BY JOHN GONZALEZ



Fifty years ago, the Cuyahoga River fire sparked a movement that led to the Clean Water Act. We can't go back, which is why we should not forget.

# THE RIVER THAT BURNED IS DEAD. LONG LIVE THE RIVER THAT BURNED.

n Cleveland, the phrase "burning river" has many emotional ties. It's a local brew. A national punchline. A badge of honor. A painful reminder. It has inspired music and missions, policy and pride, and advocacy and awareness. It is a symbol some wish would be extinguished like the very plumes of 1060c pollution and avision oth

of 1960s pollution and a vision others see as a future we must fight to avoid.

Today, a half century since the 1969 Cuyahoga River fire-the last of more than a dozen such. river fires in Cleveland–memories of the actual June 22 event may be fading as a new generation is growing up only knowing a reborn and revitalized river.

> Should we allow the memory to fade? What significance does June 22, 1969, hold today? We say the burning river of 1969 is dead– "dead" in that we can't allow such a reality to rise again.

Yet at the same time, the fact that it happened is exactly why we choose to commemorate it and, more specifically, our river's progress with each passing year.

Progress is not measured without points of

reference. The fire was an all-in-one ending, pivot, and beginning. We see a burning river as both a *Never Forget* and a *Never Again* moment.

Not without its challenges, the Cuyahoga River since the 1970s has been a national environmental success story. Fish health and diversity of species, riverfront activity, and river-based entertainment and recreation have all made remarkable progress, and the improvements continue trending upward. Pollution is way down, and current threats are being further reduced with long-term investments and programming like those made by the Northeast Ohio Regional Sewer District (the District).

While threats remain from environmental to regulatory to relational, our ability to defend the Cuyahoga River and Lake Erie from conditions like 1969's requires an ongoing commitment to keeping our Great Lake great. June 22 will forever be an anniversary: one we celebrate not to relive, but to remember.



#### A RIVER'S REBOUND

Several District projects have reduced pollution.

The overall health of the fish and bug communities in the Cuyahoga River has improved substantially since 1969, when debris in the Cuyahoga last burned. Fish collected in recent years demonstrate that water quality in the Cuyahoga is improving and its capacity to support a more diverse aquatic community is increasing. (Between 2006 and 2018, eighteen fish species that had never been collected before by the District in the Cuyahoga were found). Several Sewer District projects and programs have helped reduce the amount of pollution in the river.

### INDUSTRIAL PRETREATMENT

Since 1984, the District has had an EPAapproved Industrial Pretreatment Program, which has reduced the amount of metals flowing to our Southerly Wastewater Treatment Plant.

District crews inspect hundreds of local companies each year. Some companies are subject to annual inspections based on the type of manufacturing processes in their facilities. Some of these processes create wastewater that is potentially more toxic than others, and companies may be required to have a pretreatment system to remove pollutants from their wastewater before it enters the sewer system.

When a company is found to be violating pollutant discharge limits, the District works with the business in its effort to return to compliance. In some cases, enforcement action is necessary: fines may be levied or sewer service revoked. The District may also refer cases to the US EPA for potential criminal prosecution.



# INTERCEPTOR SEWERS

In the 1970s, protecting Lake Erie bathing beaches, particularly at Edgewater Park, became a priority. At the same time, the opportunity to decommission numerous small, inefficient wastewater treatment plants discharging into the upper section of the Cuyahoga River, particularly in the Cuyahoga Valley National Recreation Area, prompted the Sewer District to design and construct the Cuyahoga Valley Interceptor, a separate sanitary interceptor serving communities in Cuyahoga and Summit Counties.

Construction of the Heights-Hilltop and Southwest Interceptors in the 1980s would prevent suburban sanitary sewage from entering Cleveland's combined system and instead express it directly to the Southerly plant.

These two interceptors provide capacity to alleviate sewer flooding and overflow issues in local sewer systems. The removal of separate sanitary sewage from the combined system reduced annual combined sewer overflow (CSO) as well. The District also has worked with its member communities to help them upgrade their local sewer systems, further reducing sanitary overflows into the Cuyahoga.



# Cuyahoga River Ammonia Concentrations Downstream of Southerly - WWTC



# UPGRADES AT SOUTHERLY

A massive upgrade at Southerly was completed between 1975 and 1987. The plant treatment works were totally redesigned with new processes for the removal of ammonia and residual chlorine, both of which are harmful to the aquatic community.

Ammonia reduction occurs during an aeration process called nitrification, during which the ammonia is oxidized in a two-step biological reaction, first to nitrite (NO2) and then to nitrate (NO3). Success of the nitrification process depends on proper pH, temperature, retention time, and aeration. (The gaseous byproducts of biological respiration, mainly carbon dioxide, are passed into the atmosphere).

In 1991, Southerly personnel successfully tested sodium hypochlorite for disinfecting plant effluent, and a new disinfection facility allowed them to discontinue the use of liquid chlorine–a change made with plant and community safety

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in mind. (Sodium hypochlorite is significantly less dangerous than liquid chlorine).

# FEWER DRY-WEATHER DISCHARGES

The capture and treatment of illicit discharges, or improperly connected sanitary pipes that were sources of dry-weather sewage discharges into area waterways, has been crucial to reducing pollution in the Cuyahoga.

Illicit discharges flow through stormwater pipes and out into creeks, rivers, and other

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water bodies, often right by people's homes. The District's Illicit Discharge Detection and Elimination (IDDE) program is aimed at detecting, tracing, and eliminating these discharges.

Once a problem has been traced, the District's watershed team leaders will talk to a community representative about possible solutions and what the District can do to help remediate the problem.

In 2017, the District's Water Quality and Industrial Surveillance Department reduced sewage discharges to area streams by approximately 693,440 gallons per day.

# **CSO-CONTROL PROJECTS**

Increased collection of combined sewer overflow (CSO) for treatment at Southerly, through projects like the Mill Creek Tunnel, which eliminated numerous CSO locations, has resulted in reduced pollution in the Cuyahoga.

Additional tunnels constructed through the District's Project Clean Lake program will significantly reduce overflows into our waterways.

# STORMWATER MANAGEMENT

Implementation of a regional stormwater management program to address erosion, flooding, and pollution problems is the most recent step forward in the District's work to protect the Cuyahoga and other waterways. Stormwater is a major contributor of pollutants to receiving waters, and the District's waterquality objectives cannot be met without an integrated approach for sanitary wastewater and storm drainage.

# PARTNERS IN THE RIVER'S RECOVERY

District efforts to improve conditions in the river have been complemented by the work of dedicated agencies and organizations,

notably the EPA, with its ability to enforce the mandates of the Clean Water Act, the Cleveland Metroparks, West Creek Conservancy, Western Reserve Land Conservancy, and many regional watershed organizations for their land conservation and restoration efforts.



The Cuyahoga River Area of Concern (formerly Cuyahoga River Remedial Action Plan) has raised community awareness of issues along the river and continues to work on sound management actions toward removal of beneficial-use impairments.

In addition, the contributions of the Cuyahoga County Board of Health, Department of Public Works, and Cuyahoga Soil & Water Conservation District in assisting communities with eliminating illicit discharges and the Cuyahoga County Solid Waste District for providing household hazardous waste collections (as an alternative to dumping paint and motor oil into storm drains) cannot be overstated.

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