

VILLAGE OF LOMBARD
REQUEST FOR BOARD OF TRUSTEES ACTION
For Inclusion on Board Agenda

Resolution or Ordinance (Blue) _____
Recommendations of Boards, Commissions & Committees (Green) _____
Waiver of First Requested _____
Other Business (Pink) _____

PRESIDENT AND BOARD OF TRUSTEES

TO:

David A. Hulseberg, Village Manager *John*

FROM:

October 7, 2008 (B of T) Date: October 16, 2008

DATE:

Report on the September 12-13, 2008 Rain Storm

TITLE:

Carl S. Goldsmith, Director of Public Works

SUBMITTED BY:

BACKGROUND/POLICY IMPLICATIONS:

The Department of Public Works transmits for your consideration a report on the rain storm of September 12-13, 2008. The Staff recommends that the Village retain an engineer to evaluate the overflow condition and storage capacity at Vista Pond.

Fiscal Impact/Funding Source:
The Staff estimates the engineering study at \$20,000.

Review (as necessary):

_____	Date	Village Attorney X
_____	Date	Finance Director X
_____	Date	Village Manager X

David A. Hulseberg

NOTE: All materials must be submitted to and approved by the Village Manager's Office by 12:00 noon, Wednesday, prior to the Agenda Distribution.

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 X

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Village Attorney X _____ Date _____
Finance Director X _____ Date _____
Village Manager X *David A. Hulseberg* _____ Date *10/08/08*

NOTE: All agendas must be submitted to and approved by the Village Manager (Other) by 12:00 p.m. Wednesday prior to the agenda presentation.



Memorandum

TO: David A. Hulseberg, Village Manager

FROM: David P. Gorman, PE, Asst. Director of Public Works *DPG*

DATE: October 7, 2008

SUBJECT: Report on September 12-13 Rain Storm

Background:

Heavy rainfall caused flooding throughout the Chicagoland region on September 12-14. The overwhelming majority of damages to homes in Lombard were between Roosevelt Road and North Avenue. Public Works called in employees over the weekend to assist residents, maintain pump stations, close streets and provide sandbags.

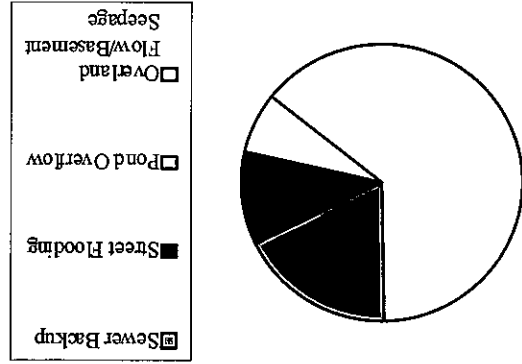
Storm Characteristics:

The Village's rain gauge measured 5 inches of rain in 12 hours from Friday midnight to Saturday noon. The East Branch of the DuPage River (which flows along the west edge of Lombard) at Butterfield Road reached a gauge height of 17.2 feet, higher than the previous gauge record of 15.8 feet from the August 1996 storm. The Village was fortunate in that it did not lose electricity, which prevented worse flooding. The stormwater detention basins functioned as expected. In all, 7.2 inches of rain fell over 24 hours. The antecedent moisture content was still high from a 1.7" rainfall on September 5th and a 1.2-in rainfall on September 8. This puts the storm somewhere between a 50 & 100-yr (1-2% annual chance) rainfall. Below are the State Water Survey's Bulletin 70 statistical rainfall amounts.

Duration	1-year	2-year	5-year	10-year	25-year	50-year	100-year
24-hr	2.51	3.04	3.80	4.47	5.51	6.46	7.58
18-hr	2.30	2.79	3.50	4.11	5.06	5.95	6.97
12-hr	2.18	2.64	3.31	3.89	4.79	5.62	6.59

Summary of Damages:

The damages were due solely to rainfall. There were no problems with wind, lightning or power outages. A total of 149 homes reported flood damages as of September 29th. The data is valid since residents self-reported the cause of the flooding when obtaining tree refuse stickers.



Overland Flooding Areas:

The attached map of the damaged properties shows main overland flooding locations: Terrace View Pond, Vista Pond, Charles Lane Pond, Phillips Court and Glenview Road.

Terrace View Pond, Charles Lane Pond and Glenview Road:

The overland flooding that damaged homes in these areas was caused by backwater from the East Branch DuPage River. The floodplain map illustrates the area of flooding, at elevation 691.7 (691.7), inadequate sanitary backup protection or inadequate sump pump capacity. The options to reduce future damages are to (a) remove the houses, (b) elevate the houses, (c) to install overhead sewer services and (d) install battery backup sump pumps.



