

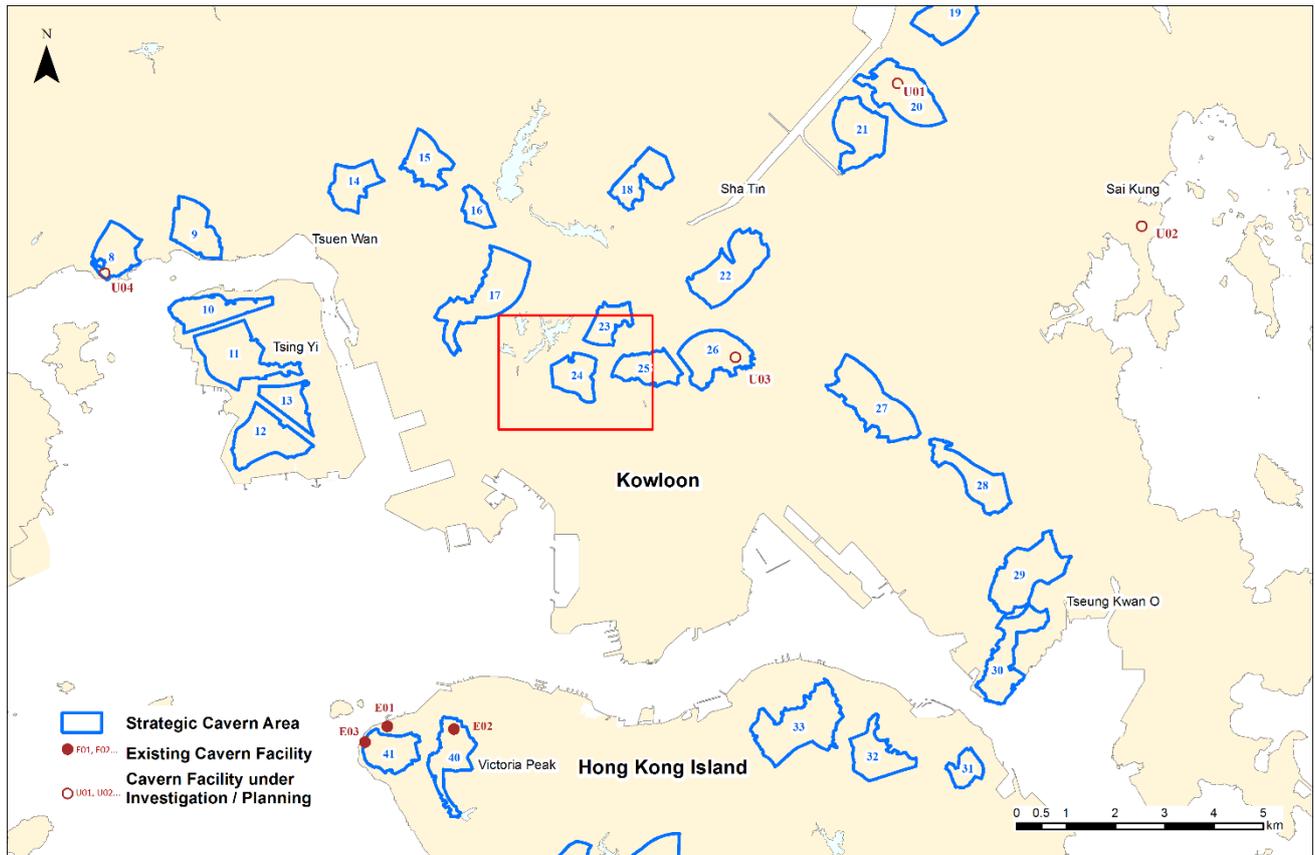
CAVERN MASTER PLAN – INFORMATION NOTE

STRATEGIC CAVERN AREA NO. 24 – EAGLE’S NEST

This Information Note describes the characteristics, key development opportunities and constraints of Strategic Cavern Area No. 24 - Eagle’s Nest (the SCVA). It indicates the potential land uses suitable for cavern development within the area, but would not pre-empt other possible land uses put forward by the project proponents with justifications. 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):	Approved Cheung Sha Wan OZP No. S/K5/37 Approved Shek Kip Mei OZP No. S/K4/29
Area:	62.6 ha
Maximum elevation in the SCVA:	+311 mPD
Minimum elevation in the SCVA:	+62 mPD

3. District Context

Location

The SCVA is located at Eagle's Nest, which is situated partly in West Kowloon and partly in Lion Rock Country Park. Lion Rock Country Park is to the north of the SCVA, Beacon Hill is to the east, Shek Kip Mei is to the southeast and Cheung Sha Wan is to the southwest.

