

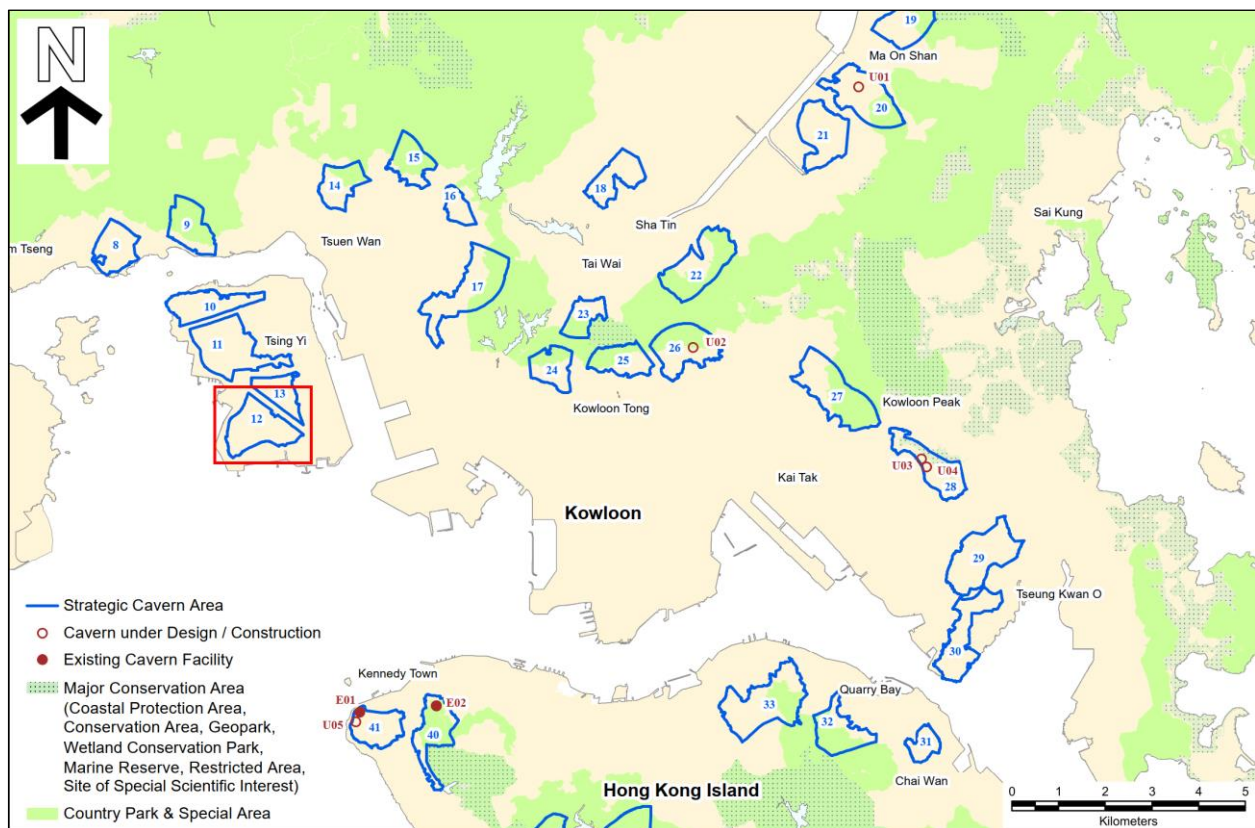
CAVERN MASTER PLAN – INFORMATION NOTE

STRATEGIC CAVERN AREA NO. 12 – TSING YI SOUTH

This Information Note describes the characteristics and development constraints of Strategic Cavern Area No. 12 - Tsing Yi South (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 :	Tsing Yi OZP
Area:	112.8 ha
Maximum elevation in the SCVA:	+334 mPD
Minimum elevation in the SCVA:	+3 mPD

3. District Context

Location

The SCVA is located at the southern portion of Tsing Yi Island, which is situated to the west of Kwai Chung and Tsuen Wan. It occupies the areas of Nam Wan and Nam Wan Kok. Sai Shan is to the north of the SCVA, Chun Fa Lok is to the east, and the coastal areas facing Ma Wan Channel is to the south and west.

