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# 生態工法評估程序建立—溪流狀況指數為例

周正明[1]　　黃世孟[2]

摘　　要　本研究從澳洲自然資源與環境部所提出溪流狀況指數(Index of Stream Condition)來評估在河川生態工程中，以針對指數值的高低來檢測河川生態狀況的好壞，進而決定生態工程介入的多寡；作為生態工程規劃設計、施工及維護管理各階段實行時的參考。

溪流狀況指數包括五個部分，分別是水文次指數、物理狀況指數、濱河狀況指數、水質次指數、水生物次指數。這些指數包括許多專業，像是水利工程、土木工程、植栽工程、環境工程以及生物學等類別，是突破過去以往強調以單一性指標為主的工程設計觀念來作評估，建立出簡易且全面性的評估程序。本次研究採用台北市內湖區大溝溪為應證案例。

主要研就成果如下：

1. 引入溪流狀況指數建立出評估生態工法介入河川整治工程的模式。
2. 利用溪流狀況指數建立生態工法在設計規劃、施工、維護管理的方法架構。
3. 經由此指數驗證大溝溪，其狀況為普通，主要原因為水質與濱河狀況指數偏低，非工程類因素造成；主要有土地超限利用與水利法限制。

關鍵詞：生態工程、生態工法、溪流狀況指數。

# The Evaluation Process of Ecological Engineering Method by Index of Stream Condition

Chou Cheng Ming[1]　　Haung Shih Meng[2]

**ABSTRACT**　Department of Natural Resources and Environment (Australia) published the Index of Stream Condition in 1997 and a second edition was published in 1999. The ISC is used in filed management. These studies are used as a way to evaluation on the ecological engineering process. The indexes will trans into the way to decide which place is suitable, how to conceive in the site and how to check the engineering. These studies provide a process but not a guideline.

The Index of Stream Condition include five parts: Hydrology、Physical form、Streamside Zone、Water quality and Aquatic life. These indexes include many specialties such as civil engineering, hydrology engineering, environmental engineering and biological. We use Da-Kao stream to be a case to prove the hypothesis.

The conclusions are：

1. Establish a process to evaluate ecological engineering.
2. We use these indexes to make a process in plan, design, and construction and

〔1〕國立台灣大學土木工程學系碩士（通訊作者）
Master, Department of Civil Engineering, National Taiwan University, Taipei 106, Taiwan, R.O.C
(Corresponding Author)
E-mail：jouming@hotmail.com
〔2〕國立台灣大學土木工程學系教授
Professor, Department of Civil Engineering, National Taiwan University, Taipei 106, Taiwan, R.O.C

maintenance.

3. The land use often cause low scores. If we want to make the ecological engineering successful, we have to control the land use.

***Key Words:*** ecological engineering , ecological method, index of stream condition (ISC).