Backwater floodplain from the East Branch DuPage River

Vista Pond:

The south side of Vista Pond is low and six houses reported overland flooding damages on Prairie, Lewis and Kramer. Sandbags were provided to the residents, which did help to limit damages to a couple houses. The pond is not designated as a mapped floodplain on the Flood Insurance Rate Map. The pond was continually pumped but the rainfall exceeded the storage volume of the pond.

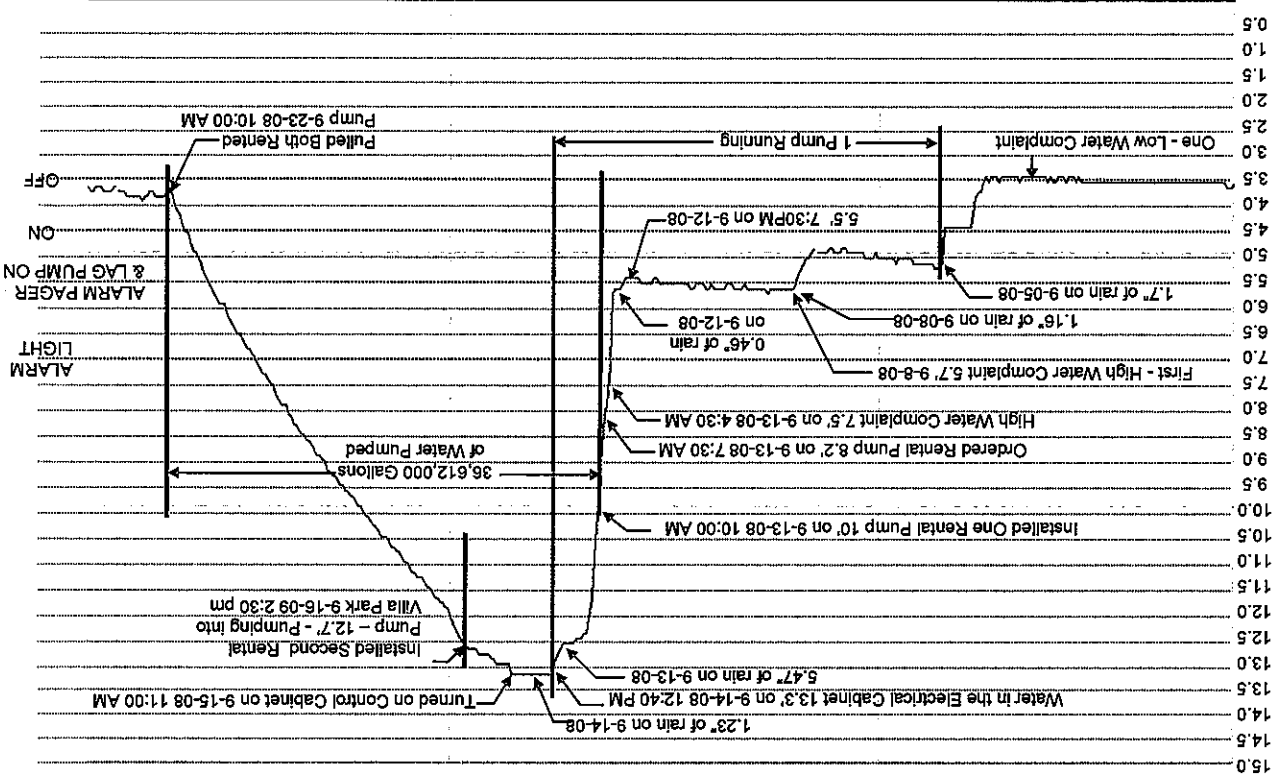
The Vista Pond pump station is designed to have one pump running and there was always one pump running at the station. The second pump that is normally in the station for backup was out

for servicing so staff had been nervous about possible failure of the primary pump before the temporary pump arrived. However, by the time that the control panel was submerged making it unsafe to continue operating the permanent pump, staff had a rented 6" (higher capacity) pump in place that ran on gasoline (it was hanging in the air on an end loader). In addition, a 4" pump was set also up on Sunday on Grace Street to aid in the drawdown process.

The water level was in normal range before prior to the big rainfall. The pump turns on at stage 4.5' and then off at 3.5'. It had run continuously since the rainfall on September 5th. Staff receives low-water complaints if the pond is drawn down lower than 3.5'. SCADA provides real-time operating information and alarms if anything is awry.

Public Works received one call from a resident during that week before the big rain asking us if the pump was operating. We informed him that the pump had been operating continuously since that earlier rain. Even with the considerable extent of this flooding, one resident recalled that the pond had overflowed its banks.

