Dear County Board Member,

I oppose petition #4666 also with the other 63 residents that signed the petition here in West Highland Acres and the other surrounding subdivisions, Highland Glen & Almora Heights. I am writing in opposition to this proposed solar facility because it does not meet the criteria of Standards of a special use (zoning code section 25-4-8-2) for the following reasons:

A) **The establishment, maintenance or operation of the special use will be detrimental to or endanger the public health, safety & general welfare.** This proposed facility will be less than 250' away from our residential homes. This area (site) is well known to flood into Jackson Drive. They will be disturbing the current soil which is already has natural drainage patterns & flooding. Please view Kane County Climate Vulnerability Assessment 2/14/23; Page 2-3 & 2-4. You will see that it states as the years progress, we will have extreme precipitation, which is strongly associated with severe flooding events, has been increasing over the last several decades. Number of events reported by Kane County from January 2003 to December 2022 is 645 events. By 2050 15-25% increase in days with precipitation over 2". These solar panels contain chemicals like lead & cadmium inside if broken (by hail or old age) could leak a get into our well water. Cadmium exposure can lead to a variety of adverse health effects, including kidney damage, bone problems, and increased cancer risk. Acute exposure (high levels over a short period) can cause flu-like symptoms and lung damage, while chronic exposure (low levels over a long period) can lead to kidney, bone, and lung diseases, as well as cardiovascular issues and reproductive problems. It can also affect fetal development during pregnancy.

B) The special use will be injurious to the use and enjoyment of other property in the immediate vicinity for the purpose already permitted, nor substantially diminish and impair property values within the neighborhood. This proposed solar site #4666 will be in our back yard. Kane County Board just voted down Petition #4661 for this reason. Petition#4661 TNT HOWARD LLC was planning to build 150'ft from our house. It is the same reason you should vote this down. It is not compatible with our residential area and will have a negative impact on our property values and neighborhood character. My wife and I would have never purchased our home if there was a solar field next to our home. This is the wrong site for this solar facility.

I totally support the City of Elgin proposing homes to be built around our neighborhood. Elgin has designated the subject property as Single Family Detached in its Future Land Use Plan in the City Land Use Strategy.

Thank you,
Bruce Wright
12N268 Jackson Drive, Elgin, IL 60124

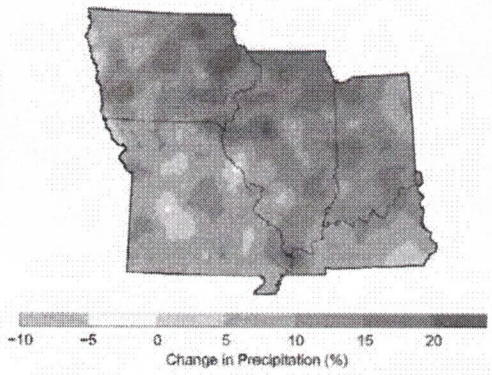
Annual Rainfall

In Illinois, annual precipitation has increased over the past 120 years. The state's total annual precipitation has increased by 5 inches, equivalent to a 12 to 15% increase in annual precipitation. In northern and central Illinois, most of the change has come in summer (June to August). The number of very heavy precipitation events over the last 120 years has increased by 40%.

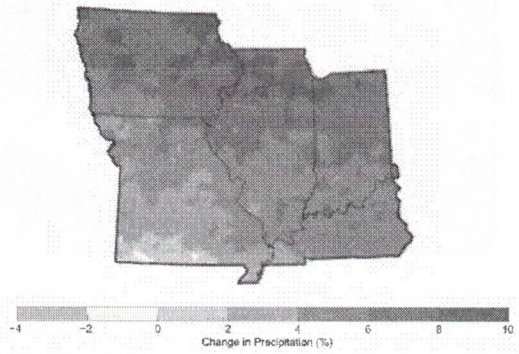
Statewide Precipitation Changes for 1990-2019 Relative to 1895-1924

Season	Precipitation (inches)	Precipitation (% Change)
Winter	+0.54	8.5%
Spring	+1.33	12.5%
Summer	+1.55	14.3%
Fall	+1.33	15.9%

Observed Annual Precipitation Changes for 1990-2019 Relative to 1895-1924

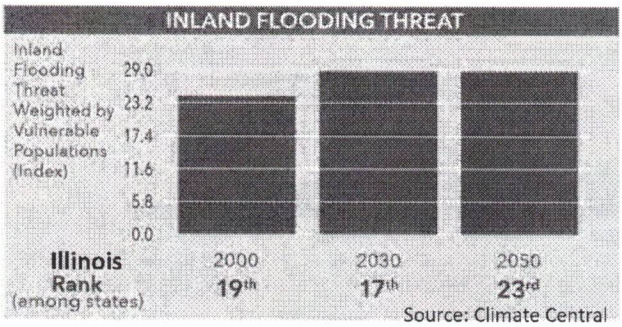


Projected Annual Precipitation Changes for 2070-2100 Relative to 1990-2019



Projected Annual Precipitation

Illinois is expected to see an increase in precipitation with larger increases in the north than in the south. Climate models show a change in the distribution of precipitation across the seasons. This increasing variability of precipitation results in projected increases in both heavy rain and length of dry spells.



