Background

- Originally adopted in 1996
- Subsequent amendments, most recent in 2011
- New amendments in 2017
When Required?

- Expansive soils and expansive rock;
- Unstable or potentially unstable slopes;
- *Landslide areas or potential landslide areas*;
- Debris flow and debris fans;
- Rockfall;
- Subsidence and abandoned mining activity;
- Shallow water tables;
- Groundwater springs;
- Flood prone areas;
- Collapsible soils;
- Faults;
- Landfills and areas of uncontrolled and undocumented fill; and
- Steeply dipping bedrock.
Applicable Projects

Required with submittal of:

- New or updated master plans
- Rezoning, if required by director
- Preliminary plats
- Final plats
- Development plans
- West of I-25, unless waived
Exemptions and Waivers

• Projects east of I-25 are exempt, unless certain geologic hazards are known.
• Waivers may be granted administratively for projects west of I-25 if prior and relevant study has been prepared, or if the site is not in an hazard area.
Key Requirements

In general, the geological hazard study shall be of sufficient detail and scope to:

• Identify the geologic hazards affecting the development site;

• Analyze the potential negative impacts the geologic hazards will have upon the proposed project;

• Provide mitigation techniques, which will reduce to acceptable standards the risk posed to the development by any identified geologic hazards;

• Analyze potential impacts the proposed project will have on surrounding properties or public facilities related to existing geologic hazards; and

• Provide recommendations to be incorporated into the proposed project which mitigate significant potential impacts to surrounding properties or public facilities.
The conclusions and recommendations of the study shall be based upon:

- **Site Specific Subsurface Investigations:** This is not required for master plan level studies;

- **Site Reconnaissance:** Site reconnaissance to identify the geologic features of the site and surrounding property;

- **Previous Geologic Reports:** Review of previous geologic reports within close proximity to the subject site;

- **Geologic Mapping:** Review of past geologic mapping in the area; and

- **Experience Of Geologist:** Conclusions drawn from the experience of the reviewing geologist.
Review Process
Review Process

- Geohazard report submitted with land development application
- GHR sent to CGS for review
- CGS provides comments to city staff and applicant
  - CGS and applicant have flexibility to work directly
- CGS comments incorporated in the land development approval
- City staff verifies final revisions to the GHR
- Disclosure statement on plat or development plan
After the 2014-2015 rain events and landslides, evaluation of the ordinance ensued...

...Everyone was eager and excited
Key Short-Comings Identified

- [Lack of] homebuyer awareness
- Disclosure statement too vague
- [Lack of] review of final reports and development plans by CGS
- [Lack of] requirement of geological hazard studies for single-family homes
- [Lack of] certification/verification of as-built single-family homes
- No analysis of impacts to surrounding properties
...after stakeholder process
[New]: The Manager may request a site-specific geologic hazard study in conjunction with a building permit for a new, reconstruction or an expansion of the building footprint of more than 50% of a single-family or duplex building where no previous geologic hazard study has been reviewed by the City as part of the master plan, zone change, development plan, preliminary plat or final plat.
Key Modifications

Suggest Provide mitigation techniques, which will minimize reduce to acceptable standards the risk posed to the development by any identified geologic hazards;

[New]: Analyze potential impacts the proposed project will have on surrounding properties or public facilities related to existing geologic hazards; and

[New]: Provide recommendations to be incorporated into the proposed project which mitigate significant potential impacts to surrounding properties or public facilities.
[New]: Final geological hazards report and plans sent back to CGS for review prior to the City’s final approval of applicable applications. CGS to review within 14 days

[New]: For single-family homes and duplexes, an Improvement Location Certificate (ILC) must be submitted to the City prior to the issuance of a Certificate of Occupancy by the Pike Peak Regional Building Department

Disclosure statement to identify the specific geological hazard(s) present on the property
Other Considerations

• Moratorium on new development and/or building permits
  – Not supported
• Formal real estate disclosure statements with property transfers
  – City does not have authority to regulate land transactions
• Overlay zoning/title encumbrance
  – Not supported
  – Negative affect on property values
  – Imprecise mapping
• Certification by geologist/geotechnical engineer that development/building construction completely followed recommendations of the geohazard report
  – Not supported
  – Liability insurance for firms/professionals