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7 December 2020

The Chief Executive Officer

Sunshine Coast Regional Council

By Email: @sunshinecoast.qld.gov.au

Dear Madam,

Re: Submission on the development and implementation of the Coastal Hazard Adaptation Strategy.

The Organisation Sunshine Coast Association of Residents (OSCAR) is an incorporated Association that is a non-partisan and not-for-profit umbrella/peak organisation covering resident and community organisations on the Sunshine Coast and Noosa local government areas (LGAs) in South East Queensland.

Thank you for seeking feedback from the community on this significant and once in a generation document and process. Our submission is as follows.

Yours sincerely

Melva Hobson PSM

Gilon & Holson.

President

Organisation Sunshine Coast Association of Residents (OSCAR)

^{*} Organisation Sunshine Coast Association of Residents Inc

Submission to Sunshine Coast Regional Council (SCRC) Coastal Hazard Adaptation Strategy (CHAS) December 2020

Introduction

The development of the Draft CHAS represents a two-year journey by SCRC in conjunction with consultant Alluvium and the Community Advisory Group (CAG). The CAG has had wide representation from across community groups including peak bodies such as OSCAR and Sunshine Coast Environment Council (SCEC), Kabi Kabi First Nation, University of the Sunshine Coast, State Government Departments, Business and Industry sector, Surf Lifesaving Qld, Take Action for Pumicestone Passage, other community members and representatives from the development industry.

Extensive engagement with the community occurred over the period of two years and included a wide range of engagement tools - surveys, briefings, social media, webinars, information sharing from CAG members and community networks, project updates, fact sheets and a dedicated section on the Council website. For example OSCAR's representative, Susie Chapman reported to each monthly meeting following any meeting of the CAG.

OSCAR congratulates SCRC and the team for its willingness to engage with the community throughout a challenging 2020 with COVID-19. We also thank the team for the very helpful OSCAR/SCEC webinar/discussion session they organised.

The CHAS document produced is a great start and written in a style that is understandable to the average reader. Any comments made in our submission are written in the hope that they will contribute to the ongoing discussion, development and implementation of the CHAS as we try forge a better future. They are not intended in any way to be an inherent criticism of either the document or the process.

The CHAS has presented a clear picture based on sound science of the challenges confronting us now and into the future. We know (CHAS p13) that:

Future coastal hazards

Projected sea level rise and an increase in cyclone intensity for the Queensland coastline is anticipated to increase the extent and impact of coastal hazards.

Coastal erosion:

- Increased water levels will accelerate coastal erosion
- Sediment transport patterns may be altered by shifts in wave direction, triggering changes to the form and location of shorelines
- Low-lying land may be permanently inundated
- Increased cyclone and storm activity will escalate the severity of coastal erosion events.

Storm tide inundation

- Sea level rise will increase the apparent severity and frequency of storm tide inundation and will cause inundation to occur further inland
- Increased cyclone and storm intensity will add to the magnitude of storm tide events and the extent of inundation

Source: Coastal hazard technical quideline (DEHP 2013)

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The Draft CHAS outlines the issues confronting our community from now until 2100 – past the lifetime of the majority of present coast residents, with only those ten years old and younger likely to be around to see the results of any efforts we make and action we take. Will they be proud of their ancestors or devastated by the legacy of their immediate and past ancestors?

Australia's society on the whole has a very narrow view of their future life. It is suggested that the majority of coast residents look only about ten years ahead. As the population ages, the view it is suggested is "living beyond the paid working life".

The CHAS team has set out an extensive program of planning, monitoring, measuring, implementing and reviewing actions for SCRC and the community to be undertaken over the next 5-10 years toward mitigating and avoiding significant change in our coastal environment into the foreseeable future.

The document includes easily understood descriptions of coastal processes, hazards and possible solutions. The maps accompanying the Strategy give a clear picture of the future tidal impacts and beach erosion areas.

