City of Des Plaines Repetitive Loss Area Analysis

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RLAA Process

1. Advise Property Owners & Request Input
2. Contact Agencies & Organizations
3. Collect Building Data
4. Review Alternative Protection Measures
5. Complete Detailed Area Analysis
Request Input – Resident Survey

Property Address: ____________________________
If you wish to remain anonymous list street and block number, i.e. 1400 block Miner St

1. How many years have you lived in the home/building at this address? 

2. Do you rent or own this home/building? □ Rent □ Own

3. What type of foundation does the home/building have? 
   □ Slab □ Crawlspace □ Basement □ Other ________________________________

4. Has this home/building or property ever been flooded or had a sanitary sewer backup? 
   □ Yes □ No (if “no” please skip to number 10)

5. Do you have flood insurance? □ Yes □ No

6. In what year(s) did it flood? ________________________________

7. Where did you get water and how deep did it get? 
   □ In basement: ________ feet deep □ In crawl space: ________ feet deep 
   □ In first floor: ________ feet deep □ In yard: ________ feet deep
   □ Water kept out of house by sand bagging, sewer valve or other protective measure

8. What was the longest time that water stayed in the house/building? 
   ________ hours or ________ days. What year did this flooding occur? ________________________________

9. What do you feel was the cause of your flooding? Check all that affect your home/building. 
   □ Storm sewer backup □ Sanitary sewer backup □ Standing water next to house/building 
   □ Drainage from nearby properties □ Saturated ground/leaks in basement walls 
   □ Overbank flooding from _____________ River □ Other: ________________________________

10. Have you installed any flood protection measures on the property? 
    □ Sump pump □ Waterproofed the outside walls □ Re-graded yard to keep water away 
    □ Moved things out of basement □ Installed backup power system/generator □ Sandbagged 
    □ Other: ________________________________

929 Surveys Sent
181 Responses

https://www.surveymonkey.com/r/VQ9M7DW
Resident Survey – 4 Sections

- Property Information
- Flooding History
- Flooding Source
- Protection Measures
62% Experience Flooding
86% Have a below-grade level
76% Have flood protection measures
Contact Agencies & Organizations

- Seal of Cook County
- U.S. Army Corps of Engineers
- IDOT
- IEMA
- Des Plaines
- FEMA
- MWRD
- CMAP
Contact Agencies & Organizations

9
Studies

2
City Programs

IDOT Data
Roadway Flooding
Define Repetitive Loss Areas

15 Repetitive Loss Areas

245 Repetitive Loss Properties
Define Repetitive Loss Areas

929 Addresses in RL Areas

Avoided Condo Buildings When possible
Collect Building Data

**Address**

X, Y Coordinates

- Muti Unit
  - 
- Building Condition
  - Fair
- Foundation Type
  - Basement
- Location of AC
  - Side of the house
- Elevation of AC
  - Grounded
- Drainage Pattern
  - To Front
- Drainage Direction
  - NORTH

**Rep Loss Area**

RL 3

**Address**

Details Attached

- Photo 2.jpg
  - 403 KB
- Photo 1.jpg
  - 415 KB
Collect Building Data

Repetitive Loss Collector

Description
Add an in-depth description of the item.

Layers
- AGOL_CDP_CUSTOM_Editing - Rep Loss Location
- AGOL_CDP_CUSTOM_Editing - Rep Loss Area
- Community Map
- GISC_MAPOFFICE_Project
Collect Building Data - GIS

- Address
- Repetitive Loss Area
- Building Elevation
- Foundation Type
- Age of Structure
Collect Building Data – Field Inspection

- Building Condition
- Location of Air Conditioner
- Elevation of Air Conditioner
- Drainage Pattern
- Drainage Direction
- Downspouts Drain Away
Review Alternative Protection Measures

1. Non-Structural Measures
2. Green Infrastructure
3. Grading Improvements
4. Plumbing Improvements
5. Wet Floodproofing
6. Dry Floodproofing
7. Elevation, Relocation, and Demolition
Area 3: Big Bend
Repetitive Loss Area 3 is located in the eastern portion of the City, on the west side of I-294. This area is within the Des Plaines River watershed. The area is bounded by the Des Plaines River on the north and east, Rand Road on the south, and Hawthorne Lane on the west as shown in Figure 10.

The properties within this area are all located within the regulatory floodway of the Des Plaines River. The applicable flood data for this area is summarized below:

Source of Flooding: Des Plaines River
FIRM Zone: AE
Approx. Base Flood Elevation: 634.2
Velocity: 0.7 fps
Warning time: 1 day

Figure 10. Repetitive Loss Area 3: Big Bend

There are 34 single family homes in this area, which are located within the regulatory floodway of the Des Plaines River. The homes are primarily on basement foundations. The terrain in the area is very flat with ground elevations ranging between 630 near the river and 632 further away from the river.

Questionnaire Responses:
Eight (8) questionnaires were returned from this area. Seven of the eight respondents indicated they have experienced flooding. Flooding was reported in the following years: 1986, 1987, 1996, 2008, 2013, and 2017. The flooding was reported to be in yards, crawlspaces, basements, and first floors with the longest duration of flooding lasting at least 5 days (some could not remember the duration of flooding). Residents have used sand bags, installed sump pumps, and installed generators. The City is aware of flooding in this area and has a buyout program to acquire and demolish flood-prone properties. City staff noted several generators and raised window wells in this area as shown in Figure 11.

Figure 11. Generator and Raised Window Wells in RL 3. As shown above, residents in this area have generators and raised window wells to protect their homes from flooding.
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- Associated image with parcel
- Labeled images with address
- Printed all images in a grid
- Included image label under image
- Sorted by address/image label
- Images included in attachment (not for public release)
Lessons Learned

- More, smaller RL Areas
- Use GIS to reduce effort
- Survey indicated severity of flooding
- Mitigation options based on:
  - RL Area
  - depth of flooding
Questions?

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