

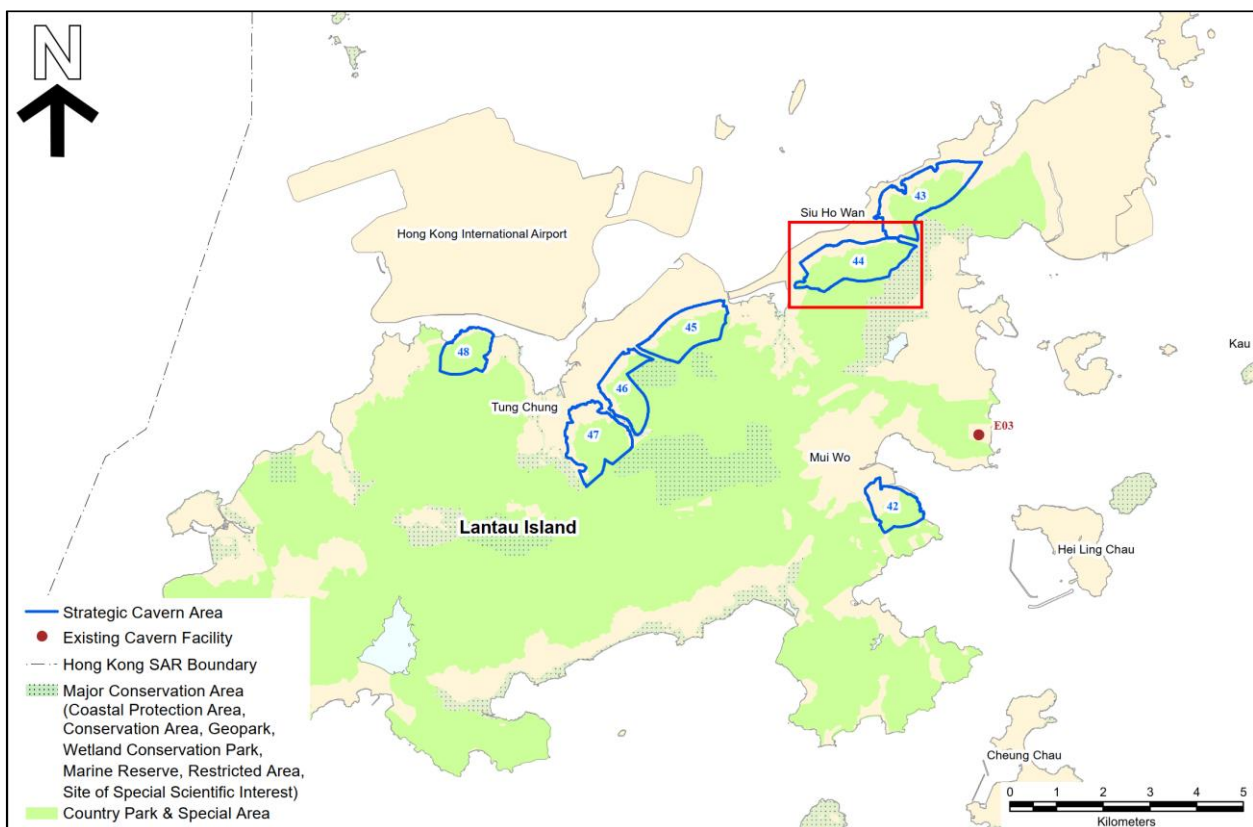
CAVERN MASTER PLAN – INFORMATION NOTE

STRATEGIC CAVERN AREA NO. 44 – SIU HO WAN

This Information Note describes the characteristics and development constraints of Strategic Cavern Area No. 44 - Siu Ho Wan (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 Plan (OZP) ¹ :	Siu Ho Wan OZP
Area:	172.6 ha
Maximum elevation in the SCVA:	+378 mPD
Minimum elevation in the SCVA:	+6 mPD

3. District Context

Location

The SCVA is located in the northern part of Lantau Island. It covers the hillside area of Siu Ho Wan. Sham Shui Kok is located to the northeast of the SCVA, Lo Fu Tau and Lantau North (Extension) Country Park are to the south, Tai Ho Wan is to the west and southwest, and Tung Chung New Town, Hong Kong International Airport (HKIA) and Hong Kong Boundary Crossing Facilities (HKBCF) of the Hong Kong-Zhuhai-Macao Bridge (HZMB) are to the further west.

