

## Submission to the Review and Development of Marine Water Quality Objectives First Stage Public Engagement Process Civic Exchange January, 2009

### Introduction

This submission from Civic Exchange will focus on identifying lessons learned from the recent air quality objective (AQO) consultation and from the review of the air management strategy, which might assist in the review of marine water quality objectives (WQO).

We have chosen this approach owing to the similarities in managing air and water quality:

1. Both are environmental issues that have not been addressed for more than two decades.
2. Both suffer from pollution that can only be effectively controlled by government intervention
3. Both are the responsibility of the Environmental Protection Department.
4. Both carry implications for the health and quality of life of the Hong Kong public
5. Both are heavily influenced by cross-border pollution from the Pearl River Delta

### Comments & Recommendations

#### *Review of legislation, policy and administrative measures*

What is the current water quality management regime? It will be helpful to assess the value of WQOs as an effective tool for managing water quality if they are set in the broader context of the legislative and administrative framework. This section should explain the current arrangements, agreements, tools and targets for local and cross-border control of pollution. This will create a clearer picture of what is achievable in the short term, the medium term and in the longer term. This was included in the terms of reference for the AQO consultation. Civic Exchange's own research demonstrated that the governing Ordinance (the Air Pollution Control Ordinance) heavily constrained the utility of the AQOs, and contained other problems that need to be addressed. Further information can be supplied upon request.

#### *Mandatory review of WQOs within a fixed timeframe*

As with the AQOs, marine WQOs have not been reviewed for many years. While marine water quality does not carry the same universal threat to public health as poor air quality, contaminated or polluted water carries specific health threats and compromises many of the beneficial uses set out in the consultation document. A regular review of the WQOs (every five years is proposed) is essential to ensure that Hong Kong does not again fall far behind global best practice. We further propose that this timeframe be made mandatory as, without a legal driver for review, we may be left with outdated standards for more than a decade as has happened with both the WQOs and AQOs.

When standards are not regularly updated, polluters vigorously resist efforts to impose tighter standards that lead to additional costs because the low cost/high pollution approach had formerly always been acceptable. The resistance to tighter standards and corresponding higher costs in the AQO consultation, legislation on idling engines and other emission control initiatives vividly exemplify this point. In contrast, where a policy sets expectations of progressively cleaner performance over a stated timeframe, businesses become accustomed to managing the technology upgrades and maintenance regimes as a planned business cost, and resistance is much lower. Several polluters, including operators of minibuses, franchised buses and ferries agreed with Civic Exchange proposals made to a meeting of the Legislative Council's Environmental Affairs Panel on 6<sup>th</sup> October, 2009 that a clear timetable for progressively tighter standards would assist the business community to make the necessary transition.

#### *Set WQOs that drive improvements in water quality*

The considerable discharges both of pollutants directly into Hong Kong waters, and the huge inflows of pollutants from the Pearl River Delta, compromise the various beneficial uses (BUs) by poor water quality. WQOs that are set to assist the Government – as a tool in improving water quality – would be warmly welcomed. Conversely, WQOs that are already being met by our current water quality, but fall short of global standards for protecting BUs will not assist in improving water quality in Hong Kong.

***Provide more comparative information on the relative quality of Hong Kong's marine water***

Given the large number of parameters and the varying standards applied in different jurisdictions it would be useful for the next round of consultation to make clear how our current water quality compares to global standards required by Hong Kong's identified BUs. The proposal to change the parameter for *e. coli* measurement so as to better reflect the appropriate water quality for bathing beaches is a good example. This baseline information was absent from the AQO consultation, which made it difficult for the public to grasp the value of cleaning up.

Easily understood indicators of current water quality might include:

1. How many days are beaches closed due to poor water quality?
2. By how much does water quality at the Lau Fau Shan oysterbeds fall short of US standards for consumption of raw and cooked shellfish?
3. How many years has eutrophication caused crab and muskipper numbers to crash at Mai Po?
4. What is the value of seafood lost to red tides over the last 10 years?