Inland Flooding Threat in Illinois

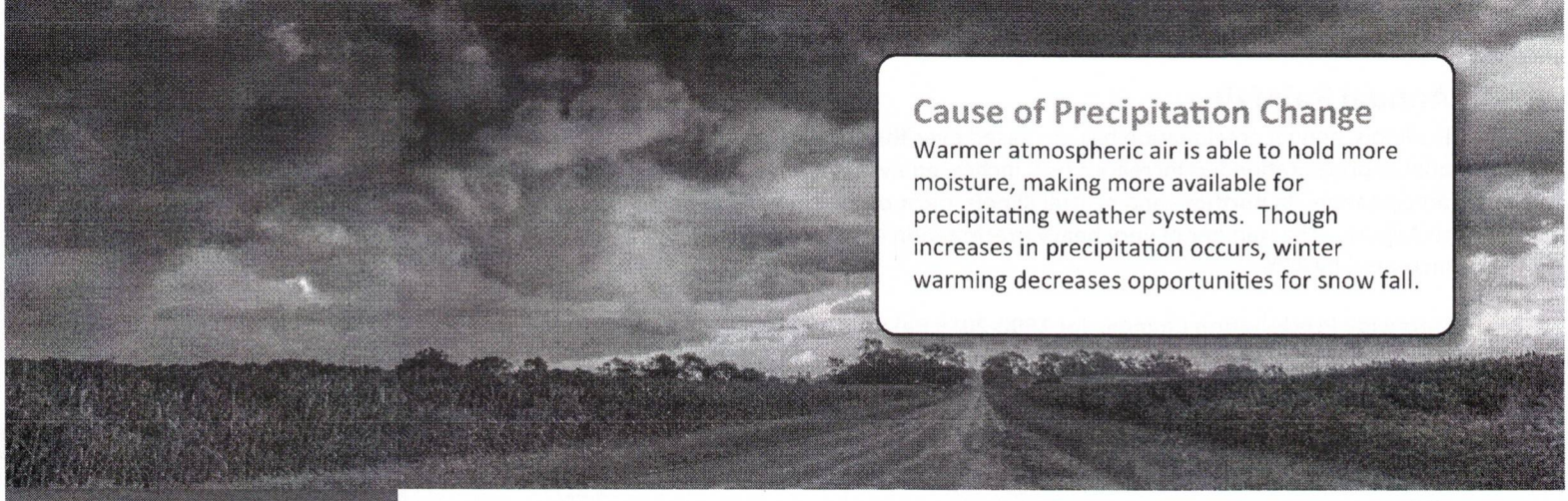
By 2050, Illinois is projected to see an increase of inland flooding threat of 25 percent—with threat being calculated by severity of flooding weighted by the State's estimated flood vulnerable population. With this increase, by 2050, Illinois is projected to be ranked 23rd for inland flooding threat within the United States—a decrease from its current ranking as 19th.

In Kane County

Since 1950:
+10% increase in annual precipitation

By 2050:
+5% increase in annual precipitation

By 2100:
+10% increase in annual precipitation



Cause of Precipitation Change

Warmer atmospheric air is able to hold more moisture, making more available for precipitating weather systems. Though increases in precipitation occurs, winter warming decreases opportunities for snow fall.

In Kane County

By 2050:

15-25% increase in days with precipitation over 2"

As much as 100% increase in days with precipitation over 4"

By 2100:

Up to 50% increase in days with precipitation over 2"

Up to 400% increase in days with precipitation

Extreme Precipitation, Storms, and Flooding

Extreme precipitation, which is strongly associated with severe flooding events, has been increasing over the last several decades. Since 2000, Illinois has seen a significant uptick in devastating, large-area extreme rainstorms as well as increases in 1-inch rains, 3-inch rains, and the size of the heaviest rainfall of the year.

Storm Weather Events

Number of Events Reported In Kane County:

From January 2003 to Dec 2022: **645 events**

Storm Weather Damage 2002-2022: **$14,602,000 + 3 deaths**

(source: NOAA National Centers for Environmental Information)

There are few detailed projections for storm activity because the complex forces involved in storm processes are difficult for scientists to model. However, according to the Nature Communications study "More frequent intense and long-lived storms dominate the spring-time trend in central US rainfall" by Feng, L. R. et al, the amount of precipitation associated with spring storms increased by 25% per decade from 1979 to 2014.

Illinois already suffers from annual flooding. The increase in heavy precipitation events over the last decades has coincided with an increase in flood disaster declarations in the State. The projected increase in the frequency of heavy precipitation events is likely to result in increasing risks from flooding and flash flooding.

16 Disasters Declared
In Kane County, Illinois
(Jan 1, 1950 - Feb 12, 2023)
25% of State Total
Source: FEMA

All Disaster Declarations in Kane County Since 1950