The SCVA is generally hilly with a maximum elevation of about +311 mPD. About half of the SCVA encroaches onto Lion Rock Country Park. To the southeast and southwest of the SCVA, at lower elevations, are Shek Kip Mei and Cheung Sha Wan which are mainly comprised of residential communities with medium- to high-rise developments, including Chak On Estate (about 100 m to the southeast of the SCVA), Lei Cheng Uk Estate (about 200 m to the south of the SCVA) and So Uk Estate (currently under redevelopment; about 150 m to the south of the SCVA), and industrial/business developments. There are a number of low-rise residential developments to the north of Ching Cheung Road and Lung Cheung Road, including Dynasty Heights (at the eastern boundary of the SCVA), Beacon Heights (about 300 m to the east of the SCVA), Monte Carlton and Villa Carlton (both at the southern boundary of the SCVA). In addition, there are also three planned low-density residential developments to the east of the SCVA (at Yin Ping Road and near Lung Ping Road respectively) to the north of Lung Cheung Road.

In the proximity of the SCVA, there are a number of key Government, Institution and Community (GIC) facilities supporting the development of Shek Kip Mei and Cheung Sha Wan, including Caritas Medical Centre (about 250 m to the southwest of the SCVA), Tai Po Road Water Treatment Works (about 600 m to the west of the SCVA), Cheung Sha Wan Playground (about 1 km to the south of the SCVA) and clusters of service reservoirs, including Tai Wo Ping Salt Water Service Reservoir (at the southeastern boundary of the SCVA), Shek Kip Mei Fresh Water Service Reservoir, Shek Kip Mei No. 2 Fresh Water Service Reservoir and Shek Kip Mei No. 3 Fresh Water Service Reservoir (all about 450 m to the southeast of the SCVA) as well as Piper's Hill High Level Fresh Water Service Reservoir, Piper's Hill Salt Water Service Reservoir and Piper's Hill Low Level Fresh Water Service Reservoir (all about 500 m to the west of the SCVA).

Access

The SCVA is accessed from its southern edge via Tai Po Road and Lung Cheung Road. Regional connections could be routed through these two major roads.

The MTR Tsuen Wan Line and Kwun Tong Line serve the locality of Cheung Sha Wan and Shek Kip Mei. The nearest stations include Cheung Sha Wan Station and Lai Chi Kok Station of Tsuen Wan Line (about 800 m to the south and 900 m to the southwest of the SCVA respectively), and Shek Kip Mei Station of Kwun Tong Line (about 1,100 m to the southeast of the SCVA). Given these railway stations are at elevations of about 70 m lower than the SCVA, the SCVA would not be easily accessed by the public using the railway transit.

Land Use Zoning

The southern part of the SCVA is zoned "Green Belt" ("GB") under the Approved Cheung Sha Wan OZP No. S/K5/37 and the Approved Shek Kip Mei OZP No. S/K4/29. The remainder of the SCVA is not covered by any statutory plans, but is within the Lion Rock Country Park designated under the Country Parks Ordinance. The surrounding areas to the east, south and southwest are mainly zoned "GB", "Residential (Group C)", "Residential (Group A)", "Government, Institution or Community" on OZPs, while the rest is within the Lion Rock Country Park.

For details of the latest land use zonings on OZPs, please refer to the Town Planning Board website (<http://www.tpb.gov.hk>).

There is currently 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 Eagle's Nest Tunnel, the Beacon Hill Site of Special Scientific Interest (SSSI), and by an extent of 800 m from the potential portal locations. The eastern boundary of the SCVA is defined by a geological feature (i.e. a photolineament) as well as the existing and proposed residential developments. The western boundary of the SCVA is defined by the Eagle's Nest Tunnel Ventilation Adit Tunnel. The southern boundary of the SCVA is defined by Tai Po Road and Lung Cheung Road.

4.2. Geology

The solid geology of the SCVA is primarily medium-grained granite, which belongs to Kowloon Granite; coarse-grained granite, which belongs to Sha Tin Granite; and fine-grained granite, which belongs to Kowloon Granite. The SCVA is with the rock types that are suitable for cavern development. A number of geological features, such as faults, photolineaments 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 can be used as road base material 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, Civil Engineering and Development Department.

4.3. Planning

The SCVA is located in the fringe of the existing urban development in Shek Kip Mei and Cheung Sha Wan. Although the SCVA is not easily accessed by the public due to the difference in elevation from the railway stations, there is still potential for the SCVA to support the development of these areas.

