**LIST OF ISSUES FOR SCIENCE PANEL**

1. ***LONG TERM ACCRETION***
2. ***SHORT TERM FLUCTUATIONS***

Seasonality No detail time of year for CSL vegetation lines

1. ***DUNE STABILITY***
2. ***CONTOURS***
3. ***SEDIMENT BUDGET***

Real lack of good data yet it is critical to application of the two-dimensional Bruun rule Extensive longshore drift and the use of the Bruun / Komar model

* 1. *SEDIMENT SUPPLY*
  2. *INCREASED SEDIMENT SUPPLY*
  3. *LONG SHORE / LITTORAL DRIFT*

1. ***REFERENCE LINES***

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

*Questions re reference points for the open coast and an imaginary composite maximum historical erosion extent for the inlets*

1. ***TRANSECT ANALYSIS***

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

1. ***HINDCAST ANALYSIS***
2. ***Use of recent decadal scale fluctuations in sediment supply and sea level fluctuations due to ENSO and IPO***

The MetOcean report of 2010

1. ***LOCAL EVIDENCE***

The measurements supplied by individuals to the Panel re accretion and shorelines

1. ***SPECIFIC INLETS***

The only two inlets that have been looked at in detail since theCSL reports- Waimeha (Harding) and Waikanae Estuary (Kotuku Parks)

1. ***THE BRUUN RULE / KOMAR EQUATION***
2. ***DATA AND QUALITY OF AERIAL PHOTOS –MEASUREMENT ERROR***

Implications of reevaluation of aerials by CSL in its recent (2013 ) Harding report. Quality of photos used in 2012 Report

Reliability of vegetation line as a measure of shoreline position

1. ***SEA LEVEL RISE- PROBABILITIES OF OCCURENCE***

Need to have 2 sets of hazard lines one reflecting lowest IPCC figure, one representing highest IPCC figure

Is there a discrepancy between projections and observations?

1. ***MOVING LINES WITH TIME***
2. ***THE EQUATION***

Quality of the model - no references cited for the equation

1. ***COMBINED UNCERTAINTY***

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1. ***ENGINEERING SOLUTIONS SEAWALLS and soft solutions***

Their role in reducing hazard

The Gibb (1978) proposed renourishment; dune plantings etc.

1. ***SCENARIOS OF FUTURE CLIMATE CHANGE***

Quantifyingwhat those changes are in order to assess their impacts*.*

The IPCC global projections, and NIWAs local projections expect little change to winds and precipitation before 2050.