

“Science Sprints” To Support Regulation

How do we organize evolving scientific evidence to support the protection of public trust resources?



The National Marine Fisheries Service (NMFS), Washington Department of Fish and Wildlife, and Puget Sound Partnership with EPA funding are collaborating to prototype a process for best-available-science assessments on specific but important resource management topics. These topics are selected because 1) there is a body of scientific evidence that needs to be organized, 2) there is diversity of opinions among public and agency workgroups, and 3) the topic affects consequential regulatory decisions. For each topic we conduct a “science sprint” to rapidly and efficiently assemble available evidence (from peer reviewed literature to expert elicitation) into a format that is useful for regulatory workgroups—a body of “best available science” that is organized to support regulatory determinations. Each regulatory authority has different protected resources, different standards of evidence, and different requirements around burden of proof. Our challenge is to generate well structured evidence that can support the needs of multiple agencies, while developing a transparent and accessible body of evidence. These sprints generate a report, which includes directions for future research likely to have an impact on regulatory determinations. In this initial work we are paying particular attention to our ability to quantify ecosystem services using Habitat Equivalency Analysis as an organizing framework. We use the Salish Sea Wiki as a public facing archive of our work.

Are You Making Regulatory Policy?

No. A “science sprint” is a technical project conducted by scientists who will assemble, organize, and communicate information so that it can be accurately and precisely applied in regulatory processes. The sprint assembles and organizes evidence. Individual regulatory shops may use that evidence as is appropriate under their authorities. The science sprint process and outputs are improved over time based on the input of regulatory policy-makers, but sprints are conducted by scientific communities in agencies and universities.

Why Quantification With Habitat Equivalency Analysis?

While different kinds of evidence are part of a regulatory determination, NMFS is using quantification with the aim of increasing fairness and accountability under the Endangered Species Act. Quantification focuses attention on how evidence indicates a gain or loss of ecosystem services over time, which helps us apportion responsibility for protection. Habitat Equivalency Analysis is a cost-effective and transparent modelling process used by NMFS in the administration of some of its authorities.

What Topics Are You Studying?

We have a list of candidate topics that we maintain to support future sprints. We describe our current efforts on our Salish Sea Wiki page (see below). We are looking for sponsors and partners to continue this work.

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