

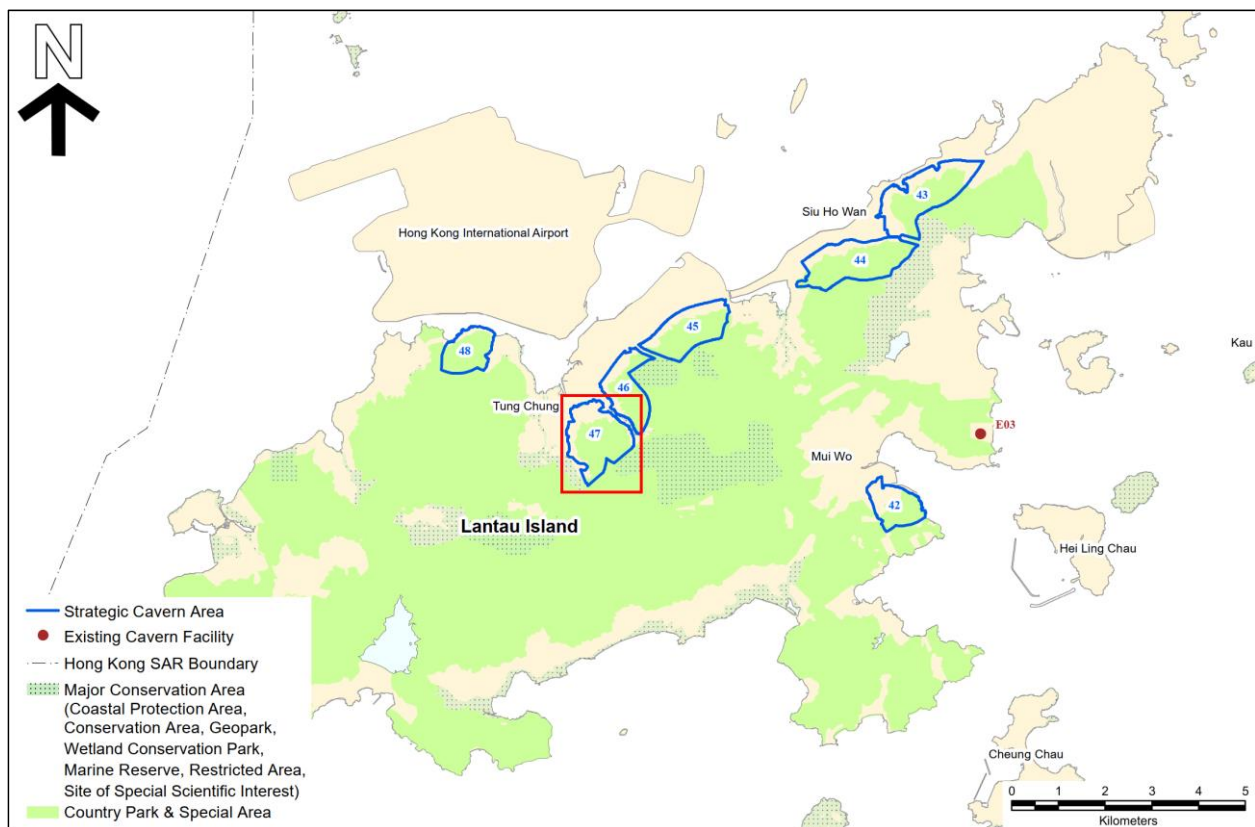
CAVERN MASTER PLAN – INFORMATION NOTE

STRATEGIC CAVERN AREA NO. 47 – TUNG CHUNG WEST

This Information Note describes the characteristics and development constraints of Strategic Cavern Area No. 47 - Tung Chung West (the SCVA). It also denotes the extent of potential portal locations. The spatial context of the SCVA is illustrated in the Reference Drawing appended to this Information Note.

Reference should be made to the Explanatory Statement of the Cavern Master Plan for its background and purposes, as well as the definition and delineation criteria of SCVAs.