Vista Pond – Storm of September 12 – 14, 2008



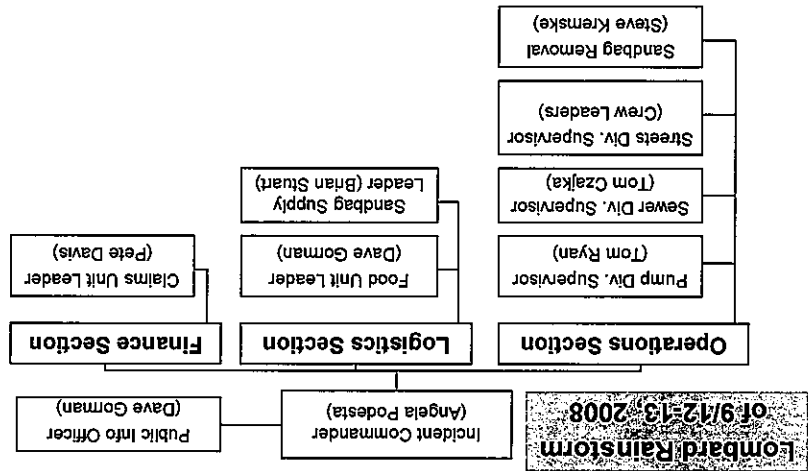
Subsurface Flooding Areas:

There were 32 properties that were damaged by sanitary backups and an unknown number of homes with damage due to sump pump failures. Although ComEd reported that one of their substations had flooded, there were no reported power outages. If electric service had been lost, damages would have increased dramatically.

The properties on Crystal Avenue and Berkshire Avenue have a problem with high groundwater as well as floodplain water. The most dramatic of the problems is at 44 W. Berkshire. This property has four sump pumps that pump immediately upon rainfall due to highly transmissive soils. There are two options to solve this groundwater problem: (a) relocate the mechanical systems to the first floor and eliminate the basement (a crawl space could remain), (b) demolish the houses (they could be replaced by homes without basements) and (c) install a pump station to draw down the water table.

Staffing:

Since the storm hit on a weekend and it was evident that the response would be over multiple days, staff was called in by shifts. Administrative staff in PW and PD answered calls, the Lombard EOC communicated with DuComm and ordered sandbags through EmNet, Underground Utilities staff responded to residents' homes, Pumping staff maintained stations and Streets staff closed streets and delivered sandbags. The command chart is shown below:



Financial Impact:

The Public Works Department's preliminary cost estimate was \$98,300. The State had declared the region a disaster area, which provided the technical and administrative assistance of the Illinois Emergency Management Agency. However, the federal government has not yet declared a disaster declaration. Therefore, financial assistance in the form of low interest loans, grants and reimbursements are not yet forthcoming. If federal financial assistance is made available, then the Village's costs will be updated (i.e. increased slightly).

Preliminary Costs:

Equipment & Materials	\$24,640
Personnel	\$38,260
Repairs	\$32,400
Refuse Stickers	\$3,000
PRELIMINARY TOTAL	\$98,300

Refuse stickers have been provided at no cost to residents. Waste Management has promised to waive half of the costs for these stickers and the few dumpsters that were placed in the heaviest-damaged areas. The stickers have been distributed at the Village Hall and Police front desk as well as delivered by mail and in person. The cost will be approximately \$3,000.

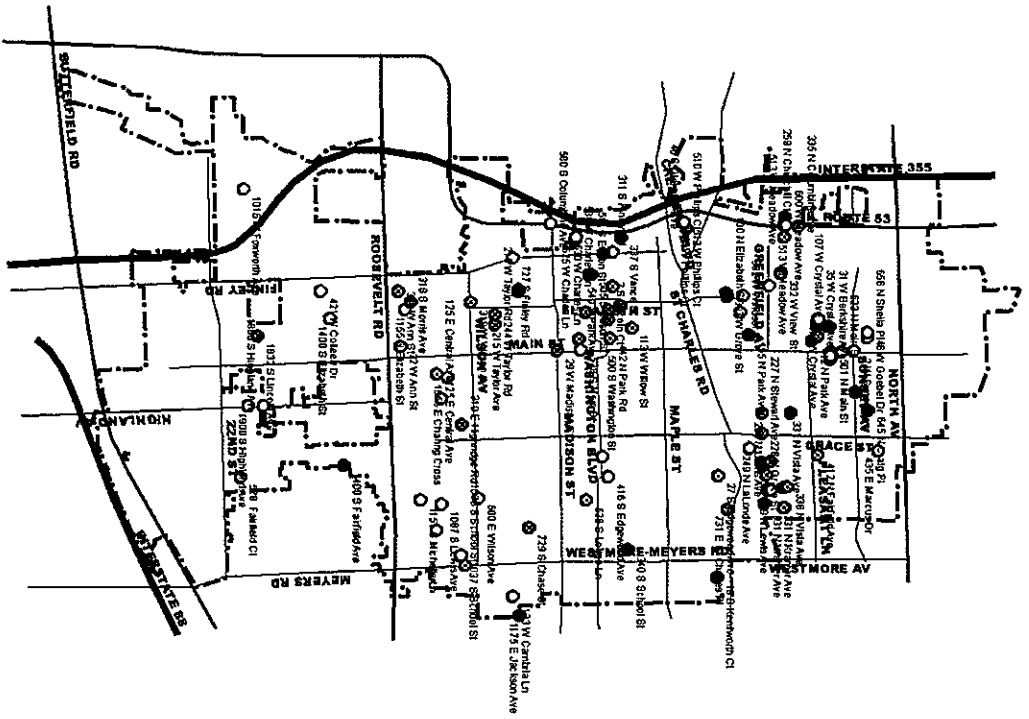
I can be reached at 620-5765 if there are any questions.