The SCVA is generally hilly with a maximum elevation of about +334 mPD. Within the SCVA, Tsing Yi South Fire Station is located at the western portion, Tsing Yi South Fresh Water Service Reservoir and an ex-chemical works are located at the southern portion.

To the west of the SCVA, there is focused development of industrial undertakings including oil depots, dockyards and container related uses along the western coast of Tsing Yi. To the south of the SCVA, there are also focused industrial developments including oil depots, chemical waste treatment and container related uses along the southern coast of Tsing Yi. The area to the east of the SCVA is mainly developed for container related uses. To the north of the SCVA, it is the residential area of Tsing Yi, which consists of a number of medium- to high-rise residential developments and local village settlements, including Cheung Ching Estate (about 1,050 m to the northeast of the SCVA), Rambler Crest and Mayfair Gardens (both about 900 m to the northeast of the SCVA).

In the proximity of the SCVA, there are a number of key Government, Institution or Community (GIC) facilities supporting the development of Tsing Yi and the territory, including Tsing Yi East Fresh Water Service Reservoir (about 1,100 m to the northeast of the SCVA), Tsing Yi Preliminary Treatment Works (about 1,200 m to the northeast of the SCVA), Hong Kong Institute of Vocational Education (Tsing Yi) (HKIVE) (about 650 m to the northeast of

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/>).

the SCVA) and the Environmental Protection Department Chemical Waste Treatment Facilities (about 200 m to the southeast of the SCVA).

Access

The SCVA is accessible from its western and southern edges via Tsing Yi Road West, Tsing Keung Street, Tsing Nam Street and Tsing Yi Road. Regional connections could be routed through the nearby Cheung Tsing Highway and Tsing Sha Highway.

The MTR Airport Express and Tung Chung Line runs through Tsing Yi with Tsing Yi Station located about 2.2 km to the north of the SCVA.

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 northeastern boundary of the SCVA is defined by the Nam Wan Tunnel and the South Tsing Yi Site of Special Scientific Interest. The western boundary of the SCVA is defined by Tsing Yi Road West and Tsing Keung Street. The southern boundary of the SCVA is defined by Tsing Yi Road and private lots, including Tien Chu (Tsing Yi) Industrial Centre and Styron Chemical (Former).

4.2. Geology

The solid geology of the SCVA is primarily fine-grained granite and medium-grained granite within the southern portion, which belong to Sha Tin Granite; and coarse ash crystal tuff within the northern portion, which belongs to Yim Tin Tsai Formation. The SCVA is with the rock types that are suitable for the uses of rock caverns. Some geological features, such as faults and isolated dykes, are identified within and in the areas surrounding the SCVA. The excavated fine-grained granite and medium-grained granite within the SCVA are suitable for reuse as construction aggregate. Other excavated rock material can be used as road base materials and for asphalt production, etc.

Further geological information of the SCVA can be found in 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

The SCVA is adjacent to existing industrial areas in Tsing Yi. Given the SCVA is well connected to the rest of the territory by various major highways, there is potential for the SCVA to support the development of these areas.

