

VILLAGE OF DOWNERS GROVE
Stormwater and Flood Plain Oversight Committee Meeting
October 8, 2015 7:00 p.m.

Downers Grove Public Works Facility
5101 Walnut Avenue, Downers Grove, Illinois

I. CALL to ORDER

Chair Gorman called the meeting to order at 7:00 p.m. A roll call followed and a quorum was established.

II. ROLL CALL

Members Present: Chair Gorman, Mr. Crilly, Mr. Ruyle, Mr. Schoenberg, Mr. Wicklander

Members Absent: Mr. Civito, Mr. Scacco

Staff Present: Karen Daulton Lange, Village Engineer / Stormwater Administrator

Public Present: None

III. APPROVAL of September 10, 2015 MINUTES

Mr. Schoenberg made a motion, seconded by Mr. Crilly to approve the September 10, 2015 minutes as corrected. Motion carried by voice vote of 5-0.

IV. PUBLIC COMMENTS

None.

V. NEW BUSINESS

A. Urban Flooding Awareness Act

At the September 1 Council meeting Mayor Tully requested that the SW&FPOC review the Urban Flooding Awareness Act and to report how the Village stacks up to the recommendations made in the report. Staff prepared a draft memo and discussion followed including the following:

- Difficulty & complexity of establishing overland flow routes in older areas not designed with them
- Utilizing newer technology such as a drone to video flood events to evaluate flooding patterns such as overland flow routes
- Climate change has contributed to more extreme storms
- Trend to store and convey more stormwater
- How the zoning lot coverage codes impact local flooding
- Maintenance or certifications by owners of PCBMPs not budgeted

Chair Gorman suggested that the Committee members review the Village's Stormwater Master Plan to familiarize themselves with the document and to determine if there are

revised or updated expected levels of service that the Committee should look at. He also asked if there are any critical facilities in danger of flooding. Staff was aware of certain road locations, but not buildings.

Chair Gorman stated it would be good information to know how the Village stacks up against neighboring communities with regards to how they treat lot coverage, including setbacks.

Mr. Schoenberg made a motion, seconded by Mr. Crilly for staff to send the memorandum to Mayor Tully from the Stormwater & Flood Plain Oversight Committee. Motion carried by voice vote of 5-0. The memorandum is included in these minutes as Attachment 1.

VI. STAFF REPORT

See Attachment 2.

VII. PUBLIC COMMENTS

No further public comment.

VIII. OLD BUSINESS

A. FY2016 Proposed Budget

Staff reported that the first budget workshop is scheduled for 8:00 a.m. Saturday, October 10, at Fire Station 2.

IV. ADJOURN

Mr. Schoenberg made a motion, seconded by Mr. Crilly to adjourn the meeting at 7:57 p.m. Motion carried by voice vote of 5-0.



Memorandum

TO: Mayor Tully & Village Council

DATE: October 8, 2015

FROM: Stormwater & Flood Plain Oversight Committee
Karen Daulton Lange, Village Engineer / Stormwater Administrator

SUBJECT: Urban Flooding Awareness Act

Background

At the September 1, 2015 Council meeting, Mayor Tully requested the SW&FPOC to review the Urban Flooding Awareness Act and to report how the Village of Downers Grove stacks up to the recommendations made in the report.

The Illinois General Assembly under the Urban Flooding Awareness Act of 2014 tasked the Illinois Department of Natural Resources (IDNR) to prepare a report on the extent, cost, prevalence, and policies related to urban flooding in Illinois and to identify resources and technology that may lead to mitigation of the impact of urban flooding. Urban flooding is broadly defined as caused by rainfall overwhelming the capacity of drainage system, such as storm sewers. It does not include overland flooding from creeks and rivers.

IDNR, in partnership with several State, regional and local governments (including Downers Grove), finalized the report in June of this year. The report found that over 90% of urban flooding damage claims in the past eight years were outside of mapped floodplain.

