First, similarly to Reviewer 1, we would like to apologize for responding late to Reviewer 2 comments.

The paper addresses future increase in flood risk in locations where flooding is currently rare and infrastructure is therefore built close to sea-level, using Guadeloupe in theCaribbean as a detailed case-study. On this island as with several others, inland areas are very steep and challenging for building, so much development has focused on very low-lying areas which were formerly mangrove. The paper focusses on nuisance flooding, ie that due to predictable high tides in calm weather, rather than hurricane related extreme water levels. The paper would benefit from a little rearrangement, some improvement of figures, and a thorough copy-edit for English but is otherwise good.

- ⇨ We thank you for your assessment and hope that our changes to the manuscript will respond adequately to your comments.

A general suggestion - this is a specific case study, but can other islands adopt the methodology directly? Is the code available for immediate reuse with simple substitution of the location? Where in the world would this be directly applicable?

- ⇨ We will provide the code as a supplementary material. However, the difficulty is not to develop the code computing the number of chronic flooding events, but rather the availability of tidal, altimetric and vertical ground motions data. Furthermore, knowledge on the infrastructure at risk is required as well. For these reasons, we believe that the key criterion of success for adapting this study in other contexts is local knowledge. The missing piece of information for research teams having access to this local information may be the sea-level projections. Hence, we also now precise in a "data availability statement" that the sea-level projections we are using are based on those available from the University of Hamburg (https://icdc.cen.uni-hamburg.de/en/ar5-slr.html) and can be downloaded for other locations from here: https://sealevelrise.brgm.fr/).

Minor suggestions: I think the paper may be more simply laid out if you discussed the geography, defined the4cut-offs(0.5m, 0.8m, 1.0m, 2.0m), discussed which sites these encompass, then just stuck to these heights?

- ⇨ Thank you for the suggestion. We have considered changing Figure 1 to better highlight these cut-offs, but the map becomes too heavy. Therefore, we have changed the legend of Figure 1 as recommended and added an additional Figure to better identify low lying elevations and coastal sites. This also allows responding to an other comment below on Table 4. Regarding the suggested reorganization, we think that the narrative should start from exposed assets, the currently observed phenomena and the current perception of their vulnerability (Based on Bourdon and Chiozzotto, 2012; see section 2 and Figure 1). This allows later to discuss the attribution of these effects and to suggest that the altitude is not the unique criterion to be taken into account (section 5.1).

line 125 is effectively "since we're talking about protecting an airport, we are inherently in RCP8.5 scenario, as a lower scenario would involve changing this infrustructure anyway!" - an interesting take!

- ⇨ Thank-you. In fact we do not only mention the airport here but all the energy and transport infrastructure. The paper we quote here (Rockström et al., 2018) describe a pathway toward 1.5°C (or 2°C). It clearly highlights that such pathways require a major transformation of energy and transport infrastructure. We also note in section 5.3 that such a transformation could be seen as an "opportunity to reconsider the location and the nature of critical infrastructures in

Guadeloupe and elsewhere", and therefore reduce exposure to coastal hazards induced by committed sea-level rise. We also added, based on Reviewer 1 recommendation a note to remind that only a few country have set up the measures to achieve their own climate objectives so far.

line 205 I'm not familiar with this method, I'm trusting you here.

⇨ Thank you : this method of « Small Baseline Subset » is in fact a technical detail worth to be mentioned to ensure reproducibility of our study. This processing has been implemented by our coauthors Marcello De Michele and Daniel Raucoules. It is one of the procedures commonly used in InSAR processing, particularly when there are not enough images to perform Persistent Scatterers interferometry.

Fig 4: GNSS results vs INSAR - it would be good to plot these together if possible - could you overlay the numbers from Table 2 on Fig 4 so we can see it in context?

