

**Finance Committee****357WF – Design and Construction for  
First Stage of Desalination Plant at Tseung Kwan O****Follow-up Actions of the Meeting held on 1 November 2019**

At the meeting held on 1 November 2019, the Finance Committee discussed and approved the proposal to upgrade the remainder of **357WF**, entitled “Design and Construction for First Stage of Desalination Plant at Tseung Kwao O” (LC Paper No. FCR(2019-20)36), to Category A. As requested by Members, the Administration provides the following supplementary information:

- (a) in paragraphs 3(a) and 13 of Paper No. FCR(2019-20)36, the Administration estimated the additional annual recurrent expenditure arising from the proposed desalination plant to be \$316 million. At the meeting, the Administration stated that the expenditure was estimated based on the water production capacity of 135 000 cubic metres per day of the first stage of the proposed desalination plant, while the initial water production rate of the proposed desalination plant would be 30% to 40% of the water production capacity. In this regard, the Administration was requested to provide (i) the unit cost per cubic metre of water produced at the aforementioned water production capacity and that at the initial water production rate, and (ii) the estimated fixed cost and variable cost in estimating the additional recurrent expenditure.**

The monthly operation fees payable to the contractor under the Design-Build-Operate Contract of the desalination plant comprise mainly two parts, viz. a fixed fee and a variable fee calculated according to the quantity of fresh water produced. Based on the design water production capacity of 135 000 cubic metres per day for the first stage of the proposed Tseung Kwan O Desalination Plant, the additional annual recurrent expenditure due to fixed fee component and variable fee component are estimated to be \$37 million and \$279 million respectively, thus about \$316 million in total.

If the daily fresh water production rate of the desalination plant reduces, the monthly fixed fee remains unchanged but the monthly variable fee would reduce. In terms of unit production cost, both the fixed fee component and variable fee component would increase. If the fresh water production rate of the desalination plant is 30% to 40% of the design fresh water production capacity, it is estimated that the unit operation fees for each cubic metre of fresh water produced will be about 15% to 30% higher than that estimated based on the design fresh water production capacity.

- (b) according to paragraphs 96 to 97 of the 2013-2014 Budget speech, the construction of Tseung Kwan O Desalination Plant would tap seawater desalination to serve as another water supply source in the long term and reduce Hong Kong's reliance on other water sources (including Dongjiang water). However, in paragraph 1 of Paper No. FCR(2019-20)36, it was stated that the construction of the desalination plant was to develop a strategic alternative water resource to cope with the impact of climate change. In this regard, the Administration was requested to clarify whether there had been any change in policy objective in constructing the desalination plant, including whether reducing reliance on Dongjiang water was still an objective.**

When the Government sought funding from the Legislative Council for the planning and investigation study of desalination plant at Tseung Kwan O in 2012, we stated that the relevant works were necessary to better prepare Hong Kong for uncertainties such as acute climate changes and low rainfall so that such an alternative water source can be readily tapped in good time when needed. Whereas the desalination plant was set to deal with uncertainties arising from climate changes, such new source of water supply when implemented will no doubt reduce the reliance on existing water sources. It was against this background that seawater desalination was put forward as another source of water supply in the 2013-2014 Budget speech.

Subsequently in 2015 and 2017, when the Government sought funding from the Legislative Council for the investigation study review, design and site investigation, as well as the mainlaying works for the desalination plant at Tseung Kwan O, we also stated that to safeguard water security in Hong Kong, we need to develop the alternative water resource by seawater desalination which is not susceptible to climate change. The same justification was also used this time when we seek funding from the Legislative Council for the design and construction of the desalination plant at Tseung Kwan O.

Besides, in 2019, the Government updated the Total Water Management Strategy. The updated Strategy adopts a two-pronged approach, with emphasis on containing fresh water demand growth and building resilience in the fresh water supply catering for extreme effects of climate change with diversified water resources. The construction of the first stage of the desalination plant in Tseung Kwan O is the measure to build resilience in fresh water supply.

Therefore, the objective of constructing the desalination plant remained unchanged.

**Development Bureau**  
**Water Supplies Department**  
**April 2020**