1. Location Plan



2. Strategic Cavern Area Details

Outline Zoning Plans (OZPs) ¹ :	Tung Chung Town Centre Area OZP Tung Chung Valley OZP
Area:	156.5 ha
Maximum elevation in the SCVA:	+325 mPD
Minimum elevation in the SCVA:	+17 mPD

3. District Context

Location

The SCVA is located in the northern part of Lantau Island. It covers the area of Wo Liu Tun to the southwest of Tung Chung. Lantau North (Extension) Country Park is to the east and south, Tung Chung New Town is to the north, the Hong Kong International Airport (HKIA) and Hong Kong Boundary Crossing Facilities (HKBCF) of the Hong Kong-Zhuhai-Macao Bridge (HZMB) are to the further north.

The SCVA is generally hilly with a maximum elevation of about +325 mPD. More than half of the SCVA encroaches onto Lantau North (Extension) Country Park. Tung Chung Fresh Water Service Reservoir is located in the northern portion of the SCVA. To the north of the SCVA, Tung Chung New Town mainly consists of high-rise residential developments, including Yu Tai Court (about 170 m to the northeast of the SCVA), Yat Tung Estate (about 250 m to the north of the SCVA), Mun Tung Estate (about 200 m to the northwest of the SCVA), Caribbean Coast (about 1,600 m to the northeast of the SCVA) and Seaview Crescent (about 1,500 m to the northeast of the SCVA). There are also a number of local villages adjacent to the SCVA, including Ma Wan New Village, Shan Ha (Pa Mei) Village and Chek Lap Kok New Village (all at the eastern boundary of the SCVA), Sheung Ling Pei Village and Ha Ling Pei Village (both at the northern boundary of the SCVA), Shek Lau Po Village and Mok Ka Village (both about 500 m to the west of the SCVA). The development of Tung Chung New Town is supported by various key Government, Institution or Community (GIC) facilities, including North Lantau Hospital (about 400 m to the north of the SCVA).

¹ For details of the latest land use zonings on the OZPs, please refer to the Town Planning Board Statutory Planning Portal 3 (<https://www.ozp.tpb.gov.hk/>).

There are proposals for development of Tung Chung East and Tung Chung West with a view to extending Tung Chung New Town into a distinct community with supporting community and commercial facilities. Tung Chung East Extension Area is on new land formed by reclamation located to the northeast of the SCVA while Tung Chung West Extension Area is located to the west of the SCVA.

Access

The SCVA is accessible from its eastern and western edges via Wong Lung Hang Road and Tung Chung Road. Regional and cross-boundary connections could be routed through the adjacent North Lantau Highway, Tuen Mun-Chek Lap Kok Link and HZMB.

The MTR Airport Express and Tung Chung Line run along the North Lantau Highway to the north of the SCVA. The nearest station to the SCVA is Tung Chung Station of Tung Chung Line, which is about 1,100 m to the north of the SCVA. Tung Chung West Station (about 250 m to the northwest of the SCVA) and Tung Chung East Station (about 2.7 km to the northeast of the SCVA) are proposed to support the future development in the extension areas.

Existing / Planned Facility in SCVA

There is no existing or planned cavern facility within the SCVA.

4. Summary of Characteristics of Strategic Cavern Area

4.1. Boundary

The northern boundary of the SCVA is defined by private lots along Tung Chung Road. The eastern boundary of the SCVA is defined by Wong Lung Hang Road, private lots and Chek Lap Kok New Village. The western boundary of the SCVA is defined by permitted burial grounds, private lots and Tung Chung Road. The southern boundary of the SCVA is defined by the Water Supplies Department's Tung Chung Tunnel. Individual private lots located within the SCVA have been excised from the SCVA. Project proponents shall check the latest land status with the Lands Department. Reference should be made to the Explanatory Statement of the Cavern Master Plan for the delineation criteria of SCVAs.

4.2. Geology

The solid geology of the SCVA is primarily rhyolite lava and tuff, which belong to Lantau Volcanic Group. The SCVA is with the rock types that are suitable for the uses of rock caverns. A number of geological features, such as faults and photolineaments, are identified within and

in areas surrounding the SCVA. The excavated rocks within the SCVA can be used as road base materials and for asphalt production, etc.

