LANDSLIDES IN CLERMONT COUNTY
What is a Landslide?

- General term for wide variety of downslope movements of earth materials (soil, rock, vegetation) under the influence of gravity

- Debris avalanche, rockslides, mudslides, creep, subsidence, etc.
Types of Landslides

- Rotational
- Earthflow
- Rockfall
Causes of Landslides

CLERMONT COUNTY

- Steep slopes
- Presence of Kope bedrock formation or till
- Source of water (natural or manmade)
- Poor soil drainage
- Poor vegetative cover

OTHER FACTORS

- Increased weight on slope (fill, structures, roads)
- Vibrations (machinery, traffic, blasting, thunder)
- Oversteepened slopes (natural or manmade)
- Earthquakes and Volcanic Eruptions
Landslide Prone Areas
Some Recent Clermont Landslides

- Bear Creek Rd., Washington Twp. (1997) - $350,000
- Miami Trails, Miami Twp. (2001) – $25,000
- Benton Rd., Stonelick Twp. (2001) - $240,000 (road only)
Warning Signs

- Slow-developing, widening cracks on the ground or paved areas
- Fences, retaining walls, utility poles or trees that tilt or move
- Bulging ground at the base of slopes
- Doors or windows that jam or stick for the first time
- New cracks that appear in plaster, tile, brick or foundations
- Outside walls, walks or stairs that pull away from the building
- The breakage of underground utility lines
- Water breaking through to the surface in a new location
Prevention & Precaution

- Proper site selection
- Proper geotechnical investigations and engineering
- Limit slope alteration
- Limit tree and vegetation removal
- Proper water disposal (septic, sump, roof gutters, surface water)
- Education (landowners, development community, etc.)
- Hillside ordinances
- Conservation easements (i.e. – Hillside Trust)
- Be vigilant during prolonged wet weather and during heavy storms (in your house and on the road)
Mitigation

• Mitigation funds for landslide stabilization
• Landslide Insurance (Currently Not Available in Ohio)
• Develop & Implement Local Landslide Protection and Mitigation Plans
LANDSLIDES IN CLERMONT COUNTY