

## **GEO Emergency Service**

**Key Messages :** The Geotechnical Engineering Office (GEO) maintains a 24-hour, year-round service to provide geotechnical advice to government departments on any emergency actions to be taken to deal with danger arising from landslides. Our staff are dedicated to meet the challenges of this demanding and stressful emergency service.

### **Introduction**

The GEO maintains a 24-hour, year-round service to provide geotechnical advice to government departments, including rescue teams and slope maintenance departments, on actions to be taken to deal with danger arising from landslides. Such advice may involve closure of roads, evacuation of buildings, urgent slope repair works, etc. The primary objective of the emergency service is to protect the general public from landslide hazards and to assist government departments in restoring public services disrupted by landslides as soon as possible.

### **GEO Emergency Service**

The GEO Emergency Service is coordinated by the Emergency Manager (EM), who is the Chief Geotechnical Engineer on duty. The service is provided at two different levels, for which upon reported of landslides, Geotechnical Engineers (GEs) are deployed to inspect the site so as to provide geotechnical advice to other government departments.

On a normal day, the District Divisions of the GEO handle requests for emergency service from other government departments during office hours. Emergency service outside office hours is normally provided by our Emergency Duty Officers (EDOs) who respond to calls for advice from other government departments.

When a high demand for emergency service is anticipated, such as when a Landslip Warning and/or tropical cyclone warning signal number 8 or above is in force, the Emergency Control Centre (ECC) in the Civil Engineering and Development Building at Homantin is activated and manned by one of the 13 emergency teams on a rotational basis, each working in an approximately 8-hour shift. The Emergency Team Controller (ETC) of the ECC (a Senior Geotechnical Engineer) receives landslide reports and despatches GEs promptly to landslide sites to provide necessary advice to other government departments. Senior staff are available on call to support the inspecting GEs in dealing with difficult or serious cases.

The emergency service GEO provides is mainly related to geotechnical advice for other government departments on slope safety issues. We do not have regional offices throughout Hong Kong, and hence our response time is not comparable with that provided by disciplined services involved in rescue operations. Members of the public who observe signs of landslide or feel threatened by landslide danger should keep away from slopes and report to the Police for assistance immediately.

## **Continuous Improvement**

Based on feedback from other government departments and stakeholders, our emergency service is being continuously reviewed for improvements. Emergency manuals and operation procedures are periodically reviewed and updated if necessary, particularly after each wet season, to suit the latest situations. Training and drills on our emergency operation are regularly conducted for members of our emergency teams. Logistic supports for emergency operations are also continuously enhanced.

GEO has also embraced the use of new technology into our emergency service in recent years with a view to enhancing our efficiency and the preparedness of emergency response to extreme weather events. The following are some examples:

- (i) We have developed a mobile application for our inspecting GEs to input key landslide information on site, so that the real-time information can be shared with the ETC and other members of the ECC for them to provide the necessary support to the inspecting GEs , and also migrated the Landslide Information System to cloud platform to enhance the system performance, resilience and scalability to better support GEO's emergency service.
- (ii) We have formulated a training programme involving the use of virtual reality (VR) technology to strengthen the capability of our inspecting GEs on handling landslide incidents.
- (iii) We have also procured a hand-held 3D laser scanner and an unmanned aerial vehicle, which enable us to have a clearer picture of the geographical setting of landslides swiftly and safely.

**Geotechnical Engineering Office**  
**Civil Engineering and Development Department**  
**August 2025**