The SCVA is generally hilly with a maximum elevation of about +378 mPD. A majority of the SCVA encroaches onto the Lantau North (Extension) Country Park. The vicinity of the SCVA has a number of key Government, Institution or Community (GIC) facilities and facilities of specified uses. These include the North Lantau Transfer Station (about 1,050 m to the north of the SCVA), Siu Ho Wan Sewage Treatment Works (about 200 m to the north of the SCVA), Siu Ho Wan Water Treatment Works (about 350 m to the north of the SCVA), Siu Ho Wan Vehicle Pound Vehicle Examination Centre and Weigh Station (about 500 m to the north of the SCVA), O•Park Phase 1 about 500 m to the north of the SCVA), and some bus depots and maintenance depots (including Siu Ho Wan Government Maintenance Depot, New Lantau Bus Company Siu Ho Wan Depot and MTR Siu Ho Wan Depot at the northern boundary of the SCVA).

MTRCL has studied the feasibility of residential development atop the MTR Siu Ho Wan Depot and Siu Ho Wan Depot Development is proposed². In addition, the construction of additional

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/>).

² Source: Pact reached on depot site devt
(https://www.news.gov.hk/eng/2022/09/20220923/20220923_170529_083.html)

sewage rising main and rehabilitation of existing rising mains between Tung Chung and Siu Ho Wan Sewage Treatment Works is in progress³.

The area to the southwest of the SCVA consists of the major conservation area in Tai Ho Wan and some local villages, including Tin Liu and Pak Mong (both about 1,100 m to the southwest of the SCVA).

Access

The SCVA is accessible from its northern edges via Cheung Tung Road and Discovery Bay Tunnel Link which is a restricted access 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 alongside the North Lantau Highway to the north of the SCVA. There are currently no railway stations close to the SCVA. A new railway station has been planned with the Siu Ho Wan Depot Topside Development and is expected to be completed in 2030.

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 Discovery Bay Tunnel Link, Discovery Bay Tunnel and Siu Ho Wan Government Maintenance Depot. The eastern boundary of the SCVA is defined by the Conservation Area. The northwestern boundary of the SCVA is defined by Cheung Tung Road. The western boundary of the SCVA is defined by the Tai Ho Priority Site for Enhanced Conservation.

³ Source: Planning, Design and Construction of New Sewerage Facilities – Construction of Additional Sewage Rising Main and Rehabilitation of the Existing Sewage Rising Main between Tung Chung and Siu Ho Wan (https://www.dsd.gov.hk/EN/Publicity_and_Publications/Publicity/DSD_Sustainability_Reports/20/planning_design_and_construction_of_new_sewerage_facilities.html)

4.2. Geology

The solid geology of the SCVA is feldsparphyric rhyodacite and feldsparphyric rhyolite, which belong to East Lantau Rhyodacite and East Lantau Rhyolite respectively. The SCVA is with the rock types that are suitable for the uses of rock caverns. A number of geological features, such as faults, photolineaments and isolated dykes, are identified within and in the areas surrounding the SCVA. The excavated rocks may be suitable for reuse as construction aggregate, subject to further confirmation by relevant testing on the potential alkali-silica reaction. Nevertheless, the excavated rocks 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 10 (Silver Mine Bay) published by the Geotechnical Engineering Office, Civil Engineering and Development Department.

4.3. Planning

Currently the area in Siu Ho Wan is mainly used for housing various GIC facilities and facilities of specified uses.

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 HZMB enabling regional and cross-boundary connections

4.4. Environmental

Key environmental constraints on the potential caverns in the SCVA are the Lantau North (Extension) Country Park within and to the south of the SCVA, comprising the natural greenery and lowland forest. The various industrial/NIMBY type of facilities (e.g. Siu Ho Wan Sewage Treatment Works, Siu Ho Wan Government Maintenance Depot, Siu Ho Wan Vehicle Pound Vehicle Examination Centre and Weight Station and several bus depots) in the close proximity to the SCVA may also pose environmental constraints on the potential caverns. There may be potential land contamination associated with those facilities and require further investigation by the project proponents if necessary. Tai Ho Priority Site for Enhanced Conservation, Tai Ho Stream Site of Special Scientific Interest, Tai Ho Site of Archaeological Interest and several permitted burial grounds are located to the southwest of the SCVA. Conservation Area is also located to the southeast of the SCVA.

