

These questions are being asked as they relate directly to the statutory obligations of KCDC, as provided by ss10 and 14 of the **Local Government Act 2002**

s10. Purpose of local government

The purpose of local government is—

- (a) to enable democratic local decision-making and action by, and on behalf of, communities; and
- (b) to promote the social, economic, environmental, and cultural well-being of communities, in the present and for the future.

s.14. Principles relating to local authorities

(1) In performing its role, a local authority must act in accordance with the following principles:

- (a) a local authority should—
 - (i) conduct its business in an open, transparent, and democratically accountable manner; and
 - (ii) give effect to its identified priorities and desired outcomes in an efficient and effective manner:
- (b) a local authority should make itself aware of, and should have regard to, the views of all of its communities; and
- (c) when making a decision, a local authority should take account of—
 - (i) the diversity of the community, and the community's interests, within its district or region; and
 - (ii) the interests of future as well as current communities; and
 - (iii) the likely impact of any decision on each aspect of well-being referred to in [section 10](#):
- (d) a local authority should provide opportunities for Māori to contribute to its decision-making processes:

Preamble:

Section 5.3 of the Ministry for the Environment's Coastal Hazard and Climate Change guidance manual, July 2008, specifies that local authorities should assess (step 3) both the magnitude of hazard occurrences and how likely they are to occur and (step 4) : "the potential scale of the consequence" including, tangible and intangible loss and damage to property, community and lifeline infrastructure, and direct and indirect impacts on the economy".

Questions about likelihoods:

1. Does the KCDC agree that costly actions based on expectations about future events should be based on plausible (unconditional) predictions or forecasts of what is actually likely to happen - as distinct from being based on speculative conditional 'what-if' projections or scenarios whose unconditional plausibility has not been established?
2. What did the KCDC or the Shand Report determine was the most likely global average sea level rise for the next 50 and 100 years, given its expectations concerning the efficacy of international mitigation?
3. Can the KCDC confirm that neither it nor the Shand Report have given any concrete consideration to where the shoreline is likely to be in 100 years, taking into account planned international action to limit the global growth in carbon dioxide emissions, local accretion, and excluding *ad hoc* adjustments made in the name of the precautionary approach?
4. Can the KCDC confirm that it has made no predictions of the effect of international mitigation actions during the next 50 or 100 years on reducing projected sea level rise below the Ministry for the Environment's recommended levels?
5. Can the KCDC also confirm that it and has made no predictions concerning the growth in carbon dioxide emissions during the next 50 or 100 years by the major emerging country emitters, notably China and India?
6. What consideration did the KCDC or the Shand Report give to the evidence that the Kapiti cusate has been accreting, for of the order of a century, at a rate of around 0.5 m per year despite NIWA's assessment that the sea-level has been rising at a trend rate of 2.03 mm per year.?
7. What assessment did the KCDC or the Shand Report make of the likely effect of climate change on the rate of flow of sediment down the rivers north of the cusate opposite Kapiti Island and therefore on the rate of accretion around the cusate?
8. What likelihoods did the KCDC or the Shand Report put on the long-term historical rate of sea-level rise for the Wellington region, as determined by NIWA, June 2012 to be 0.203 m per century, continuing for the next 10, 25, 50 and 100 years?
9. What assessment did the KCDC or the Shand Report make of how many more years of actual observations of Wellington sea-levels would be necessary in order to detect a statistically significant acceleration in the rate of sea-level rise in the Wellington region, assuming that the accelerations implicit in its 50 year and 100 year "predicted" unmanaged shorelines in its letter to affected residents in its letter of 25 August 2012 were correct?
10. With respect to the degree to which the KCDC's assessment of likelihoods ultimately relied on the authority of the IPCC, please supply a bibliography of the professional critiques of the robustness of IPCC processes and the assertions of professional consensus that the KCDC took into account, and indicate which of those assessments it considered worthy of weight.
11. What did the KCDC or the Shand Report determine was the standard deviation for the likelihood of the degree to which unmanaged sea-level rise along the Kapiti Coast would deviate from its assessment of the most likely values for global sea-level rise for the next 50 and 100 years?
12. How were these likelihoods determined and what assessment was made of their robustness?
13. What documented and quantified probabilistic basis did the KCDC have for its assertion to property owners in its letter of 25 August 2012 that its coastal hazard assessment "predicts where the shoreline is likely to be along the Kapiti Coast within 50 and 100 years"?

14. Was this KCDC/Shand Report 'prediction' based on the assumption that the KCDC would spend money rationally on protective works (eg where the value of protected land after deducting the cost of protection, would exceed its value if unprotected)? If not, why not?
15. Was this KCDC/Shand Report 'prediction' based on the assumption that the private landowners would win the legal battle to secure the right to protect their own properties from coast erosion individual and collectively? If not, why not?
16. Has the KCDC clarified with Dr Shand whether he agrees that his projections did in fact *predict* where the said shoreline is likely to be within 50 and 100 years, and if not why not, and if so, what was his reply?
17. What was the KCDC's definition of a prediction when it wrote its 25 August 2012 letter and what definition would it use now?
18. Does the KCDC still believe that the 100-year prediction line it referred to in its letter of 25 August 2012 is in fact a reliable unconditional prediction of the future shoreline, and if it does, what is its basis for this belief?

