

# Forest Health & Climate







# Wildlife Conservation Society Climate Adaptation Fund through The Doris Duke Foundation

- Targeted Riparian Forest Adaptation to Protect Coldwater Streams
- Help forests adapt through responsible, science based forest management



# Partnerships

- **Chagrin River Watershed Partners** grant applicant
- **Cleveland Metroparks**
- **Holden Forest and Garden**
- **Lake County Metroparks**
- Geauga Metroparks
- Lake County SWCD

- Cleveland Museum of Natural History Trout Club
- Lake County Stormwater Management Department
- Lake Erie Allegheny Partnership for Biodiversity
- Ohio Central Basin Steelheaders
- Old Woman Creek National Estuarine Research Reserve
- Think Media Studios
- Village of Gates Milles
- Village of Moreland Hills
- Western Reserve Land Conservancy/Dominion watershed mini-grant program

# Advisory Committee: Field Workshops

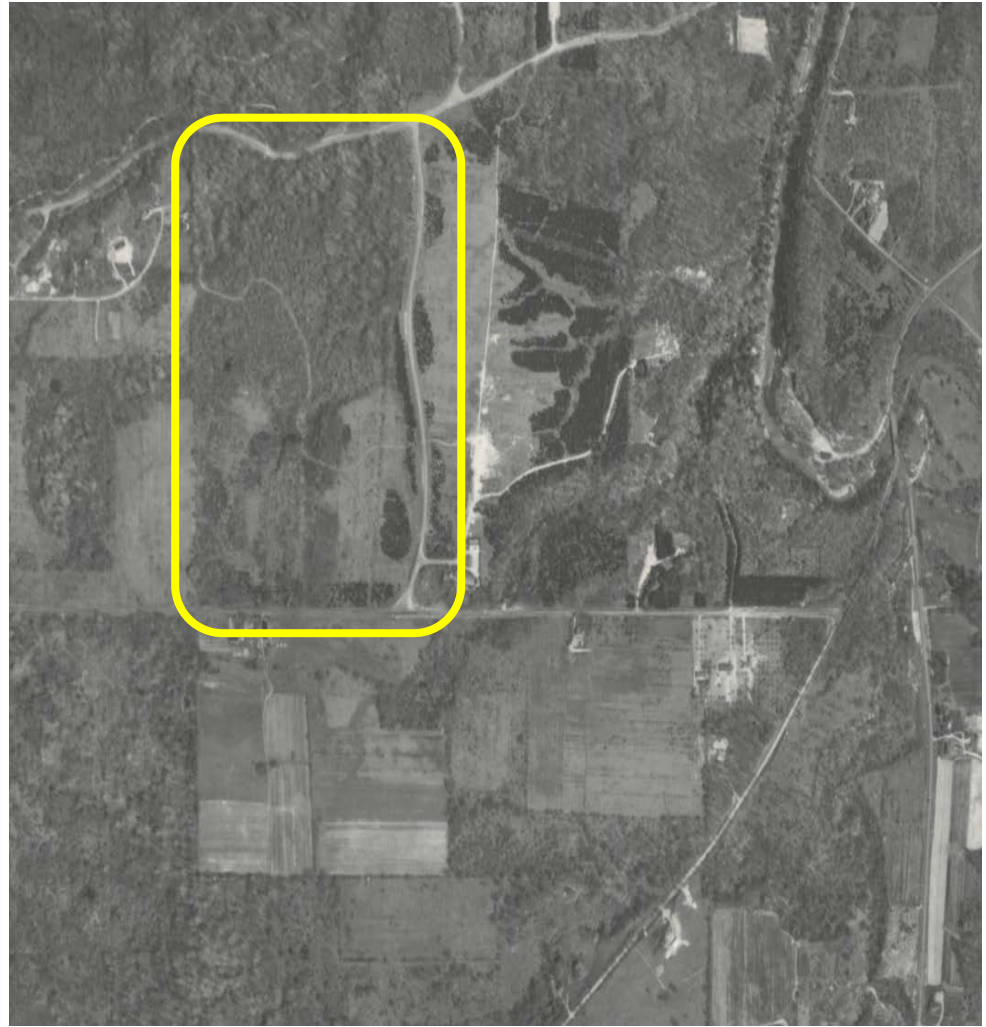
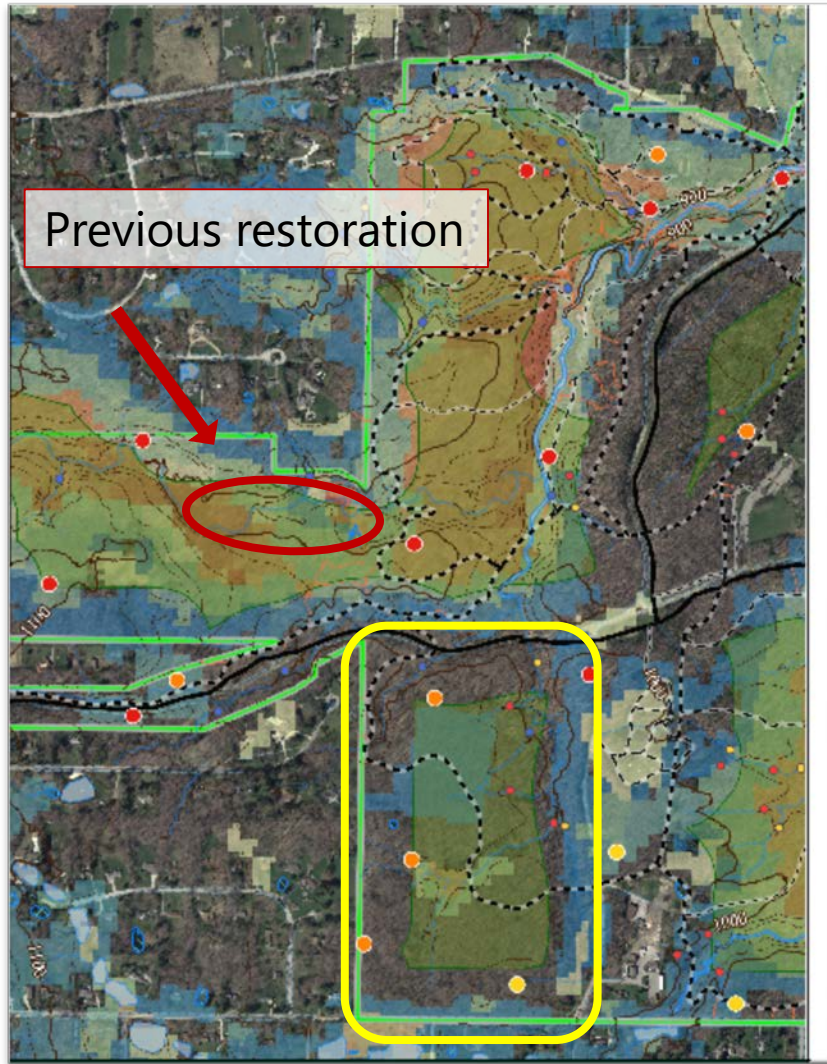
## Collaborative dialogue to discuss issues and adaptation strategies across project sites

