

## Silber, Dijana

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**From:** Gardiner, Robert D.  
**Sent:** Monday, May 18, 2020 1:21 PM  
**To:** Woolford, Kurt A.; Traynoff, Kelcey  
**Subject:** FW: Rainfall from 5/16/2020 - 5/17/2020 and 5/17/2020 to 5/18/2020

Figured I'd send some of my kudo emails...

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**From:** Kevin Kleinjan <kkleinjan@lcpd.org>  
**Sent:** Monday, May 18, 2020 12:14 PM  
**To:** Gardiner, Robert D. <RGardiner@lakecountyil.gov>  
**Subject:** Re: Rainfall from 5/16/2020 - 5/17/2020 and 5/17/2020 to 5/18/2020

Sure you hear this all the time, Bob, but the summary information you provide is top notch. Thank you, Kevin

On May 18, 2020, at 11:24 AM, Gardiner, Robert D. <[RGardiner@lakecountyil.gov](mailto:RGardiner@lakecountyil.gov)> wrote:

Sorry this is so late but flood response meetings take precedence over everything else. Needless to say, we've had a lot of rain lately. No one storm was really bad but all of them back to back really added up.

Rainfall from 5/17/2020 to 5/18/2020 – Lake County received between about 1.4" and 3.1" of rain with an overall average of 1.8" +/- 0.4"

Rainfall from 5/16/2020 to 5/17/2020 – Lake County received between about 0.7" and 1.1" of rain with an overall average of 0.86" +/- 0.13"

The 48-hour period from 5/16/2020 at 7am to 5/18/2020 at 7am Lake County received between about 2.1" and 3.7" with an average of 2.7" +/- 0.4"

The 192-hour (8-day) period from 5/10/2020 to 5/18/2020 Lake County received between about 3.7" and 8" with an average of 5.6" +/- 0.8"

Let's look at the "year rain storm" based on Revised Bulletin 70

5/17/2020 to 5/18/2020 – 24-hour peak storm: 1" in 1 hour gives about a 6-month rainfall event.

5/16/2020 to 5/18/2020 – 48 hour peak storm: 2.8" in 21 hours gives about a 1.2-year rainfall event

5/10/2020 to 5/18/2020 – 192 hour peak storm: 4.93" in 93 hours gives about a 4-year rainfall event.

We had a slow moving low pressure system that was bringing Gulf moisture right up through Milwaukee. The storms weren't convective...there were little or no thunderstorms. That is why the standard deviations (0.4", 0.13", etc) were so low...everyone got heavy rain and not just folks under a thunderstorm.

We should expect a “flood wave” coming down the Fox and Des Plaines Rivers from the rain up in Wisconsin. We also got a lot of rain locally so the river levels have risen into flood stage and will probably stay there for awhile as water keeps draining out of Wisconsin.

Everything is saturated. Depressions, ponds, lakes ditches are full. Groundwater is high everywhere. Sump pumps will be going crazy. It’s not just your house that is experiencing high water.

This is what the storm looks like now. The cyclone (low pressure system) has now moved over Michigan so they are getting the rain we received over the past couple of days. Note the counterclockwise flow in the low pressure system. This will keep bringing clouds and cool air off the Lake to us. Some of the heavier rain bands may make it across Lake Michigan and continue to give us light showers off and on. The rain shouldn’t be much more than a few hundredths inch per day. In other words, the rainfall damage has been done and any continued showers will just serve to make the less pleasant.

<image002.jpg>

The Lake County Skywarn forecast is attached as are all, what I hope are final, rainfall distribution maps.

We would like to be of assistance. If you have any questions, or would like to set up a meeting, please call our office at (847) 377-7705 or feel free to e-mail me. If you have any additional concerns that have not been addressed by the regulatory staff regarding the above comments, you may contact Chief Engineer Kurt Woolford [kwoolford@lakecountyil.gov](mailto:kwoolford@lakecountyil.gov) or Executive Director Michael Warner [mwarner@lakecountyil.gov](mailto:mwarner@lakecountyil.gov) at (847) 377-7700.

Sincerely,

LAKE COUNTY STORMWATER MANAGEMENT COMMISSION

**Robert D. Gardiner, P.E., CFM**  
Permit Engineer

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<mime-attachment>

<Rainfall from 05 17 2020 to 05 18 2020.pdf>

<Rainfall from 05 16 2020 to 05 18 2020 a 48 hour period.pdf>

<Rainfall from 05 10 2020 to 05 18 2020 a 192 hour period.pdf>