An Overview of Adaptation Planning
Canton & Potsdam
Key need to incorporate climate change into near-, medium-, and long-term planning

- **Minimize** risk of wasting time, money, and effort
- **Maximize** likelihood of success

“A society grows great when old men plant trees whose shade they know they shall never sit in.” Greek Proverb
Perspectives

Short-term (next election cycle)

Long-term (>100 years)

The Future

PEOPLE
- Economy
- Health
- Equity

NATURE
- Ecosystems
- Ecosystem Services
- Nature-based Solutions
- Natural Resources
**Mitigation** is what we do to decrease the potential of climate change itself.

- Addresses the **causes** with a focus on reducing greenhouse gas emissions

**Adaptation** is how we prepare for, respond to, and recover from the changes that we are already experiencing/expected to experience.

- Addresses the **impacts** of climate change with a focus on managing change
Many Adaptation Planning Processes
Many Adaptation Planning Processes

- Processes generally consist of same steps
- Participatory and iterative
- Generate place-based adaptation strategies

No right or wrong way – the most important thing is to get started!
Adaptation in Illinois
Adaptation in Illinois

Heat Waves, Drought, Flooding

Healthcare Facilities in 1996 Floodplains

Kendall County Health Department

Yesterday we collected approximately 30 Deer Ticks, the known carriers of Lyme Disease. Learn more and how to protect yourself at Toxicocounter Resource Center and/or https://www.kendallhealth.org/environmental-health/ticks/
Adaptation Strategies

- Created an **online heat toolkit** for local health departments
- Developed an online **flood mapping toolkit** for emergency preparedness professionals
- **Targeted education opportunities** for healthcare workers so they are better prepared to address health effects of climate change
- Established a **mini grant program** for local health departments to build their capacity to address the public health effects of climate change

https://braceillinois.uic.edu/take-action-2/take-action/
Adaptation Planning Process

PHASE 1
Explore, Define, and Initiate

PHASE 2
Assess Vulnerability

PHASE 3
Define Adaptation Framework & Strategies

PHASE 4
Implement, Monitor, Evaluate, & Adjust

Outreach & Engagement

California Adaptation Planning Guide 2020
Adaptation Planning Process: Phase 1

PHASE 1. Project Scoping

- Identify goals, desired outcomes of process
- Set geographic boundaries and timeframe
  - Near (e.g., length of a plan: 10-20 years)
  - Mid (25-50 years)
  - Long (e.g., lifespan of infrastructure: 50-100 years)
- Identify key stakeholders
- Identify key pre-existing conditions and climate stressors
- Identify important community assets
Vulnerability =

The degree to which natural, built, and human systems are susceptible to harm
Why Assess Vulnerability?

- Identify **what** is most vulnerable (e.g., people, places, assets, elements) and **why**
- Helps you to develop a range of adaptation
Vulnerability Assessments: Vulnerability

Likelihood: Degree to which an element or asset is exposed to significant changes in climate (i.e. how likely is it that an asset will be exposed to a given climate hazard?)

Consequence: Degree to which an element or asset is affected by exposure to a changing climate (i.e. how significant is the effect of the climate impact?)

Adaptive Capacity: The ability to adjust to climate change to moderate potential damages, take advantage of opportunities, or cope with consequences

Vulnerability:
A function of the likelihood of *exposure* to climate changes, the *consequence* of those changes, and the *capacity to adapt* to changes
PHASE 3. Adaptation Planning

- Review and/or summarize the major climate vulnerabilities
- Identify adaptation strategies that reduce vulnerabilities and/or increase resilience
- Prioritize adaptation strategies
Adaptation Planning Process: Phase 4

PHASE 4. Implement, Monitor, Evaluate

- Put adaptation strategies into action
- Create a monitoring program to track implementation
- Evaluate strategies to determine what is/is not working and adjust, as needed
Case Study: Louisville, KY
Case Study #1: Louisville, KY

High-Intensity Rainfall Events and Flooding
Case Study #1: Louisville, KY

Adaptation Strategies

- Tested the effectiveness of green infrastructure in reducing stormwater runoff through 19 **demonstration projects**
- Updated **Green Infrastructure Design Manual** based on lessons learned from demonstration projects
- University of Louisville **installed** underground infiltration chambers, cisterns, rain barrels, and permeable pavers to limit stormwater delivery

University also created Climate Action Plan, which identifies over 175 options for reducing emissions + enhancing adaptation

*Plant native, deep-rooted species to enhance carbon sequestration and help manage stormwater*

Building a Climate Savvy Community

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