

Information Sheet (5)

Reclamation outside Victoria Harbour

1. Vision of Reclamation

Reclamation on an appropriate scale at suitable locations outside Victoria Harbour is considered a feasible means of increasing land supply. But we have visions more than that:

Most suitable as land reserve

(1) Reclamation will not affect the existing land uses and can generate a relatively large piece of new land to meet the unexpected demand. It is therefore the most suitable land reserve option.

(2) Compared with other land supply options, reclamation will allow greater flexibility for comprehensive planning to build a balanced and sustainable community.

Allow comprehensive planning

Provide decanting sites

(3) Reclamation provides new land as decanting sites to rehouse the residents and facilities affected by other land supply options. It also allows NIMBY or special industrial facilities to be relocated away from urban areas to reduce the impacts on local community and to release valuable land for other developments.

(4) Eco-shoreline is to be introduced at suitable locations in designing the new shoreline of new reclamation areas, in a bid to increase the ecological value of the new shoreline, as well as to beautify the existing man-made shorelines for public enjoyment.

Enhance environment

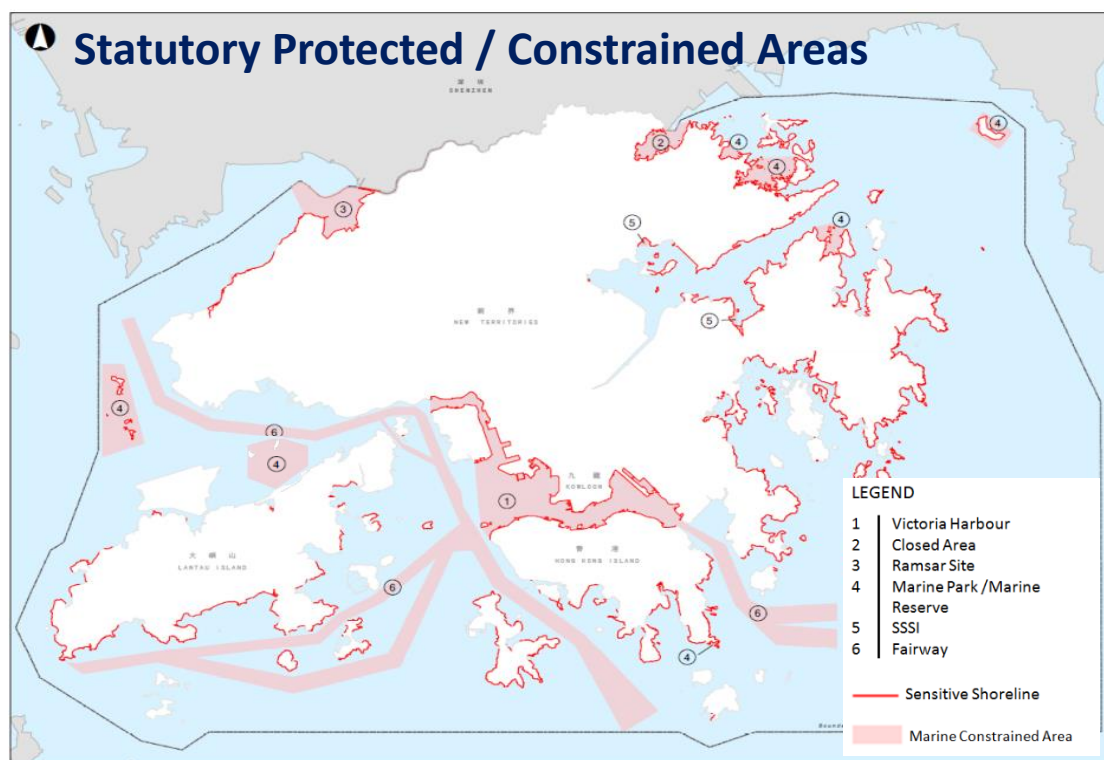
Handle surplus fill materials

(5) Every year, our society generates a huge amount of construction and demolition materials which require proper outlets. Using them as fill materials for reclamation is a more environmentally-friendly and cost-effective solution and can avoid them from occupying the valuable lands.

2. Proper Site Selection for Reclamation

There are impacts on the environment regardless of creating new land at sea or on shore. Under the premise of sustainable development, the critical choice is not whether to create new land at sea or on shore but to identify suitable sites to avoid or minimize environmental impacts.

