The following are a collection notes from the Thursday Nov 7 CRU Science Panel meeting held at Chris Ruthe’s house. I have broadly structured the notes for grouping purposes so that we ensure nothing is left out of our submissions to the Panel of Coastal Experts. I have also done a first pass of whom should cover the item. We could structure this better and formalise section headings if required. We need to know the full list of submitters as well.

**DEFINITE ITEMS THAT MUST BE SUBMITTED TO THE PANEL**

***GENERAL STATEMENT***

Not up to Shand to be precautionary … that is for the planners.

Shand should produce the facts then apply various models to the current status.

Arnold / Allin submissions.

***GO THROUGH THE PROCESS FIRST***

Where there is accretion there is no risk.

No hazard lines where accretion.

Is rising sea level actually a hazard?

Arnold / King submissions.

***2010 COASTAL POLICY***

Clearly states to account for erosion AND accretion

The 2012 Guidelines (coauthored by Dahm) tend to account for this … work out current trend THEN apply sea level rise

Allin submission.

***LONG TERM ACCRETION***

I have the Powerpoint which can be massaged for the Panel. Willem has excellent discussion in his draft document of the Holocene development.

de Lange / Ashby submissions.

***SHORT TERM ACCRETION***

Seasonality … definitely more erosion in winter … Shand does not detail time of year for his vegetation line yet surely this would be critical to the data analysis.

Still cannot get my head around the principal behind how he derives Short Term from the regression analysis.

We all agree that the short term variability is actually within the long term rate … don’t we?

Also some ranges of the long term calculated rates end after the start of the short term range … double dipping ???

de Lange submission.

***DUNE STABILITY***

Reference points used are questionable … highest LIDAR point between transects taken as average??

Volumetrics of high dunes negate erosional capability … yet the dune stability factor induces a longer landward erosional distance for high dunes … bizarre.

King submission.

***COMBINED UNCERTAINTY***

The use of this highly questionable to say the least.

Statistically incorrect??

de Lange / Arnold submissions.

***THE EQUATION***

Quality of the model … no citation for reference to the equation … what are the origins of this equation?? … a couple of local coastal “experts” ??

Best practice … by whom ??

de Lange submission.

***HAZARD AND RISK DEFINITION***

Probabilities and consequences

High risk areas

Arnold submission.

***CONTOURS***

Erosion versus inundation … the lines do not conform to contours intrinsically they should.

I have the examples of KCDC contours overplotted with the erosion lines.

Ashby submission.

***SEDIMENT BUDGET***

Real lack of good data here yet it is critical to application of the two-dimensional Bruun rule … Extensive longshore drift, which we have, negates the use of the Bruun / Komar model?

de Lange / King submissions.

***LONG SHORE / LITTORAL DRIFT***

Detail the examples of longshore sediment flow in the region.

Dickenson / Ashby submissions.

***JOHN HARDING CASE***

Implications of reevaluation of aerials.

Shand states in his Harding report that there were two years where he reevaluated his vegetation line due to unclear aerial photos … why was that data used in the original determinations then ??

Harding submission.

***REFERENCE LINE***

No maps of the reference shoreline … a 2008 “modeled” shoreline.

Why not present the datum??

Ashby submission.

***STORMINESS***

IPCC inference … NIWA interpretations. Draft de Lange has good data input … Tutira etc.

de Lange / King submissions.

***THE BRUUN RULE / KOMAR EQUATION***

Draft de Lange document has excellent discussion.

de Lange submission.

***GORDON REPORT***

Stand alone commercial report.

Kotuku Parks (Gordon) submission.

***LINES VERSUS SHADING***

Definitive lines versus shaded areas with diffuse boundaries.

Arnold submission.

***PEER REVIEW***

Lack of …

King submission.

***APPLICATION TO DISTRICT PLAN OF A WORSE CASE STORM SCENARIO***

Essentially what we have and Shand agrees.

Allin submission.

**SECONDARY ITEMS FOR PRESENTATION**

***ENGINEERING SOLUTIONS***

Harding

***SEA LEVEL RISE***

Shand used a minimum for 50 year and maximum for 100 year in the MfE guidelines … inconsistency

The MfE guidelines also state a cuspate foreland has very low susceptibility to SLR.

King / de Lange

***INCREASED SEDIMENT SUPPLY***

Increased rainfall causing increased bed and suspended sediment load to the beach.

Very hard to quantify but certainly will be a factor in the future.

de Lange

***NORTH versus SOUTH … ACCRETIONARY versus EROSIONAL***

Why wasn’t the money spent on the “problem” areas.

Ashby / Arnold

***ERRORS IN THE REPORT***

Indicates haste in report preparation … **if anyone finds any error (even minor typos) please indicate to Jeff …**

Dickenson / Ashby to compile list

***TRANSECT ANALYSIS***

Modeled 2008 shoreline … get a couple of transects and do a “light bulb” test.

Ashby / Dickenson to prepare

***AFFIDAVITS TO THE WEIR CASE***

Various details in the Shand and Dahm affidavits are incorrect.

de Lange / Weir / Ashby to make notes of the variances from their individual affidavits.

***SEAWALLS***

King / de Lange

***DATA ACCESS***

This still really irks me … Ashby

***HINDCAST ANALYSIS***

Ashby / Arnold

***CURRENT TIDAL RANGE AS A PERCEPTION OF THE “PROBLEM”***

King

***SPECIFIC INLETS***

This is a major exercise. The only two inlets that have been looked at in detail since the Shand reports … Waimeha (Harding) and Waikanae Estuary (Kotuku Parks) show major problems with the lines.

Harding / Gordon / de Lange

***LOCAL EVIDENCE***

**Any local evidence … even anecdotal … pass onto Jeff** … or pass on the person’s name and contact number

Ashby to compile

***LEVELS OF MANAGEMENT***

Reasonable solutions

Allin / Arnold

***MOVING LINES WITH TIME***

Arnold

***ITEMS WE CAN PROBABLY LEAVE AT THIS STAGE***

***TECTONICS***

Ashby may briefly discuss this holistically in his presentation … introduce Slow Slip Events to the panel. De Lange draft discusses uplift but mainly in relation to episodic earthquakes and tsunamis.

***TSUNAMI***

***WEIR CASE IMPLICATIONS***

There needs to be a general consensus as to what the output of the panel should be.

Joan …. I haven’t had a chance to go through the “Crozier” list … can you please check off and indicate any omissions to this document.

JEFF ASHBY

12 November 2013