The CHAS team is to be congratulated on the work undertaken to date.

However, it is just the start of this Council's and community's journey. The response we make will determine the legacy we leave.

The CHAS assumes the following:

- That a Sea Level Rise of 0.3m by 2050 and 0.8m by 2100 as set by the State Government is used as the basis for planning
- That the strategy planning horizon only extends as far as 2100.
- That the CHAS is only concerned about coastal hazards Sea Level Rise (SLR), storm tide surge, beach erosion and storm tide inundation as a consequence of climate change.
- ➤ That although co-incident flooding combined with impacts of climate change is a major hazard and is being considered by Council separately, it is not considered as part of the CHAS the State Government is not funding Phases 7 and 8 of the CHAS development process which includes the finalisation and delivery of the CHAS, yet Council is seeking State endorsement for legislative reasons and to be eligible to attract funds for implementation.
- That the coastal communities of the present and future will be financially able to pay for and/or absorb the costs of mitigation, eg lot raising.
- That Council's primary responsibility is the maintenance and protection of Council land and assets, and to inform statutory and non-statutory planning processes. Private land and asset owners are responsible for the maintenance and protection of their own assets, within the context of State and Council policy and approvals. (Draft CHAS, page 20). Comments from Council include that insurers will look after the private landowner.
- That it is business as usual with respect to new urban developments and substantial landscape changes which will only trigger a review in 2030 as the first review of the Strategy.
- That SCRC will not challenge the population growth figures for the Sunshine Coast LGA or undertake (it would appear) a carrying capacity study of the Sunshine Coast LGA.
- That SCRC deemed it unnecessary to release any technical documents (Cost Benefit Analysis, Risk Assessment) as part of the community engagement processes.

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Challenges confronting the CHAS implementation

- 1. The CHAS is a non-statutory document, so therefore can only be considered in an advisory capacity.
- 2. There exist few triggers to ensure that all the components of the CHAS are incorporated into any relevant SCRC statutory documents including but not limited to the Planning Scheme, Local Laws, Corporate Plan, annual budgets and council policies.
- 3. The document spans eighty years which under current local government legislation means that this document and subsequent iterations, actions and implementation will be overseen by twenty different elected councils.
- 4. The CHAS under State Government instruction does not take into account coincident flooding and riverine flooding, which is known on the Sunshine Coast as a critical issue and increasingly so, and also an integral part of climate change due to the short flashy coastal catchments and the development on the floodplain.
- 5. Should any future Sunshine Coast Council or State Government have a majority of "climate deniers" as Councillors, staff or State MPs, any program will be in jeopardy. How can SCRC or the State ensure that the CHAS output is not diminished by future councils?
- 6. The current CHAS is based on a SLR of 0.8m. by 2100. In 2021, the Intergovernmental Panel for Climate Change (IPCC) will be releasing their report "The Physical Science Basis" with updated projections of Sea-Level Rise (SLR) and frequency and intensity of weather events such cyclones and flooding. We know the most recent IPCC Special Report "The Ocean and Cryosphere in a Changing Climate" in 2019 identified an upper likely SLR of 1.1 m under RCP 8.5 by 2100 (page 520). The IPCC recommended that "planning for coastal safety in cities and long term investment in critical infrastructure may consider SLR above this range, because there is a 17% chance that GMSL will exceed ... 1.1 m by 2100". Process-model based studies cannot yet quantify uncertainties in the Antarctic contribution to SLR, but "expert elicitation studies show that a GMSL of 2 m in 2100 cannot be ruled out ". IPCC is considered 'best available science' as per Qld State Planning Policy (SPP), and it is the IPCC that informs this policy document. Currently, SPP provides for an SLR of 0.8 by 2100 which is generally agreed among experts in the field to be an outdated figure, as above, and the Queensland Government itself notes "current research indicates that IPCC projections are more likely to be an underestimation of sea-level rise than an overestimation, due to recently observed acceleration in land-based ice sheet melt, particularly in Greenland and also Antarctica" (https://www.qld.gov.au/environment/coasts-waterways/plans/sealevelmapping [Accessed December 2, 2020]. When the next IPCC report is released it will then inform SPP and state hazard mapping, land use suitability for vulnerable areas eg floodplains may look vastly different and the foreseeable risks far greater.
- 7. A significant challenge is the lack of awareness and appreciation by many in the community as to the vulnerability of the Sunshine Coast and the impacts of climate change. This is exacerbated by the events of 2020 where people are understandably focused on their immediate future with COVID-19.

