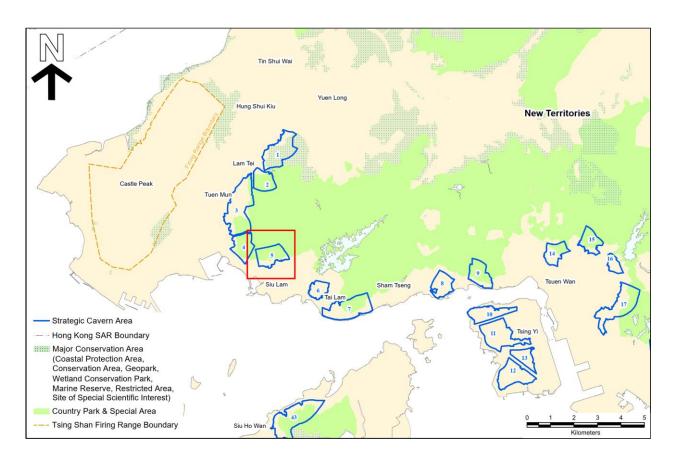
# **CAVERN MASTER PLAN – INFORMATION NOTE**

# STRATEGIC CAVERN AREA NO. 05 – PAK SHEK HANG

This Information Note describes the characteristics and development constraints of Strategic Cavern Area No. 05 - Pak Shek Hang (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)<sup>1</sup>: So Kwun Wat OZP

Tuen Mun OZP

Area: 89.5 ha

Maximum elevation in the SCVA: +353 mPD

Minimum elevation in the SCVA: +5 mPD

#### 3. District Context

#### Location

The SCVA is located in the western part of the New Territories. Tuen Mun New Town is to the west of the SCVA, So Kwun Wat is to its South, Tai Lam Chung is to its east, and Tai Lam Country Park is to its north.

The SCVA is generally hilly with a maximum elevation of about +353 mPD. More than a half of its extent encroach into Tai Lam Country Park in the north. At the southern portion of the SCVA, some low-rise buildings and structures are scattered near the toe of the hillside, and all are on Government land. To the west of the SCVA, Tuen Mun New Town is a local hub of high-density residential developments, including Seaview Garden (about 800 m to the west of the SCVA). To the south of the SCVA, So Kwun Wat is also mainly a residential area with low- to medium-rise residential developments (e.g. Avignon which is about 150 m to the south of the SCVA) and some local villages (e.g. So Kwun Wat Tsuen which is about 100 m to the south of the SCVA). Besides, there are various planned residential developments in this area (e.g. along Kwun Chui Road and So Kwun Wat Road) and the overall development in Tuen Mun is expected to grow further.

In the proximity of the SCVA, there are a number of key Government, Institution or Community (GIC) facilities supporting the development of So Kwun Wat and the territory, including Harrow International School Hong Kong (adjoining the southwestern boundary of the SCVA), A.D. and F.D. of Pok Oi Hospital Mrs Cheng Yam On Millennium School (about 700 m to the south of the SCVA), Siu Lam Fresh Water Service Reservoir and Siu Lam No. 2 Fresh Water Service Reservoir (both at about 700 m to the southeast of the SCVA). Residential development cluster and commercial developments (e.g. Hong Kong Gold Coast Hotel which is at about 500 m to the southwest of the SCVA) are also found in the surrounding area.

\_

<sup>&</sup>lt;sup>1</sup> For details of the latest land use zonings on the OZPs, please refer to the Town Planning Board Statutory Planning Portal 3 (<a href="https://www.ozp.tpb.gov.hk/">https://www.ozp.tpb.gov.hk/</a>).

#### <u>Access</u>

The SCVA is accessible from its southern and southwestern edges via access roads off So Kwun Wat Road and Tsing Ying Road respectively. Regional connections could be routed through the nearby Tuen Mun Road and Castle Peak Road (So Kwun Wat). There is no railway serving the locality 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 and western boundaries of the SCVA are defined by geological features (e.g. inferred geological fault). The southern boundary of the SCVA is defined by Tuen Mun Road, local villages along So Kwun Wat Road and So Kwun Wat Tsuen Road, and a permitted burial ground. Individual private lots located midway on the hillside 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-grained granite and fine- to medium-grained granite, which belong to Tai Lam Granite; and medium-grained granite within the southwestern portion, which belongs to Lantau Granite. The SCVA is with the rock types that are suitable for the uses of rock caverns. A number of geological features, such as inferred faults and isolated dykes, are in the areas surrounding the SCVA. The excavated fine-grained granite, fine- to medium-grained granite and medium-grained granite within the SCVA are suitable for reuse as construction aggregate.

