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**Panel on Environmental Affairs and
Panel on Planning, Lands and Works**

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**Impact of construction works on rivers in Hong Kong”
on 23 February 2004**

Background

Hong Kong streams and rivers support rich biodiversity including large arrays of organisms, including insects, crustaceans, gastropods, bivalves, amphibians, reptiles, fish, and aquatic and riparian plants.

Streams and rivers are highly integrated with the surrounding terrestrial environment with the exchange of both organic and inorganic materials. They are important grounds for water, feeding and breeding of many terrestrial organisms.

Hong Kong streams and rivers, however, are also under intense human disturbance, including water extraction, pollution, and structural modifications, such as construction of dams, weirs and channelisation.

The recent incidents, for example, both the illegal devastation in Tung Chung River and legal destruction of concrete lining of two streams at Sai Kung have highlighted the poor coordination among government departments in planning and monitoring construction works in streams and rivers.

Indeed, half of the freshwater biodiversity has been destroyed worldwide in the last 30 years¹. Freshwater habitats are considered as the most critically threatened ecosystems. Hong Kong, being the “*鑽* World City”, should protect our streams and rivers to conserve local biodiversity and adhere to the principles of sustainable development.

Suggestions on the Protection of Streams and Rivers

Conservation Authority

- Under the current framework, a number of departments under the Environment, Transport and Works Bureau and Housing, Planning and Lands Bureau, including the Drainage Service Department (DSD), Water Supplies Department, Lands Department, Environmental Protection Department (EPD) and Agriculture, Fisheries and Conservation Department (AFCD), are involved in the issues of streams and rivers in Hong Kong. However, incidents mentioned above have clearly demonstrated the ineffectiveness of coordination among these departments. The government should recognize the importance of streams, rivers and their water catchment protection in Hong Kong at the policy level by establishing integrated management and action plans to coordinate the work among various departments. As such, an authority for designing of comprehensive conservation strategies including the remits covering environmental quality, biodiversity and resource management should be set up. This authority should oversee the conservation of biodiversity issues and coordinating sectoral and other aspects (e.g., interdepartmental land

¹ WWF (2002). Living Planet Report 2002. WWF International.



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and resource use conflict issues, and conservation conflict issues among government departments) of an integrated territorial (including freshwater, terrestrial and marine) biodiversity conservation programme.

Development of sustainable flooding control strategies

- The government should develop sustainable flooding control practices. Channelisation should be taken as the last resort to control flooding impacts. Better land use planning should be adopted to reduce or avoid future development on the flood prone area.
- DSD should review the needs and environmental impacts of the existing Drainage Master Plans and individual drainage projects. Unless these projects are of significant public interests, channelisation should be stopped.
- In areas where stream channelisation is unavoidable, ecologically friendly design of the stream channels should be used.

Ecologically Friendly Stream Channel Designs

- Although DSD, EPD, Territory Development Department and AFCED have given examples of environmentally friendly drainage channel designs arising from environmental impact assessments in December 1998 (lasted update: March 2002), they are not adequate to protect the most stream organisms.
- For instance, the use of grasscrete linings on the stream bank only serve as greening purposes. Although these linings provide habitats to few species of birds and terrestrial insects, they are not useful for stream organisms as they are not immersed in stream water for most of the year.
- The government should develop Ecologically Friendly Stream Channel Designs with participation of experts in stream or river ecology. The design of the stream channels should support the original biological communities and the original streambed should be preserved, where possible. Reconstruction of instream habitats, such as pools and riffles, should be included when modification of the stream course is unavoidable. Ecologically friendly designs should be adopted as the standard channelisation practices in all public and private projects.

Ecological restoration of degraded stream ecosystem

- The government should set up action plans to restore the ecological values of degraded channelised streams and rivers.

Increase of penalty

- Illegal excavations of the natural environment, including streams and rivers, should be considered as serious crimes and heavier penalties should be imposed to offenders for deterrent purpose.

WWF Hong Kong calls for a cross-departmental conservation authority to protect Hong Kong streams and rivers. Freshwater habitats should NOT be compromised for the sake of development. The government should adopt a sustainable flooding control strategies with ecologically friendly stream channel designs and restore all degraded river systems.