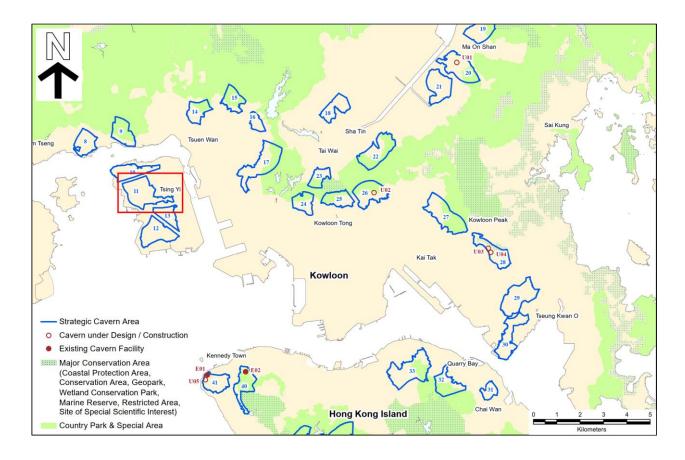
CAVERN MASTER PLAN – INFORMATION NOTE

STRATEGIC CAVERN AREA NO. 11 – TSING YI WEST

This Information Note describes the characteristics and development constraints of Strategic Cavern Area No. 11 - Tsing Yi 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 Plan (OZP)¹: Tsing Yi OZP

Area: 141.8 ha

Maximum elevation in the SCVA: +214 mPD

Minimum elevation in the SCVA: +6 mPD

3. District Context

Location

The SCVA is located at the western portion of Tsing Yi Island, which is situated to the west of Kwai Chung and Tsuen Wan. Geographically, it occupies the areas of Kam Chuk Kok and Shek Wan. Yau Kom Tau and Cheung Shue Tau are to the north of the SCVA, Sheung Ko Tan is to the east, Nam Wan and Sai Tso Wan are to the south, and the coastal area towards Ma Wan Channel is to the west.

The SCVA is generally hilly with a maximum elevation of about +214 mPD. Some village houses at Liu To are located at the eastern portion of the SCVA. Individual private lots at the central portion have been excised from the SCVA.

To the west of the SCVA, there is focused development of industrial undertakings including oil depots, dockyards, container related uses as well as concrete batching plant and asphalt plant along the western coast of Tsing Yi. To the east 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 Mount Haven (at the northeastern boundary of the SCVA), Cheung Wang Estate (at the northeastern boundary of the SCVA) and Yim Tin Kok Resite Village (about 250 m to the east of the SCVA). A Vehicle Examination Centre (VEC) is located at Sai Tso Wan Road to the south of the SCVA and the portal of Cheung Tsing Tunnel. Project proponents should take these into account when formulating any cavern development proposals.

In the proximity of the SCVA, there are a number of key Government, Institution or Community (GIC) facilities supporting the development of Tsing Yi including a cluster of water service reservoirs, such as Tsing Yi East Fresh Water Service Reservoir (about 80 m to the east of the SCVA), Tsing Yi East No. 2 Fresh Water Service Reservoir (about 30 m to the east of the SCVA) and Tsing Yi East Salt Water Service Reservoir (about 180 m to the east of the SCVA).

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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/).

<u>Access</u>

The SCVA is accessible from its western, central and eastern edges via Sai Tso Wan Road, Tsing Yi Road West, Tsing Chin Street and a restricted access road off Ching Hong Road respectively. Regional connections could be routed through the nearby Cheung Tsing Highway, Tsing Long Highway, Nam Wan Tunnel and Lantau Link.

The MTR Airport Express and Tung Chung Line runs through Tsing Yi with Tsing Yi Station located at about 1.3 km to the northeast 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 northern boundary of the SCVA is defined by the railway tunnel of the Airport Express and Tung Chung Line and a private lot. The western boundary of the SCVA is defined by Sai Tso Wan Road. The eastern boundary is defined by the residential areas, namely Cheung Wang Estate, Mount Haven and Ching Wah Court, and a cluster of service reservoirs including Tsing Yi East No. 2 Fresh Water Service Reservoir. The southern boundary is defined by the Cheung Tsing Highway and Tunnel and an area zoned "Other Specified Uses" annotated "Traditional Burial Area for Tsing Yi Villager". 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 SCVA.

