow areas can be important for wildlife during severe winters as they tend be snow free and have very early vegetation.

And from "Conclusions," (pg 46) "Riparian zones connect fragmented habitats, provide cover, and protect stream banks." —<u>Part 1: Wet land Wildlife Values</u>," pg 20, Amy Marrella, Acting Commissioner, *Connecticut Department of Environmental Protection, Wildlife Division* 

All the palustrine emergent wetland areas that will be permanently lost (.95 acres) are noted in Casella's wetland remediation plan to be just such wetland seeps.

Secondly, this plan does not propose any mitigation of the loss other than compensatory action. An In Lieu Fee (IF) arrangement is proposed with The Wetlands Trust, in the Cohocton/Chemung Service area. That seems reasonable until one sees, in Figure 2 Area Maps beginning on page 10, that both the cell expansion area and the soil borrow area are located on opposing steep hillsides which drain into Erwin Hollow Creek, and contain the palustrine emergent wetlands which "discharge into the Tributary during storm events." It seems on the face of the matter that both the proposed cell and the soil borrow area are poorly chosen from the standpoint of terrain, soils, surrounding vegetation and wildlife impacts. The attempt to keep a landfill cell isolated from discharging into the creek during storms seems like a deliberate exercise in defeating gravity and hydraulics both at once. And taking soil from across the hollow to build, maintain and daily cap the cell likewise seems doomed to cause the loss of a substantial environment well outside the perimeter of the proposed permitted area.

On page 6, the remediation proposal states "Wetlands to be impacted by the proposed project were emergent wetland types with limited environmental functions due to their individual small sizes and lack of vegetative diversity (B&L, 2016)." Here again the proposal ignores both the unique value of these palustrine emergent wetlands but also the consequences of locating both a landfill cell and an associated Soil Borrow Area within about 250 yards of each other on the opposing steep hillsides of a creek running through a hollow. Digging and construction in such a geology inherently destroys the vegetative root system complex which has held the hillside relatively stable for decades and likely centuries.

There are no stated intentions to minimize damage to the surrounding environment. Indeed, there are no specified traffic routes between the proposed expansion and Soil Borrow Area. Since both are within Casella's property line one might well surmise that the vehicles moving soil from the Borrow Area to the expansion cell *will simply traipse the shortest distance* — making the trip some 250 yards down the ravine and across the creek rather than a much longer road trip —completely fouling and interrupting the integrity of the entire ravine and its waters from there downstream. This, in the middle of Erwin State Forest! Nothing in Casella's mitigation proposal even faintly suggests otherwise.

In positing that Casella's operations will disturb only a small area the authors of the remediation proposal admit they have no idea of the critical nature of the geological terrain they are dealing with, and conceive of no need to assure the Department of Environmental Protection ("Department") or the public of how their operations will be performed to minimize damage to the surrounding environment. Such ignorance sets the stage to precipitate a large sudden loss of soils, terrain, habitat, flora and fauna far exceeding the area they are asking permission to operate in.

Such loss might also precipitate, exacerbate or magnify considerable losses from the landfill itself into Erwin Hollow Creek during storms, as the proposal notes of the wetlands under consideration. This poses the unacceptable possibility, and perhaps high probability of the release of radionuclides into the Cohocton, Tioga and Chemung rivers, as well as Erwin State Forest, as Casella is also applying for permission to expand its acceptance of Marcellus shale cuttings.

The Marcellus shale is notorious for being one of the most highly radioactive shales of any shale gas play. Though the Department has doggedly refused to acknowledge it, it's refusal is not a credible rebuttal of the fact that the drilling process itself constitutes a rendering of materials that would otherwise be normal occurring radioactive material (NORM) into TENORM, technically enhanced NORM. Any mechanical handling of radioactive material that brings it into the accessible environment is by definition TENORM: Technologically Enhanced Naturally Occurring Radioactive Material (TENORM) is defined as, "<u>Naturally occurring radioactive materials</u> that have been concentrated or exposed to the accessible environment as a result of human activities such as manufacturing, mineral extraction, or water processing."—

"Technologically Enhanced Naturally Occurring Radioactive Materials (TENORM)," U.S. Environmental Protection Agency

Siting a further extension of a facility accepting TENORM as well as other "normal" wastes containing unidentified toxins and heavy metals on the steep slopes of wetland seeps that admittedly discharge appreciably during storms into a creek tributary to major rivers and town water supplies is asking for trouble without even knowing it, seemingly: None of their proposal treats the site's position on such terrain as any sort of engineering challenge requiring comment within their Supplemental Environmental Impact Statement or their Wetlands Mitigation Plan. To read their proposal, one might well conclude they were talking about a facility sited on dry flat land that had only a tangential relationship to a substantial riparian environment.

This is entirely unacceptable. I urge the Department to reject both this remediation proposal and the landfill extension application that Casella pretends would comply with the Department's mission to conserve the natural resources of New York and promote the health of its citizens and wildlife.

Sincerely, Dwain Wilder Editor, *The Banner* editor@thebanner.news