SMEDG FUNDS DEVELOPMENT OF THE KU-RING-GAI GEOREGION VIRTUAL GEOTRAIL

SMEDG has agreed to financially support the Friends of Ku-ring-gai Environment (FOKE) for the creation of a virtual geotrail for the Ku-ring-gai GeoRegion on Sydney's Northern Beaches (photo, courtesy of John Illingsworth). The project is being directed by Steering Committee members that includes predominantly geoscientists and builds on the existing GeoRegion website www.kuringgaigeoregion.au and aims to broaden public access to one of Australia's most significant geological, ecological, and cultural landscapes. Centred on Ku-ring-gai Chase National Park and the iconic Hawkesbury Sandstone, the GeoRegion features nationally significant geosites, exceptional biodiversity, and an extraordinary density of Aboriginal heritage places. The virtual geotrail forms part of a longer-term vision to assess the region's potential for nomination as a UNESCO Global Geopark, placing northern Sydney on the global map for geoscience education and geotourism.

SMEDG's funding of the Virtual Geotrail is part of its ongoing commitment to support worthy geoscience causes such as TESEP, the National Rock Garden and student support including its Honours scholarships programme. This new investment extends SMEDG's impact to a broader community audience, helping communicate geoscience in accessible and engaging ways.

The Northern Beaches coastline provides outstanding exposures of Triassic sedimentary rocks from North Head to Barrenjoey Head. Many cliff sections are difficult or unsafe to reach on foot, but high-resolution drone footage, captured through the 'Pittwater Pathways' programme, will allow users to explore these exposures virtually. Four virtual geotrail segments will be hosted via the GeoRegion website, downloadable for use on Apple and Android devices. Each will integrate drone video, geological explanations, maps, and interactive features such as observation challenges and feedback tools. The existing Long Reef Geotrail will be expanded with enriched multimedia, offering deeper insights into topics such as:

- bedrock composition and sedimentary variability;
- structural geology, including faults, joints, and deformation features;
- trace fossils, fossil soils, and evidence of ancient life;
- weathering patterns and landform evolution;
- cliff slump mechanics and coastal erosion processes; and
- interpretation of Triassic depositional environments and modern geomorphic changes.

The technical leaders of the project are Dr Peter Mitchell OAM and Dr John Martyn, both long recognised for their work in interpreting Sydney's geology. Videography will be provided by John Illingsworth and supported by original photography and archival material. The virtual geotrail will significantly enhance public engagement with the Ku-ring-gai GeoRegion, enriching geoscience education and supporting the long-term aspiration for UNESCO Geopark recognition.