The western and southern coasts of Tsing Yi, located to the west and south of the SCVA respectively, have been developed as hubs of various industrial uses that require direct marine access and extensive land, including dockyards, oil depots, chemical waste treatment and container related uses. On the northern side of the SCVA, there are major residential areas in Tsing Yi. These consist of various medium- to high-rise residential developments (e.g. Cheung Ching Estate) and local village settlements supported by a number of GIC facilities (e.g. sports ground, sewage treatment plants, service reservoirs, etc.). The SCVA is strategically located in the urban fringe with easy access to the rest of the territory, including Ma Wan and Lantau via the Lantau Link, Ting Kau and Northwest New Territories via Tsing Long Highway, Tsuen Wan via Tsing Tsuen Bridge (please refer to Reference Drawing of SCVA No. 11 for the location of the bridges), Kwai Chung and the Kowloon mainland via Cheung Tsing Bridge, Tsing Yi Bridge and Kwai Tsing Bridge (please refer to Reference Drawing of SCVA No. 13 for the location of the bridges), and Stonecutters Island and the west Kowloon area via Stonecutters Bridge. The land above +150 mPD is designated as ‘No Borrow Area’ by the Coordinating Committee on Land-use Planning and Control relating to Potentially Hazardous Installations (CCPHI) in 1988, where borrowing and alternation of landforms are prohibited. Any alteration of the ridge below 150 mPD has to be agreed with concerned departments including the Gas Standards Office of Electrical and Mechanical Services Department. Project proponents shall consult relevant departments if the proposed uses and portals involve alternation of the ridge below 150 mPD.

4.4. Environmental

The South Tsing Yi Site of Special Scientific Interest is located at the northern boundary of the SCVA. The SCVA is in proximity to the existing LPG/Oil terminals of Exxon Mobil Hong Kong Ltd (east terminal & west terminal), Sinopec Hong Kong Ltd., Chevron Hong Kong Ltd. and Shell Hong Kong Ltd. The SCVA is also in close proximity to the planned Advanced Construction Industrial Building (ACIB) under “Agreement No. WQ/216/22 (CE) Hazard Assessment and Traffic Impact Assessment for Proposed Development in Tsing Yi”. The blasting assessment shall take these LPG/Oil terminals and planned Government facilities including the ACIB in the vicinity into account. There may be potential land contamination in the areas of industrial facilities, e.g. oil depot and chemical waste facilities, located close to the western and southern boundaries of the SCVA and further investigation may be required in future development project considering cavern options in the vicinity. Also, some natural water

courses and streams are located within the SCVA and close to the extent of potential portal locations. There are wooded areas within 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. 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 is accessed from its western and southern edges via Tsing Yi Road West, Tsing Keung Street, Tsing Nam Street and Tsing Yi Road. Regional connections could be routed through the nearby Cheung Tsing Highway and Tsing Sha Highway.

Tsing Yi Road may become oversaturated in terms of capacity subject to further detailed traffic assessment to be carried out by the project proponent of cavern project. The project proponent shall also assess the combined traffic impact due to the proposed Tsing Yi – Lantau Link. Further advice on the scope of Traffic Impact Assessment shall be sought by the project proponent.

4.6. Other Key Issues / Constraints on Cavern Development

A vehicle tunnel, namely Nam Wan Tunnel, is located 50 m away from the northern boundary of the SCVA. Also, the SCVA may have interface issue with the preliminary alignment of Tsing Yi – Lantau Link. The potential uses of the SCVA shall consider the proposed link once its alignment is confirmed. In addition, a potential quarry site is identified in the western portion of the SCVA. Project Proponents should take due consideration on possibility of further study.

5. Extent of Potential Portal Locations

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

The SCVA can be accessed from Tsing Yi Road West and Tsing Keung Street to the west, and Tsing Nam Street and Tsing Yi Road to the south.

The extent of potential portal locations on Tsing Yi Road, Tsing Yi Road West and Tsing Keung Street are located at the slopes alongside the carriageways. The access road to the Tsing Yi South Fresh Water Service Reservoir off Tsing Nam Street is currently a restricted road. It

would be suitable for low traffic-generating uses. Further widening and upgrading of which may be required in order to support moderate to high traffic generating uses.

The potential portal locations of the SCVA are located at cut slopes with natural terrain above. There may be potential natural terrain hazards in the vicinity of the potential portal locations which will require further study by project proponents.

Project proponents should carry out further studies on identifying specific locations of portals for the 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.

