

How can regional authorities support community volunteers for consistent and reliable long-term stream monitoring?

Miss Samira van Hunen¹, Miss Elsemieke Kin², Dr Rob Davies-Colley¹, Mr Aslan Wright-Stow¹, Dr Richard Storey¹

¹NIWA, ²Wageningen University

Recent research (Storey et al. this conference and in review for Ecology and Society) has shown that community volunteers can reliably (i.e. accurately) measure a range of stream water quality and ecological health attributes using a simple, low-cost, kit – the Stream Health Monitoring and Assessment Kit (SHMAK), developed in NZ. Given appropriate training and sufficient ongoing support, community volunteers could contribute monitoring data to regional state-of-environment assessments as well as other applications. Following the Storey et al. ‘parallel’ study, we conducted focus group discussions with the nine participating community groups. Consistent with findings from overseas studies, volunteer monitors were motivated by a concern for the environment and a drive to do something useful. The key factors enabling them to collect reliable data and to continue monitoring long-term were ongoing professional support and means (such as a web-based database) for interpreting and sharing their data. The ‘logical’ agencies to provide such support in NZ are regional environmental management agencies. We also interviewed the five regional authorities that participated in the Storey et al. study through focus groups made up of self-selected staff. Several important benefits of volunteer stream monitoring were recognised in these focus groups, including provision of data on streams that would not otherwise be monitored. Regional authority staff also noted significant challenges and barriers to wider community involvement and use of volunteer data, but identified strategies that could potentially overcome these. We envisage an ideal ‘near-future’ in which volunteer monitoring of streams is strongly supported by regional authorities with initial training and ongoing quality assurance, data interpretation, and encouragement. Furthermore, because volunteers are often involved in stream restoration, volunteer monitoring provides an opportunity to obtain valuable information on stream recovery, addressing an important knowledge gap.