

Peer Review Plan

Topic of Review: Regional forest carbon assessments [] **Influential Scientific Information**

Agency: USDA-Forest Service, PSW [] **Highly Influential Scientific Assessment**

Agency Contact: R. Flint Hughes (fhughes@fs.fed.us; 808 933-8121 ext 117)

Subject of Review: Asner GP, Hughes RF, Mascaro J, Uowolo AL, Knapp DE, Jacobson J, Ty-Kennedy-Bowdoin T, Clark JK. 2011. High-resolution Carbon Mapping on the Million-hectare Island of Hawai'i. *Frontiers in Ecology and the Environment*, doi:10.1890/100179

Purpose of Report: Combining field measurements, airborne light detection and ranging (LiDAR)-based observations, and satellite-based imagery, we developed a 30-meter-resolution map of aboveground C density spanning 40 vegetation types found on the million-hectare Island of Hawaii. We estimate a total of 28.3 teragrams of C sequestered in aboveground woody vegetation on the island, which is 56% lower than Intergovernmental Panel on Climate Change estimates that do not resolve C variation at fine spatial scales. The approach reveals fundamental ecological controls over C storage, including climate, introduced species, and land-use change, and provides a fourfold decrease in regional costs of C measurement over field sampling alone.

Type of Review: [] Panel Review [] Individual Reviewers

[] Alternative Process (Briefly Explain):

Blind peer review process conducted by Journal

Timing of Review (Est.): Start: January 2011 End: April 2011 Completed: April 2011

Number of Reviewers: [] 3 or fewer [] 4 to 10 [] More than 10

Primary Disciplines/Types of Expertise Needed for Review: Biogeochemists, Forest Ecologists, Carbon Cycling Scientists

Reviewers selected by: [] Agency [] Designated Outside Organization

Organization's Name: Frontiers In Ecology and the Environment

Opportunities for Public Comment? [] Yes [] No

If yes, briefly state how and when these opportunities will be provided:

How: _____

When: _____

Peer Reviewers Provided with Public Comments? Yes No

Public Nominations Requested for Review Panel? Yes No

Other: _____