All potential environmental constraints, which may impose restrictions on the potential caverns, should be identified and taken into account under the Environmental Impact Assessment Ordinance (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 northern edges via Cheung Tung Road, the slopes behind Siu Ho Wan Sewage Treatment Works and Discovery Bay Tunnel Link which is a restricted access road. Regional and cross-boundary connections can be made through the adjacent North Lantau Highway via other nearby roads/highways. The connectivity of the SCVA is enhanced by the nearby major transport infrastructure, including the HKIA, HZMB and Tuen Mun-Chek Lap Kok Link, and the proposed new railway station at Siu Ho Wan.

Access to the North Lantau Highway from the SCVA can be routed through Sunny Bay Road and Penny's Bay Highway to the east of the SCVA, or Tung Chung Eastern Interchange to the west.

Discovery Bay Tunnel Link is a toll road with restricted access. Cheung Tung Road is a single carriageway for two-way traffic connecting MTR Sunny Bay Station at the east and Tung Chung at the west. The project proponents 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 considering cavern options in the SCVA.

4.6. Other Key Issues / Constraints on Cavern Development

Siu Ho Wan/Silver Mine Bay Aqueduct passes through the SCVA from northeast to southeast. A proposed fresh water tunnel between Siu Ho Wan and Silver Mine Bay Water Treatment Works will be located in the northeastern portion of the SCVA. Discovery Bay Tunnel is about 50 m to the northeast of the SCVA. Considering the horizontal extent and topography of the SCVA, these tunnels in general would not pose insurmountable constraint on the potential uses of rock caverns within the SCVA. Project proponents should take into account the existing and proposed underground infrastructure when pursuing cavern projects.

The SCVA falls within an area that is covered by Deed of Restrictive Covenant ("DRC") dated 10 December 1999 (memorial no. IS278911 and TW1325552) as amended by the Deed of Variation of DRC ("DVDRC") dated 25 August 2017 (memorial no. 17092601830018) in relation to the Hong Kong Disneyland, which sets height restrictions in the vicinity of the theme park to avoid visual intrusions. Lands Department should be consulted regarding any proposals that may encroach onto the area covered by the deed.

Project proponents should also take into account the latest progress of the proposed developments at Siu Ho Wan and other developments under the Blueprint.

5. Extent of Potential Portal Locations

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

The SCVA is accessible from the slopes behind Siu Ho Wan Sewage Treatment Works and Discovery Bay Tunnel Link to the north, and Cheung Tung Road to the northwest.

