Environmental Impacts

Habitat Destruction

Floodwater can significantly alter landscapes and habitats. Floods can even be harmful for aquatic life as fish can be displaced. The influx of water can cause riverbanks to collapse which in turn degrades the quality of water due to all of the displaced sediment. As sediment settles out of the water during sedimentation riverbeds and streams can become clogged.

Erosion

Erosion can be caused by heavy rain events, flooding, and even wind. It decreases soil fertility which negatively effects crop yield. Erosion alters how water flows and can make flooding more common.

Trail Conditions

Trails and roads are prone to erosion from flooding and heavy rain events due to water runoff. These erosion events leave ruts or gullies that make travel and water drainage more difficult.

Additional Information

For more information about floods check out these additional resources:

EPA

https://epa.gov/natural-disasters/flooding

https://epa.gov/climate-change

Climate Change

Storms and

Flooding

Provided by
The Soboba Tribal
Environmental Department
951-654-5544 Ext: 4130

Climate Change

Climate change increases temperatures and in turn increases potential for storm surges, increased snowmelt, and sea level rise. A warmer atmosphere increases the rate at which water evaporates during dry periods. This means that the atmosphere holds more water vapor which makes more intense rainfall events. In recent years a higher percentage of precipitation has come in the form of intense single day events. The occurrence of abnormally high annual precipitation totals has also increased. A great example of this is the abnormally high snow pack percentages. As climate change continues we will see and experience more of these weather extremes.

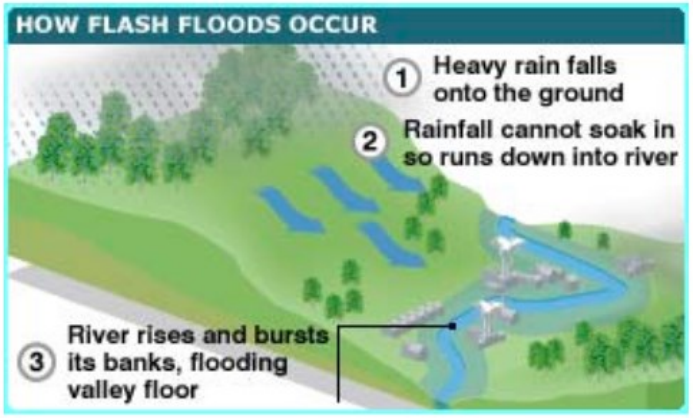
Threats posed by heavy precipitation

Heavy rainfall can overwhelm stormwater and waste systems causing an increase in stormwater runoff. Stormwater runoff often includes pollutants like heavy metals, pesticides, nitrogen, and phosphorus that can end up polluting our streams and local waterways. Excessive precipitation can degrade water quality, harm human health, and aquatic ecosystems.

Heavy precipitation increases the risk of landslides. Heavy rain fall on steep terrain can weaken soil and cause debris flow damaging homes, roads, and property.

River Floods

A flood is when streams and rivers exceed the capacity of their natural channels to accommodate water flow and water overflows the banks spilling out onto dry land. This is often caused by excessive rain from tropical systems, thunderstorms, and combined rainfall with snowmelt.



Flash Flooding

Flash floods are a rapid rise of water along a stream or low lying urban area. These floods can be caused by excessive rainfall, a dam failure, or a sudden release of water from an ice jam. Flash floods can tear trees out, destroy buildings and bridges. Flash floods can be particularly intense after a drought.