⇨ Thank you for the suggestion. In this case, we feel more comfortable with presenting the InSAR results without the GNSS velocities from Table 2. Unlike InSAR results, GNSS velocities have low confidence, as shown by the large errors of the NGL solutions and the "not robust" caveat of the SONEL solution (Table 2). Furthermore, our InSAR results clearly show that differences among GNSS velocities are either due to very local processes affecting single antennas, or to discontinuities due to system changes (see discussion in section 4.2). In fact, these differences motivate us considering two subsidence scenario.

Recommend sticking to mm/yr or cm/yr throughout the paper, try not to mix units.

⇨ We agree and modified the text and the figure accordingly. Overall we limited us to using "meters" and "mm/yr" to avoid confusion, except for tidal variations where we use millimeters (one instance).

318 Label the scenarios A, B as in subsequent figures.

⇨ Thank you. We are redoing Figure 6 and 7 for a consistent labelling of scenarios across figures.

325 Is the flooding associated with cyclones also related to waves & high rainfall? It won't affect your results if you're taking them out but might be worth noting. And what about the chronic flooding? If (line 365) there is already chronic flooding, how high above the tidal height those days did this occur? At which sites? How often? Does this mean you need to allow say 40cm for rainwater? Or more?

⇨ We agree that section 4.3 was confusing as it was unclear what data was used as input (tidal records in Figure 5.A) and what data is used to chronic flooding (Figure 5.B). The Figure 5.B excludes cyclonic events and are the total water levels used to compute the number of chronic flood events per year in section 4.5. We hope these precisions clarify the message here. The new subsection 4.3 reads as follows: '*Figure 5.A shows the raw tidal signal, and Figure 5.B shows the distribution of total water levels maxima obtained following the method described in subsection 3.3. Figure 5.A displays the cyclonic events as blue lines, which we further highlight in red where these events affect our dataset. Cyclone-induced storm surges can reach several tens of centimeters at Pointe-à-Pitre (e.g. ~0.4m for the David cyclone, 1979). the first blue line on Figure 5 corresponds to the cyclone that induced the strongest flood over the period of interest (Hugo, 1989).*

The daily maxima of total water levels shown in Figure 5.B are not only caused by tidal variations, but also by non-cyclonic surges and other processes causing seasonal to interannual sea-level variations. Overall, the amplitude and recurrence of these phenomena falls within the range of typical high-water level events that can be classified as chronic flooding events (Figure 5). For example, the largest water level record over 1983-2016 corresponds to a seasonal high monthly mean sea-level record. Hence, once removed from the cyclone events, we obtain a distribution of highest daily water levels, which are representative of moderate conditions. Hence, the distribution of daily high water levels is suitable for the study of chronic flooding, driven by tides, seasonal variations of mean sea levels and non-cyclonic surges.'

370 "every two days between 2060 and 2100" be careful here. Do you mean, every other day, or every day for half the year, or every spring tide, or something else? It might make quite a bit of difference to adaptation policy.

⇨ Thank you. We agree this was not clear and we changed to "180 days per year".

377 "For our high-end scenario, chronic flood events driven by sea-level rise occur one decade earlier than for the upper bound of the likely range. (dotted line on fig 6)

⇨ Thank you. We added the reference to Figure 6 as suggested.

Fig 1 According to your map Fig 1, substantial areas are at 0m (should this actually be labelled 0-2m?) and would therefore be underwater more than half the time already. (Fig 5). Or is there a datum error? Local TG at chart datum? Since 0.8m is used as a key cut-off, it would be very useful to have a colour boundary on the map at this height, also at 1m.

⇨ Thank you. We confirm that the datum (vertical reference) are consistent across the manuscript: we used the IGN88 local reference for both altitudes and tidal levels. We agree that Figure 1 required the suggested changes (key cut-offs and more accurate labels). We are changing the Figure accordingly. We added another Figure to help focusing on low lying elevations (see above).

Fig 5 - can you indicate on the figure when flooding starts at some location? Fig 5a please replot with years labelled.

