Climate Change and the Local Environment

**Impacts**

- **Event Disturbances**
  - Loss of trees and vegetation
  - Pollution of aquatic habitat
  - Loss of plants and animals, particularly birds
  - Introduction of invasive species downstream

- **Habitat Changes**
  - Loss of snowpack to protect trees roots and other plants and animals
  - Decrease in food for birds because the timing is off
  - Expanding or contracting ranges depending on climate requirements – majority profoundly shrinking
  - Decrease in fish populations (seafood)

- **Immediate & Long-term effects**
  - Increase in cost of food
  - Loss of important native species
  - Changes in environmental composition
  - New pests and disease
  - Mass extinctions
  - Ecosystem failure

**Solutions**

- **Forest and tree management**
  - Incentivize healthy forest over development and remove invasive species

- **Natural resource inventories**
  - Know your species and habitats to enable post-disaster restoration

- **Nature-based methods of resilience**
  - Avoid using grey infrastructure such as riprap and cement and opt for methods that mitigate while adapting to increased extreme weather

- **Restoration, Preservation & Conservation that protects habitat & people**
  - River corridor development control
  - Prevent toxic material storage in floodplains

- **Address invasive and problematic species**

- **Landscape with native species**

- **Education and public engagement**

- **Buy/consume ethically and less (build to last)**

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The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Report notes that since 1980 greenhouse gas emissions have doubled, raising average global temperatures – with climate change already impacting nature from the level of ecosystems to that of genetics – impacts expected to increase over the coming decades, in some cases surpassing the impact of land and sea use change and other drivers.