The report discusses the effectiveness of stormwater projects, programs, and policies; strategies for reducing flood damages and increasing affordability and effectiveness of flood insurance; recommendations to the Illinois General Assembly on funding, to the Illinois Congressional Delegation on encouraging specific FEMA initiatives, and to State and Local Governments.

What Downers Grove Does

Below are the recommendations to Local Governments found on page 80 of the report. Inserted below the recommendations is what Downers Grove is doing in these areas.

19. To better utilize funding that is available through Illinois Emergency Management Agency for mitigation projects, communities are encouraged to complete pre-disaster planning. (Chapter 6)

The Village of Downers Grove's pre disaster planning includes completing a hazard vulnerability analysis of our community. Natural, technological, industrial and civil/political hazards, capable of creating a major emergency or disaster are identified.

From there we look at how vulnerable is the community, the infrastructure, the buildings, the people, and begin to develop protocols to respond to these types of events. Additionally we educate our residents through several outreach programs on preparing themselves and their families.

20. Communities should establish overland stormwater conveyance areas in all new development areas, and these flow paths should be maintained and regulated. (Chapter 5)

Our Stormwater code requires overland flow routes within easements. We currently do not have a program for inspection, thus enforcement is on a complaint basis.

21. Communities should investigate existing property evaluation programs to help homeowners analyze their homes for urban flooding potential and to identify flood damage reduction actions. (Chapter 9)

We currently provide staff engineer assistance to property owners to analyze and identify ways to reduce flooding.

22. Communities should improve stormwater management in redeveloping areas by adopting stormwater ordinances that incentivize reduction of imperviousness and updating storm water systems, especially in known flood problem areas. (Chapter 5)

Our threshold for when PCBMPs are required are 700 sf of net new impervious area, which is below the County's threshold of 2,500 sf. Our SWU also incentivizes reduction in impervious as well because the fee is based on impervious coverage. Our 2014 Stormwater Project Analysis Report includes areas to update stormwater systems, but has not been fully funded.

23. Communities should consider real time monitoring of combined storm sewer systems. When technology allows, they should update the monitoring with a reverse 911 system to alert property owners of imminent flooding. (Chapter 3)

Not applicable. The Village has no combined sewer systems.

24. Within a reasonable timeframe, communities should update their storm sewer atlas with storm sewer location, infrastructure sizes and design data to allow for evaluation of the effect of

changing rainfall patterns on system capacity to more accurately identify areas at risk for urban flooding, and to better inform stormwater management planning. (Chapter 3)

Our website contains an aerial map with utility overlays that is available to the public. The storm sewer sizes are shown. Our internal GIS contains rim and invert data that we provide when asked. We also have mapped Localized Poor Drainage Areas to better inform residents of where flooding may occur outside of the regulatory flood plain.

25. Communities should consider adoption of ordinances to address drainage for below grade construction, such as requiring sewers to exit structures within 2 to 3 feet of the finished exterior grade of buildings. Adoption of International Building Code Sections R405 and R406 for foundation drainage and waterproofing should also be considered. (Chapters 3, 5, and 9)

Our Building Code enforces the 2006 International Building Code & 2006 International Residential Code w/amendments, including section R405 & R406. Specifically required is that drains shall be provided around all concrete or masonry foundations that retain earth and enclose habitable or usable spaces located below grade.

26. Communities and counties participating in CRS should participate in the Illinois Association of Floodplain Managers (IAFSM) CRS users group. (Chapter 8)

We are a CRS class 6 community which means residents and in the floodplain qualify for a 20% discount on flood insurance premiums. Properties not in the floodplain still benefit from significant premium reductions with the Preferred Risk Policies. Staff actively participates in the CRS users group.

27. Non CRS municipalities should consider using CRS principles in stormwater management to make their communities more resilient. (Chapter 8)

Not applicable.

