

# State of the Nine Mile Run Stream — A Report Card for the Community



## Background

The Nine Mile Run Watershed Association (NMRWA) restores and protects its watershed ecosystem, while working regionally to support and implement resilient solutions for a healthy urban environment. NMRWA is committed to stewarding and monitoring the Nine Mile Run Aquatic Ecosystem Restoration in Frick Park. Before the restoration was completed in 2006, Nine Mile Run was a lifeless ecosystem — a historically polluted stream due to industry, urban development and failing sewer infrastructure in the surrounding watershed. The restoration project transformed the stream and its immediate surroundings, creating a native wetland habitat in lower Frick Park. This was in many ways an experiment, to see how much ecological improvement could be achieved through current restoration techniques, and whether the transformation could survive in the urban environment.

## Why a Report Card?

The goal of the NMRWA Monitoring Program is to accurately assess the health of Nine Mile Run, to help us understand what has been achieved and what remains to be done to reach a healthy ecosystem. The program is a cooperative community data collection effort with oversight from professionals and researchers on the NMRWA Monitoring Committee. This new Report Card is a tool to better communicate ecosystem health. It is a summary assessment, based on all of the data we have gathered, of the state of the stream pre-restoration, immediately post-restoration, and in its current state.



### Human Health Risk

Bacterial contamination is caused by sewage overflows and leaky pipes along the stream, and by pet and wildlife waste. Exposure can cause illness or infection. Toxic metals are primarily a result of stormwater runoff and potentially pose the danger of chronic damage to people and wildlife.

	Pre	Post	Current
Bacteria	F	C	C
Aluminum	F	F	F
Lead	D	C	D



### Aquatic Habitat Support

The survival of aquatic life is dependent on water quality factors. These parameters can be degraded due to stormwater runoff, industrial waste, sewage discharge, and pet waste. These parameters vary seasonably with rain events.

	Pre	Post	Current
pH	F	B	A
Dissolved Oxygen (DO)	Insufficient Data		
Nitrogen (NO3)	D	D	D



### Wildlife

The presence and diversity of aquatic life are key indicators of ecological health because these living creatures depend on the entire stream environment for survival, including upstream conditions. This is problematic in a stream like NMR, most of which runs through underground culverts

	Pre	Post	Current
Macroinvertebrates	F	F	D
Fish	F	C	B

### Where Do We Go From Here?

NMR is still an urban stream. The restoration project significantly improved water quality and habitat for aquatic life; the abundance and diversity of wildlife that has returned since 2006 reflects that improvement. However, high nitrogen and bacteria levels, as well as low macroinvertebrate diversity, still reflect poor overall health. Ten years after the completion of the restoration, the stream is not yet safe for walking barefoot or even for fishing. We can, and must, do better.

NMRWA is not only stewarding the restoration area, but also working in the upper watershed and regionally to reduce sewage overflows and stormwater runoff so that the state of the stream will improve. There are many ways you can participate directly in improving water quality here and across the region: commit to volunteering; install a rain garden and/or rain barrels; use salt sparingly in the winter, and only watershed friendly types of salt; clean up after your pet, even in the park; and organize to support public policies that prioritize clean water. There is more information about these and other actions on our website.



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Only a few selected parameters are displayed here. For supporting and additional data and narrative details, please visit: [www.ninemilerun.org/our-work/monitoring/](http://www.ninemilerun.org/our-work/monitoring/)

Questions or comments?

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