The southeastern and southwestern sides of the SCVA are the major residential development areas in Shek Kip Mei and Cheung Sha Wan. These areas consist of various high- to low-rise residential developments (e.g. Chak On Estate, Lei Cheng Uk Estate, So Uk Estate under redevelopment, Dynasty Heights, Beacon Heights, Monte Carlton, Villa Carlton and the three planned low-density residential developments at Yin Ping Road and near Lung Ping Road respectively) supported by a number of GIC facilities (e.g. sports ground, hospital, school, water treatment work and service reservoir, etc.). Should there be any need for providing additional land for residential use, the SCVA may provide solution space by, for example, relocating some of the suitable infrastructure facilities (e.g. service reservoir) to caverns. By doing so, surface land could be released for other beneficial uses (e.g. residential developments and/or community facilities), and it could also enable more effective utilisation of land resources in Shek Kip Mei and Cheung Sha Wan while preserving the natural landscape in Eagle's Nest as a natural backdrop to the urban developments in the locality.

4.4. Environmental

Environmental sensitive receivers to cavern development in the SCVA are the nearby existing and planned residential developments (e.g. Chak On Estate, Lei Cheng Uk Estate, So Uk Estate under redevelopment, Dynasty Heights, Beacon Heights, Monte Carlton, Villa Carlton and the three planned low-density residential developments at Yin Ping Road and near Lung Ping Road respectively). The SCVA comprises wooded areas and shrubby hillsides, and encroaches onto Lion Rock Country Park and Water Gathering Grounds. Beacon Hill Site of Special Scientific Interest is located at the northern boundary of the SCVA. The SCVA is also close to a Consultation Zone of a Potentially Hazardous Installation, namely the Shek Lei Pui Water Treatment Works of the Water Supplies Department. A number of built heritages are located in the locality, including the declared monuments of Kowloon Reservoir Main Dam, Valve House, Spillway Dam and Recorder House to the northwest of the SCVA, the declared monument of Lei Cheng Uk Han Tomb to the south of the SCVA, and Dam of Kowloon Byewash Reservoir (Grade 2 historic building) to the west of the SCVA. In addition, an identified old footpath, namely "Tai Po Route (Kowloon City to Sham Chun: Kowloon City to Shing Mun Sub-Section)", is located to the west of the SCVA. There are also natural or modified surface water courses within the SCVA.

All potential environmental constraints, which may impose restrictions on cavern development, 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 cavern development 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 southern edge via Tai Po Road and Lung Cheung Road. The potential portal locations are easily accessible from the primary road network given that Tai Po Road and Lung Cheung Road are Urban Primary Distributor Road and Urban Trunk Road respectively. Future cavern development proposal shall carry out traffic impact assessment for the proposed uses in the SCVA.

4.6. Other Key Issues / Constraints on Cavern Development

The Eagle's Nest Tunnel, a vehicle tunnel, is about 50 m to the northwest of the SCVA. A Drainage Services Department's tunnel, namely the Lai Chi Kok Transfer Tunnel, is located to the south of the SCVA. Owing to the horizontal separation and difference in elevation, these tunnels would not pose any insurmountable constraint to cavern development in the SCVA.

As the eastern boundary of the SCVA adjoins to the existing and proposed residential developments, the project proponents should take into account and to avoid adverse impact induced to the residential developments when pursuing cavern project in the vicinity in future.

5. Potential Land Use

The potential land use for the SCVA is as follows:

Land use	Description
Service Reservoir	<p>Shek Kip Mei and Cheung Sha Wan are homes of various residential developments (e.g. Chak On Estate and Lei Cheng Uk Estate) and have the potential for further growth given they are located in an urban setting equipped with well-established infrastructural systems. There is thus opportunity to develop suitable land use to support the potential expansion of these residential areas, by relocating and/or expanding some of the suitable infrastructure facilities, such as service reservoir, into caverns.</p> <p>Existing service reservoirs are found in the vicinity of the SCVA. Relocation of the facilities to caverns may be considered, thereby releasing the surface land for other beneficial uses and for integration with the future development.</p>

Note: Zoning amendment/planning application may be required to facilitate the pursuit of the above potential land uses.

6. Extent of Potential Portal Locations

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

The potential portal locations are at the slopes alongside the carriageways. The connections to portals may require adequate merging and diverging arrangements. The construction of portals and/or the merging and diverging arrangement for these accesses would likely involve slope excavation and construction of retaining wall.

