

Society for Freshwater Science Environmental Flows Policy Statement

Flow regimes influence the structure, function and biodiversity of aquatic ecosystems (PS 1, 2). The natural flow regimes includes the magnitude, duration, frequency, timing, and rate of change of discharge required to sustain the biological integrity of aquatic ecosystems and the services they provide to people (PS 6, 8). Environmental flow regime approaches seek to provide the full breadth of instream flow needs. These quantitative guidelines mark a compromise between natural flow variation and the alterations that result from water infrastructure and land conversion (PS 8). Assessments to identify environmental flows should be based on the best available evidence relating patterns of discharge to geomorphic, evolutionary, biogeochemical, and physiological processes. A rigorous and transparent examination of these relationships can provide the basis to negotiate numeric guidelines that support natural ecosystems and the fullest set of services they provide. Implementation of such guidelines in law and practice is essential to supporting sustainable ecosystems and economies.