Staff will also review the operational plan for the Vista Pond pump station to determine whether changes may be beneficial to the surrounding residents, considering downstream constraints. The overflow from the Villa Park storm sewer system will also be reviewed to determine whether changes are warranted since significant overland runoff into Vista Pond had been observed.

The Department of Public Works conducted an After Action Review on October 2nd and operational "lessons learned" will be incorporated into future emergency responses. In anticipation of a forthcoming federal declaration, final costs will be tabulated and public assistance provided to take the maximum benefit that the federal government may provide.

Future Actions:

September Storm Event



Service Calls

- REQUEST**
- Barricades
 - Basement Flooding
 - Debris
 - Light Station Light
 - Other
 - Pond Water Rising
 - Rising Water/flooding
 - Sandbags
 - Sewer Backup
 - Street Flooding
 - Surcharging MH

Addresses

Centerline

JURIS

--- RIVER

--- R.R.

--- TOLLWAY

--- TRAIL

Parcels

main, streets

NAME

STATE ROUTES

INTERSTATES

1/16 mile poly

1.089 miles



VILLAGE OF LOMBARD
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Lombard, Illinois 60148-3931
(630) 620-5700 Fax (630) 620-8222
www.villageoflombard.org



October 6, 2008

Subject: Federal Disaster Declaration for Rainstorm of September 12-13

Village President
William J. Mueller

Village Clerk
Brigitte O'Brien

Dear Resident:

President Bush has declared a federal disaster for the rainstorm of September 12-13. This allows the Federal Emergency Management Agency (FEMA) to establish a Disaster Relief Center (DRC) in our area to receive requests for assistance from property owners. The DRC is in the second floor cafeteria at the DuPage County Complex, 421 N. County Farm Road, Wheaton and will be open from 9AM to 7PM, seven days a week. It will remain in place as long as FEMA deems necessary.

Trustees

Greg Alan Gron, Dist. 1
Richard J. Tross, Dist. 2
John "Jack" T. O'Brien, Dist. 3
Dana L. Moreau, Dist. 4
Laura A. Fitzpatrick, Dist. 5
Rick Soderstrom, Dist. 6

Attached is information on possible assistance available to private property owners. The assistance includes grants to help pay for temporary housing, home repairs and other serious disaster-related expenses. Low-interest loans from the U.S. Small Business Administration are also available to cover residential and business losses not fully compensated by insurance. The Village wanted to notify you directly of this assistance since you reported that you received damage from that storm.

"Our shared vision for

Lombard is a community of excellence exemplified by its government working together with residents and businesses to create a distinctive sense of spirit and an outstanding quality of life."

Sincerely,

VILLAGE OF LOMBARD

David P. Gorman, PE
Asst. Director of Public Works

"The Mission of the Village of Lombard is to provide superior and responsive governmental services to the people of Lombard."

attachment: federal assistance sheet



VILLAGE OF LOMBARD
 STORM OF SEPTEMBER 13-14, 2008
 MAP TO SCALE

SERVICE CALLS

- Sanitaries
- Raising Water/Flooding
- Sewer Backups
- Sewer Flooding
- Lift Station Light
- Pond Water Rising
- Other

STICKER LOCATIONS

- Sewer Backup & Street Flooding
- Sewer Flooding & Pond Overflow
- Sewer Backup
- Sewer Flooding
- Sewer Backup & Seepage
- No Data

Legend

- Flood Overflow & Seepage
- Street Flooding & Seepage
- Sewer Backup & Seepage
- Sewer Backup
- Sewer Flooding
- Sewer Flooding & Pond Overflow
- Sewer Backup & Street Flooding
- Seepage
- Pond Overflow