Staff Report
October 8, 2015

A. CDBG-DR

Staff has submitted an application to the Community Development Block Grant – Disaster Recovery grant program administered by DuPage County to purchase a home and a vacant lot 5631 Webster. These properties were included in the original HMGP grant submittal, in 2014, but were ultimately not pursued due to exceeding maximum purchase costs by FEMA. If purchased, these two parcels, which are adjacent to other Village owned parcels, will be incorporated into the next phase of Streambank stabilization on St. Joseph Creek – South Branch (DR-022). This will improve the Village’s ability to make meaningful improvements to the creek through this area, improving flood overflow routing and compensatory storage along this stretch of the creek, thereby alleviating downstream flooding of homes and property. See attached location map.

B. Realtor Presentation

Staff has been invited to speak at the local Baird & Warner office regarding flood plain and LPDAs next week.

C. BMP Demonstration Sites

Staff is working with a SpanCrete representative to find a location to install pre-fab pervious sidewalk in Downers Grove as a trial to see how it performs with drainage. In addition, staff is working with a representative from FloodBreak to find a demonstration location.



D. Stormwater – What We Do

See attached compilation of what types of things public works engineering and maintenance staff does that is stormwater related. Also attached is the annual list of Stormwater Master Plan Improvements Status.

STORMWATER WORK JAN-SEPT 2015

Engineering Staff:

CRC

Since January of this year, we have responded to approximately 170 drainage-related CRC requests, primarily for drainage investigation and recommended improvements. Essentially most of these require at least one site visit and/or research and/or a follow-up conversation to the initial phone call back to the resident.

General calls (not entered into CRC) >400 since January received from/for:

- Consultants/Contractors; re active projects
- Real estate agents re FP and LPDAs
- SWU questions – credits, incentives, fee inquiries
- Proposed FP map inquiries
- Flood insurance questions
- HMGP questions

Outreach Activities

- Repetitive loss properties – mail letters for CRS program
- NFIP – notices/flyers placed in e-news, Hometown Times, Facebook, at PW open house, at counter, etc.
- Chlorides – properties and plowing companies – 80 letters mailed
- Proposed regulatory FP changes; outreach resulting in more than 70 calls
- Two Open Houses for Preliminary Flood Maps
- PMBMPs- Managing Stormwater at Home workshop

Staff Assistance- Small Projects

Cost share stormwater mitigation projects

Facilitated the completion of nearly \$70,000 of private stormwater mitigation projects so far this year, with Village reimbursement under \$20,000. Pending projects with estimated costs around \$25,000 anticipated to be completed this year with Village reimbursement expected at half or less of than the construction cost.

Elevation certificates, LOMAs, LOMRs, etc.

Site Visits to assess drainage issues and make recommendations

HMGP – implementation of purchases, demos, etc.

Research and coordination with co-workers required for

Drainage investigations – Many residential, commercial, and ROW concerns

Collecting detention basin info for GIS – Current inventory includes almost 500 basins

Determining private vs. public sewer lines through private property

Collecting easement document information for GIS

Yearly re-certification documentation for

CRS – Community Rating Service (20% flood insurance discount for residents in floodplain)

NPDES – IEPA MS4 annual permit

Committee Participation & Attendance in:

DuPage County Municipal Engineers Group – monthly

DuPage County Stormwater Committee – monthly

Downers Grove Stormwater & Floodplain Oversight Committee - monthly

DuPage River Salt Creek Work Group –bi-monthly

DuPage Mayors & Managers Stormwater Management Committee – as needed

Downers Grove Weekly Development Meeting – weekly

Miscellaneous work

Assist with Community Development Plan Reviews for PC & ZBA

Provide plan review comments on commercial & residential permit applications

Assist Code Enforcement with drainage-related issues

Detention basin inspections
Site visits for PCBMP SWU incentives
Research and write new “streams, creeks, and wetlands” webpage
Write PCBMP guide
Develop model PCBMPs in CAD
OnBase organization, scanning, and cataloguing
Continually enhancing GIS stormwater database by entering results of research/investigations

Note: There has been about a 75% increase in when PCBMPs are required from 2014 when the threshold was 2,500 SF of net new impervious to 2015 when the threshold was changed to 750 SF.

