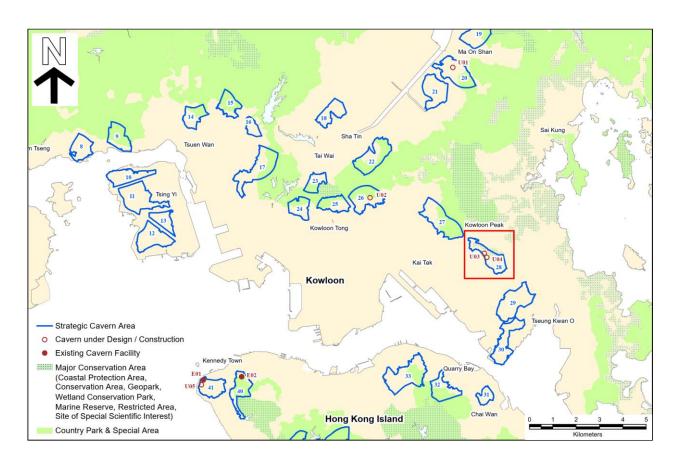
<u>CAVERN MASTER PLAN – INFORMATION NOTE</u>

STRATEGIC CAVERN AREA NO. 28 – TAI SHEUNG TOK

This Information Note describes the characteristics and development constraints of Strategic Cavern Area No. 28 - Tai Sheung Tok (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: Kwun Tong (North) OZP

Tseng Lan Shue OZP

Tseung Kwan O OZP

Area: 90.7 ha

Maximum elevation in the SCVA: +399 mPD

Minimum elevation in the SCVA: +160 mPD

3. District Context

Location

The SCVA is located at Tai Sheung Tok in East Kowloon. Tseng Lan Shue is located to the northeast of the SCVA, Ma Yau Tong is to the southeast, Sau Mau Ping and Ngau Tau Kok are to the southwest, Jordan Valley is to the west and Fei Ngo Shan is to the northwest.

The SCVA is generally hilly with a maximum elevation of about +399 mPD. About half of the SCVA in its southwestern side overlaps with the Anderson Road Quarry (ARQ), which ceased operation in mid-2017. The "Planning Study on Future Land Use at ARQ – Feasibility Study" completed in 2014 recommended using the quarry site for housing development with supporting commercial, Government, Institution or Community (GIC) and open space uses. Anderson Road Fresh Water Service Reservoir and Anderson Road No. 2 Fresh Water Service Reservoir are located at the northwestern and southeastern corners of the SCVA respectively. In addition, the SCVA is in close proximity to a proposed Artificial Flood Attenuation Lake at future Quarry Park within ARQ Development (ARQD).

In addition to the future ARQD, the SCVA is surrounded by various low- to high-density residential communities. To the northeast of the SCVA, there is the residential area in Tseng Lan Shue which consists of low-rise residential developments and local villages, including Lung Wo Tsuen and Tan Shan (both close to the northeast boundary of the SCVA). To the southeast of the SCVA, there are local villages in Ma Yau Tong. To the southwest of the SCVA, Sau Mau Ping and Ngau Tau Kok are the major residential areas in the district which consist of a number of large high-rise public housing developments, including Sau Mau Ping Estate (about 600 m to the southwest of the SCVA), Ngau Tau Kok Estate (about 2.1 km to the southwest of the SCVA) (please refer to Reference Drawing of SCVA No. 27 for the location of Ngau Tau

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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/).

Kok Estate) and On Tat Estate and On Tai Estate (about 300 m to the southwest of the SCVA). To the west and northwest of the SCVA, Jordan Valley and Fei Ngo Shan are also home of some low- to high-rise residential developments, including Shun Chi Court (about 150 m to the northwest of the SCVA) and Flamingo Garden (about 150 m to the north of the SCVA).

The development of these major residential areas is supported by a number of key GIC facilities, including Sau Mau Ping Salt Water Service Reservoir (about 250 m to the south of the SCVA), Shun Lee Tsuen Sports Centre (about 400 m to the northwest of the SCVA) and United Christian Hospital (about 900 m to the southwest of the SCVA).

Access

The SCVA is accessible from its northern, south-western and south-eastern edges via Clear Water Bay Road, On Yu Road and Po Lam Road respectively. Regional connections could be routed through the nearby major road networks such as Tseung Kwan O Road, Tseung Kwan O Tunnel, Clear Water Bay Road and Kwun Tong Road.

Although East Kowloon is served by the MTR Kwun Tong Line, the SCVA and the other upper parts of Kwun Tong is not within the railway catchment. A network of pedestrian links to enable convenient travel by residents among the ARQD area, Sau Mau Ping, Kwun Tong Town Centre and MTR Kwun Tong Station (about 2 km to the southwest of the SCVA) is being constructed by the Civil Engineering and Development Department (CEDD) as part of the ARQD and about to be completed. MTR Ngau Tau Kok Station is also located about 2 km to the southwest of the SCVA. The proposed Smart and Green Mass Transit System in East Kowloon (SGMTS-EK) promulgated to connect east Kowloon uphill area (subject to study) is located to the south and west of the SCVA.

