



# DUPAGE COUNTY

## Stormwater Management 2021 Annual Report



## DUPAGE COUNTY STORMWATER MANAGEMENT PLANNING COMMITTEE

Dan Cronin, *County Board Chairman*

Jim Zay, *Committee Chairman*

### ***County Board Members:***

Dawn DeSart

Grant Eckhoff

Paula Deacon Garcia

Brian Krajewski

Sam Tornatore

### ***Municipal Members:***

Paul Hinterlong

David Brummel

Steve Nero

Chester Pojack

Nunzio Pulice

Asif Yusuf

In 2021, the DuPage County Stormwater Management Department focused on expanding services to our customers.

As a safe way to reach customers, Stormwater Management expanded its virtual offerings significantly in 2021. Notably, Stormwater Management grew its YouTube channel to offer nearly 100 videos ranging from virtual conferences, trainings and webinars to public service announcements and flood control facility tours, including a new, comprehensive virtual tour of the Elmhurst Quarry Flood Control Facility. The expansion of YouTube content resulted in a 300% increase in views from 2020 with nearly 50,000 total views on the videos.

Stormwater Management's GIS group also created virtual inventories of the department's drainage network to track more than 2,000 stormwater structures, nearly 2,000 drain lines and 200 easements. They also created a web-based app to inventory the more than 1,100 County-owned trees.

Stormwater Management was also highly visible in the community responding to more than 170 service calls from constituents, partnering with local stakeholders to finalize five watershed plans and managing two large-scale flood control operations, including one following a devastating tornado in DuPage County. Stormwater Management's crew, in partnership with the County's Public Works and Transportation crews, assisted in community recovery efforts, including clearing waterways for the impending rain.

We are proud of our accomplishments in 2021, and we invite you to learn about them in this annual report. We look forward to growing this work in 2022.

Sincerely,

Jim Zay, Chairman  
Stormwater Management Planning Committee



DuPage County Stormwater Management (SWM) plans, designs and constructs regional flood control, wetland restoration and water quality projects countywide.



The Illinois Association of Floodplain & Stormwater Managers presented DuPage County with the 2021 Mitigation Award for SWM and DuPage County Community Services Department's efforts in mitigating flooding countywide, such as constructing the Armstrong Park Reservoirs in Carol Stream, using a nearly \$32 million grant from HUD for flooding in April 2013.



Located in unincorporated Itasca, the **Schick Road Drainage Project** alleviated chronic flooding concerns due to an incomplete storm sewer. In partnership with Addison Township, SWM designed and constructed a storm sewer extension.



Completed in 2021, Phase I of SWM and DuPage DOT's **Kearney Road Dam Outlet Pipe Rehabilitation Project** involves replacing a culvert and slip lining 300 feet of storm sewer that conveys Wards Creek in unincorporated Downers Grove.



## **SWM's Shared Services Division assists municipalities and townships in meeting water quality and stormwater management initiatives through the shared use of equipment and personnel.**

In 2021, the Shared Services Division responded to approximately 173 service calls for flooding and water quality issues, addressed 28 stream blockages, completed eight drainage projects in partnership with townships and assisted 11 agencies in stormwater services using in-house staff and equipment.



### **COMMUNITY ASSISTANCE**



Following a Father's Day tornado in DuPage in June 2021, SWM crews joined other County departments in recovery efforts.



During warm months, SWM staff assisted the Illinois EPA with monitoring and sampling for harmful algae blooms in DuPage County.



Using DuPage County's vector truck, SWM crews inspected and cleared 113 storm sewer inlets for the Village of Burr Ridge.



To identify countywide projects, SWM works with local agencies to develop watershed plans with both flood mitigation and water quality recommendations, as well as map floodplains.

### WATER QUALITY PLANNING

- Using a \$244,010 grant from the Illinois Environmental Protection Agency, currently completing the **East Branch DuPage River Watershed Water Quality-Based Plan**.
- The DuPage County Stormwater Management Committee approved the **Winfield Creek Watershed Water Quality-Based Plan**.

### FLOOD CONTROL PLANNING

- The Stormwater Management Committee approved the **St. Joseph Creek Watershed Plan**.
- Passed Addendum to the **Winfield Creek Watershed Plan** to address water quality issues and additional areas of flooding concern.
- Staff completed a flood control plan for the **Wards Creek Watershed**.

