

Comments on the 5/27/15 draft of CCC's SLR Policy Guidance

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Folks,

I have the following comments on the 5/27/15 draft of "California Coastal Commission Sea Level Rise Policy Guidance":

- p. 52: "For storm waves and flood conditions, an extreme event will normally be anything worse than the 100-year event." (CCC, 2015)
 - Is 'worse than the 100-year event' the intended definition? If so, this suggests that more frequent, less extreme events are not a concern. Also, it is not clear from this sentence whether 100-year event refers to the present day 100-year event (which will become more frequent with SLR) or the 100-year event that evolves with climate change and SLR. The report's Appendix B, p. 242 lists multiple examples of extreme events, which I believe would be a better definition of extreme event. I suggest updating p. 52's definition of extreme event to reflect definitions on p. 242.

- p. 204: "Under the high concentration scenario, RCP 8.5, Kopp et al. find a 99.9 percentile estimate of 8.2 ft (2.5 m) for the year 2100." (CCC, 2015)
 - Taken out of context of Kopp et al (2014), I found it unclear what '99.9 percentile' means. Does it mean there a 99.9% chance of reaching 8.2 ft? Or does 8.2 ft exceed 99.9% of all the other potential SLR scenarios? Reading Kopp et al, I believe it's the latter, a meaning which is likely to be unclear to those lacking a familiarity with statistics. I would suggest re-wording this sentence to make it easier to understand without needing to refer to Kopp et al., e.g.: "Under the high concentration scenario, RCP 8.5, Kopp et al. (2014) estimate the 'maximum physically possible rate of sea level rise' to be 8.2 ft (2.5 m) for the year 2100." [Note that 'maximum physically possible rate of sea-level rise' is directly from Kopp et al., hence the single quotation marks.]

- p. 231, p. 233, and 2 locations on p. 235: Revell (2011) should be Revell et al. (2011)

- p. 240 "Coastal flooding is a significant problem now and it will increase with rising sea level. At present, about 210,000 people in California are living in areas at risk from a 100-year flood event (Heberger et al. 2009). A rise in sea level of 55 in (1.4 m) with no change in development patterns or growth along the coast could put 418,000 to 480,000 people at risk from a 100-year flood (Cooley et al. 2012). Increases in storm intensity or in the density of development in flood-prone areas will increase the number of people at risk from flooding."
 - More is at risk than just residences. I suggest adding to end of this paragraph a sentence such as this: "In addition to the people living in the coastal flood zones, critical infrastructure (such as wastewater

treatment plants, power plants, and roadways) which serves a larger fraction of the California population are also found in coastal flood zones.”

Regards,

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