

Stream Ecological Valuations (SEVs) provide extra evidence for restoration efforts.

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The restoration of streams, particularly in urban environments, has gained momentum in New Zealand in recent years. The Macroinvertebrate Community Index (MCI) is a common method for assessing the success of restoration efforts, but the slow response time and complex nature of invertebrate communities make it a challenge to measure the effectiveness and benefits of restoration projects. Lack of dispersal pathways and long response times may mean that MCI scores continue to fall even after extensive restoration efforts, giving the initial impression of failure. This can be highly detrimental to the continuation of the project, particularly when restoration costs can be upwards of \$1000 per linear meter.

The Lucas creek in Auckland is one such project. In 2008 a section of the stream was restored, but the MCI monitoring that had been occurring annually since 2004 continued to show a decline in the MCI score. However, three Stream Ecological Valuation assessments collected at the same location tell a different story. This assessment collects a much larger range of data, centered on other habitat features important to stream ecology, including MCI and fish indices. Results of SEV assessments at Lucas Creek suggest that while the invertebrate community has continued to decline, many other aspects of stream health have improved since the restoration took place.

Use of the SEV or similar habitat assessment for the monitoring of restoration projects may provide evidence of other ecological successes within the stream, thus supporting the continuation of the restoration project. In addition, the extra habitat data collected by the SEV may highlight hidden impacts on stream health, such as fish passage barriers or stream shading issues, allowing for issue targeted restoration efforts, rather than generalized approaches.