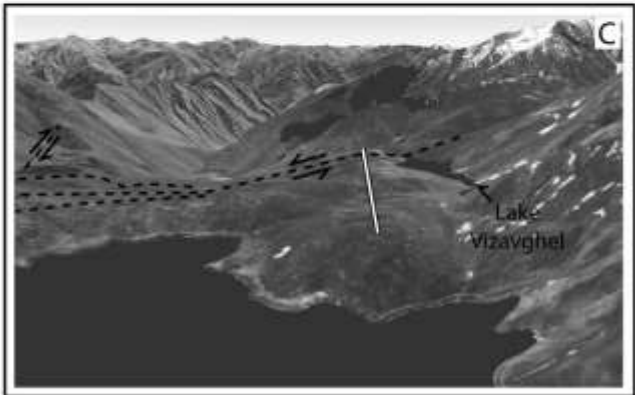
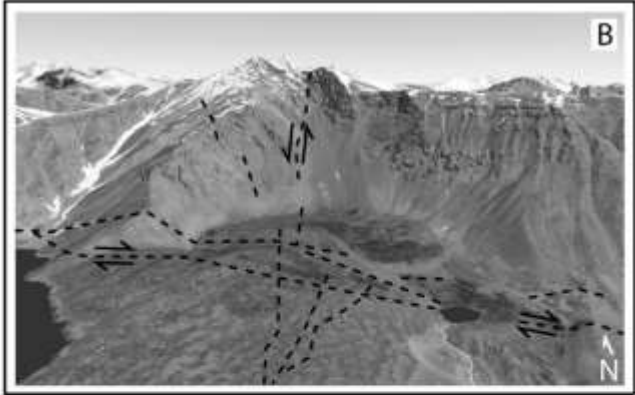
