

## JANUARY GSA LUNCHEON

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### **TITLE**

Update on the November 30, 2018 Anchorage Earthquake – A Geotechnical Perspective

### **SPEAKER**

John Thornley, Senior Geotechnical Engineer with Golder Associates

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### **ABSTRACT**

The M7.0 earthquake that shook on the morning of November 30, 2018 was the largest event to impact southcentral Alaska since the 1964 Great Alaska Earthquake. What have we learned in the days and weeks following the event? This presentation is an effort to provide some answers from a geotechnical engineering perspective.

An overview of the variation of shaking across Anchorage will set the stage for the damage observed. Numerous accounts of liquefaction, lateral spreading, settlement, and ground failure will be summarized. Initial thoughts on the impacts of this earthquake to engineering design and future planning will be presented. If time allows, observations from a LiDAR change point detection analysis currently underway will be shown as well.

### **BIOGRAPHY**

John Thornley is a Senior Geotechnical Engineer with Golder Associates in Anchorage. John received his Bachelor's and Master's degrees from University of Nevada Reno. While in Reno John studied geotechnical and earthquake engineering.

John is currently working on a wide range of projects across Alaska, primarily focusing on transportation and building infrastructure. He has been involved in a wide variety of site-response characterizations, including seismic hazard analyses (SHAs), in both thawed and permafrost sites. In addition to working at Golder, he is chair of the Municipality of Anchorage Geotechnical Advisory Commission.

John is currently a PhD candidate at the University of Strathclyde Glasgow under the direction of Dr. John Douglas and is studying the seismic response of the Anchorage basin. In response to the Anchorage Earthquake in November John is acting as the co-lead for the Earthquake Engineering Research Institute (EERI) Field Reconnaissance efforts.