



# GEO-RELATED RISKS FOR DAMS

## - INVESTIGATION, EVALUATION AND REMEDIATION MEASURES -

October 8, 2025 11:00 AM – 16:00 PM | Sapporo, Japan



2025 JSEG Annual Meeting  
JSEG-AEG Collaborative Session

SAPPORO EDUCATION AND CULTURE HALL

Japan Society of Engineering Geology (JSEG) and Association of Environmental and Engineering Geologists (AEG) have commenced a collaborative exchange in the field of dams. As a joint initiative, this event will focus on geological risks, a shared technical challenge for both Japan and the U.S., featuring discussions and presentations of case studies on investigation, evaluation, and mitigation measures. This presents a valuable opportunity to gain insights into the practices and approaches in the U.S., a leading nation in risk management. It is anticipated that a wide range of participants, including geological engineers, dam professionals, and civil engineers, will join to broaden their perspectives, enhance project technologies and practices, and contribute to the improvement of safety standards.

### PROGRAM

#### OPENING REMARKS

Hiroyuki Watatani (CTI Engineering Co., Ltd.)  
Yasuhiro Sasaki (Japan Dam Engineering Center)

#### INVITED LECTURE

Dr. Yoshikazu Yamaguchi  
(Vice President, Japan Society of Dam Engineers; Executive Director, Japan Commission on Large Dams; Vice President, Japan Dam Engineering Center)  
**"Variation and Design Values of Mechanical Properties of Dam Rock Foundations"**

#### AEG GENERAL LECTURE

Todd Loar and Cassandra Wagner (United States Army Corps of Engineers)  
**"Federal Dam Safety Programs in the US: Evolution and Structure of Risk Assessment"**

Hawkins Gagnon (Schnabel Engineering)  
**"An Introduction to Private Industry Risk Assessments for Dams in the United States"**

Cassandra Wagner and Todd Loar (United States Army Corps of Engineers)  
**"Geological Factors in Dam Safety Risk Assessment (US Practice)"**

Jessica Rudd, Sharon Gelinas and Todd Loar (United States Army Corps of Engineers)  
**"Complex Risk Analysis on Rock Wedge Stability at Libby Dam, Montana"**

Visty Dalal (Maryland Department of Environment, USA)  
**"Lessons Learned: Embankment Protection ("HydroTurf") on a High Hazard Dam in Maryland"**

#### JSEG GENERAL LECTURE

Yoshinori Yajima (Public Works Research Institute)  
**"Geotechnical Risk Management for Dam Upgrading Projects in Japan"**

Takashi Isomura (Yachiyo Engineering Co., Ltd.)  
**"Evaluation of Geo-Related Risks: A Perspective on Engineering Education"**

Kyohei Kamada (NEWJEC Inc.)  
**"Assessment of Sheeting Joint Development in the Foundation Rock of the Asuwagawa Dam and Engineering Countermeasures During Construction"**

Kazuhisa Ashida (Nippon Koei Co., Ltd.)  
**"Stability Study of a Long Slope Affected by Hydrothermal Alteration Andesite"**

Ryoichi Yamaura (CTI Engineering Co., Ltd.)  
**"A Case Study of Geo-Related Risks Identified in Dam Construction Projects in Soft Rock Distribution Areas and Countermeasures"**

#### DISCUSSION

#### CLOSING REMARKS

Masahiro Katayama (Kumagai Gumi Co., Ltd.)