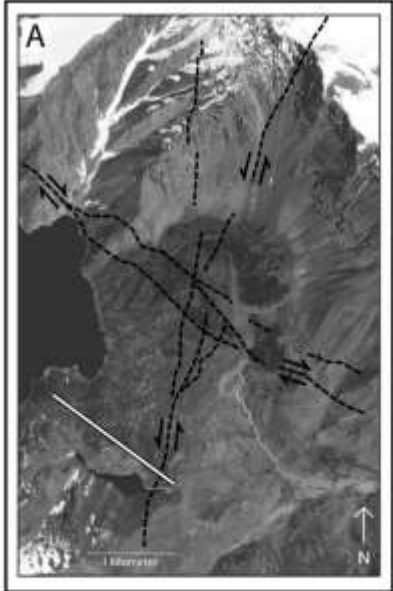
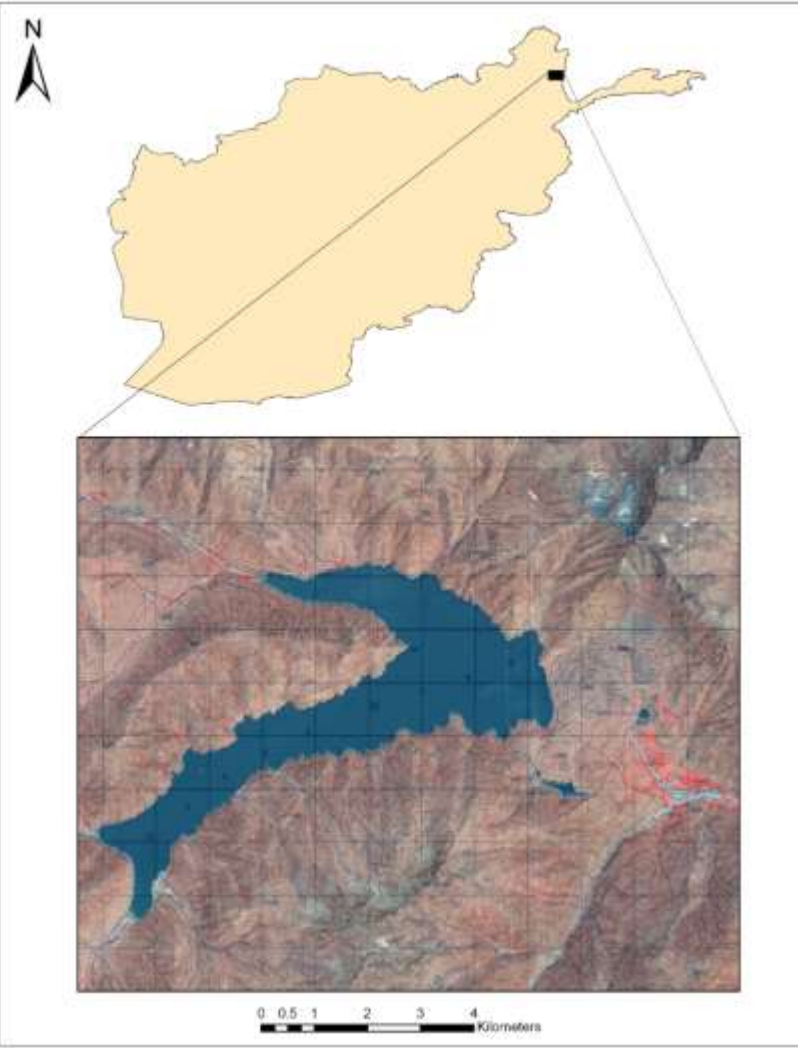




