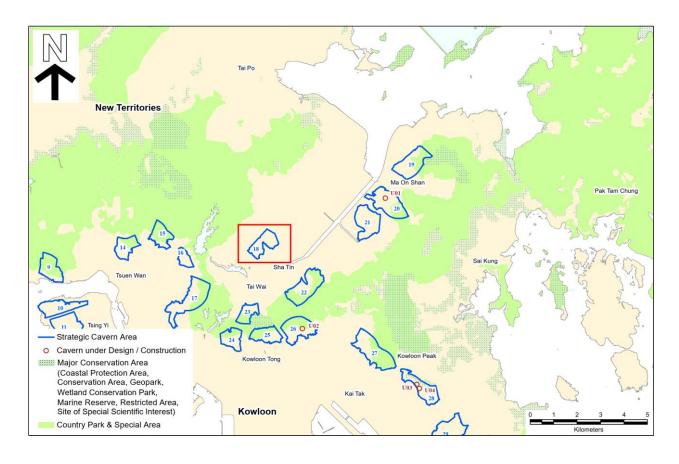
CAVERN MASTER PLAN – INFORMATION NOTE

STRATEGIC CAVERN AREA NO. 18 – LOWER SHING MUN

This Information Note describes the characteristics and development constraints of Strategic Cavern Area No. 18 - Lower Shing Mun (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 $(OZP)^1$: Sha Tin OZP

Area: 74.5 ha

Maximum elevation in the SCVA: +280 mPD

Minimum elevation in the SCVA: 0 mPD

3. District Context

Location

The SCVA is located in the southwestern part of the Sha Tin New Town, which is to the north of Kowloon separated by a range of hills including Lion Rock and Beacon Hill. It covers the area of Pak Tin in Sha Tin. Sha Tin New Town is to the southeast of the SCVA, Tai Wai is to the east, Kam Shan Country Park is to the southwest and Shing Mun Country Park is to northwest.

The SCVA is generally hilly with a maximum elevation of about +280 mPD. There are several structures scattered within the SCVA, including some religious institutions located along Shing Mun Tunnel Road such as Shun Shin Chee Kit Yin Koon at the middle portion of the SCVA. A permitted burial ground is at the southern portion of the SCVA. Shing Mun Tunnel Road runs across the SCVA and connects to Shing Mun Tunnel to the west of the SCVA.

To the east and southeast of the SCVA, Sha Tin New Town and Tai Wai are the areas mainly consisted of medium- to high-rise residential developments (e.g. Mei Chung Court and May Shing Court to the immediate southeast of the SCVA, Granville Garden, Parkview Garden and Mei Pak Court to the south of the SCVA, Mei Lam Estate about 300 m to the southeast of the SCVA, private residential development above Tai Wai Station about 850 m to the south of the SCVA, Festival City about 900 m to the south of the SCVA, and Sun Tin Wai Estate about 1.4 km to the southeast of the SCVA) and a number of local villages (e.g. Heung Fan Liu New Village to the southwest 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/).

In the proximity of the SCVA, there are a number of key Government, Institution or Community (GIC) facilities supporting the development of Sha Tin New Town, Tai Wai, as well as the whole territory, including Sha Tin West Salt Water Service Reservoir and Sha Tin West Fresh Water Service Reservoir (both about 400 m to the south of the SCVA), and a cluster of columbarium related facilities, including Fu Shan Columbarium, Fu Shan Crematorium, Fu Shan Public Mortuary and Po Fook Memorial Hall (about 300 m to the southwest of the SCVA). Lower Shing Mun Reservoir is about 700 m to the southwest of the SCVA.

Access

This SCVA is accessible from its southern and southwestern edges via Mei Tin Road and Heung Fan Liu Street respectively. Regional connections could be routed through the nearby Shing Mun Tunnel, Tsing Sha Highway and Tai Po Road.

The MTR East Rail Line and Tuen Ma Line run through the locality of the SCVA. Tai Wai Station, which is the interchange station of the two railway lines, is located closest to the SCVA of about 900 m to its southeast.

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 and northwestern boundaries of the SCVA are defined by the Water Supplies Department tunnels. The eastern boundary of the SCVA is defined by a geological photolineament and a residential development namely the Peak One. The western boundary of the SCVA is defined by an access road to the Sha Tin 400 kV substation. The southern boundary of the SCVA is defined by Shing Mun River, Mei Tin Road, private lots and residential developments, including Mei Chung Court and Granville Garden. 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 coarse-grained granite, which belongs to Sha Tin Granite; fine-grained granites at the western and northeastern portions, which belong to Needle Hill Granite. The SCVA is with the rock types that are suitable for the uses of rock caverns. A number of geological features, such as photolineaments and isolated dykes, are identified within and in the areas surrounding the SCVA. The excavated fine-grained granite within the SCVA is 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 7 (Sha Tin) published by the Geotechnical Engineering Office, Civil Engineering and Development Department.

