

Results of Regional PFOA Soil Study:  
*How Far Did PFOA Emissions Travel?*

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Last updated August 1, 2018



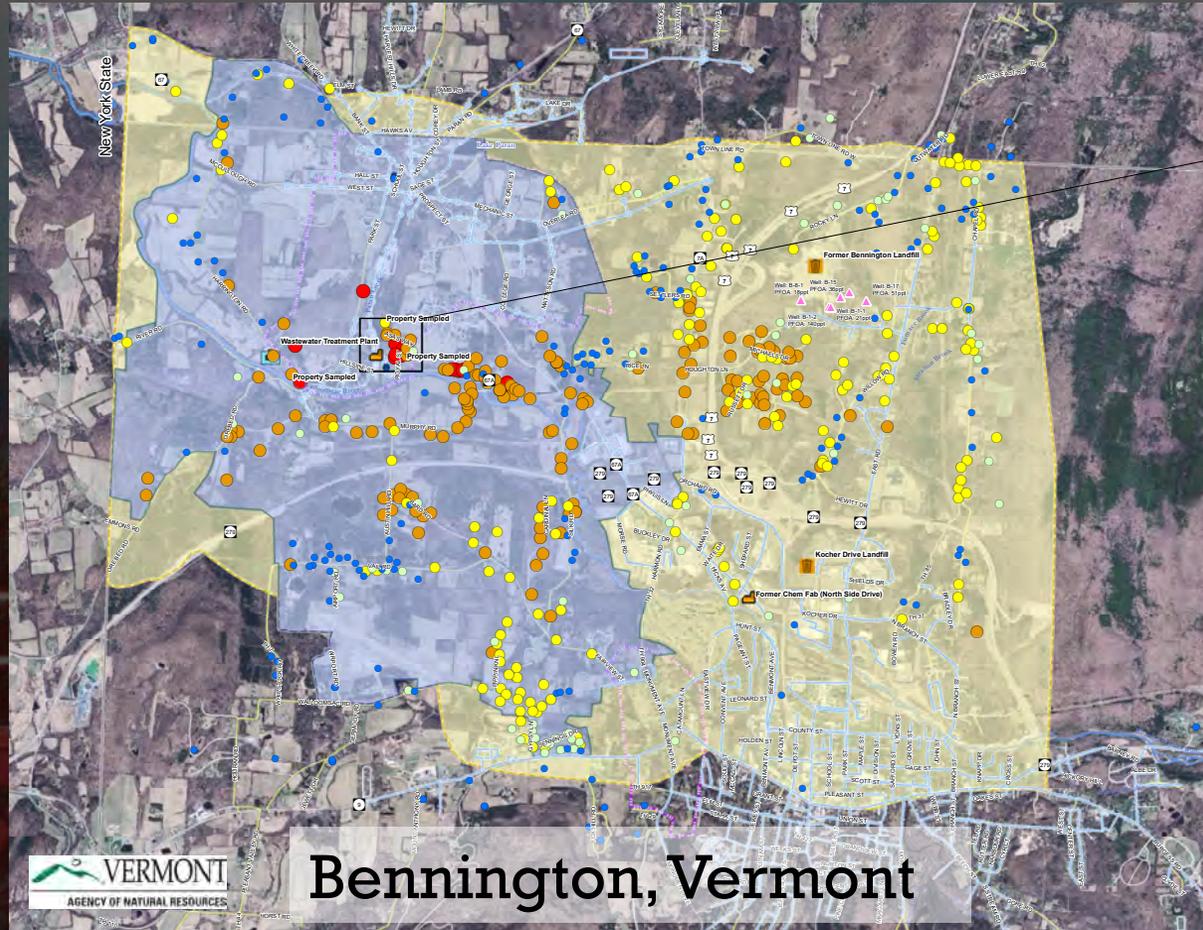
# PFOA emissions: *Corrective Action Area I* and *Corrective Action Area II*

## SAINT-GOBAIN's position:

Airborne deposition of PFOA was confined to neighborhoods immediately around ChemFab.

ChemFab emissions are partially responsible for PFOA groundwater contamination in *Corrective Action Area I* (blue on map), but emissions cannot explain groundwater contamination in *Corrective Action Area II* (yellow on map).

Saint-Gobain suspects PFOA leachate from the landfill is responsible for contamination in *Area II*.



## VERMONT DEC position:

Airborne deposition of PFOA from ChemFab extended throughout North Bennington, Bennington, and Shaftsbury.