⇨ Thank you. We are changing panel 5.A to have year as abscissa labels. However, we are not sure how to highlight where flood starts in particular locations. This can be identified based on the altitude on the vertical axis, as we are providing all altitudes in the same local reference frame (IGN88).

Fig 7: Isn't this figure effectively just an extra (top) panel in Fig 6? Why not keep it together for simplicity?

⇨ We agree that Figure 7 delivers the same information as Figure 6 for another critical height, but we propose to keep these two figures separated as the 0.5m altitude is only discussed in the context of the attribution discussion in 5.1.

Fig 6 & 7 I suggest adding the caption from fig 3 so the lines are labelled on the same plot, there is plenty of space & it will enable easier reuse of the figure. Always better to avoid scrolling though pages if possible! Fig 6 : include the heights (0.8m, 1.0m, 2.0m) somewhere? Fig 6: Maybe change the x axis to start at year 2000?

⇨ Thank you. We agree and are improving figures 6 and 7 accordingly. We displayed the plots over 1960-2100 to easily compare with Figures 3, but this is not necessary indeed.

Bourdon/Boudon & Chiozzoto 2012 is a key paper, but is not consistently spelt. The reference is not adequate to find it. It's some kind of local report? Is it online? Does it have a doi? Please translate the title.

⇨ Thank you. We changed the reference as requested, adding a link to the report. The reference now reads: „Bourdon, E., and Chiozzotto, C.: impacts géotechniques et hydrauliques de l'élévation du niveau de la mer due au changement climatique dans le contexte urbain côtier de la zone pointoise (Guadeloupe). [geotechnical and hydraulic impacts of sea-level rise caused by climate change in the urban coastal area surrounding Pointe-à-Pitre (Guadeloupe)] 135p., 2012. Available http://infoterre.brgm.fr/rapports/RP-60857-FR.pdf (Accessed 11/11/2020)."

If it's not readily available, some of the quoted text could be more helpful, particularly the data in Table 4.... well OK, in a sense it doesn't matter, it's just that you've defined 3 sets of sites, with "Low vulnerability" as "at 2m" etc. B&C2012 is used to justify this choice? You could just stick to these numbers and maybe list some examples of each in Table 4, for the sake of interest.

⇨ Thank you: as Figure 1 is already including a lot of information, we added another Figure is needed to help evaluating the precise altitude of each site. The vulnerability of each site was characterized by Bourdon and Chiozzotto (2012) based on Field surveys. We evaluated the altitude of all these sites and computed the statistics in Table 4 accordingly. We use the median altitude within each category as the typical value (e.g., 0.8m for high vulnerability sites). The new map helps identifying the location of each vulnerable site. The full list of sites is available in the report in the references (link to the report was added), and it is now added as a supplementary file to illustrate how we proceeded.

Within the timescale of your paper, the high vulnerability sites may be flooded not just at high tide but over the whole tidal cycle. This seems worthy of a mention?

⇨ Thank you. This is an important point which we have not addressed in the discussion paper indeed. This point is important to remind the consequences of doing nothing (no adaptation). The amplitude of the tide is low enough to justify considering permanent flooding over the period of interest. We are working on this point. The resulting timings of permanent flooding will be provided in section 4.5.

IPCC reference missing doi. And several others. Please check all references. Data availability statement?

⇨ Thank you. We have added a data availability statement and checked references.

Language: The paper needs a thorough copy-edit for English. Some sentences will need significant changes, so the authors must ensure that their intended meaning is preserved. Eg(therearemanymoreexamples!) 32since->for44; their->the46; to->with etc etc 60 future mean relative sea-level? 165 artificialized - > reclaimed? 215 ...data from these days are removed... 312 suspicious -> suspect 314 Similarly to what has been conceptualized to address deep uncertainties affecting climate-induced sea-level rise projections -> In a similar manner to climate scenarios for SLR projections [ref], to address deep uncertainties we define... etc 349 which->what

⇨ Thank you for these suggestions and recommendations. We have implemented all these changes and we are working to improve the use of English in our manuscript.