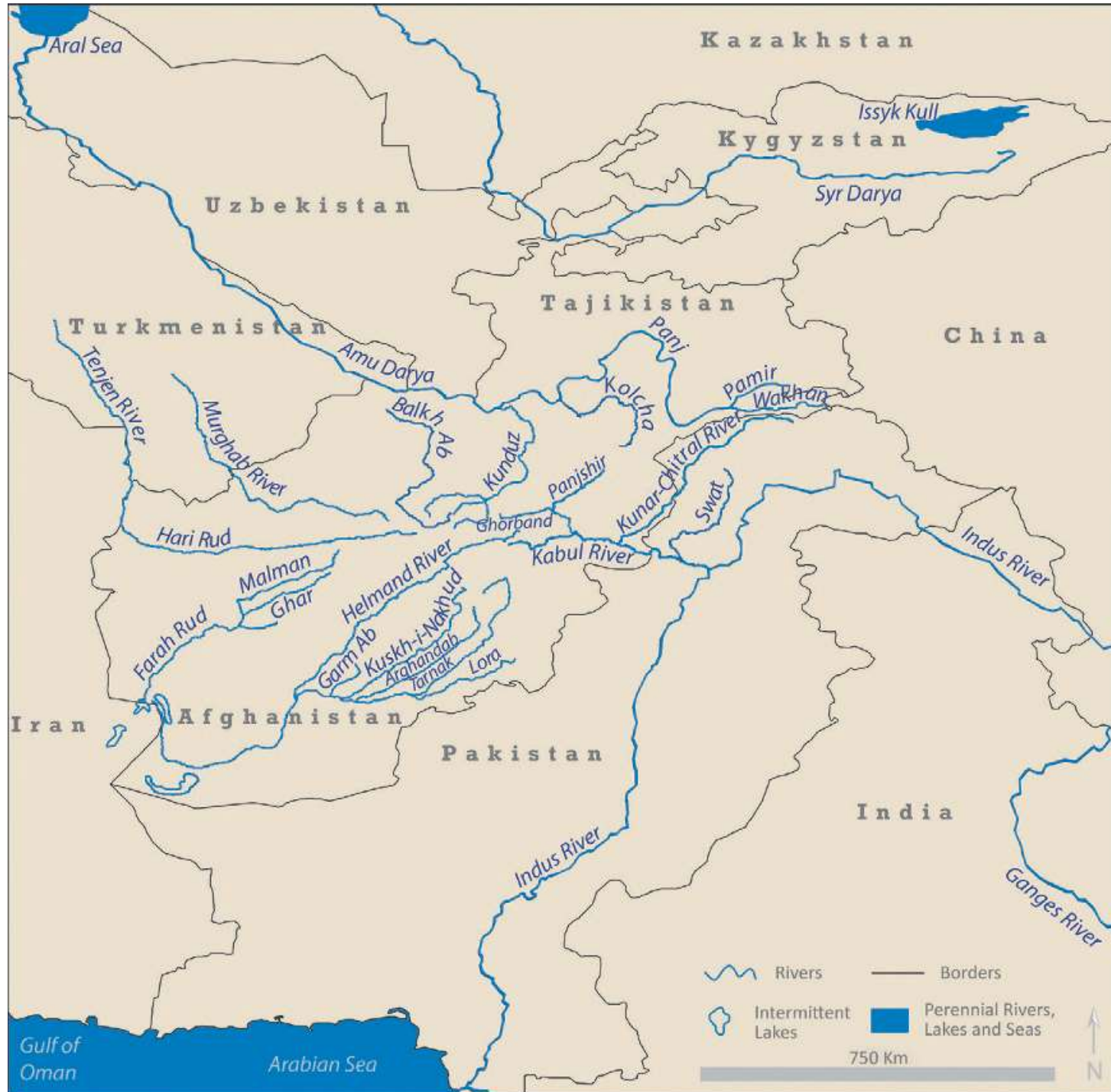
Lake Shiva, Afghanistan: a Landslide-dammed Lake

