



# Flood Mitigation

Flood mitigation means stopping or lessening the bad effects of big floods. It's done to keep people safe and save buildings in places that might get flooded a lot. A community might do things like planning where buildings can go, managing flood areas, saying no to buildings in places that flood a lot, or teaching people about floods. A **flood mitigation plan** is essential for several reasons:

- **Risk Reduction**
- **Community Safety**
- **Infrastructure Protection**
- **Economic Resilience**
- **Climate Change Adaptation**

## Flood Mitigation Strategies

### Structural Measures

- **Floodwalls and Seawalls:** Barriers preventing floodwaters from reaching adjacent areas.
- **Levees:** Raised embankments along riverbanks to prevent overflow.
- **Floodgates:** Mechanisms controlling water flow during floods.
- **Dams and Reservoirs:** Store and release water gradually to prevent downstream flooding.
- **Channelization:** Modifying river channels to improve water flow and reduce flood risk.

### Nonstructural Measures

- **Relocation:** Moving people and property out of high-risk zones.
- **Elevation:** Raising buildings above flood levels.
- **Flood Insurance:** Financial protection against flood damage.
- **Floodplain Zoning:** Regulating land use in flood-prone areas.
- **Early Warning Systems:** Timely alerts to residents and emergency responders.

### Natural Flood Mitigation

- **Wetland Restoration:** Wetlands absorb excess water, acting as natural sponges.
- **Riparian Buffer Zones:** Planting vegetation along riverbanks to stabilize soil and reduce erosion.
- **Floodplain Preservation:** Allowing floodplains to absorb floodwaters.

