

From: [Stephen Torbit](#)
To: [Betty Grizzle](#); [Justin Shoemaker](#); [John Guinotte](#)
Subject: RE: Curtis paper
Date: Tuesday, January 24, 2017 9:34:02 AM

Thanks Betty, I had not seen this. It is consistent with some of the concerns we previously raised with the Mckelvey paper and our work with NOAA is incorporating the same kind of smaller scale/topographic parameters.

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From: Grizzle, Betty [mailto:betty_grizzle@fws.gov]
Sent: Tuesday, January 24, 2017 9:26 AM
To: Shoemaker, Justin; John Guinotte; Stephen Torbit
Subject: Curtis paper

Not sure if any of you have seen this 2014 PLoS One paper, but thought I would send to you. This reference is not included in the Literature Cited/Considered for the 2014 Withdrawal. Let me know if you want to discuss.

From Abstract:

Our estimates of change in spring snowpack conditions under current and future climates are consistent with recent studies that generally predict declining snowpack. However, model development at a finer scale and incorporation of cold-air pooling increased the persistence of April 1st snowpack. More specifically, incorporation of cold-air pooling into future climate projections increased April 1st snowpack by 6.5% when spatially averaged over the study region and the trajectory of declining April 1st snowpack reverses at mid-elevations where snow pack losses are mitigated by topographic shading and cold-air pooling.

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