- 8. Many in the community understand that climate change is a huge issue globally and impacts the Australian climate, yet believe the impact on them or their lifestyle to be minimal. How does a council and community assist others to be more aware and appreciate the impact on their future lifestyle and finance, on their children and their childrens' children and so it goes on. The fact that we are already committed to hundreds of years of sea level rise at our current emission levels regardless of any reduction we may make in the future is a fact that many have not absorbed.
- 9. The document gives excellent examples of building "resilient" housing. The challenge is for the community to take this process up by applying a range of approaches from suasive and financial incentives through to regulation. Are there other avenues and not just SCRC where this can be achieved, eg the Building Code?

Limitations and questions of the CHAS proposed implementation and actions

- 1. The IPCC report will be available in 2021, so why would SCRC wait ten years until 2030 to review the CHAS (p96), given that they have undertaken a sensitivity analysis for a range of different scenarios? CHAS (p12):
 - Additional storm tide inundation events
 - Beach profile analysis of additional erosion events (AEPs) and storm bite potential
 - Coincident riverine flooding and coastal inundation scenarios
 - Alternative Sea Level Rise (SLR) scenarios including potentially higher SLR projections
- 2. We know from the CHAS that areas exposed to coastal hazards between the present day and 2100 approximately doubles for tidal inundation and is 2-3 times greater for storm tide inundation (CHAS p14). One would then question why, to use the Mayor's frequently-used term, "with an abundance of caution", would we not avoid urban development in any areas so affected?
- 3. In Chapter 3 "Approach to adaptation" the introduction to the Framework makes reference to "shared roles and responsibilities" (CHAS p30) and states:
 - Council's primary responsibility is the maintenance and protection of council land assets, and to inform statutory and non-statutory planning processes.
 - Private land asset owners are responsible for the maintenance and protection of their own assets, within the context of state and council policy and approvals.
 - The question that must be answered is: What liability will any Council take for reparation or compensation for planning decisions made in the past or the present? What liability for compensation and/or reparation will lie with current and future Councils for negative outcomes for private home owners from planning decisions made from the time of the acceptance of this CHAS?
- 4. Planning Updates (Supplement C, Sheet 4) Why would the table on sheet 4 show that Zones 1-4 coastal areas are **not** priority for planning updates, including statutory planning/planning scheme updates, other strategic planning land swap/purchase/relocation or for updating emergency response planning? Currently they are identified as "relevant/feasible".

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5. There appear to be inconsistencies in the text. In *Supplement A Fact Sheet 1* the Section headed "How will the strategy be used", the introductory statement to the section statement says:

The strategy will provide a range of short and long-term actions to **avoid**, (our emphasis) mitigate and manage the impacts of coastal hazards. The strategy outputs will inform: (2 areas selected here)