#### Organized by

Japan Society of Engineering Geology (JSEG)

#### Co-Organized by

Association of Environmental and Engineering Geologists (AEG)

Japan Society of Dam Engineers (JSDE)

Japan Society Engineering Geology Hokkaido Branch

#### In association with

Japan Geotechnical Consultants Association (JGCA)

Hokkaido Geotechnical Consultants Association (HGCA)

#### Supported by

Japan Commission on Large Dams (JCOLD)

Japan Civil Engineering Consultants Association (JCCA)

Japan Dam Engineering Center (JDEC)

Planning Committee for Master of the Fields







# 地質関連リスクとダム

- 調査, 評価と緩和対策 -



令和7年度 日本応用地質学会 研究発表会  
JSEG-AEG 協働セッション

2025年10月8日(水)11時 ~ 16時 | 北海道札幌市  
札幌市教育文化会館

本セッションは日本応用地質学会 (JSEG) と Association of Environmental and Engineering Geologists (AEG) との協働セッションである。対面形式とオンライン形式を併用したハイブリッド形式で開催されるセッションであり、進行は英語を使用する。このセッションでは、日米のダムに関する共通の課題として地質関連リスクを取り上げ、その対処方法やケーススタディを紹介する。日本と米国はともに環太平洋火山帯に属し、地震や火山などの地質災害リスク、ハリケーンや台風等の気候変動リスク、またインフラの老朽化リスクなど、共通の課題を有する。このためこの協働は数年間継続する予定である。この協働を通じて、参加する技術者の視野や知見の向上を図り、両国および国際社会におけるダム等のインフラの安全基準と実務の改善に貢献するものである。

## III プログラム III

### 開会あいさつ

綿谷 博之 (株式会社建設技術研究所)  
佐々木 靖人 (一般財団法人ダム技術センター)

### 招待講演

山口 嘉一 (一般社団法人ダム工学会副会長; 一般社団法人日本大ダム会議常務理事; 一般財団法人ダム技術センター理事)  
**"Variation and Design Values of Mechanical Properties of Dam Rock Foundations"**

### AEG一般講演

Todd Loar and Cassandra Wagner (米国陸軍工兵隊)  
**"Federal Dam Safety Programs in the US: Evolution and Structure of Risk Assessment"**  
Hawkins Gagnon (シュナブル エンジニアリング)  
**"An Introduction to Private Industry Risk Assessments for Dams in the United States"**  
Cassandra Wagner and Todd Loar (米国陸軍工兵隊)  
**"Geological Factors in Dam Safety Risk Assessment (US Practice)"**  
Jessica Rudd, Sharon Gelinias and Todd Loar (米国陸軍工兵隊)  
**"Complex Risk Analysis on Rock Wedge Stability at Libby Dam, Montana"**  
Visty Dalal (米国メリーランド州環境局)  
**"Lessons Learned: Embankment Protection ("HydroTurf") on a High Hazard Dam in Maryland"**

### JSEG一般講演

矢島 良紀 (国立研究開発法人土木研究所)  
**"Geotechnical Risk Management for Dam Upgrading Projects in Japan"**  
磯村 敬 (八千代エンジニアリング株式会社)  
**"Evaluation of Geo-Related Risks: A Perspective on Engineering Education"**  
鎌田 恭平 (株式会社ニュージェック)  
**"Assessment of Sheet Pile Joint Development in the Foundation Rock of the Asuwagawa Dam and Engineering Countermeasures During Construction"**  
芦田 和久 (日本工営株式会社)  
**"Stability Study of a Long Slope Affected by Hydrothermal Alteration Andesite"**  
山浦 亮一 (株式会社建設技術研究所)  
**"A Case Study of Geo-Related Risks Identified in Dam Construction Projects in Soft Rock Distribution Areas and Countermeasures"**

### 総合討論

### 閉会あいさつ

片山 政弘 (株式会社熊谷組)

### ●主催

一般社団法人日本応用地質学会

### ●共催

Association of Environmental and Engineering Geologists (AEG)  
一般社団法人ダム工学会  
北海道応用地質研究会

### ●協賛

一般社団法人全国地質調査業協会連合会  
一般社団法人北海道地質調査業協会

### ●後援

一般社団法人日本大ダム会議  
一般社団法人建設コンサルタント協会  
一般財団法人ダム技術センター  
フィールドの達人企画委員会