source: beautifulafghanistan.xyz



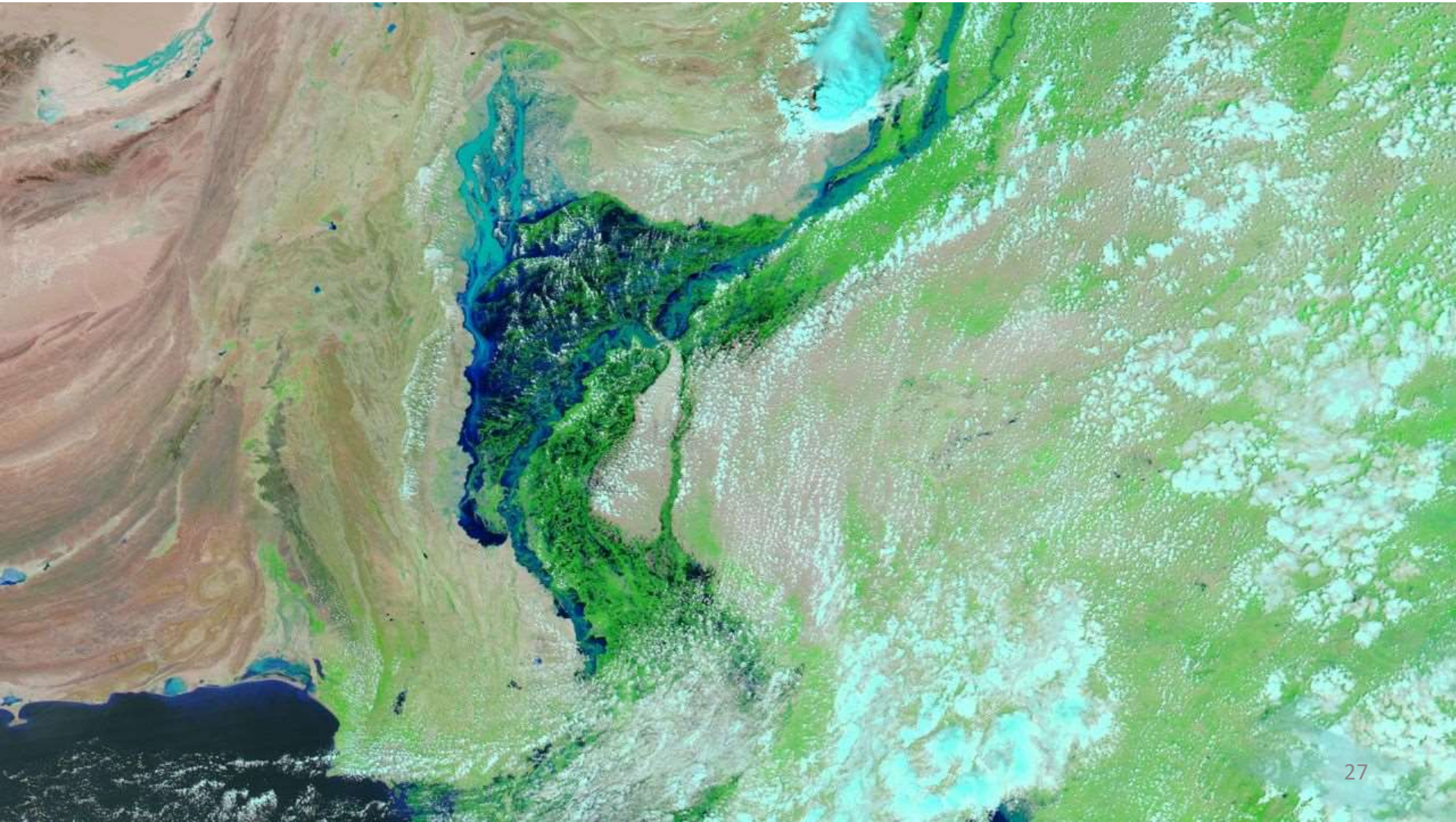
----- Strike-Slip Faulting
 ——— Hauptanlage