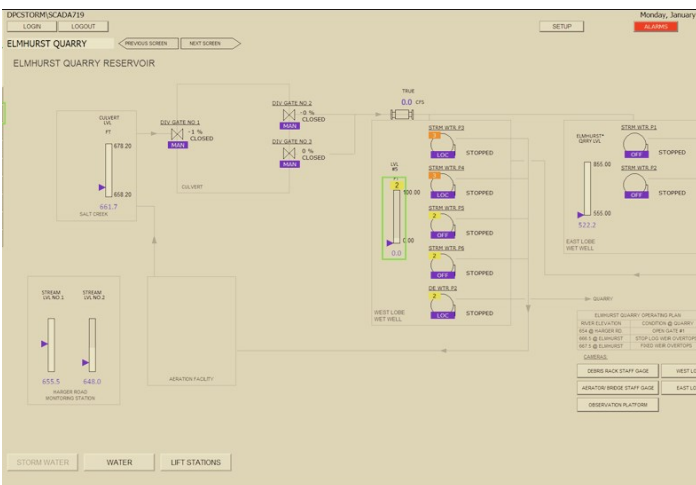
### FLOODPLAIN MAPPING & GIS

- Currently updating floodplain maps for the **Klein Creek , West Branch Tributary No. 1, Black Partridge Creek** and **Kress Creek** watersheds, as well as updating hydraulic models for the **Spring Brook** and **Spring Brook No. 1** watersheds.
- Completed initial hydraulic modeling of the **West Branch DuPage River** for future flood inundation maps and associated action plans.
- Created a **Virtual Drainage Network** for staff reference consisting of 2,001 stormwater structures, 1,839 stormwater drain lines and 200 stormwater easements.

- Developed a **Tree Inventory App** to track more than 1,108 DuPage County-owned trees.



**SWM maintains and operates 17 flood control facilities countywide. In total, these facilities have the capacity to divert nearly six billion gallons of floodwater.**



With DuPage's Public Works Department, SWM upgraded its Supervisory Control and Data Acquisition (SCADA) system that utilizes computers, cameras and communication equipment to monitor and control remote flood control facilities and flood forecasts.



In Fall 2021, SWM broke ground on the installation of a second gate at the Elmhurst Quarry Flood Control Facility, as well as upgraded controls. Adjacent to Salt Creek, the moveable gate will improve efficiency by allowing additional floodwater into the facility.



## SWM fosters partnerships between local agencies, organizations and residents to help advance stormwater goals throughout the region.



In 2021, SWM developed a virtual tour of its Elmhurst Quarry Flood Control Facility. During the virtual tour, viewers can follow along the Quarry's operational path while listening to Stormwater Management staff details its history, features and use as a flood control facility today. Created in partnership with SCARCE, the tour also highlights STEM topics for students.



The ASCE - Illinois Section recognized SWM Director Sarah Hunn as 2021 Government Civil Engineer of the Year.



In 2021, SWM's Elmhurst Quarry served as the backdrop for two television shows, including a Chicago P.D. episode in October.



In partnership with SCARCE, SWM awarded Water Quality Flags to Cantigny Park and the First United Methodist Church of West Chicago.

## COMMUNITY ENGAGEMENT

- More than 13,000 E-Newsletter Subscribers
- Hosted and Sponsored 16 Virtual Trainings that attracted nearly 3,000 Attendees
- Nearly 1,500 Social Media Followers
- 98 YouTube Videos with nearly 50,000 Views, which is a 300% Increase from 2020



### Staff in all SWM's divisions accomplished a significant amount in 2021.

#### ***Regulatory***

- Performed 228 stormwater management permit reviews for development in the County, resulting in a 31% increase in permitting revenue from 2020.
- Issued 119 stormwater authorizations and certifications.
- Conducted 159 stormwater pre-application meetings, which is a 25% increase from 2020.
- Monitored 275 wetland mitigation and enhancement projects.
- Granted regulatory sign-off on 22 wetland mitigation and enhancement sites.
- Performed vegetation monitoring on more than 60 County-owned sites and 5 wetland banks.
- Completed 23 flood elevation requests.

#### ***Flood Mitigation***

- Field crew managed nearly 180 County-owned properties, spanning more than 750 acres of land countywide.
- Removed 28 major stream blockages to alleviate flooding.

#### ***Water Quality***

- Awarded \$291,706 in funding under the Water Quality Improvement Program Grant to:
  - Carol Stream Park District
  - College of DuPage
  - Elmhurst Park District & Village of Villa Park
  - Oakwood Homeowners' Association
  - Village of Westmont
  - Wheaton Sanitary District
- Inventoried and monitored 861 storm sewer outfalls and 26 areas of concern for the Illicit Discharge Detection and Elimination (IDDE) program. Of these, 72 were monitored via kayak along approximately 34 miles of stream that staff inspected from waterways.