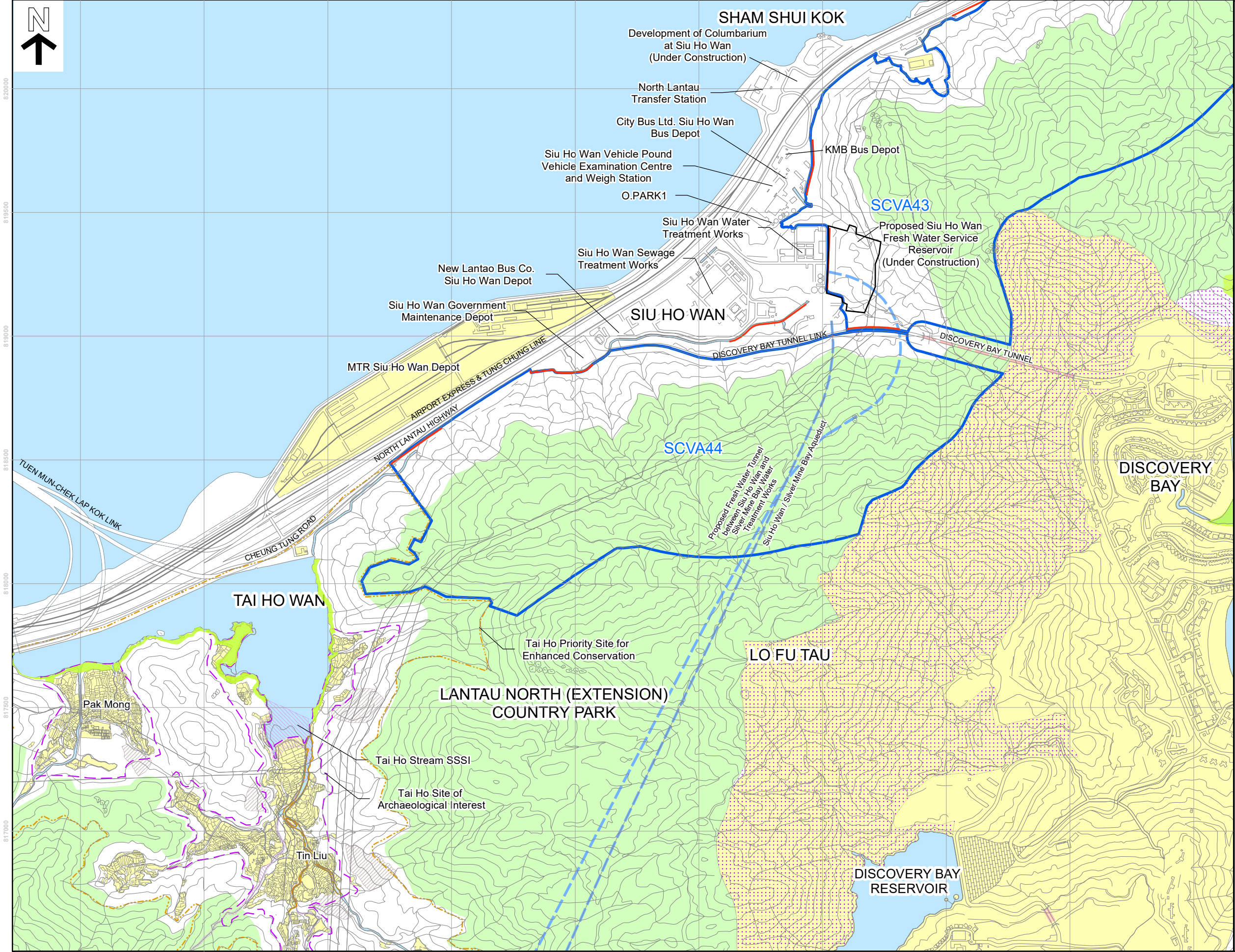
The potential portal locations are general on slopes alongside the roads in which multiple portal locations can be formed if required. The potential portals are generally unrestricted by the existing configurations and capacity of the roads, allowing the SCVA being suitable for developing various uses subject to detailed traffic impact assessment and engineering design. However, accessing the potential portals behind Siu Ho Wan Sewage Treatment Works and on Discovery Bay Tunnel Link is under restrictions. The project proponents would have to sort out the land status and right of access issues when planning cavern project.

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

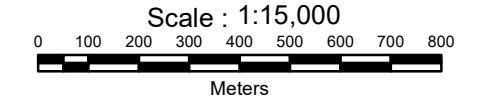
The Cavern Master Plan and all supporting documents do not exempt project proponents for cavern projects from following the relevant statutory procedures. Information including the extent of potential portal locations indicated in this Information Note should serve as reference materials only. In formulation 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.



Legend

- Strategic Cavern Area
- Extent of Potential Portal Locations
- Existing Railway Line / Light Rail / Tram
- Vehicle Tunnel
- Water Supplies Department Tunnel
- Reservoir / River / Nullah / Sea
- Site of Archaeological Interest
- Graded Historic Building
- Burial Ground
- Conservation Area
- Country Park
- Ecologically Important Stream (EIS)
- Private Lot
- Priority Site for Enhance Conservation
- Site of Special Scientific Interest
- Coastal Protection Area (CPA)

Note: All private lots located inside the boundary of the Strategic Cavern Area have been excised. 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 Strategic Cavern Area.



REFERENCE DRAWING OF STRATEGIC CAVERN AREA NO. 44 - SIU HO WAN