***Propose time-bound WQOs the public can relate to***

WQOs should be set that serve as a useful tool to improve water quality, within a specific timeframe and therefore measurably improve quality of life for Hong Kong people. The absence of such targets was widely criticized during the AQO consultation.

Clear communication of the benefits of cleaning up will also play an important role in building public support, and it is proposed that any targets set should be equally comprehensible to the public, especially to those whose health, livelihood and recreational choices are closely connected to the BUs. The Use-Protection approach appears to be a good tool for this purpose. Possible examples include:

1. WQOs that, within a fixed timeframe, progressively reduce to zero the number of days that beaches are closed due to poor water quality.
2. WQOs that enabled the discontinued cross-harbour swimming race to resume by a certain year would be an admirable goal, not only for the public but for demonstrating Hong Kong's sustainability credentials to a global audience.
3. WQOs that led the US National Shellfish Sanitation Program to endorse the consumption of cooked and raw Lau Fau Shan oysters as safe by a certain year.
4. WQOs that led to the banning of harmful practices (discharge of untreated chicken manure) or products (e.g. toxic anti-fouling paint)
5. WQOs that reduce the degree of eutrophication in Deep Bay by a measurable amount.

***Identification of sources***

The source, quantity, concentration and toxicity of the pollutant, and the ability to control these determine the actual quality of Hong Kong's marine water. It is extraordinary, therefore, that the consultation document does not identify or quantify the principal sources of pollution. The AQO consultation described the sources of air pollution and demonstrated the difference between local and regional sources, using this information to explain some of the difficulties in reducing ambient concentration levels. The next round of consultation on the WQOs should do the same, and like the AQO consultation, it should indicate the respective influence on Hong Kong's marine waters of both local and cross-border sources.

Improving water quality depends on eliminating or reducing these sources to the point where they are no longer harmful or compromise the BUs. The next round of consultation should also explain the current arrangements, agreements and targets in order to make clearer what is achievable in the short, medium and long term. Therefore, the key to managing and improving water quality will be establishing to what degree these can be controlled:

1. within Hong Kong's boundaries, legislation and administrative processes
2. in collaboration with the other jurisdictions in the Pearl River Delta Region.

### ***Review of monitoring methodologies***

Civic Exchange would be interested to learn how Hong Kong's water quality monitoring processes compare with global best practice? Does Hong Kong:

1. conduct sufficiently accurate and frequent monitoring
2. cover a sufficient range of metrics
3. monitor an appropriate number and location of sites
4. produce data of a high enough quality

to inform the decisions that underpin all this work? We would also ask if the data produced is published in a form that is comprehensible to the public?

To take an air quality example, Hong Kong's air quality monitoring network does not cover the major population centre in Tuen Mun/Hong Shui Kiu, and monitors roadside pollution at just three locations. This means that exposures from a key source and in a major population centre are not being sufficiently recorded to provide essential information. We also note that the Air Pollution Index is not comprehensible to the public, and systematically understates the level and health risks of air pollution.

### ***Use WQOs to better integrate Hong Kong into national policy discussion and development***

EPD already co-operates with the Guangdong authorities on both water and air quality management. Hong Kong's WQOs should serve as a driver for rapid improvement in water quality in the Pearl River. The Pearl River Bay Area Concept proposed in September 2009 by the Hong Kong, Macau, and Guangdong Governments in response to the National Development & Reform Commission consultation document *The Outline of the Plan for the Reform and Development of the Pearl River Delta 2008 – 2020*, suggests that there will be a concerted effort to improve the water quality of the Pearl River Delta. It is important that Hong Kong play an active part in this process, and setting WQOs with the stated objective of making that contribution is one way to do this.

### ***Easy access to information on the consultation***

For both AQO and WQO consultations it was difficult to find the websites. Neither was highlighted on the EPD "What's New" page. It is recommended that policy-level public consultations of this sort should be prominently displayed on the EPD website.

We also recommend that more is made of the excellent water quality modeling work already conducted by EPD which demonstrates how long it takes pollutants to disperse from the Pearl River Delta, and serves to show the public how serious the problem of upstream contamination is for Hong Kong.

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