From Shroder and Weihs, 2010



An image of Sindh province, taken on August 28, 2020 from NASA's MODIS satellite sensor

<https://www.cnn.com/2022/08/31/asia/pakistan-floods-forms-inland-lake-satellite-intl-hnk/index.html>





Spring 2019 Missouri River Flooding

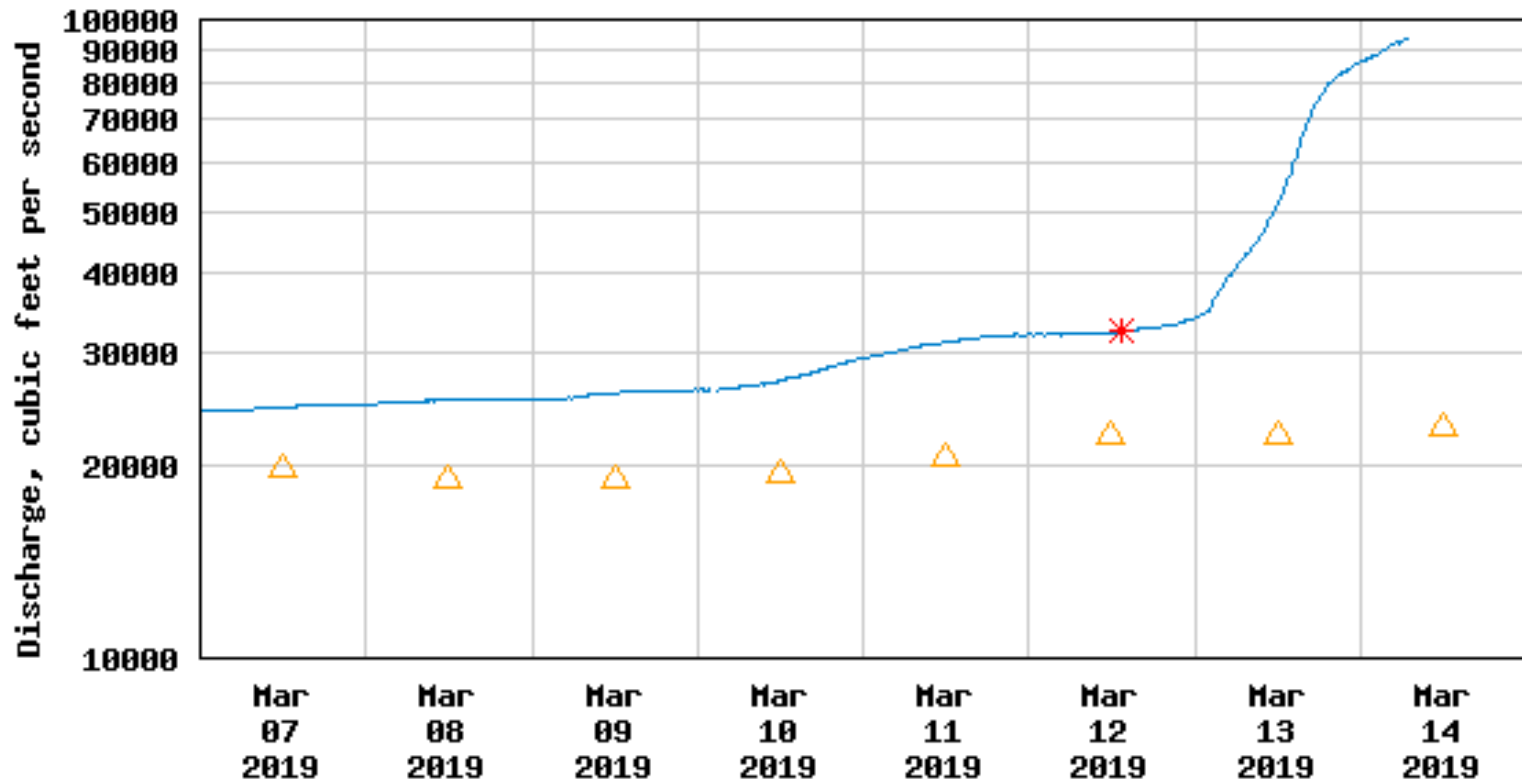
By NASA Goddard Space Flight Center from
Greenbelt, MD, USA - Historic floods have inundated
Nebraska, CC BY 2.0,
<https://commons.wikimedia.org/w/index.php?curid=77676986>

2019 Omaha Area Flooding

- We all need water to live, but sometimes the water we depend on causes us big problems, like flooding!
- We experienced that here in Omaha in 2019
 - The next few slide show the hydrographs showing the days leading up to the flood, during, and afterwards.
 - The heavy rains melted the considerable snowpack and released all the water at once.
 - You can see the rain event events as “bumps” in the hydrograph.

Hydrograph of Missouri River - Local Flooding Caused by Snowmelt and Rain in March, 2019 (at least a 500-year-flood)