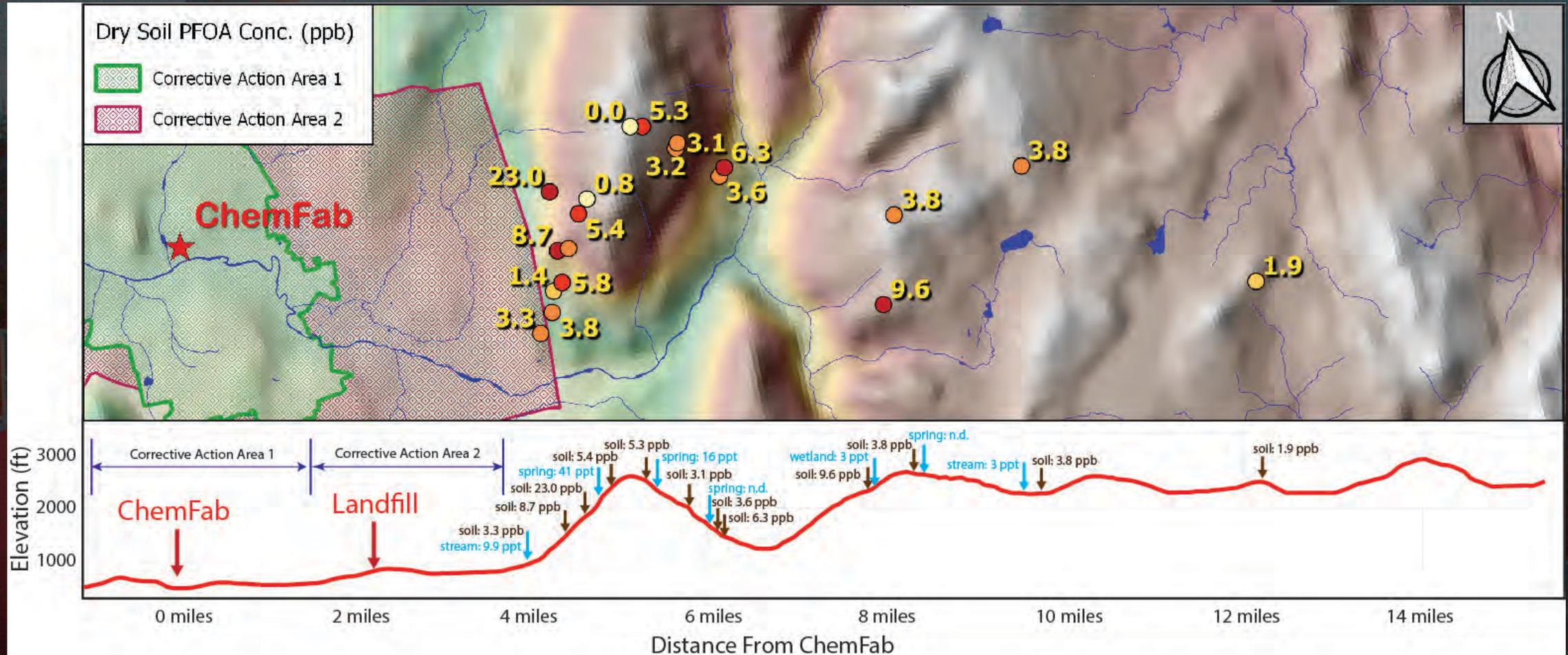
Emissions from ChemFab are the largest source of PFOA groundwater contamination in *Corrective Action Area I* (in blue) and *Corrective Action Area II* (in yellow).

How far did PFOA emissions from ChemFab travel? In our region, most data on this question has relied on groundwater samples. Taken from residential wells, groundwater samples have been found to contain significant amounts of PFOA from the New York State border all the way up to the Green Mountains (where the lack of residential wells has made continued sampling difficult). What if we focused on PFOA levels in soil instead? PFOA, which is nearly indestructible, binds to organic matter in soil. So, as the PFOA emissions fell back to earth, might those emissions have left a durable trace upon our region's soils?

# PFOA levels on Bald Mountain

Bald Mountain rises above Bennington just to the east of town and is home to the popular White Rocks hiking destination.

