



# **Ground Source Heating and Cooling: Conservation Authority Perspective**

**Donald Ford, B.Sc., P.Geo.**  
**Manager, Geoenvironmental, TRCA**





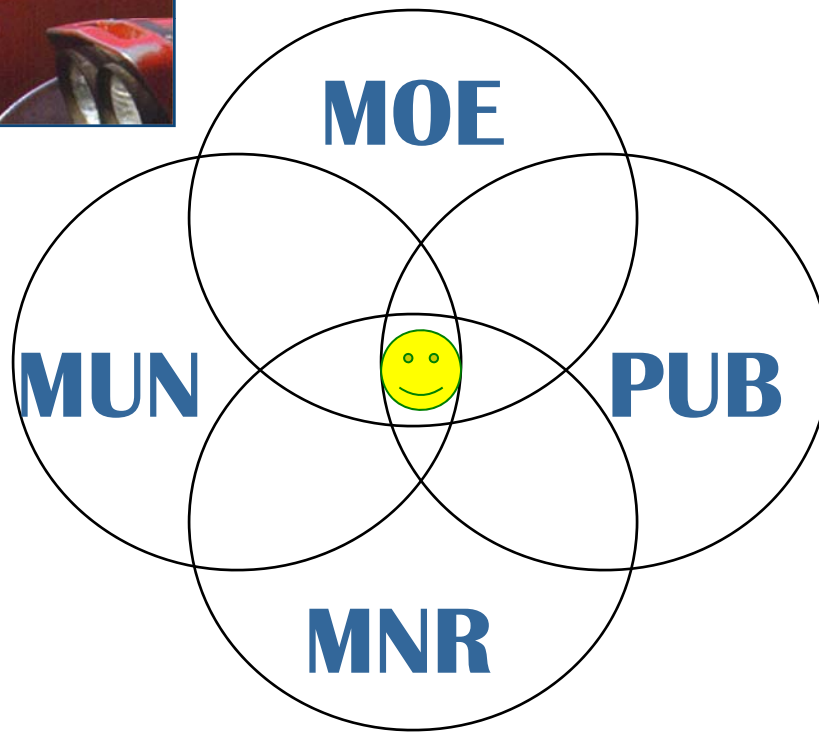
# Overview

- CAs - Who are we and what do we do?
- Why are we interested in this technology?
- Opportunities
- Potential concerns
- What we are doing now
- Next Steps – what we need to do





# Conservation Authorities





# BANANA Philosophy – NOT!



**B**uild  
**A**bsolutely  
**N**othing  
**A**nywhere  
**N**ear  
**A**nything





# CA Geoscientists

- Review development plans
- Assess potential impacts to streams and wetlands
- Enumerate significant drinking water threats
- Monitor groundwater levels and quality





# Opportunities

- Geothermal technologies represent significant energy savings
- Reduces our carbon footprint
- Good use of groundwater resources
  - Fosters awareness of groundwater
  - Renewable resource





# Potential Concerns

- Wells drilled by non-licensed drillers
- No provincial record of geothermal boreholes
- Construction in a Regulated Area
- Impacts to coldwater streams
- Impacts to wetlands





# What We are Doing Now

- Building awareness
- Preliminary screening maps for aquifer and borehole thermal energy storage
- Working with proponents to help select systems and prevent environmental impacts
- Systems in place at Kortright and TRCA's Downsview office







# Next Steps – What We Need to Do

- Centralized database of geothermal systems
- Identification of potential physical constraints
- Regional screening maps for candidate areas
- Streamlined approvals





# Thank You!

**Donald Ford, B.Sc., P.Geo.**

**[dford@trca.on.ca](mailto:dford@trca.on.ca)**

**(416)661-6600, ext. 5369**

