

Date: Fri, 15 Jul 2005 10:29:55 +0800
To: askjtc@jtc.gov.sg
From: Leong Kwok Peng
Subject: Re: Letter of Concern to JTC - Bukom reclamation.

To JTC:

Dear JTC,

We, the Marine Conservation Group of the Nature Society (Singapore), have read a recent Straits Times article (Monday 4th July 2005) regarding the proposed reclamation of the islands around Pulau Bukom, specifically P. Ular and P. Busing.

We would like to address some issues related to the proposed reclamation with the close proximity of Pulau Hantu in mind. These are:

1. What is the exact extent of the reclamation? We surmise that the islands P. Ular and P. Busing will be included in the reclamation project.
2. What methods will be used to contain the ensuing siltation during the process of reclamation? We understand that bunds or embankments will be constructed to prevent silt from travelling to P. Hantu. Will the construction of these bunds be a contributing factor in increasing the sedimentation load in the surrounding waters? We would also like to recommend the use of silt barriers or screens as they have been proven effective in containing siltation.
3. Has an environmental assessment already been conducted on the impact of the reclamation on the immediate marine environment? If not, will such an assessment be conducted? If an environmental assessment is conducted, can the Nature Society be privy to the results of the assessment?
4. As the foremost environmental NGO in Singapore, we are naturally concerned about activities that may degrade or damage the marine and coastal environments. We also realise that the Singapore government is demonstrating increased concern about Singapore's natural environment and Singapore's natural heritage. We hope that you will be able to accommodate our requests and we look forward to receiving your reply.

Thank you.

Leong Kwok Peng
Chairperson
Marine Conservation Group
Nature Society (Singapore)

Mr Leong Kwok Peng
Chairperson
Marine Conservation Group
Nature Society (Singapore)

Dear Mr Leong

Thank you for your email.

We are encouraged by your interest in Pulau Hantu's waters and its marine environment. As a responsible industrial developer, JTC is fully committed to ensuring the well-being of the environment in all our development projects, and we are equally interested and concerned about the water quality, marine and benthic life in these waters. We recognize that these are important facets of Singapore's marine environment which we must balance with economic development.

JTC has been involved in reclamation projects since the early days of Singapore's industrialisation history. Being a land scarce country, reclamation has allowed us to expand our economic frontiers by creating land for industrial development, thereby generating investments and job opportunities for our people. In the course of carrying out infrastructure work, we are keenly aware of the need to protect the marine environment and not to cause unacceptable deterioration.

We would like to assure you that Singapore's land reclamation process is very rigorous. We have in place a set of stringent measures and proven methodologies in reclamation work, together with checks and balances at every stage. These processes are adhered by all the relevant agencies involved in land reclamation and are fine-tuned constantly to keep up with new developments in this field. The typical reclamation process encompasses various stringent safeguards to ensure that potential impacts on the environment are identified, monitored and addressed at various stages of the reclamation works. These include:

- * Strict regulatory controls: Prior to reclamation, approvals from various agencies are sought and all necessary precautions and measures are taken to comply with the pollution, water quality, safety and other requirements by various relevant agencies. An Environmental Impact Assessment study is also conducted to ensure that the works will not cause undue damage to water quality, and that siltation could be controlled in order not to cause harm to marine life, including corals.
- * Monitoring programmes: During reclamation, regular silt, current and water quality measurements, as well as hydrographic surveys and sampling of materials for compliance with requirements (such as silt content, etc) are carried out. An Environment Monitoring and Management Plan (EMMP) is

also put in place to ensure that siltation is within acceptable levels and will not endanger marine life.

- * Audit checks: The use of approved materials, test for silt content and proper demarcation of reclamation areas are audited for compliance.

- * Mitigating measures: Studies are conducted to assess the impact of the reclamation works, and the findings are discussed with various agencies to ensure that mitigating measures are put in place to prevent/ minimise any adverse impact to navigation and the environment. These measures could include, in addition to the EMMP, shore protection works, containment bunds, etc.

These rigorous processes were used for example in our reclamation project at Jurong Island in the 1990s. Jurong Island was created by the amalgamation of seven offshore islands, and is today one of Singapore's economic jewels and a leading chemicals hub in the world. The island's water quality is suitable for marine life and we are heartened to observe turtle appearances on the island, as well as corals growing in its waters.

Allow me to explain the proposed reclamation project at Pulau Ular at this juncture. As an agency responsible for spearheading industrial development in Singapore, JTC is always on the lookout for options to provide land for our industry clusters. We are currently in discussions with the Singapore Economic Development Board (EDB) regarding the development of the chemicals industry. To create land for this growing industry, we are therefore exploring the proposed reclamation project at Pulau Ular, which lies adjacent to Jurong Island. The reclamation will involve part of the coastline of Pulau Ular, Pulau Busing and Pulau Bukom Kechil.

We are mindful of the proposed site's proximity to Pulau Hantu and are conscious of the potential environmental effects. We would like to assure you that we share your concern for the environment and are studying established reclamation good practices which we can adapt and adopt, on top of our existing practices. These could include the use of a rigorous monitoring system as well as necessary mitigating measures to ensure minimal adverse impact.

We have engaged an internationally renowned hydraulic institute as our consultant to carry out studies on the environmental impacts. The study indicates that, if there are proper environmental safeguards in place, the marine life in these waters will not be endangered. We are currently carrying out a more detailed engineering plan on the construction sequence and method of construction. At the same time, the project is also being presented for consultations with the relevant government agencies to ensure that environmental concerns and safeguards are addressed even at the pre-reclamation stage. In addition, we are also seeking advice from academics and marine biologists, one of whom is Professor Chou Loke Ming from the

National University of Singapore. Professor Chou is optimistic that the impact on the area that we are studying can be minimised by the use of environmentally friendly engineering practices.

With regard to your concern about the use of sand bunds, we are looking into incorporating the use of rock into the sand bund as an extra precaution to control silt release at specific locations and this would further reduce any silt impact. The bunds are actually part of the permanent works, only they would be constructed in advance before the bulk of the sand placement is carried out behind them. This would reduce the silt that will be released into the waters.

Regarding the use of silt screens, we would like to thank you for your feedback. We would like to share with you that our intention for this project is proactive rather than preventive. That is, we intend to control the release of silt into the water by using various construction measures and sequences, instead of trying to prevent them from reaching Pulau Hantu after they are already in the waters through the use of the silt screen.

I hope the above information helps to address some of your concerns. We will be happy to share more information with you when the details are available.

In conclusion, we would like to reiterate that we share your concern for the marine environment and we will endeavour to seek a balance between economic development and our environmental heritage in our reclamation projects.

Thank you.

Regards
Tham Lai Pui (Ms)
Manager, Marketing Communications
JTC Corporation
Website: www.jtc.gov.sg