Existing / Planned Facility in SCVA

There is currently no existing cavern facility within the SCVA. The construction works under Agreement No. CE 54/2021 (GE) "Joint Cavern Development at Anderson Road Quarry Site – Reprovisioning of Public Works Central Laboratory (PWCL) and Building of Government Records Service's Archives Centre (AC) – Investigation, Design and Construction" commenced in July 2023.

4. Summary of Characteristics of Strategic Cavern Area

4.1. Boundary

The northern boundary of the SCVA is defined by Clear Water Bay Road, private lots and local villages, including Lung Wo Tsuen and Tan Shan. The southern boundary of the SCVA is defined by private lots and Po Lam Road. The eastern boundary of the SCVA is defined by the Water Supplies Department's Ho Chung/Tseung Kwan O Tunnel. The western boundary of the SCVA is defined by On Sau Road, Anderson Road, the proposed extent of ARQD based on the aforementioned study and some private lots. 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 fine- to medium-grained granite and medium-grained granite within the western portion, of which all belong to Mount Butler Granite; coarse ash crystal tuff within the eastern portion, which belongs to Mount Davis Formation. 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 areas surrounding the SCVA. The excavated fine- to medium-grained granite and medium-grained granite within the SCVA will be suitable for reuse as construction aggregate. Other excavated rock 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 11 (Hong Kong & Kowloon) published by the Geotechnical Engineering Office, CEDD.

4.3. Planning

The SCVA is surrounded by various high-density urban developments in East Kowloon, including those in Sau Mau Ping, Ngau Tau Kok, On Tat Estate and On Tai Estate as well as the proposed ARQD and Po Lam Road. Also, there are proposed cavern developments under the proposed ARQD within the SCVA. Although the SCVA is currently not conveniently served by railway line, the proposed SGMTS-EK will have three stations located in the vicinity. The SCVA is well connected to the rest of the territory by major road network, such as Tseung Kwan O Road, Tseung Kwan O Tunnel, Clear Water Bay Road and Kwun Tong Road.

The residential areas consisted of high-rise residential developments in Jordan Valley and Sau Mau Ping (e.g. Shun Chi Court, Sau Mau Ping Estate, the On Tat Estate and On Tai Estate and the proposed development at ARQ) and some local villages in Tseng Lan Shue and Ma Yau Tong (e.g. Lung Wo Tsuen and Ma Yau Tong) are supported by various GIC facilities (e.g. sports ground, service reservoir, hospital, school, etc.). The proposed ARQD, partially overlapping with the SCVA, will be a new residential community supported by various commercial uses and GIC facilities.

4.4. Environmental

Environmental sensitive receivers to the potential caverns in the SCVA are the nearby existing and planned residential developments (e.g. Sau Mau Ping Estate, On Tat Estate, On Tai Estate, Lung Wo Tsuen, Tan Shan and Siu To Yuen Village in Tseng Lan Shue, villages in Ma Yau Tong and the planned residential developments in ARQD). The north-eastern part of the SCVA encroaches onto the Conservation Area at Tai Sheung Tok. Some extent of the potential portal location along Clear Water Bay Road adjoins the hillside with mature vegetation. Within and in proximity to the SCVA, there are wooded areas and water courses. Ma On Shan Country Park and Li Ancestral Hall (Grade 3 historic building) are located to the northwest and southeast of the SCVA respectively. A traditional permitted burial ground is located to the north of the SCVA across Clear Water Bay Road.

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, southwestern and southeastern edges via Clear Water Bay Road, On Yu Road and Po Lam Road respectively. There have been local concerns (including those from Kwun Tong District Council members) on traffic capacity of the local roads. Project proponents should take account of this in formulating development proposals.

The extent of potential portal location at the northern side of the SCVA via Clear Water Bay Road is directly accessible from the primary road network given its linkage with the nearby expressway network in Choi Hung. The access via On Yu Road through ARQD on the southwestern side of the SCVA will depend on its future development and provisions of access roads. The access via Po Lam Road is close to the expressway access point via Lin Tak Road, which allows for good connectivity to the rest of the territory.

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

4.6. Other Key Issues / Constraints on Cavern Development

A Water Supplies Department's tunnel, namely Ho Chung/Tseung Kwan O Tunnel, is located approximately 50 m to the east of the SCVA. A vehicle tunnel, the Tseung Kwan O Tunnel, is approximately 300 m to the southeast of the SCVA. As these tunnels are far from the SCVA, they 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 accessible from the Clear Water Bay Road to the north, Po Lam Road to the south and an existing cut slope of ARQ via Anderson Road to the southwest.

Clear Water Bay Road is a dual carriageway while Po Lam Road is a three-lane road, both would likely be able to support a range of traffic generating activities subject to detailed traffic impact assessment and engineering design. The SCVA can also be accessed directly on the existing quarry slope in ARQ via On Yu Road, where the formation of multiple portals is possible. The development of the SCVA could be integrated with that of the ARQ to minimise the interfacing issues with the proposed ARQD and bring about greater synergy for future development.

There are natural slopes above the potential portal locations at Clear Water Bay Road and Po Lam Road. There may be potential natural terrain hazards in the vicinity which may require further study by the project proponents. The extent of potential portal location at the western portion of the SCVA is at the existing cut slope of ARQ. There are no natural terrain hazards affecting this potential portal location.

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.