We have about 1180 kilometres of coastlines in Hong Kong, of which about 700 kilometres (i.e. approx. 60% of total length) are statutorily protected or restricted from development. Apart from the coastlines on both sides of Victoria Harbour, they are mostly coastlines falling within country parks and coastal protection areas. The Government will not consider carrying out reclamation along such coastlines. By protecting these environmentally sensitive coastlines from reclamation, the impacts on marine habitats and the associated fauna can be greatly reduced.



Relevant ordinances include:

- Country parks and special areas: The Country Parks Ordinance (Chapter 208)
- Marine parks: Marine Parks Ordinance (Chapter 476)
- Wetland: Ramsar Convention

- Control area: Wild Animals Protection Ordinance (Chapter 170)
- Sites of special scientific interest, conservation or coastal protection areas: Town Planning Ordinance (Chapter 113)
- Victoria Harbour: Protection of the Harbour Ordinance (Chapter 531)
- Closed areas: Frontier Closed Area Order (Chapter 245A) and Restricted Military Installations Order (Chapter 245B)



3. Creating Land Reserve through Reclamation

Experience told us that land development is time-consuming and would take more than 10 years to complete. To respond more flexibly to the society's needs for land, the Chief Executive proposed in 2013 Policy Address to build up an abundant "land reserve" that can more than meet the short-term land demand. In that way, the reserve can be used in a timely manner to meet future demand.

To build up land reserve, the Government will press ahead with reclamation outside Victoria Harbour at suitable locations, while endeavoring to keep the impacts on the environment and marine ecology to a minimum.

We can build up land reserve in different paces to meet short-, medium- and long-term needs:

- (1) Land is formed to prepare for immediate use whenever needed. The land can be allocated for temporary use before a permanent land use is confirmed.



- (2) Necessary studies and design work are completed for the identified potential sites. Site works will commence when needs arise.



- (3) Potential sites that fulfill the site selection criteria are reserved. Detailed study and design work will commence when needs for land arise.



4. Eco-shoreline

In the past, artificial seawalls such as vertical concrete seawalls were built along the new reclamation edges. Vertical concrete seawall is easy to build and thus cost-effective. However, its vertical smooth face cannot provide intertidal habitats, thus reducing the biodiversity of the shoreline.

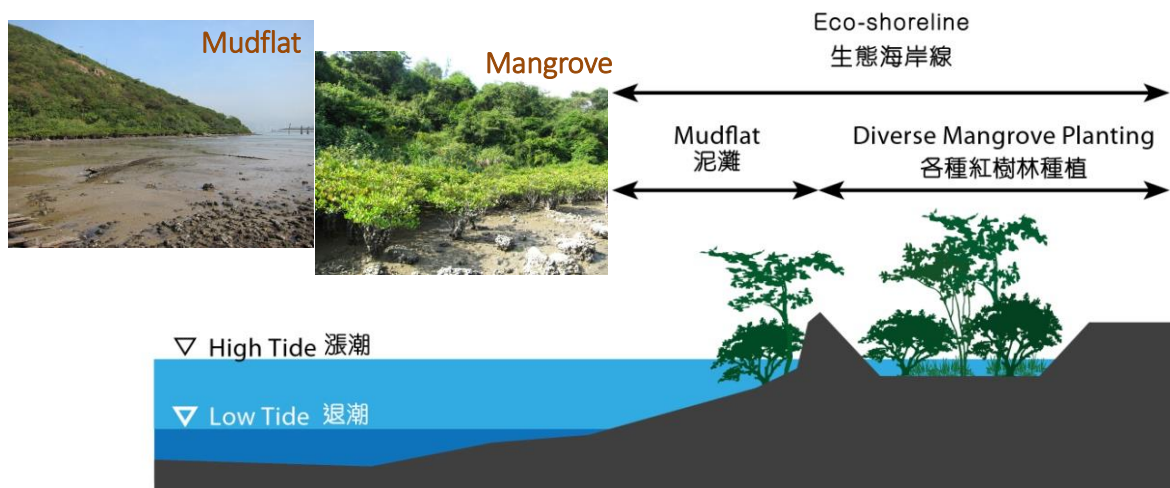


Vertical concrete seawall at Sai Wan Ho Pier

The Government strives to apply innovative concepts in seawall design. We will explore building eco-shorelines at suitable locations of new reclamation edge to provide intertidal zones for mudflat formation and promotion of mangrove growth, so as to rehabilitate the marine habitats. Eco-shorelines have been successfully applied in many projects in overseas countries such as Australia and the United States.