- Statutory planning (future landuse zoning)
- Development controls in areas that may be impacted by coastal hazards in the future This statement is inconsistent with that in Supplement C Sheet 4.
- 6. The CHAS makes reference to "trigger and local trigger levels" within the Adaptation framework and specific locality references (*Supplement C. Sheet 6*). What are the current triggers that would cause a response from SCRC? Are there any local triggers currently that would be applied? The question of triggers is particularly important given that the next review of the CHAS is not until 2030. We know there will be scientific information available from the IPCC in 2021. Why wouldn't there be a response from SCRC following that? Is SCRC prepared to make adjustments following release of that report?
- 7. Fact Sheet 6 October 2020, includes the Adaptation Framework and Adaptation options in Tables 1 and 2. Table 2 does NOT include "Transition" as an Adaptation option. Is it not an "adaptation option"? Similarly in the framework table (Table 2 Fact Sheet 6), the various forms of "Adaption Options", Enhancing adaptive capacity, Planning, Modifying infrastructure and Coastal management and engineering" list actual actions. Surely "lot raising" is an adaptive action?
- 8. In the CHAS, SCRC has determined to use the term "transition" when it comes to considering a change in landuse owing to the impacts of climate change. The reference to recession or retreat in the Terminology (Supplement C Fact Sheet 2 March 2020) appears to relate only to "erosion resulting in a continuing landward movement (loss) of the shoreline or a net landward movement of the shoreline within a specified time". There is concern among some of our members that this is being somewhat obtuse, when not explaining that "retreat" may also be applied to urban living as a consequence of the recession or retreat of the coast. Is this a case of semantics, or is SCRC not wishing to say that there will be cases where it will no longer be possible to live in certain areas? Could these concepts be explained more clearly by giving examples of how potential and actual recession or retreat of the shoreline will identify the need to transition towards moving some urban areas within the retreating zone to other areas? One would hope that by using the word transition that actions would be taken before the need to retreat.
- 9. Reference is made to "lot raising", but there is no discussion in the document about the mechanics of this and why it has been chosen over for example, building on stilts? What are the implications for those lots where the owner may not be able to knock down their house and "fill" and rebuild yet people to the side and rear are able to do so? Reference is made in the CHAS Locality summaries (p37-95) to lot raising in Localities 4, 5, 6, 7, 16, 24, 25, and 26. From where and at what cost will all the fill required to satisfy the requirements for these areas be obtained? Will such a process be left to individual landowners to undertake in a piecemeal manner? In discussion with some council officers it appears to be the first and it would seem the only approach in the Localities as listed above.

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- 10. A number of Adaptation Options focus on Coastal Management and Engineering solutions. (Supplement C sheets 6-11). Given that in responses to the community adaptation survey, the majority of respondents preferred "soft", not hard engineering solutions what triggers will Council set for any these to be applied?
- 11. Given what we know from the CHAS and that SCRC has done some sensitivity analysis of different scenarios including higher SLR, will SCRC include components of the CHAS in the development of the new Planning Scheme?
- 12. There is very little reference in the CHAS to the plight of the turtles, iconic on the Sunshine Coast and already under stress from development in areas OSCAR would consider inappropriate development has been approved. The loss of sandy beaches will have a major impact on their nesting, and we know that the relatively cooler Sunshine Coast beaches will play an increasingly important role in maintaining the populations of endangered loggerhead turtles as temperatures rise affecting the gender balance.

Recommendations

OSCAR recommends that:

- Given that the CHAS is not a statutory document that the contents and actions be included in ALL statutory documents for which LG is responsible under the LG Act to which the CHAS applies particularly but not limited to the new Planning Scheme under development.
- 2. SCRC apply the Precautionary Principle to any infrastructure work planned and/or undertaken by Council and to any future development applications and/or amendment to the Planning Scheme requests in areas vulnerable to coastal hazards and coincident flooding. That this include undeveloped land or land being redeveloped on floodplains or dune systems.
- 3. A timetable for implementation of the actions in the LGA-wide actions as per Table 13 (CHAS pages 32-36), be developed in the coming year. OSCAR endorses those actions and recommends that SCRC include in that planning and delivery, people within the community with knowledge, skills and experience in a number of the areas included in the actions.
- 4. The items specifically in the *LGA-wide actions Theme 2 2.1.1 to 2.1.9 (Table 13 CHAS p34) be* set in train as soon as possible and incorporated into the new Planning Scheme and all planning decisions made in the interim.
- 5. In the development of the new Planning Scheme "avoid" should be considered as an option, particularly where:
 - SLR is identified that will increase the apparent severity and frequency of storm tide inundation and will cause inundation to occur further inland and
 - Increased cyclone and storm intensity will add to the magnitude of storm tide events and the extent of inundation. (CHAS p. 13)