4.2. Geology

The solid geology of the SCVA is primarily feldsparphyric rhyolite/rhyodacite, which belong to East Lantau Rhyolite and East Lantau Rhyodacite; coarse ash crystal tuff is noted within the northern and southern portions of the SCVA, which belongs to Yim Tin Tsai Formation. Locally, granodiorite is observed within the southwestern portion of the SCVA, which belongs to Tai Po Granodiorite; and fine-grained granite is present within the eastern portion of the SCVA, which belongs to Sha Tin Granite. 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 the SCVA and in the surrounding areas. The excavated granodiorite and fine-grained granite will be suitable for reuse as construction aggregate. Other 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 in the 1:20,000-scale Geological Map Sheet 6 (Yuen Long) and Geological Map Sheet 10 (Silver Mine Bay) published by the Geotechnical Engineering Office, Civil Engineering and Development Department.

4.3. Planning

The SCVA is sandwiched between the existing industrial area and residential area in Tsing Yi and is well connected to the rest of the territory by various major highways.

The western coast of Tsing Yi, which is at the west of the SCVA, has been developed as a hub of various industrial uses that require direct marine access and extensive land, including dockyards, oil depots and container related uses. A VEC is located at Sai Tso Wan Road to the south of the SCVA and the portal of Cheung Tsing Tunnel.

On the eastern side of the SCVA, there are major residential developments in Tsing Yi. These consist of various medium- to high-rise residential developments (e.g. Cheung Wang Estate and Mount Haven) and local village settlements (e.g. Yim Tin Kok Resite Village) supported by a number of GIC facilities (e.g. sports ground, sewage treatment plants, service reservoirs, schools, etc.). In the eastern portion of the SCVA near Mount Haven, there is also a proposed public housing site.

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, 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 (please refer to Reference Drawing of SCVA No. 12 for the location of the 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

Environmental sensitive receivers to the potential caverns in the SCVA are the nearby existing schools (e.g. Lok Sin Tong Leung Chik Wai Memorial School) and residential developments (e.g. Mount Haven, Ching Wah Court and proposed Public Housing Development at Tsing Yi Road West. The SCVA is proximity with Shell Hong Kong Limited Oil Terminal and Chevron Hong Kong Limited Oil Terminal. Blasting assessment shall take these oil terminals in the vicinity into account. There may be potential land contamination in the areas of industrial facilities, e.g. dockyards, oil depots, etc., located close to the western boundary of the SCVA and further investigation may be required in future project considering cavern options in the vicinity. Also, some natural water courses and streams are located within the SCVA. 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 can be accessed from its western, central and eastern edges via Sai Tso Wan Road, Tsing Yi Road West, Tsing Chin Street and a restricted access road off Ching Hong Road respectively. These roads have the capacity to accommodate traffic generated by different types of uses in the development proposal considering cavern options, subject to the detailed assessment by the future project proponent. Regional connections could be routed through the nearby Cheung Tsing Highway, Tsing Long Highway and Lantau Link. The project proponent shall also assess the combined traffic impact due to the proposed Tsing Yi – Lantau Link.

4.6. Other Key Issues / Constraints on Cavern Development

A railway tunnel for the Airport Express and Tung Chung Line is located at 50 m away from the northern boundary of the SCVA. A vehicle tunnel, i.e. Cheung Tsing Tunnel, is located at 50m to the southeast boundary of the SCVA. Due to horizontal separation, these tunnels would not pose any insurmountable constraints to the potential uses of rock caverns in the SCVA. In addition, the SCVA might be selected as the relocation site of Tsing Yi East Group Service Reservoirs. The eastern portion of the SCVA may form part of the released site for housing and other development including GIC facilities. Project Proponents should take due consideration on the findings of the study once it is available.

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 Sai Tso Wan Road, Tsing Yi Road West, Tsing Chin Street and a restricted access road off Ching Hong Road. Multiple portals can be formed along Sai Tso Wan Road given its lengthy extent. This extent could be able to support different uses given the capacity of the road and possible direct connections to the portals. It is noted that road improvement works at Sai Tso Wan Road are implemented for the VEC at Sai Tso Wan Road to the south of the SCVA and the portal Cheung Tsing Tunnel. Project proponents should take this into consideration when formulating cavern options in any development proposals in its vicinity and consult relevant Government departments, including but not limited to Development Bureau, Energizing Kowloon East Office and Transport Department, where appropriate. The potential portal locations along the Tsing Yi Road West and Tsing Chin Street are located at the slopes alongside the existing carriageway. Project proponents should take the Proposed Public Housing Development at Tsing Yi Road West into consideration when formulating cavern options in any development proposals in its vicinity and consult relevant Government departments, including but not limited to Planning Department and Housing Department, where appropriate. Depending on the use, road widening or upgrade at the restricted road access road off Ching Hong Road may be required for the potential portal adjacent to the existing Tsing Yi East No. 2 Fresh Water Reservoir.

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