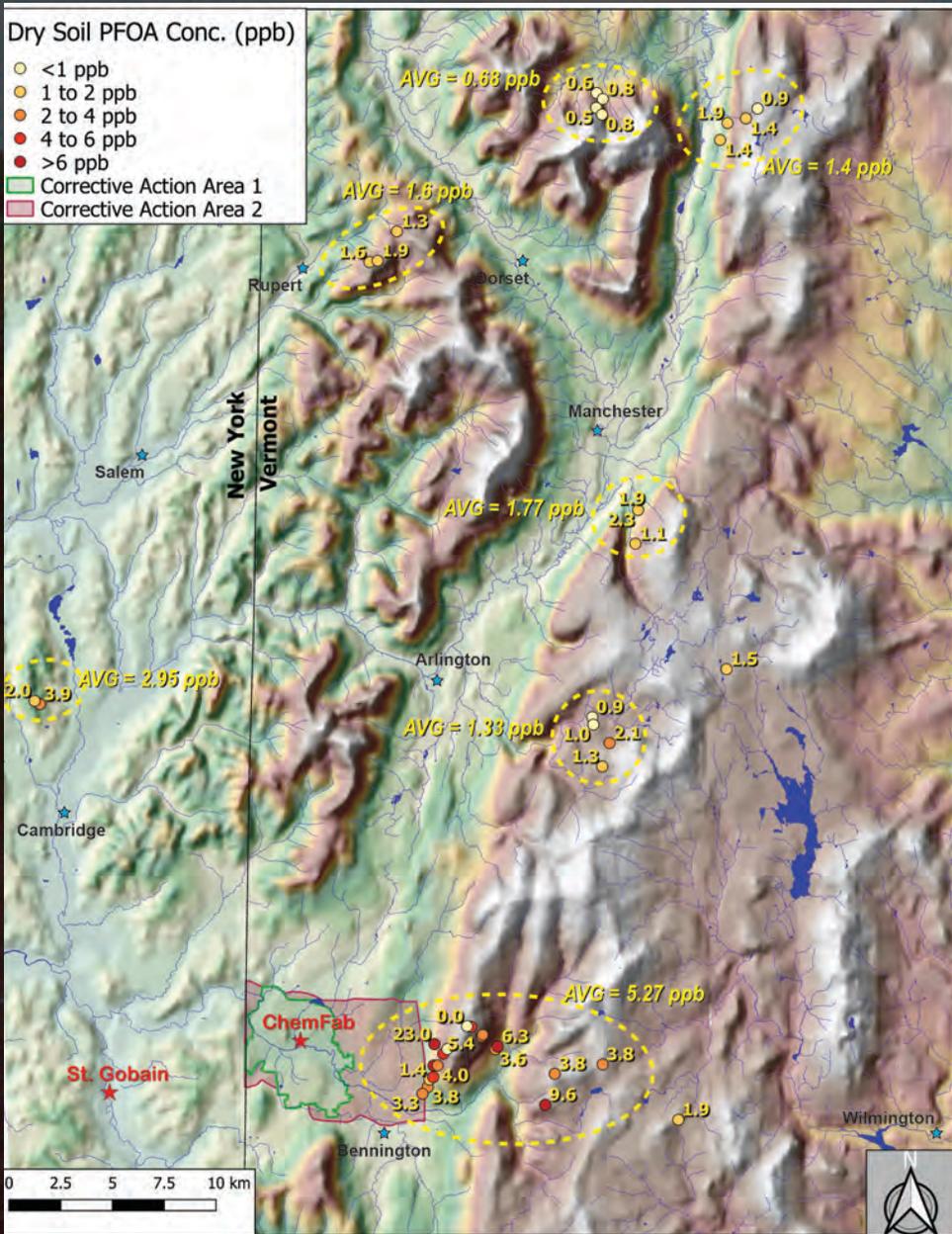
The map below shows an overhead view of Bald Mountain. It shows elevated PFOA levels in the soil on Bald Mountain, where PFOA seems to have accumulated on the slope facing ChemFab. PFOA was also found beyond Bald Mountain.



