Interactive comment on “Scaling net ecosystem production and net biome production over a heterogeneous region in the western United States” by D. P. Turner et al.

Anonymous Referee #2

Received and published: 12 July 2007

The paper is well conceived and the amount of work is outstanding. I appreciate the paper as one of the few to try to respond in an integrative way to an integrated carbon budget estimation at regional level. I imagine that several programmes can take this as good example of applied research relevant to UNFCCC and Kyoto protocol (including programme such as GTOS).

On the general comments I would have discussed also the role of other greenhouse gases, non CO2. I understand that the modelling framework does not allow that (for example exclude nitrogen cycle) but may be at the level of fire emissions a figure on other GHG gases could have been given, particularly when authors compare regional
emissions with the sink effect.

On the question of inter-annual variability it is interesting to note such high variation due to climate, somewhat different from what presented by Reichstein et al. GRL 2006. I think the analysis of NPP versus Rh it does not give a full picture of the climate effect. The authors should discuss GPP, Ra and Rh separately, in order to understand better limitation to photosynthesis as possible climate driven.

Minor: Page 1100 line 2, 4 and few others please correct "spun up" with "spin up"

In general I think the paper can be published with minor revision

Interactive comment on Biogeosciences Discuss., 4, 1093, 2007.