4.3. Planning

The SCVA is close to the existing urban developments in Sha Tin New Town and Tai Wai and is also connected to the rest of the territory by several highways and railways.

The eastern and southeastern sides of the SCVA are the major residential development areas in Sha Tin New Town and Tai Wai. These areas consist of various medium- to high-rise residential developments (e.g. Mei Lam Estate, private residential development above Tai Wai Station, Festival City and Sun Tin Wai Estate) and local villages (e.g. Heung Fan Liu New Village) supported by a number of GIC facilities (e.g. sports ground, hospital, school, sewage treatment plant, service reservoir, etc.).

Although there are existing religious institutions and columbarium use in areas covered by the SCVA or its vicinity, limited intermixing issues with the cavern use is anticipated given the existing uses are on the surface land.

4.4. Environmental

Environmental sensitive receivers to the potential caverns in the SCVA are the nearby existing residential developments (e.g. Mei Chung Court, May Shing Court, Parkview Garden, Peak One, Granville Garden and Heung Fan Liu New Village) and schools (e.g. Lock Tao Secondary School and St. Margaret's Girls' College). The SCVA and the adjacent hillside areas comprise wooded area and shrubby hillside, but are distant from any recognised sites of conservation importance. The northern portion of the SCVA falls within Water Gathering Grounds. A traditional permitted burial ground is located within the southern portion of the SCVA. Li Cottage (Grade 1 historic building), Entrance Gate of Chik Chuen Wai (Grade 2 historic building) and No. 1, No. 2 and No. 3, First Street, Tai Wai (Three individual Grade 3 historic

buildings) are located in the southeastern vicinity of the SCVA. Also, five built heritages associated with the Lower Shing Mun Reservoir, including the graded historic buildings of Dam of Lower Shing Mun Reservoir (Grade 3 historic building), Supply Basin (Grade 3 historic building), Bellmouth Overflow (Grade 2 historic building), Weir (Grade 2 historic building) and Gate Shaft (Grade 2 historic building) are located in the vicinity of the SCVA. There are natural or modified surface water courses 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, 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

This SCVA can be accessed from its southern and southwestern edges via Mei Tin Road and Heung Fan Liu Street respectively. Regional connections could be routed through the nearby Shing Mun Tunnel, Tsing Sha Highway and Tai Po Road.

Heung Fan Liu Street connects to Mei Tin Road at its east. Mei Tin Road provides convenient connections to the primary road network and a number of expressways that pass through Tai Wai. It is considered that the road connections to the SCVA may have sufficient capacity to accommodate a range of traffic-generating uses, subject to futher detailed traffic assessments. The capacity of the connecting roads, including Tsing Sha Highway, should also be assessed when planning the potential uses of the SCVA.

4.6. Other Key Issues / Constraints on Cavern Development

Four Water Supplies Department's tunnels are located in the vicinity of the SCVA, namely the Lower Shing Mun Diversion and Spillway Tunnel about 400 m to the southwest of the SCVA, the Plover Cove Stage 1 Tunnel (and its six adits to Yau Oi Tsuen Shaft, Needle Hill Shaft, Heung Fan Liu Shaft, Heung Fan Liu No. 2 Shaft, Lower Shing Mun No. 2 Portal and Lower Shing Mun No. 3 Portal) about 50 m to the northwest of the SCVA, an unnamed tunnel between Yau Oi Tsuen Shaft and Pai To Hang No. 3 Portal about 200 m from the northeast of the SCVA, and the Plover Cove Draw-off Tunnel about 600 m to the south of the SCVA. Owning to the horizontal separations, the tunnels would not pose any insurmountable constraint to the potential uses of rock caverns in the SCVA.

Shing Mun Tunnel Road runs across the SCVA and connects the Shing Mun Tunnel in the west of the SCVA. The potential impact to the road and tunnel shall be duly assessed and addressed by the project proponents.

5. Extent of Potential Portal Locations

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

This SCVA is accessed from its southern and southwestern edges via Mei Tin Road and Heung Fan Liu Street respectively. The potential portals along the access road to Sha Tin 400 kV Substation off Heung Fan Liu Street and at Mei Tin Road are located on roadside slopes. Direct road accesses could be provided via suitable connection arrangement associated with the portal formation to suit the proposed use in future projects considering cavern options.

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

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.