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- 6. SCRC make clear to developers, the State and other individuals that given the exposure of the area north of the Maroochy River to coastal hazards, riverine and coincident flooding, that there should be no further development of any significance on the North Shore. OSCAR supports this recommendation from the CHAS.
- 7. SCRC identify how actions for which SCRC is responsible will be funded and what the impact will be on rates and charges.
- 8. Given the fact that coincident and riverine flooding is not able to be included in the official CHAS documentation, SCRC should, as a priority, release details of the timetable for completion of the Drainage Master Plan and clearly demonstrate the linkage and interrelationship with the CHAS. This could be done within a council response document to the CHAS.
- 9. SCRC extend the area covered by the Blue Heart to include the whole of the Maroochy floodplain.
 OSCAR is on public record in its support for the declaration of the Blue Heart and the purposes it serves.
 We congratulate the partners, SCRC, Unity Water and the State Government on this initiative.
- 10. SCRC investigate additional locations on other floodplains of Sunshine Coast for similar types of proposals to that of the Blue Heart and for similar purposes, particularly where urban development has not occurred to any significant extent.
- 11. If not already included in the council Corporate Plan and as a budget bid for the year 2021-22, CHAS actions should be included as a matter of priority.
- 12. The CHAS be updated for SLR based on the IPCC Report 2021, with a note that references the State Government reference point/standard of 0.8m by 2100. The sensitivity analysis would be the appropriate mechanism to reference along with the IPCC report.
- 13. Given SCRC is currently in the planning and design stages of a number of transport initiatives including coastal walkways and cycle ways, mass transit systems both fixed and mobile within the coastal zone, SCRC must be transparent and inform the community regarding the impact of coastal hazards on such infrastructure.
- 14. Similarly, given that urban transformation is associated with the Mass Transit Project, SCRC should outline the future impacts of SLR, storm surge and storm tide inundation on such developments on the various localities from Maroochydore to Caloundra.
- 15. SCRC give more detail on lot raising, the rationale and the potential costs and how that mechanism compares with other options, rather than say that lot raising is the solution to urban residential mitigation in coastal hazard areas.
- 16. SCRC should advocate to have the Building Code amended to include resilient housing as a standard. This may be an option via LGAQ.

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- 17. A Social Impact Assessment should be undertaken looking at the future demographics, income and vulnerability changes over the foreseeable and more distant future to inform the feasibility and probability of some of the actions being undertaken by the private landowner as proposed in the Adaptation Option within the Framework, for example, "lot raising".
- 18. That SCRC take seriously its responsibility to the turtle population along the coast in ensuring that their future is not jeopardized by climate hazards and inappropriate development impacting our dune systems and sandy beaches. Similarly SCRC must give consideration to other wildlife dependent on coastal and inshore habitats.

OSCAR appreciates the opportunity to make this submission and looks forward to continuing to engage with Sunshine Coast Regional Council regarding the further development and implementation of the actions in the Coastal Hazard Adaptation Strategy.

OSCAR also supports the submissions made by our member groups, Twin Waters West and Surrounds (TWWS), Take Action for Pumicestone Passage (TAPP), Coolum and Northshore Coast Care (C&NSCC), Marcoola Community Group (MCG), Mudjimba Residents Association (MRA) and the individual submission by Ken Mewburn.

We are confident that many of our member groups and their individual members are happy to be involved in future activities and programs related to the implementation of the Coastal Hazard Adaptation Strategy.

Yours sincerely

Melva Hobson PSM

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President

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