Press Release For Immediate Release

March 29, 2023

RESULTS-Turf Field and Watershed Water Sample Testing for PFAS Chemicals

From: Town of Wilton Director of Environmental Affairs Mike Conklin

Background

On February 14, 2023 the Town received a letter from the Norwalk River Watershed Association stating the group's concerns about the potential construction of an artificial turf field at Allen's Meadows. The letter explained the NRWA was concerned for the possibility of ground water and surface water contamination from PFAS "forever chemicals" leaching from artificial turf into these waterbodies during rain events. At my request, on February 22, 2023 NRWA provided a spreadsheet with PFAS test results from water samples they had taken from the Goetzen Brook at four (4) locations around Allen's Meadows south to the Norwalk River and one (1) sample from the Retention Pond abutting the entrance to the Cider Mill School. The group also held a webinar on March 1, 2023 which I attended.

After reviewing the NRWA's information, I took a methodical approach to evaluate the water draining directly from the Lilly turf field and the WHS Stadium turf field/track and waters within the watershed areas, which include Allen's Meadow and the Wilton School Sports Complex.

Watershed Mapping

Public Works Director, Frank Smeriglio created a field-verified computerized maps of the watershed areas available here. The maps were then used to select water sample locations in the area of Allen's Meadows and the Wilton High School athletic complex.

Water Sampling

Conducting water sample collection for PFAS is a highly technical task due to the potential for sample cross-contamination. The Town hired an independent environmental consulting firm, Thunderbird Environmental, LLC with experience in PFAS-related projects to conduct the water sampling and provide a report on the findings. Thunderbird's scientists conducted the sampling on March 15, 2023. They followed the U.S. Environmental Protection Agency (EPA), Interstate Technology and Regulatory Control (ITRC) and Michigan Department of Environmental Quality (MDEQ) guidance pertaining to collection and analysis of surface water samples for per- and polyfluoroalkyl substances (PFAS) because these methods are the standard for the industry.

Water sample locations and sample numbers were:

- The Goetzen Brook, Samples SW-1, SW-2, SW-3
- The stream running from the top of Catalpa Road to behind the Stadium (Stadium Stream) SW-4
- The Retention Pond, (Playing Field Pond) SW-6
- The Norwalk River, SW-7
- The stormwater drainage from Lilly Field, MH-8.
- The stormwater drainage from the WHS Stadium Field and Track, MH-5.

This sampling was conducted to show a baseline of existing PFAS chemicals in the waterways and identify whether and PFAS may be running off the artificial turf fields.

Lab Results

Thunderbird Environmental delivered the water samples to Complete Environmental Testing, Inc. in Stratford, CT for PFAS analysis. The laboratory equipment is able to detect PFAS down to 2 ng/L (nanograms per liter) so if the result is below 2 ng/L then the lab report states ND (non-detect). Once Thunderbird received the lab results they condensed them into a table so the results can be easily compared. The report is available here.

Summary of Findings

Samples SW-1, SW-2, SW-3

Sample SW-1 was taken from Goetzen Brook just north of Olmstead Hill Road and upstream of Allen's Meadows. PFBS was found in this sample at 2.1ng/L. Sample SW-2 shows PFBS at the same level as SW-1. This is not surprising given SW-2 is downstream of SW-1. Sample SW-3 was taken from the Goetzen Brook downstream of SW-2 and East of Lilly Field. SW-3 sample did not detect any PFAS chemicals. Goetzen brooks flows into the Norwalk River under Danbury Road.

Samples SW-4, SW-6, SW-6 DUP, SW-7

Sample SW-4 was taken from Stadium Stream at a higher elevation than the athletic fields. This water is runoff from the areas uphill from the athletic fields including the residential properties to the west of the athletic field complex. This sample contained both PFOA (3.4 ng/L) and PFOS (3.7ng/L). Stadium Stream drains into the Playing Field Pond.

Sample SW-6 was taken from the outlet of Playing Field Pond. This sample location was actually taken twice, one as SW-6 and one as SW-6 DUP (duplicate sample). SW-6 contained PFBS (2.7 ng/L), PFHpA (2.0ng/L), PFHxA (2.0ng/L), PFOA (3.6 ng/L) and PFOS (3.7ng/L).

The Norwalk River was sampled as SW-7 where the discharge from the Playing Field Pond empties into the Norwalk River. That sample showed PFOA (2.1 ng/L) and PFOS (2.1 ng/L).

Samples MH-5 & MH-8

Both MH-5 and MH-8 samples did not detect any PFAS chemicals. These samples were the stormwater runoff samples from each of the existing artificial turf fields. Lilly Field run off discharges in the Norwalk River. WHS Stadium run off discharges into the Play Field Pond.

The sampling test results showed:

- No PFAS chemicals detected in the stormwater discharge points from the artificial turf fields.
- Some very low level PFAS chemical compounds in the surface water bodies tested.

Residents might wonder why the NRWA sample testing differs from that of the Town's. At the March meeting of the Norwalk River Watershed Initiative, I spoke with the NRWA volunteer who performed their sampling. The individual did not know of the required standards to prevent contamination when obtaining a water sample for PFAS testing.

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