Questions about the potential scale of the consequences:

19. What quantitative estimates does the KCDC have of the potential scale of the consequences of its unmanaged 50 year and 100 year projection lines?
20. What estimates does the KCDC have of the combined market or rateable value of the 1,800 properties mentioned in its letter of 25 August 2012?
21. Can KCDC split this into the unimproved value and the value of improvements?
22. What is KCDC's best estimate of the aggregate annual income from rates that it is receiving on the same properties?
23. What quantitative estimates does the KCDC have of the current market or replacement value of assets that it owns that would be condemned if the unmanaged 100 year shoreline prediction eventuated?
24. What is an indicative figure for the value of each of the KCDC's material capital assets in the affected area, particularly in respect of roads and coastal wall protection structures?
25. Where land is part of such an asset, can this value be split into the unimproved and improved values?
26. What is the KCDC's currently spending annually on maintenance and protection of its assets in the affected area with respect to damage from sea/river flooding and storms?
27. What estimates did KCDC make of how those costs would increase given the unmanaged sea level rise projections in the Shand report – in the first 50 years and in the subsequent 50 years? Has it estimated the degree to which these costs have been exaggerated by the use of a precautionary approach to draw those shoreline 'predictions'?
28. What is KCDC's best estimate of the remaining life of each of its existing coastal wall protective structures, if maintained and if not maintained, and their replacement costs, where available?

Questions about the options the KCDC identified and considered:

29. What options did the KCDC consider in addition to "managed retreat"?
30. Why did the terms of reference for the Shand Report not require it to identify projection lines that assumed rational value-maximising decisions by the KCDC and private property

owners in respect of protective works?

31. Did the KCDC consider the option of voluntary action in respect of private property subject to well-defined property rights, including the right to build protective works on one's own property? If not, why did it not do so?
32. Did the KCDC consider the option of deferring any action until there was clear evidence of erosion rather than accretion in the area around the cusate? If not why not.

Questions about the assessment of options

33. What quantitative estimates did the KCDC make of the costs of achieving managed shoreline projection lines that are at, or inside the Shand Report's managed lines, for each of the 50-year and 100-year periods?
34. What estimates did the KCDC make of the value of private and public assets that would be saved if the costs referred to in question 32 were incurred?
35. What estimates did KCDC make of how much more capital spending, at least to 2050, would be required under the sea-level rise projections in the Shand report if it were to preserve its assets in their current location?
36. What consideration did the KCDC give to the willingness of private property owners to spend money protecting their own properties and of insurance companies to insure those properties?
37. What calculations did the KCDC make of the likely net benefit or cost to the community of delaying action until there is statistically significant evidence of a marked acceleration in local sea level rise and clear evidence of erosion rather than accretion
38. What quantification did the KCDC undertake of the likely benefits and costs of all the options it considered?
39. What property rights does the KCDC consider that owners of private property have to erect protective walls on their own land, through individual or collective action?
40. If a failure by one property owner to participate in a sea-wall would put other properties at risk, how would the KCDC propose to deal with that apparent negative externality?
41. If the KCDC's answer to such apparent negative externalities is not to improve the role for private property rights so that all owners are confronted with the costs of their decisions to participate, why not?
42. What decision rule does the KCDC use to assess the net benefit to the community of an option that will raise the market value of some properties while reducing the market value of others?
43. If the KCDC's decision rule is not to prefer the option that will maximise the combined value of affected properties, subject to preservation of private property rights, why was this criterion rejected?

Questions about the cost to the community of the price the KCDC is putting on risk:

44. Does the KCDC regard a 'conservative' approach to risk as being one that would not impose high costs on the community unless there were compelling evidence of the necessity for costly action, or does it regard a 'conservative' approach as meaning that costly action should be taken even when fears remain distant and speculative and deferral imposes no demonstrable costs?
45. What calculations did the KCDC make of the extra cost to the community that could be expected to result from the Shand report's 'conservative' approach to risk? Can this be split

into costs to private property values and cost to the value of KCDC asset values?

46. Does the KCDC accept that people differ in their willingness to manage and bear risks? If so, whose level of risk aversion does it give most weight too when choosing its own level of risk aversion, and why?
47. Does KCDC regard itself as risk averse in respect of managing its own capital assets?
48. If so, does it aim to be more or less risk averse than a typical ratepayer, remembering that unlike the typical ratepayer, the KCDC spreads its financial risks across all ratepayers?
49. Does the KCDC fully insure roads and other capital assets against fire, floods and other such natural hazards? If not, what is its insurance policy?
50. Did the KCDC ask the engineers designing the new swimming pool at Paraparaumu to over-engineer it with respect to natural hazard risks, compared to standard engineering benchmarks, on the grounds of the precautionary principle, and if so what was the additional cost that it incurred as a result?
51. If it is risk averse, what insurance premium has it been prepared to pay historically in the construction of such assets - as a proportion of the cost of construction?