

Land use policies increasingly prevent pipelines from obtaining right-of-way for pipeline corridors that avoid ground movement hazards. Where ground displacement hazards cannot be avoided, the potential risks must be managed by suitable combination of design and operational strategies.

*Objectives:* Develop a comprehensive set of guidelines and recommended practices, in a format that can be implemented within the industry, for evaluating pipelines in areas subjected to large-scale ground movements.

*Technical Approach:* The Pipeline Research Council International, Inc. (PRCI), in concert with a research team drawn from C-CORE, D. G. Honegger Consulting (DGHC), SSD, Inc. (SSD), the USGS, PRCI industry sponsors that includes the Southern California Gas Company, TransCanada, El Paso, Marathon Pipelines, Williams Gas Pipeline, and Gaz de France, and the California Energy Commission will assess and recommend current landslide risk management methods and practices for use within the pipeline industry. In addition, research activities will be carried out to address known deficiencies in current techniques for assessing pipeline response to large ground displacements. These guidelines will be made available from the PRCI publications web site at no charge. PRCI intends to support regular updates to the guidance document as necessary to incorporate future technological developments.

The broad technical tasks involved in the study include: Definition of large ground displacement hazards, development of pipeline/soil interaction models, improved pipeline response modeling, utilization of pipeline geometry monitoring to assess pipeline condition and, options to mitigate risks of large ground displacement. The result of this work will be a concise set of unified guidelines that can be readily implemented within the pipeline industry and serve as a basis for demonstrating that reasonable measures have been taken to address potential risks from large ground displacements.

The project team has completed the contracting process and initial technical activities have begun and it is anticipated that these will continue to ramp up in the third quarter of the project.