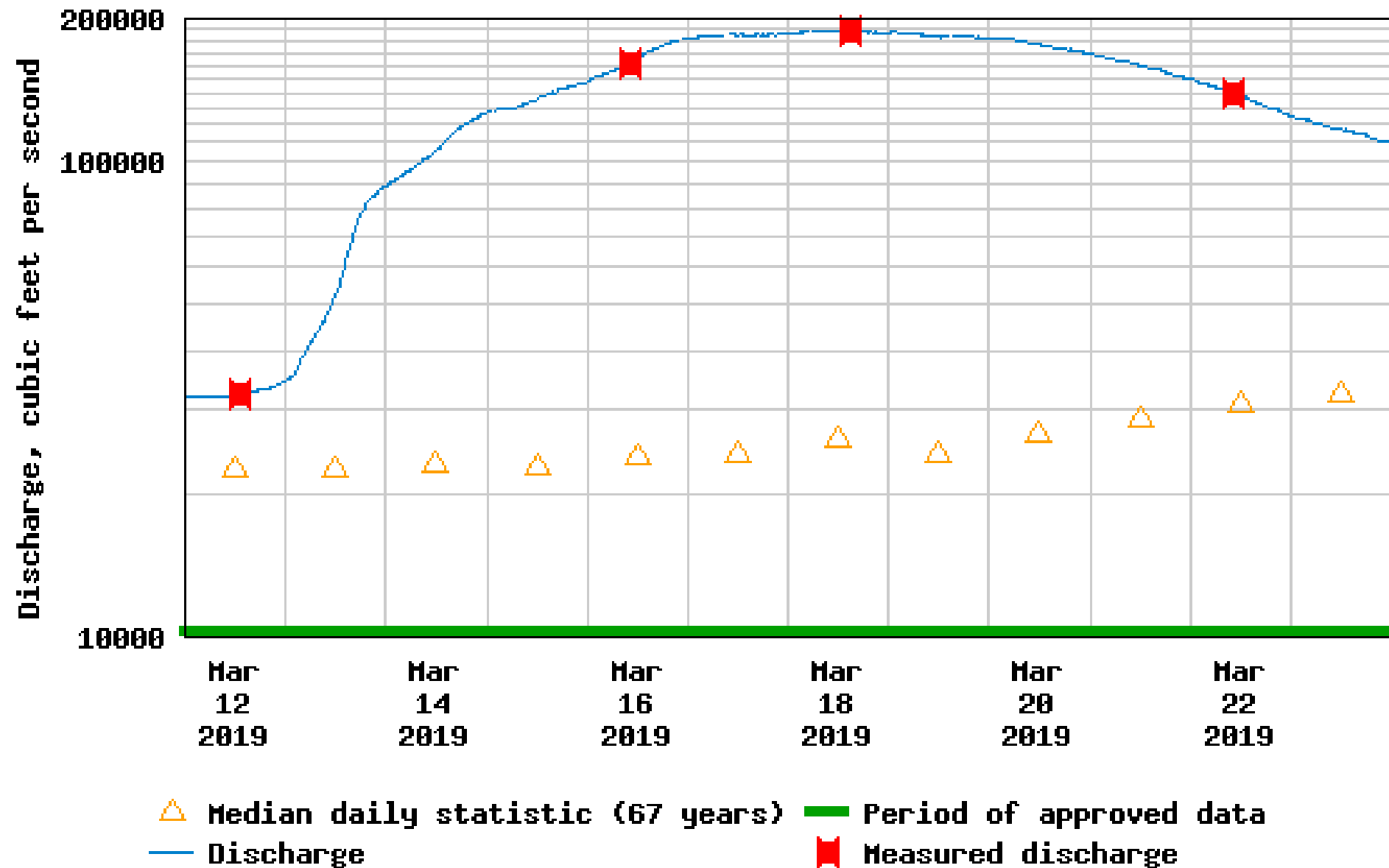
USGS 06610000 Missouri River at Omaha, NE



