



## STREAM HEALTH

### *What does this measure & why is it important?*

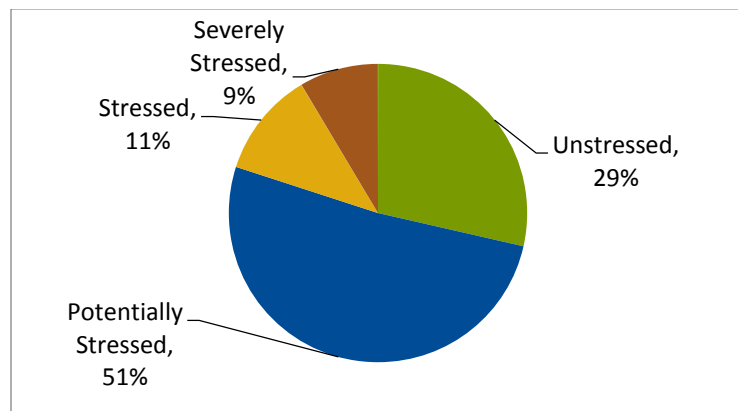
This indicator uses an assessment of the stress level of aquatic benthic invertebrate communities as a proxy for the health of Basin-Boundary watercourses. Data are sourced from eight community-led water quality monitoring programs that collectively report on 35 sites on rivers and streams. To ensure comparability of results, each program uses the same nationally-endorsed sampling protocol which is provided by the Canadian Aquatic Biomonitoring Network. For more information on these programs, or to view data, visit the Columbia Basin Watershed Network's [website](#). Benthic invertebrates are organisms that live at the bottom of lakes and streams (e.g., aquatic worms and snails). Benthic communities are sensitive to environmental change. Therefore, the abundance and distribution of certain species can indicate a change in water quality or the overall health of a watercourse.

Many communities in the Basin-Boundary region are concerned about water quality in the lakes and rivers that provide water for drinking, irrigation, and recreation, among other uses. Trends in the stress level of benthic invertebrate communities can help decision-makers understand the impact of human-induced change on our watersheds.

### *What are the trends & current conditions?*

Current stream health assessment results vary from watershed to watershed, and even from site to site on the same stream. The majority of sites (51%) were determined to be “Potentially Stressed” during their last assessment (Figure 1), indicating that the composition of their benthic invertebrate communities was mildly divergent from the composition of the benthic community that would be expected if that site were experiencing minimal pressure from human activities.

From a regional perspective, a short-term trend in stream health is not clear. Of the sites that have undergone multiple annual assessments, 11 show an increase in stress level between their first and last assessment, 8 show a decrease, and 12 show no change. Trends for individual monitoring sites can be viewed online using the Digital Basin geospatial tool.



**Figure 1: Stress level of benthic invertebrate communities from the last assessment of 35 monitoring sites in the Basin-Boundary region.**

**Source: 2014 Water Quality Monitoring Reports for: Burton Community Watersheds, St. Mary River Watershed, Joseph Creek, Lardeau River Watershed, Slokan River and Area, Upper Columbia (select Golden area streams), Salmo River, and Windermere Creek**



The Columbia Basin Rural Development Institute, at Selkirk College, is a regional centre of excellence in applied research and information provision focused on strengthening rural communities in the Columbia Basin-Boundary Region. Visit [www.cbrdi.ca](http://www.cbrdi.ca) for more information.