Capital Projects (in 2015)

- Performed \$500,000 in capital maintenance, including streambank stabilization, pond naturalization, etc. Projects included Lacey Creek Phase II, and the on-going projects at St. Joseph’s Creek North Branch and South Branch, as well as Valley View Pond and Kensington Lakes.
- Performed \$1.2 M in new capital infrastructure projects, including new storm sewers at Chicago & Washington and Lincoln & Stanley, as well as new storm sewers, ditching and bio-swales in Clyde Estates and Downers Grove Estates.
- Purchased and demolished three flood-prone homes through a grant from FEMA.

Operations Staff:

Maintenance

- Ditch reshaping (contracted): 7,000 LF
- Culverts replaced (contracted 600 LF): 810 LF
- Storm sewer replacement: 270 LF
- Storm line repairs: 6
- Inlet repairs: 56
- Cleaning & televising storm sewer lines (contracted): 20,000 LF
- Remove fallen trees from creeks
- Clear blocked inlets during rain events
- Remove debris from basin outfalls after rain events
- Respond to emergency street & property flooding

Enhancement

- Storm sewer installed: 260 LF
- Storm inlets installed: 4

Other

- Assist Engineering with storm sewer evaluations.
- Assist Engineering with CIP projects for in-house cleaning and televising for design.
- Perform ROW work required for cost share projects.
- Respond to over 160 CRC requests since January of this year.

P:\Stormwater Management (non-permit)\What we do

Stormwater Master Plan Improvements Status

October 1, 2015

| | Program | Goal | Actual 2015 | Comments |
|-----|--|-------------|----------------------|---|
| 1) | Sewer Cleaning Program (5-year cycle) | 26 miles/yr | 3.8 miles | Cleaned |
| 2) | Purchase Sewer Jet Truck | 2007 | 2007 | Done |
| 3) | TV Inspection Program (5-year cycle) | 26 miles/yr | 3.8 miles | Televised |
| 4) | Upgrade Sewer TV Camera & Software | 2007 | N/A | Done |
| 5) | Perform Structure Maintenance (5 year cycle) | 1400/yr | 56 repairs | Ongoing |
| 6) | Upgrade Roadside Ditching Program (10-year cycle) | 12miles/yr | 1.3 miles (7,000 LF) | Includes 600 LF of culvert replacement |
| 7) | Remove Debris Blockage from Channels (5-year cycle) | 6 miles/yr | miles Unknown | Various cleanup locations per calls/observation |
| 8) | Inspect and Maintain Village-owned Storage Facilities (annually) | 4 | 9 | Started inspections w/tablet |
| 9) | Inspect Private Storage Facilities (5-year cycle) | 62/yr | 16 | Contact made with responsible party as needed |
| 10) | Evaluate Stormwater Conveyance Impact Fee | 2007 | ----- | SWU implemented 2013 |

The goals listed in the table above are some of the recommendations made in the 2006 Stormwater Master Plan Update, put together by Chair Eckmann. The genesis of this plan started in 2003 when the Village's Stormwater Utility Exploratory Committee decided that in order to address long-term maintenance of infrastructure, information was needed in order to develop a strategy "...for future infrastructure management, identifying preliminary budgetary needs, and identifying alternatives for financing as adequate stormwater program."¹

The *Master Plan* identified that 13 dedicated stormwater staff members would be needed to achieve the goals, while the PW Department has been operating with an average of 5.5 stormwater staff members since 2006. Despite these shortcomings, the PW team has been steadily working on these recommendations, including expanding the GIS asset management data base. The GIS includes a maintenance history and identifies which structures need more attention. Information is accessible to the design engineers and field personnel, which is helpful with emergency repairs.

*The PW Department made a conscious decision in their 2011 budget to allocate money to patch over 20,000 SY of streets. Patching had been deferred in prior years because the same staff that works on the ditching program are the ones who work on the patching. It is anticipated that in 2012 about 14,000 LF of ditches will be reshaped and cleaned, with alternative years focused on patching.

**The tornado of June, 2011 resulted in crews working almost 100% of their time for four weeks on clean-up effort, which took away some time on maintenance activities.

¹ Village of Downers Grove Stormwater Master Plan Update, October, 2006, page 1-1