Further geological information of the SCVA can be found on the 1:20,000-scale Geological Map Sheet 9 (Tung Chung) published by the Geotechnical Engineering Office, Civil Engineering and Development Department.

4.3. Planning

The SCVA is close to the existing urban development in Tung Chung New Town, HKIA and HKBCF, and is adjacent to the proposed Tung Chung New Town West Extension Area. The SCVA is well connected by major highways and railway to the rest of the territory and cross-boundary connection.

The northern and western sides of the SCVA are respectively the major existing and proposed residential development areas in Tung Chung New Town and its extension. These areas consist of various high-rise residential developments (e.g. Yat Tung Estate, Yu Tai Court, Mun Tung Estate, Caribbean Coast, and the proposed developments in Tung Chung West Extension Area) supported by a number of GIC facilities (e.g. municipal services building, hospital, school, service reservoir, etc).

The SCVA is situated at a strategic location near the HKIA, HKBCF and Tung Chung New Town and served with major trunk roads including North Lantau Highway, Tuen Mun-Chek Lap Kok Link and the HZMB enabling regional and cross-boundary connections.

4.4. Environmental

Environmental sensitive receivers to the potential caverns in the SCVA are the nearby existing residential areas (e.g. Chek Lap Kok New Village, Sheung Ling Pei Village, Ha Ling Pei Village, Wong Ka Wai Village, Lung Tseng Tau Village, Yu Tai Court, Mun Tung Estate and the proposed public housing developments in Area 42 and Area 46) and schools (e.g. Caritas Charles Vath College and YMCA of HK Christian College). The SCVA encroaches onto Lantau North (Extension) Country Park and Water Gathering Grounds. The Sheung Ling Pei Fung Shui Wood is located close to the northern boundary of the SCVA. There are natural and modified water courses within the SCVA. Wong Lung Hang Ecologically Important Stream (EIS) and Tung Chung (Mok Ka and Shek Mun Kap) EIS are located close to the eastern and western boundaries of the SCVA respectively. Sunset Peak Site of Special Scientific Interest is close to the southeastern boundary of the SCVA. Tung Chung Fort, a declared monument is located at the northern boundary of the SCVA. Tin Hau Temple in Tung Chung (Grade 2 historic building), Entrance Gate of Shek Mun Kap (Grade 3 historic building), Hau Wong Temple in Tung Chung (Grade 2 historic building) and traditional permitted burial grounds are located in the vicinity of

the SCVA. Also, Sha Tsui Tau Site of Archaeological Interest is to the northwest of the SCVA. A detailed archaeological impact assessment should be conducted to assess the archaeological impact imposed by the proposed cavern projects and mitigation measures should be proposed in consultation with the Antiquities and Monuments Office, before the detailed design and construction phase of the project in accordance with the Environmental Impact Assessment Ordinance (EIAO).

All potential environmental constraints, which may impose restrictions on the potential caverns, should be identified and taken into account under the EIAO and other relevant ordinances, such as the Country Parks Ordinance. Project proponents are required to take into account the potential environmental constraints when planning each project and undertaking the environmental impact assessment under the EIAO to determine its environmental acceptability, potential environmental impacts and environmental mitigation measures required.

4.5. Traffic

The SCVA can be accessed from its eastern and western edges via Wong Lung Hang Road and Tung Chung Road. Regional and cross-boundary connections could be routed through the adjacent North Lantau Highway, Tuen Mun-Chek Lap Kok Link and HZMB.

The SCVA is located close to the North Lantau Highway which provides access between Chek Lap Kok and other main areas of Hong Kong. Access to the highway from the SCVA is via Yu Tung Road and the Tung Chung Eastern Interchange.

