

## Restoration Effect of the Jangja Stream Based on Ecological Principles

KIM, JUNG-KUK<sup>1</sup> and KIM, JIN-HONG<sup>2</sup>

<sup>1</sup>*Environmental Division, Gury-City, Korea*

<sup>2</sup>*Department of Civil Engineering, Chung-Ang University, Ansong, Korea*

The stream restoration has been conducted to restore the ecological habitat conditions harmonized well with the stream scenery and to maintain water quality. This was reinforced by a social mood of economic achievement and environmental concern. Thus a series of stream restoration research projects have been initiated in Gury City. Among those research projects, the most significant ones are adapting nature-friendly river works.

This paper presents the effects of stream ecosystems, improvement of water quality and hydraulic stabilities of nature-friendly river works, and thus estimates the restoration effect confirmed in the Jangja Stream restored based on the ecological principles.

The stream restoration is needed to consider restoring stream ecosystem to be a major output. In most cases restoring aesthetic value of the stream is naturally followed by the restoration of ecosystem.

The results revealed the increase of community abundance, especially in the flora and fish fauna, improvement of water quality, and higher aesthetic value which also corresponds to the restoration effects.



Figure 1a: Restoration Effect of Jangja Stream  
(before)



Figure 1b: Restoration Effect of Jangja Stream  
(after)

## References

- [1] Darnell, R.M. (1976) Impacts of Construction Activities in Wetlands of the United States, Report EPA-600/3-76-045, U.S. Environmental Protection Agency, Corvallis Environmental Research Laboratory, Corvallis, Oregon.
- [2] Federal Interagency Stream Restoration Working Group (FISRWG) (1998) Stream Corridor Restoration-Principles, Processes, and Practices, US Department of Commerce, NTIS, Springfield, VA, USA