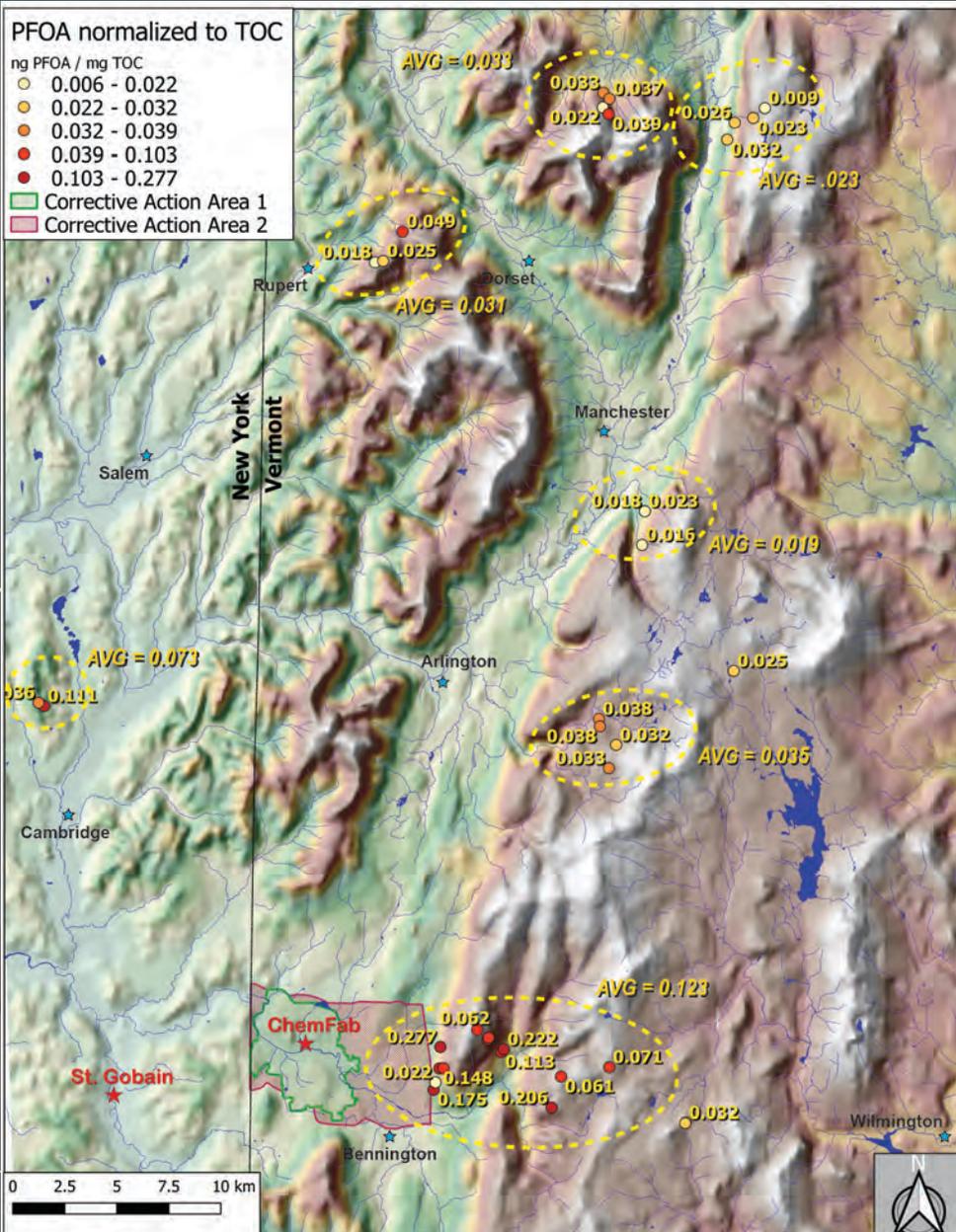
This is a profile view of the overhead map, looking east from ChemFab. This profile includes PFOA levels in soil and water on Bald Mountain and beyond. PFOA has been deposited almost 2,000 feet above ChemFab and the landfill, and over 10 miles downwind from ChemFab, suggesting extensive airborne deposition of PFOA.



# PFOA levels in Soils in Southeastern Vermont



These maps show PFOA concentrations in soil in southeastern Vermont. The map on the left shows average PFOA concentration in the soil. The map on the right shows that PFOA value normalized for total organic carbon (TOC) content of soil. (“Normalized for TOC” is the metric currently used by Saint-Gobain to describe soil levels.) Both maps provide an average from sample clusters. These maps demonstrate a trend of higher PFOA soil concentrations downwind of manufacturers that emitted PFOA (Saint-Gobain in Hoosick Falls and ChemFab in North Bennington).



# Summary of Findings

A definable plume of elevated PFOA levels exists in the soils of our region. Extending over 10 miles eastward from Bennington, VT (and 15 miles from Hoosick Falls, NY), this plume appears to cover approximately 120 square miles.

Lying in the dominant eastward wind direction from the ChemFab Facility in North Bennington, VT (and Saint-Gobain Facility in Hoosick Falls, NY), this plume suggests extensive airborne deposition of PFOA from those plants.

All data and maps produced by “Understanding PFOA” project at Bennington College.

Maps will be updated as new data becomes available.

Contact Tim Schroeder ([tschroeder@bennington.edu](mailto:tschroeder@bennington.edu)) for more information.

# Methodology

Soil values, shown in parts per billion, are average PFOA concentration (dry weight) in the top 14 inches of soil.

Soil samples were collected using accepted field techniques by Prof. Tim Schroeder and Prof. David Bond, with Bennington College students assisting. PFAS analysis was conducted by two commercial laboratories, Eurofins Lancaster (soil) and Eurofins Eaton Analytical (water).

All samples, taken with permission, were collected from isolated sites with minimal human disturbance within the Green Mountains and Taconic Mountains.

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Maps will be updated as new data becomes available.

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