

立法會
Legislative Council

LC Paper No. CB(1)1100/13-14(04)

Ref: CB1/PL/DEV

Panel on Development

Meeting on 25 March 2014

**Background brief on relocation of Government facilities to caverns
and development of artificial islands**

Purpose

This paper provides background information on the proposed relocation of Government facilities to caverns and development of artificial islands as well as summarizes the views and concerns expressed by Members during past discussions on the subject at the meetings of the Panel on Development ("DEV Panel").

Background

2. Initiatives to increase land supply were introduced under the 2010-2011 and 2011-2012 Policy Addresses to meet the strong housing demands from members of the public. When revealing such initiatives under the 2010-2011 Policy Address¹, the then Chief Executive ("CE") announced that in order to generate more land in the long run, the Administration would consult the public on the proposals of reclamation on an appropriate scale outside Victoria Harbour and developing caverns and underground space. Under the 2011-2012 Policy Address, two of the six measures² identified for expanding land resources were to explore the option of reclamation on an appropriate scale outside Victoria Harbour, and to actively explore the use of rock caverns

¹ The initiatives to increase land supply under the 2010-2011 Policy Address included rezoning about 30 hectares of land for residential use, fine-tuning land supply arrangements, speeding up infrastructure construction at the Kai Tak Development Area, setting up a Steering Committee on Housing Land Supply, etc.

² The other measures were: release of industrial land for non-industrial use, use of green belt sites, review of "Government, Institution or Community" sites and conversion of agricultural land.

to re-provision existing public facilities so as to release the sites for housing and other uses.

Study on Enhancing Land Supply Strategy -- Reclamation outside Victoria Harbour and Rock Cavern Development

3. At the meeting of the DEV Panel on 24 May 2011, the Administration briefed members on its plan to commission a consultant study on enhancing land supply strategy to identify potential reclamation sites outside Victoria Harbour and suitable existing facilities for relocating to rock caverns, and to conduct relevant technical studies. In conjunction with the technical studies, a two-stage public engagement ("PE") exercise would be conducted to initiate public discussions with a view to gauging the public's views on reclamation and rock cavern development. Some Panel members expressed support for reclamation in the form of constructing individual islands along the shore but leaving waterways in between and using surplus public fill for reclamation so as to reduce the transportation costs and the nuisance to the public in the disposal of such fill. In this way, the shoreline can be preserved and more waterfront areas will be created for public enjoyment and other uses.

4. The Stage 1 PE, of which the objective was to solicit views on the feasible ways for increasing land supply, the guiding principles and the site selection criteria for reclamation and rock cavern development, was launched on 10 November 2011 and ended on 31 March 2012. The proposed guiding principles and the site selection criteria are given in **Appendix I**. According to the Administration, the results of the Stage 1 PE showed that the respondents generally agreed on the initial site selection criteria for reclamation with the impact on the local community and the environment being the most important ones. For cavern development, the criterion of engineering feasibility was considered important³.

Construction of artificial islands

5. In his 2013 Policy Address, CE announced that in order to respond more flexibly to the society's needs for lands, the Administration would develop new land extensively and build up an abundant land reserve that could meet the future demand in a timely manner. The Administration would consider various long-term measures, including the options of constructing

³ Source: The Administration paper on "Enhancing Land Supply Strategy: Reclamation outside Victoria Harbour and Rock Cavern Development - Stage 2 Public Engagement" (LC Paper No. CB(1)862/12-13(08))

artificial islands in the central waters between Lantau and Hong Kong Island. The reclamation area of the artificial islands would be about 1 400 to 2 400 hectares.

6. At the briefing by the Secretary for Development on the relevant policy initiatives in the CE's 2013 Policy Address to the DEV Panel on 22 January 2013, members had mixed views on the proposed construction of artificial islands. A member suggested that the artificial islands should be linked up by bridges with Lantau, Tuen Mun and Hong Kong Island. Container terminals or other heavy industries operating in Kwai Chung, Tsing Yi and Tuen Mun could then be moved to the islands to release land for housing developments. The Administration advised that it was considering constructing artificial islands in the central waters between Hong Kong Island and Lantau, and to relocate "not in my backyard" facilities onto those islands.

Relocation of Government facilities to rock caverns

7. As regards cavern development, the Administration advised that the Civil Engineering and Development Department ("CEDD") had identified a list of 400 existing Government facilities that had the potential for relocation to rock caverns. After the Stage 1 PE and further consideration, CEDD condensed the list to three facilities, namely, Diamond Hill Fresh Water and Salt Water Service Reservoirs, Sai Kung Sewage Treatment Works ("STW") and Sham Tseng STW ("the three proposed rock cavern development sites") due to the following major considerations --

- (a) Priority is given to relocation of those "not-in-my-backyard" facilities near urban or developed areas;
- (b) Avoid selecting those facilities for recreational or leisure uses as far as possible; and
- (c) Owing to technical constraints or unavailability of suitable cavern sites, the feasibility of relocating some large facilities such as water treatment works should be subject to further studies.