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

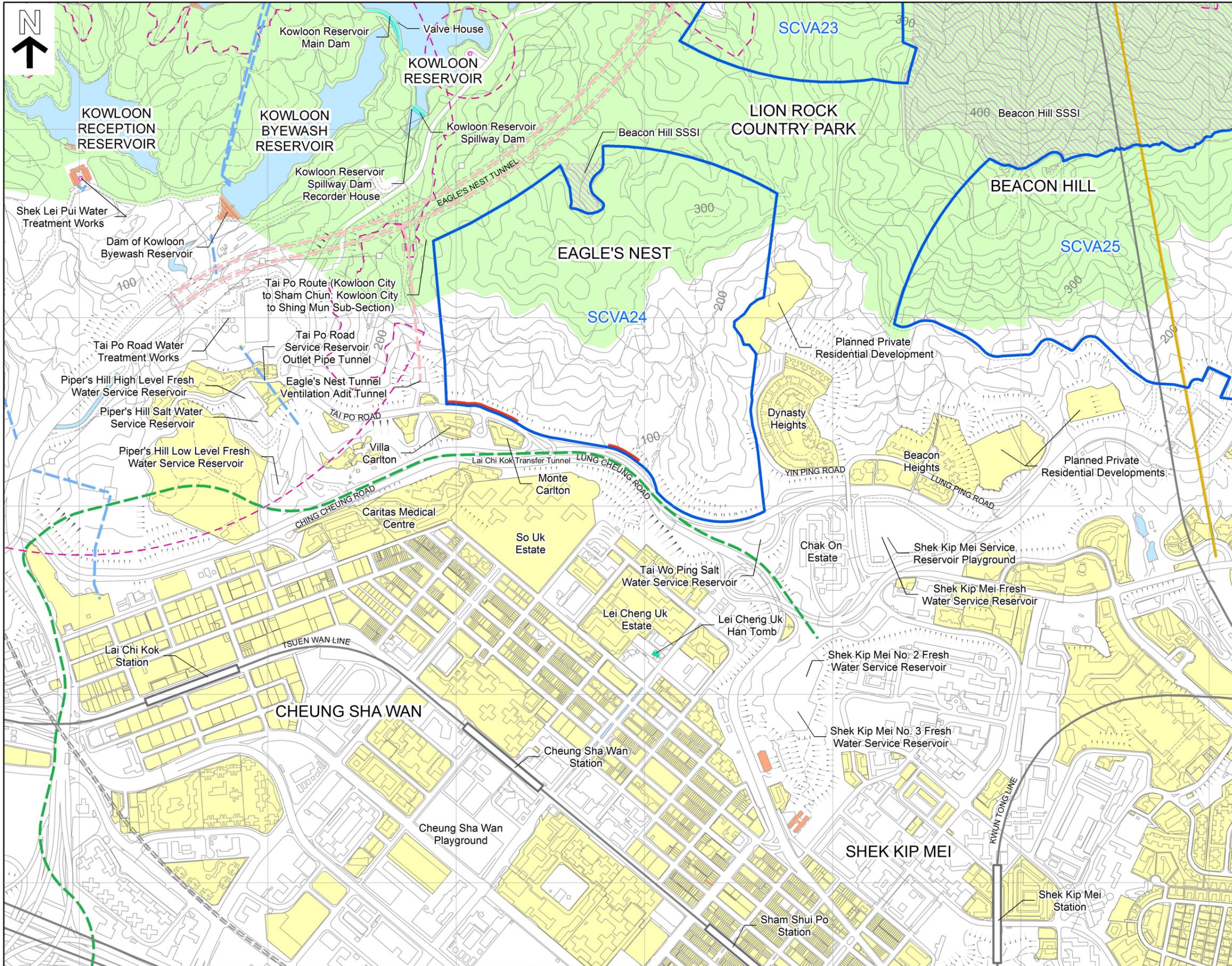
Project proponents should carry out further studies on identifying specific locations of portals for the proposed cavern development.

7. Concluding Remarks

The SCVA presents an opportunity for locating suitable land uses in rock caverns to serve the neighbouring residential communities (e.g. by housing service reservoirs). Project proponents for cavern development should take due consideration of the existing and planned/committed residential developments, accessibility for cavern developments, and environmental sensitive receivers to minimise the interfacing issues and bring about greater synergy and opportunities.

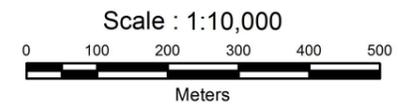
8. Notes

The Cavern Master Plan and all supporting documents do not exempt project proponents for cavern development from following the relevant statutory and planning procedures. Information including the potential land uses and 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.



Legend

- Strategic Cavern Area
- Extent of Potential Portal Locations
- Existing Railway Line
- Committed Railway Line
- Vehicle Tunnel
- Drainage Services Department Tunnel
- Water Supplies Department Tunnel
- Abandoned Tunnel
- Reservoir / River / Nullah
- Graded Historic Building
- Declared Monument (Site of Archaeological Interest)
- Declared Monument (Historic Building)
- Private Lot
- Potentially Hazardous Installation
- Consultation Zone of Potentially Hazardous Installation
- Country Park
- Site of Special Scientific Interest



REFERENCE DRAWING OF STRATEGIC CAVERN AREA NO. 24 - EAGLE'S NEST