Administrating Local Flood Areas
1832: Downers Grove founded by Pierce Downer
1862: Railroad extended from Aurora to Chicago through Downers Grove
1863: First subdivision developed
1958: Construction of I-88
1961: First Stormwater Master Plan – Focus on construction of storm sewer
Second stormwater plan – 1st detention basin constructed

1976

Village program for stormwater management projects

1976-1983

First Village stormwater ordinance with runoff and detention requirements.

1987

Historic flood in DuPage County (and NE IL)

1992

First county-wide stormwater and flood plain ordinance with runoff and detention requirements
Downers Grove LPDA Timeline

- **1965**: First flood atlas by NE Illinois Planning Commission (NIPC)
- **1975-1977**: VoDG Mapped Depressional Areas Using Aerial Photos
- **1981**: First Flood Maps issued by FEMA
- **2005**: Digital Village Drainage Control Map
- **2007**: DG Watershed Infrastructure Improvement Plan (WIIP)
1965 Floods in Wheaton Quadrangle, Northeastern IL (flood of record maps)
Aerial Photos with Depressional Areas
Circa 1977
2005 Drainage Control Map
Localized Poor Drainage Area

Current Parcel Navigator Map (GIS)
1956 Aerial Image

2014 Aerial Image
Total existing detention volume? 350 ac-ft
New Homes
- Larger footprint homes
- Deeper basements
- Increased impervious: patio, outdoor kitchen, 3 car garage, pool
- Less green space
- Reduced overland flow
  path width (fences, sheds)
Section 26.1302 Localized Poor Drainage Area (LPDA).

LPDAs shall be designated where all of the following criteria are met, and shall be included on the Drainage Control Map:

A. LPDA limits coincide with or encompass at least one closed elevation contour (1-foot increments) that represents a depression on a topographic map or survey;
B. LPDA limits are not confined solely to a public right-of-way served by an adequate drainage system (including overflow) where building setbacks are a minimum of ten (10) feet from the right-of-way;
C. LPDA limits are not confined to publicly-owned property natural areas where development is restricted (e.g. Maple Grove Forest Preserve, Lyman Woods, Belmont Prairie);
D. LPDA tributary area limits are not confined to a single undeveloped parcel with an adequate drainage system (including overflow);
E. LPDA limits are not mostly contained within regulatory flood plain as shown on the FIRM;
F. Tributary area is equal to or greater than three (3) acres, based on a delineation from the DuPage County topographic map or other topographic survey with higher accuracy;
G. LPDA and associated overflow routes are not confined to adequate recorded stormwater management easements where all adjacent structures are protected to required flood protection elevations as specified in this Ordinance;
H. The area contained by the base flood elevation contour, as determined by the best available information and accepted by the Administrator, shall represent the regulatory boundary of the LPDA. These elevations shall be published in the WIIP.

(Ord. 5330, Amended, 08/20/2013; Ord. 5262, Add, 05/08/2012)
- Closed Contour
- Min 3 acres tributary
- Not contained only on park parcels/ROW
Why regulate LPDAs?

Flood Protection

Storage Volume
350 ac-ft
97.5 ac-ft

33 LPDAs
LPDA Regulations:
- Similar to Floodplain
- Comp Storage (1:1)
- Flood proofing
- Freeboard
  - 3 feet above BFE
  - 1 foot for detached garage
- “LOMR-F”
- Permit for all work
Regulating LPDAs - Considerations

- Long term property owners unaware of restrictions
- New property owners may not be aware
- Permitting Process
- Limits basic improvements
- Currently in your code????
Regulating LPDAs - Challenges

- Substantial Damage Regulation

Example – Existing home value $100k

Fire damaged home (exceeds $50k to restore)

Unable to rebuild without bringing house into compliance (i.e. full demo)

Insurance won’t cover some of these costs (and no ICC Coverage available)
Regulating LPDAs - Challenges

- Substantial Improvement Regulation

not just for properties with damages from flood or fire – any improvements can kick in the “Substantial Improvements”
Next Steps…LPDA

- Update to the LPDAs
- Public meeting and open houses
- Homeowner Notification
- Note to Title
- Cost Share Program
Next Steps…map overland flow paths
Next Steps…map overland flow paths
Next Steps…map overland flow paths

Uses/benefits:

• Permitting fence/shed
• Educating residents about water flow paths
• Locating BMPs verses installing infrastructure
More Next Steps . . .

- Public Outreach/Education
- Green infrastructure / BMPs
- Impervious Coverage limits
- Political challenges
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