

We've been examining how to practically link ecosystems to human values. We have found that the concept "Final Ecosystem Goods and Services" (FEGS) is a useful way to make this linkage. FEGS are defined as ecological features people perceive as being directly relevant to their welfare, as opposed to the larger set of essential intermediate ecological processes and features on which the FEGS depend. This conceptual construct presents ecosystems as systems of production. A "production function" then links changes in stressors to changes in FEGS. As the first part of our examination, we identified metrics of FEGS for streams, wetlands and estuaries in two interdisciplinary workshops (<http://www.epa.gov/nheerl/arm/streameco/index.html>). Reports from these workshops not only identify sets of metrics, but also sets of transferable principles useful for thinking about metrics of FEGS more generally. As a second step in our evaluation, we consider the gaps between required FEGS information and the capacity to provide this information as national and regional scales. Here we focus on national stream monitoring. We compare the workshop listing of FEGS to the available stream metrics of national extent. We present a specific example of our gap analysis for recreational angling, and provide more general conclusions examining other beneficiaries. Our gap analysis first specifies how FEGS information could be used. We identify four general uses - 1) general communication, 2) reporting of status and trends, 3) providing information for analyses of human well being and 4) providing the biophysical information that might be included in a Green GDP. Each of these uses has requirements not only with regard to the biophysical measurement, but also with regard to its temporal and spatial attributes, and with regard to the need to include the metric in a production function. We'll walk through an example of this analysis for recreational angling.