According to the Administration, relocation of these facilities to caverns was not a major initiative for increasing land supply given the long lead time and the relatively small amount of land, i.e. six hectares, to be released from the concerned sites.

Potential sites for artificial islands and rock cavern development

8. At the DEV Panel meeting on 23 April 2013, members were briefed on the Stage 2 PE launched on 21 March 2013. The objective of the PE exercise was to seek public views on the five potential reclamation sites⁴, building artificial islands and the three proposed rock cavern development sites. Citing the examples in Singapore and Macao, some members supported the proposal of constructing artificial islands which would not cause any significant adverse impacts on the environment. Some members opined that developing artificial islands was a more preferable option than near-shore reclamation as the former could generate a large piece of land, which could be connected to the urban areas, without altering the shorelines. Some other members were of the view that, given Hong Kong had low birth rates in recent years, the need for vast areas of new land was in doubt. The Administration should first formulate a population policy before determining the amount of land needed for the future population.

9. According to the Administration, the central waters had great potential for developing artificial islands. There were few major infrastructure projects under planning in the area and the challenge to conserving the marine ecology would not be great. Artificial islands had greater flexibility in planning and land use and could avoid encroaching on natural shorelines of high ecological value. They could be used for relocating facilities in the urban areas, hence releasing land for other purposes. However, artificial islands in the central waters could affect the navigation channel. The Administration would in due course seek funding approval from the Finance Committee for conducting a study on issues related to the construction of artificial islands in the central waters, including the impact on the operation of the port and ferries.

10. On rock cavern development, members highlighted the need to consider the development costs, the land uses and energy consumption issues. Some members supported the initiative and requested the Administration to formulate concrete plans. However, concerns have also been expressed on the land use of the vacated Sai Kung STW that any large-scale residential development would have an adverse impact on the traffic network in the area.

11. The DEV Panel received public views on reclamation outside Victoria Harbour and rock cavern development on 1 June 2013. More than 120 individuals/deputations attended the meeting to express their views. Some deputations opposed to the proposal of constructing artificial islands on the

⁴ The five proposed reclamation sites with a total area of about 600 hectares comprise Lung Kwu Tan, Siu Ho Wan and Sunny Bay at Lantau North, Tsing Yi Southwest and Ma Liu Shui.

ground that it would adversely affect the environment and the engineering works would be expensive. A member expressed concern about the lack of concrete information on the proposal, such as the locations and the sizes of the artificial islands to be developed in the central waters. Due to the lack of such information, the residents living on outlying islands would not be able to assess whether the construction of artificial islands would have an impact on them. The Administration advised that the locations of the artificial islands could only be determined after the studies on the impacts on the navigation channels and port operations had been conducted.

Latest development

12. In his 2014 Policy Address, CE announced that, apart from conducting studies on the three proposed rock cavern development sites, the Administration would initiate strategic studies on constructing artificial islands in the central waters for the development of the East Lantau Metropolis.

13. The Administration will seek the DEV Panel's support for upgrading the following public works projects to Category A at the meeting on 25 March 2014 --

- (a) part of PWP Item No. 768CL for carrying out strategic studies for developing artificial islands in the central waters; and
- (b) PWP Item Nos. 401DS, 402DS & 195WC -- feasibility study on the relocation of Sham Tseng STW, Sai Kung STW and Diamond Hill fresh water and salt water service reservoirs to caverns.

Relevant papers

14. A list of relevant papers with their hyperlinks is in **Appendix II**.

**Enhancing Land Supply Strategy:
Reclamation outside Victoria Harbour and Rock Cavern Development --
Stage 1 Public Engagement**

**Guiding principles for developing the site selection criteria
and the initial site selection criteria**

	Initial site selection criteria	
Land supply options Guiding Principles	Reclamation outside Victoria Harbour	Relocating public facilities into cavern
Social harmony and benefits	<ul style="list-style-type: none"> • Impact on local community • Site location and accessibility • Meeting local needs 	<ul style="list-style-type: none"> • Social benefits at the releasing site upon relocation of existing facilities • Social impact at the cavern development site
Enhanced environmental performance	<ul style="list-style-type: none"> • Environmental impacts • Environmental benefits 	<ul style="list-style-type: none"> • Environmental benefits in the vicinity of the releasing site upon relocation of existing facilities • Environmental impact at the cavern development site
Economic efficiency and practicality	<ul style="list-style-type: none"> • Planning flexibility • Engineering feasibility • Cost effectiveness 	<ul style="list-style-type: none"> • Engineering feasibility • Cost effectiveness • Specific requirements of facility • Suitability of relocation based on existing facility status

