Biological Condition of the Ring and Stitt Rivers: 

Report to MMG, Rosebery
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1. Introduction and Aims
This report describes the results of surveys conducted in 2012/13 in the Ring and Stitt Rivers, comprised of one spring 2012 and one autumn 2013 seasonal sampling event for macroinvertebrates and fish.

This report forms part of what is now a routine biomonitoring exercise for the Ring and Stitt catchments. Surveys under this program have been previously reported for autumn and spring annually from 2005/06 to 2011/12 (Davies et al. 2005a, b; 2006a, b; 2007; 2008, 2009, 2010, 2011, 2012). These had been preceded by a detailed survey conducted in 2003/04 (Davies et al. 2004).

The primary aims of this monitoring are to:
- describe the status of macroinvertebrate and fish assemblages in the Ring and Stitt Rivers;
- evaluate changes over time and relate these to environmental conditions (especially habitat and water quality) and management actions (e.g. remediation of Hercules mine, management of wastewaters and drainage in the Rosebery area).

The Ring River has been found to be in a highly degraded ecological condition with low abundances and diversity of macroinvertebrates throughout, and a complete absence of fish (Davies et al. 2005a, b; 2006a, b; 2007 – 2012). The ecological condition of the Stitt River has consistently been less impaired than the Ring, though sites in the lowest reaches approach the very poor condition of Ring River reaches.

The current monitoring program again follows the protocol use by Davies et al. (2004), with sampling of instream fauna at a number of sites in the Ring River and selected tributaries, in the Stitt River both upstream and downstream of pollution sources, and in a reference river the Sterling.

Monitoring is being conducted annually with one sampling event in each of spring and autumn. This report documents the spring 2012 and autumn 2013 survey data, along with an assessment of changes over time.