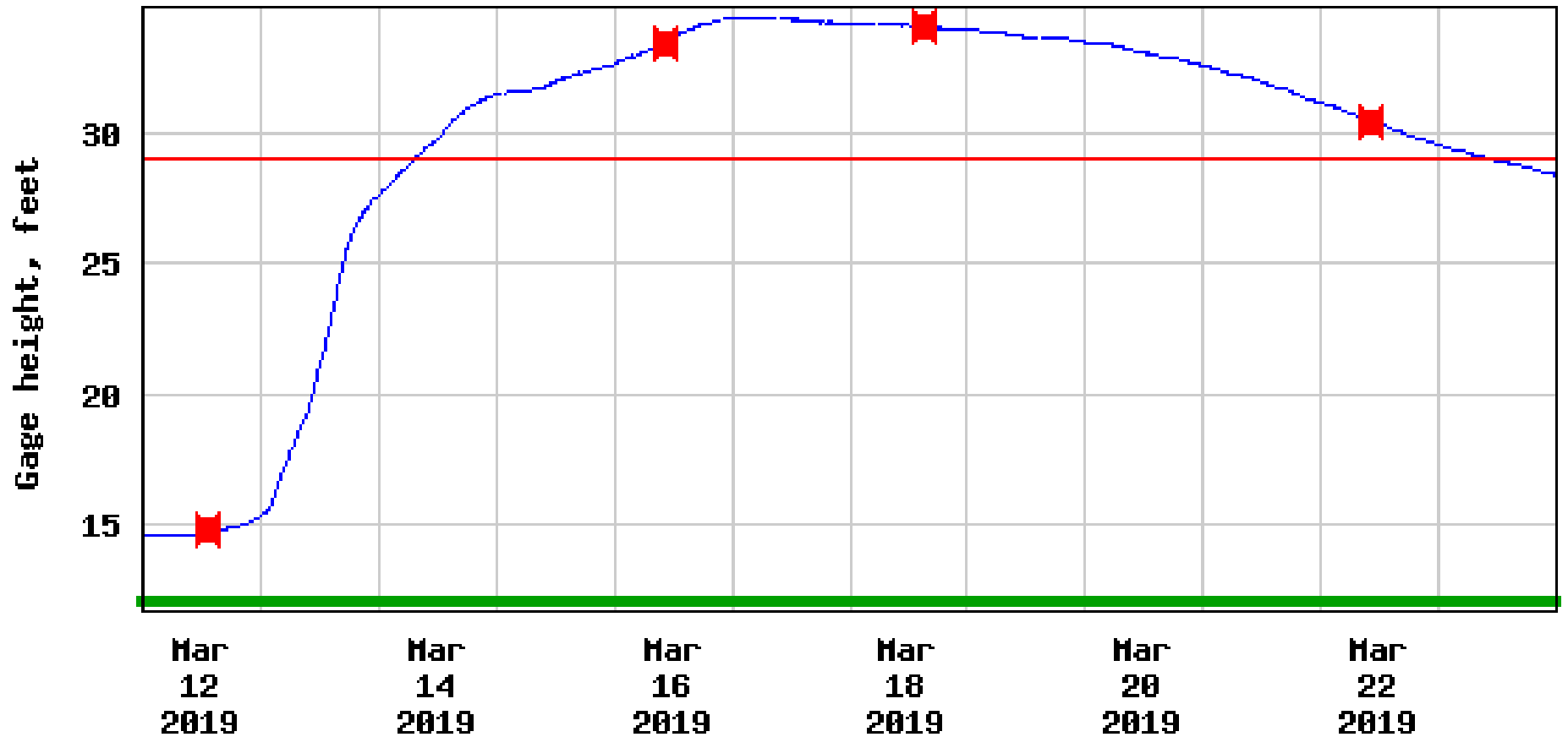
---- Provisional Data Subject to Revision ----

△ Median daily statistic (66 years) * Measured discharge
— Discharge

USGS 06610000 Missouri River at Omaha, NE



USGS 06610000 Missouri River at Omaha, NE



- Gage height
- Period of approved data
- Measured gage height
- National Weather Service Flood Stage

Saddle Creek Road in Omaha

- Built over Saddle Creek many years ago
 - It's a low point and a drainage.
 - They just filled it in and put a road over it. Not good!
 - The storm sewers get overwhelmed and it floods the entire road with a large rain every once in a while.
 - This is the result of poor planning...
 - Never build in a flood zone.
 - Check out the next pictures from June, 2008
 - If you live on Saddle Creek road near here, you might consider a safer place to live, seriously.
 - UNMC built at the top of the hill for this reason... Smart choice!
 - A bad (or just apathetic) landlord might not want to, or have to tell their renters about a property on a street like Saddle Creek Road... Do your homework before you move into a property!