Tung Chung Road is a rural road and its southern section (to the south of Shek Mun Kap Road) is within the South Lantau closed road network, i.e. only accessible by vehicle with valid permit. Access to the SCVA via Tung Chung Road to the north of Shek Mun Kap Road will be more flexible. Wong Lung Hang Road is currently a single track access road and its southeastern section beyond Chek Lap Kok New Village is in close proximity to Wong Lung Hang EIS and its surrounding conservation area. Since upgrading/widening of this section of the road may generate adverse environmental impacts to the EIS and the conservation area, access to the SCVA via that section of Wong Lung Hang Road should be intended for pedestrian use as emergency exit only.

The project proponent would be required to assess the traffic impacts to the road networks in the vicinity and carry out traffic improvement measures so as to ensure that the traffic infrastructure could cope with the additional traffic flow brought by the project when formulating any considering cavern options in the SCVA.

4.6. Other Key Issues / Constraints on Cavern Development

A Water Supplies Department's tunnel, namely Tung Chung Tunnel, is located approximately 50 m to the southeast of the SCVA. As it is far from the SCVA boundary, it would not pose any insurmountable constraint on the potential uses of rock caverns.

5. Extent of Potential Portal Locations

The extent of the potential portal locations is shown on the Reference Drawing.

The SCVA is generally accessible via Tung Chung Road to the west; Wong Lung Hang Road to the east; and a restricted access road off Wong Lung Hang Road leading to a slope adjacent to Tung Chung Fresh Water Service Reservoir in the northern portion of the SCVA.

The extent of potential portal locations along Tung Chung Road is on roadside slopes. The SCVA could be accessed by provision of suitable run-in/out or priority controlled junction, depending on the proposed use. The northern section of this extent is mostly unrestricted with regard to the road configuration and so would be able to support a range of traffic-generating activities subject to detailed traffic impact assessment and engineering design. The southern section of this extent, however, is within the closed road section of Tung Chung Road, where valid permit is required for vehicular access. In addition, Area 42 and Area 46 have been planned for public housing developments. Project proponents should take consideration of the latest development of the site including the traffic conditions, and carry out necessary traffic impact assessments associated with the proposed use in the cavern project.

The extent of potential portal location along Wong Lung Hang Road is accessible via a single-track access road. The southeastern section of Wong Lung Hang Road beyond Chek Lap Kok New Village is in close proximity to Wong Lung Hang EIS and its surrounding conservation area. Upgrading/widening of that section of Wong Lung Hang Road may generate adverse environmental impacts to the EIS and its surrounding conservation area, and hence the access should be limited for pedestrian use as emergency exit for potential caverns in the SCVA. As Wong Lung Hang EIS, Lantau North (Extension) Country Park, local villages and conservation area are located in close proximity, any potential environmental impacts should be well assessed and minimised as far as possible. In addition, the construction of emergency exit and the associated works (e.g. slope works) at Wong Lung Hang Road should be sited away from Lantau North (Extension) Country Park as far away as possible to reduce any possible ecological, visual and recreational impacts to the country parks and their users. The portal and all other aboveground works should avoid encroaching onto the country park. Project proponent should explore alternative access road outside the country park or an alternative location of the portal to reduce any possible ecological, visual and recreational impacts to the country park and any nuisance to its users.

The potential portal at the slope adjacent to the Tung Chung Fresh Water Service Reservoir can be accessed via a restricted single-lane access road off Wong Lung Hang Road, and would be suitable for low traffic-generating activities. Project proponents should liaise with Water Supplies Department for using this portal location.

There are natural slopes above the potential portal locations. There may be potential natural terrain hazards in the vicinity which may require further study by the project proponents.

Project proponents should carry out further studies on identifying specific locations of portals for projects considering cavern options.

6. Remarks to Information Note

The Cavern Master Plan and all supporting documents do not exempt project proponents for cavern projects from following the relevant statutory procedures. Information including the extent of potential portal locations indicated in this Information Note should serve as reference materials only. In formulation of development proposals, project proponents should conduct the necessary studies and assessments relevant to each project stage. Reference should be made to the “Implementation” section of the Explanatory Statement of the Cavern Master Plan for further details.