Further geological information of the SCVA can be found in the 1:20,000-scale Geological Map Sheet 6 (Yuen Long) published by the Geotechnical Engineering Office, Civil Engineering and Development Department.

## 4.3. Planning

The SCVA is close to the existing developments in So Kwun Wat. Various sites in So Kwun Wat have been rezoned for residential use (e.g. along Kwun Chui Road and So Kwun Wat Road) and thus the development of this area is expected to grow further.

Located to the south of the SCVA, So Kwun Wat is a local hub of low- to medium-rise residential developments and local villages (e.g. Avignon and So Kwun Wat Tsuen) which is supported by various GIC facilities (e.g. service reservoir and school).

The project proponents should also take note of the proposed Route 11 under Agreement No. CE 13/2021 (HY) "Route 11 (Section between Yuen Long and North Lantau) - Investigation" which commenced in September 2021 and is in progress. The SCVA will overlap with the alignment of the proposed So Kwun Wat Link Road of Route 11 which links up Yuen Long and Lantau Island.

### 4.4. Environmental

Environmental sensitive receivers to the potential caverns in the SCVA include the nearby existing schools (e.g. Harrow International School Hong Kong) and residential developments (e.g. Avignon). So Kwun Wat Perowne Barracks Site of Archaeological Interest, So Kwun Wat Site of Archaeological Interest, a permitted burial ground and two Grade 3 historic buildings (i.e. Hum Ying Study Hall and Jun Ying Study Hall) in So Kwun Wat Tsuen are located in the vicinity of the SCVA. The majority of the SCVA falls within Tai Lam Country Park. Rivers and wooded areas are located within Tai Lam Country Park and close to the potential portal locations of the SCVA. Meanwhile, species of conservation importance including Lesser Spiny Frog are recorded at the watercourse in the fringe of Tai Lam Country Park.

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 south and southwest via access roads off So Kwun Wat Road and Tsing Ying Road respectively.

Though the SCVA is located adjacent to Tuen Mun Road, direct access from Tuen Mun Road may be difficult to establish. Further detailed traffic and engineering assessments have to be carried out if it is pursued. The potential portal locations can be further connected to Castle Peak Road (which is a high-capacity road) through local road networks to connect to Tuen Mun in the west and to the other areas of Hong Kong to the east.

The proposed So Kwun Wat Link Road of Route 11 project which overlaps with the SCVA may provide additional road access to the SCVA. Project proponents should take account of the latest development of this project.

# 4.6. Other Key Issues / Constraints on Cavern Development

A Water Supplies Department tunnel, the Tai Lam Chung Supply Tunnel to Tuen Mun Water Treatment Works, is about 450 m to the northeast of the SCVA boundary. As it is far away from the SCVA boundary, it would not pose any insurmountable constraint to the potential uses of rock caverns within the SCVA.

Some potential portal locations are close to the existing nearby village houses, private lots, etc. Project proponents shall take into account when considering cavern options in order to minimise potential interface issues and adverse impacts arising from the construction and operation of cavern facilities.

Tuen Mun Fitness Trail and MacLehose Trail Section 10 are also located within the SCVA. Project proponents shall take into account when considering cavern options.

#### 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 potential portals located at the access roads off So Kwun Wat Road and Tsing Ying Road. The access roads off So Kwun Wat Road, which are narrow, winding and running uphill, may only be suitable for accommodating low traffic-generating activities. Road widening and upgrading would be required in order to enhance the capacity of the roads. Given the traffic condition of Tsing Ying Road, the access to the potential portal may only be suitable for accommodating low traffic-generating activities. Widening or upgrading of Tsing Ying Road, subject to necessary detailed assessment, would be required for it to support moderate to high traffic-generating activities.

The potential portal locations are at the toe of hillslopes with natural terrain above. There may be potential natural terrain hazards in the vicinity of the potential portal locations, which may require further study by 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 for further details.