- ODNR Division of Forestry
- U.S. Forest Service
- The Nature Conservancy
- The Ohio State University
- The Wilderness Center
- Project partners





# South Chagrin: Sulfur Springs













# Transition:

- Document baseline
- Data collection
  - Aerial images (drone)
  - Stream survey
  - Vegetation
  - Wildlife (cameras)
  - Nesting Birds
- Monitor transition & measure response







# The Science of Forest Management

Robert Boyles, Chief and State Forester

Ohio Department of Natural Resources, Division of Forestry



# Why do Forest Management?

- Wildlife Diversity
- Plant Diversity
- Increase sunlight to the forest floor
- Reduce competition
- Fire prevention
- Insect and Disease Control
- Forest Products



# Scientific Forest Management



- ▶ Steps to Achieve Scientific Forest Management
  - ▶ Inventory
  - ▶ Establish Tracts
  - ▶ Prescribe Treatments



# Inventory



- ▶ Overstory, Midstory, and Understory
- ▶ Soils
- ▶ Archeology
- ▶ Wildlife
- ▶ Rare, Threatened, and Endangered Species (plant and animal)



# Tracts Established



- ▶ Tracts are established based on:
  - ▶ Inventory
  - ▶ Desired Future Conditions
  - ▶ Species composition



# Treatments Prescribed



- ▶ Treatments are prescribed when:
  - ▶ Foresters analyze the trade-offs through growth and yield models
  - ▶ It achieves the desired future condition (through Silviculture)



# Forest Management



- ▶ Forest Management is:
  - ▶ Healthy Forests
  - ▶ Sustainable Management Practices
    - ▶ Control of Invasive Species
    - ▶ Soil and Water Protection
    - ▶ Biological Diverse Ecosystems



# Threats to our Forests



- ▶ Fragmentation
- ▶ Invasive Species
- ▶ Climate Change



# Outreach and Education



- ▶ Forest Management provides outreach and education opportunities for all Ohioans.
  - ▶ Project Learning Tree (PLT)
  - ▶ Vinton Furnace State Forest is used for multiple field days each year
  - ▶ DOF hosted 2 field days in Northern Ohio:
    - Maumee State Forest with 4<sup>th</sup> graders from Toledo
    - Chapin Forest with 4<sup>th</sup> graders from Cleveland