Source: The Administration's paper on "Enhancing Land Supply Strategy: Reclamation outside Victoria Harbour and Rock Cavern Development -- Stage 1 Public Engagement" (LC Paper No. CB(1)323/11-12(01))

**Relocation of Government facilities to caverns
and development of artificial islands**

List of relevant papers

Date	Meeting/Event	References
24 May 2011	Panel on Development ("DEV Panel")	<p>Administration's paper on increasing land supply by reclamation and rock cavern development (LC Paper No. CB(1)2205/10-11(05)) http://www.legco.gov.hk/yr10-11/english/panels/dev/papers/dev0524cb1-2205-5-e.pdf</p> <p>Administration's paper on findings of the study on the enhanced use of underground space in Hong Kong (LC Paper No. CB(1)2205/10-11(06)) http://www.legco.gov.hk/yr10-11/english/panels/dev/papers/dev0524cb1-2205-6-e.pdf</p> <p>Minutes of meeting (LC Paper No. CB(1)265/11-12) http://www.legco.gov.hk/yr10-11/english/panels/dev/minutes/dev20110524.pdf</p>
10 March 2012	DEV Panel	<p>Administration's paper on "Enhancing Land Supply Strategy: Reclamation outside Victoria Harbour and Rock Cavern Development -- Stage 1 Public Engagement" (LC Paper No. CB(1)323/11-12(01)) http://www.legco.gov.hk/yr11-12/english/panels/dev/papers/devcb1-323-1-e.pdf</p> <p>Paper on increasing land supply through reclamation outside Victoria Harbour and rock cavern development prepared by the Legislative Council Secretariat (Background brief) (LC Paper No. CB(1)1218/11-12(01)) http://www.legco.gov.hk/yr11-12/english/panels/dev/papers/dev0310cb1-1218-1-e.pdf</p>

Date	Meeting/Event	References
		<p>Minutes of meeting (LC Paper No. CB(1)2632/11-12) http://www.legco.gov.hk/yr11-12/english/panels/dev/minutes/dev20120310.pdf</p>
22 January 2013	DEV Panel	<p>Administration's paper on 2013 Policy Address -- Policy Initiatives of Development Bureau (LC Paper No. CB(1)428/12-13(03)) http://www.legco.gov.hk/yr12-13/english/panels/dev/papers/dev0122cb1-428-3-e.pdf</p> <p>Address by the Chief Executive at the Legislative Council meeting on 16 January 2013 -- "Seek Change, Maintain Stability, Serve the People with Pragmatism" http://www.legco.gov.hk/yr12-13/english/panels/1213policy-e.pdf</p> <p>Minutes of meeting (LC Paper No. CB(1)735/12-13) http://www.legco.gov.hk/yr12-13/english/panels/dev/minutes/dev20130122.pdf</p>
23 April 2013	DEV Panel	<p>Administration's paper on "Enhancing Land Supply Strategy: Reclamation outside Victoria Harbour and Rock Cavern Development -- Stage 2 Public Engagement" (LC Paper No. CB(1)862/12-13(08)) http://www.legco.gov.hk/yr12-13/english/panels/dev/papers/dev0423cb1-862-8-e.pdf</p> <p>Paper on increasing land supply through reclamation outside Victoria Harbour and rock cavern development prepared by the Legislative Council Secretariat (Updated background brief) (LC Paper No. CB(1)862/12-13(09)) http://www.legco.gov.hk/yr12-13/english/panels/dev/papers/dev0423cb1-862-9-e.pdf</p>

Date	Meeting/Event	References
		Minutes of meeting (LC Paper No. CB(1)1787/12-13) http://www.legco.gov.hk/yr12-13/english/panels/dev/minutes/dev20130423.pdf
1 June 2013	DEV Panel	Minutes of meeting (LC Paper No. CB(1)559/13-14) http://www.legco.gov.hk/yr12-13/english/panels/dev/minutes/dev20130601.pdf
28 January 2014	DEV Panel	Administration's paper on initiatives of Development Bureau in the 2014 Policy Address and Policy Agenda (LC Paper No. CB(1)741/13-14(03)) http://www.legco.gov.hk/yr13-14/english/panels/dev/papers/dev0128cb1-741-3-e.pdf Address by the Chief Executive at the Legislative Council meeting on 15 January 2014 -- "Support the Needy, Let Youth Flourish, Unleash Hong Kong's Potential" http://www.legco.gov.hk/yr13-14/english/panels/1314policy-e.pdf