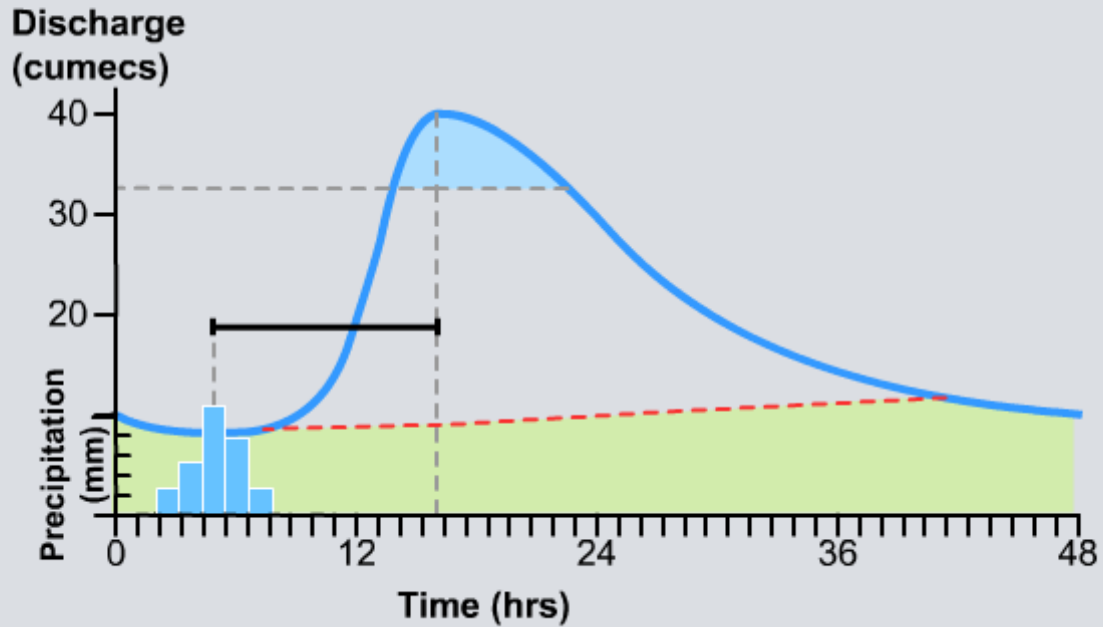


River Flooding



A flood hydrograph



Factors affecting flood hydrographs



Causes of river flooding in the U.S.

The impact of river flooding on the U.S. is predicted to increase.

This is because:

- Climate change is predicted to cause an increase in rainfall levels and intensity.
- Urbanization is creating more impermeable surfaces, which increases runoff and therefore river discharge.
- More people are living alone, putting demand on the housing market. River floodplains offer flat land at a cheap price.



How can river flooding be managed?

- **Modify the event:** Soft and hard engineering options are available. For instance, dams can help store flood water.
- **Modify vulnerability:** Flood forecasting includes monitoring river flow and volume, and predicting the impact of weather events. The National Weather Service monitors rivers in the U.S.
- **Modify the loss:** Insurance is an integral part of protecting individuals and companies from loss.



Rivers are managed to control flooding, but for what other reasons is management necessary?

Rivers are managed to:

- generate hydroelectricity
- conserve wetland ecosystems
- allow transportation
- control pollution from agriculture, industry sewage and boats
- encourage recreational activities
- provide clean water supply.



Hard and soft engineering schemes