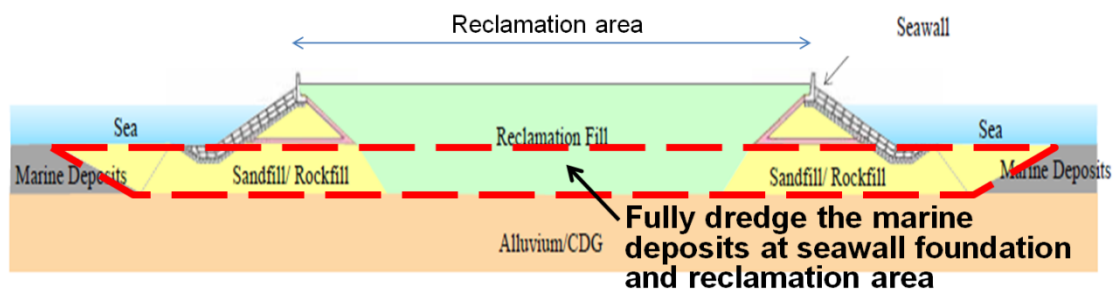
Eco-shoreline can only be established at locations with suitable current and other environmental factors. Rough current or accumulation of rubbish is not conducive to eco-shoreline establishment.

We would build artificial seawalls at locations unfit for establishment of eco-shorelines, but at the same time introduce suitable eco-friendly elements into the design of the seawalls as far as possible. Examples include adding protrusions and recesses on the seawalls to increase the surface area and spaces, constructing tidal pools or deploying artificial reefs to promote algae growth and facilitate the settlement of organisms.



5. Environmentally-friendly Reclamation Methods

We have been adopting the traditional “fully dredged” method in reclamation projects. This method involves a complete removal of marine deposits underneath the seawall and within the reclamation area. The dredged area is then backfilled with sand or reclamation fill to lay the foundation for seawall construction and filling works. It involves a relatively short construction period and the risk of settlement of the reclaimed land is relatively low. However, dredging works would disturb the seabed and cause dispersion of marine deposits, thereby compromising the water quality.



Fully dredged reclamation method

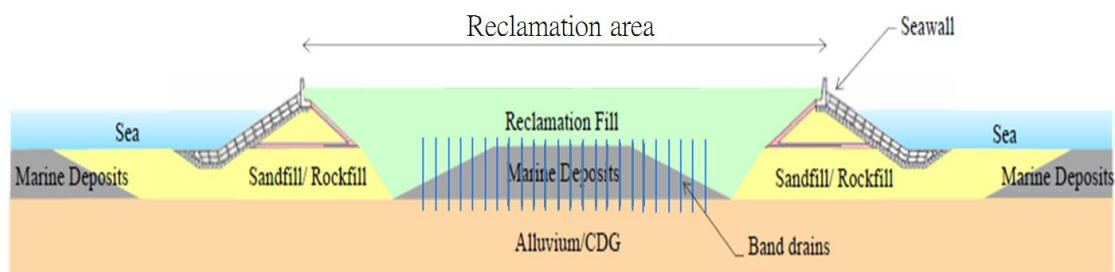


Dredging marine deposits



Silt curtain around the dredging area to confine the dispersion of marine deposits

With the advancement in reclamation techniques, we start using the “partially dredged” method in reclamation projects to reduce the needs for removing and disposing marine deposits and thus the impacts on water quality. Only the marine deposits at seawall foundation will be removed, while those at reclamation area will be retained in situ. Band drains are installed vertically through the layer of retained marine mud, followed by application of preloading above the mud. The water inside the marine mud will be squeezed out, accelerating the consolidation of marine mud and hardening the layer. By this method, it can avoid the occurrence of large settlement of the reclaimed land.



Partially dredged reclamation method

In future, we will adopt the “non-dredged” reclamation method to further minimize the needs for removing and disposing marine deposits. The Government, together with the construction industry, is now exploring a new construction technique for seawalls which may keep the marine deposits at foundations as well. Instead of its removal, special strengthening works will be carried out in respect of such marine deposits. If the marine mud can gain sufficient strength to support the seawalls upon strengthening, there is no need to remove them at all.

Since the geological conditions vary at different locations, suitable reclamation methods will be designed in light of the actual circumstances of each site in conducting detailed studies. In taking forward individual reclamation projects, the Government will investigate in depth the technical feasibility of the proposed construction method, the construction procedures, etc., with reference to the overseas experience. Adequate geotechnical investigation and soil sampling tests will also be conducted.