Resilient Urban Futures Programme: Values & Resilience of Urban Water Bodies
Presentation to Ministry of Business, Innovation and Employment,
21 September 2016
Jonathan Moores, NIWA
Impact of urban development

A tool to help plan for the future

Set up DSS for a given study area

Enter urban development scenario

Generate indicator scores

Report summary of results
Workstreams

• Develop cultural well-being indicators
• Develop resilience indicators
• DSS used in local government planning processes
Cultural wellbeing indicators

DSS
- Biophysical models
- Biophysical variables
- Method for assessing cultural indicators, e.g., look-up tables
- Cultural indicators

Cultural Information to implement DSS
Development scenario inputs to DSS

Cultural landscape: respect & recognition
- Use consistent with purpose
- Equity of opportunity
- Waï and wahi tapu protection

Access to sites of cultural significance
- Fit for use
- Cultural use

Maori land, reserves, easements

NIWA
Taihoro Nukurangi
Resilience indicators

<table>
<thead>
<tr>
<th>Natural Capacity</th>
<th>Socio-technical Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>High</td>
</tr>
</tbody>
</table>

City stormwater discharged to river estuary (low-energy receiving environment)

City stormwater discharged to open coast (high-energy receiving environment)

Stormwater treated by single bottom-of-catchment pond

Stormwater treated by distributed network of devices

NIWA
Taihoro Nukurangi
Local government planning