Saddle Creek, Omaha – June 27, 2008 ³⁴



Saddle Creek “Road” and Dodge Street Bridge – June 27, 2008



Saddle Creek, Omaha – June 27, 2008 ³⁶



Saddle Creek, Omaha – June 27, 2008 ³⁷



Saddle Creek, Omaha – June 27, 2008 38

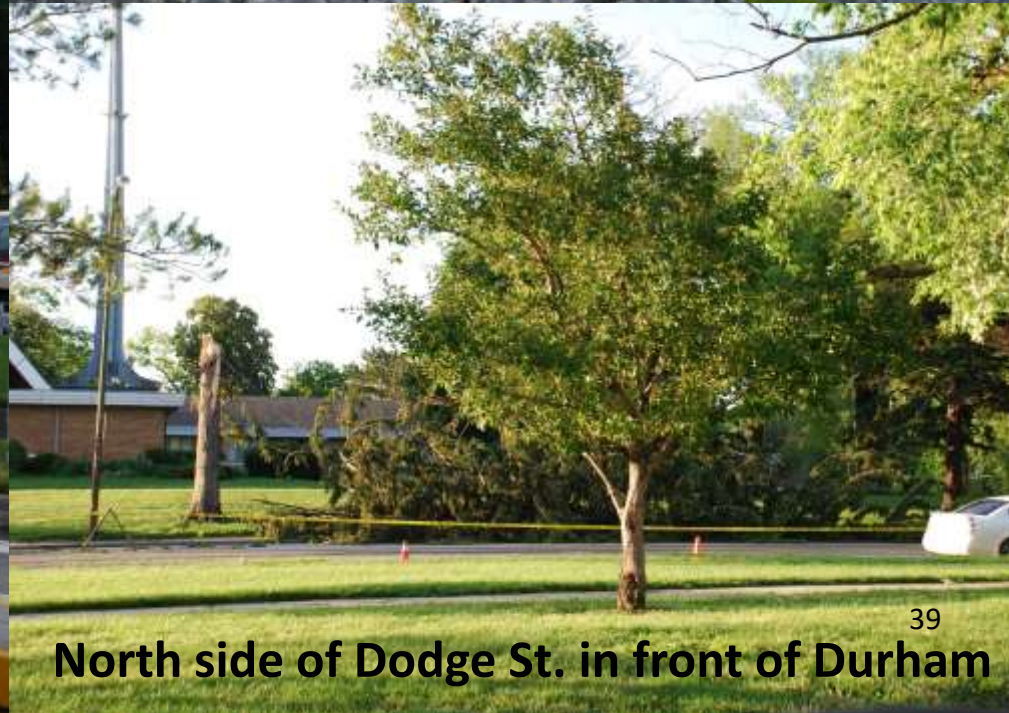
Storm from Crescent, IA
vantage point: June 27, 2008



Pea-sized hail



UNO – Durham Science Center parking lot



North side of Dodge St. in front of Durham

Saddle Creek "Road" Flooding in Summer 8-8-2021 !!! IT KEEPS HAPPENING HERE !!!



LIVE AT 5

FLOODING ON SADDLE CREEK



5:02 85°

Storm (front shown here) that caused Omaha flooding on 8-8-2021



6 News viewer Michelle Allen-Mollner sent a photo, taken at 202nd and Harrison streets, of the storm approaching the Omaha-metro Saturday, Aug. 7, 2021. The storm brought hail, flash-flooding, and power outages to the area. (Michelle Allen-Mollner / Courtesy photo)

Rivers and Flooding

- Flooding is a natural aspect of a river – it can be a “disaster” for us humans though...
- “Disaster” because flooding is a normal, natural process...
 - Only a disaster when people are negatively impacted.
 - Nile River flooding made the river banks fertile (soil) for crops, so flooding is not always a bad thing...
- Running water is responsible for landscaping the Earth’s surface
- Why are floods so disastrous?
 - People live near rivers:
 - Agriculture
 - Water supply
 - Ease of waste disposal
 - Transportation and communications
 - Power supplies

So, when floods happen, people are impacted

Hurricane Maria September 2017 bearing down on Puerto Rico and Hispaniola

