12 November 2012

Dr Fran McGrath  
Deputy Director of Public Health  
Ministry of Health  
PO Box 5013  
Wellington 6145

Dear Dr McGrath

RESPONSE AT MOANATAIARI

I write on behalf of the project governance group to seek the Ministry’s advice on recommendations for response at Moanataiari. The governance group comprises representatives from the Waikato Regional Council, Ministry for the Environment and Thames-Coromandel District Council.

Health Risk Assessment and Assessment of Response Options
In May 2012, having accepted that a background concentration result that could be applied to Moanataiari and the rest of Thames could not be readily derived, project focus shifted to undertaking a specific assessment of human health risk (HRA) at Moanataiari. The HRA informs an assessment of response options (ARO). The Ministry has been provided with full copies of these documents.

The finding is that the key contaminant of concern is arsenic\(^1\); and, the subdivision has been divided into eight blocks based on the contamination levels. More detail is provided in an attachment to this letter; in the meantime, I summarise the results as follows:

- For Blocks 5 and 6 comprising 83 properties, there is no additional risk\(^2\)
- For Block 7 comprising 15 properties, the additional risk is 0.00032%
- For Block 8 comprising 26 properties, the additional risk is 0.00082%
- For Block 4 comprising 16 properties, the additional risk is 0.00116%
- For Block 1 comprising 23 properties, the additional risk is 0.00208%
- For Block 3 comprising 22 properties, the additional risk is 0.00252%
- For Block 2 comprising 12 properties, the additional risk is 0.00398%

The average additional risk across Moanataiari is 0.00136%.

Response Scenarios
There are two scenarios being considered.

Scenario 1: Mix of property retirement, physical (digging) works; and, non-physical management and awareness
This scenario provides for:
- Purchase and retirement of 12 properties;

\(^1\) Health Risk Assessment (Golder Associates, November 2012), Table 8
\(^2\) That is, additional risk above Government policy on acceptable increased risk of 10\(^{-5}\)
• Dig-and-dump thick cap remediation of 28 properties;
• Dig-and-dump thin cap remediation of 62 properties;
• Management and awareness programmes for 79 properties.

The estimated cost of this scenario is $10,378,920 and will improve the average increased risk by 0.00036%.

**Scenario 2: Management and awareness**

This scenario does not rely on dig-and-dump remediation and is based on an awareness programme promoting behavioural changes, providing safe soil in which to grow vegetables in and providing some assistance to property owners in the most affected areas to cover exposed soils in high traffic areas.

Under this scenario, project agencies would partner with the Ministry and the Waikato District Health Board to provide and administer an on-going awareness programme.

Because the situation at Moanataiari reflects the region’s geodiversity and high mineralisation, such a partnership might extend to awareness programmes across the district and region.

**Preferred Scenario**

Within the governance group there are naturally varying thoughts on risk; hence, our seeking from the Ministry its comment on the scenarios described herein. The governance group is aware that TCDC has signalled its preferred scenario, which I summarise as follows.

It is considered that the comparative additional increased risk is minor and the response contemplated under Scenario 1 is not commensurate with that risk. Scenario 1 also calls for dig-and-dump remediation and it is considered that – given the level of risk – such is not only unwarranted but could have a deleterious effect as contaminants are disturbed and released into the environment.

Scenario 2 would rely on cross-agency cooperation and the expert involvement of the Ministry of Health and the District Health Board. Should Scenario 2 be adopted, please be assured that the Thames-Coromandel District Council is committed to playing its part in such a partnership.

The project’s governance group is meeting on 5 December 2012; thus there is some urgency. Please consider the suggested preference for Scenario 2 and, if possible, provide your advice in time to inform the meeting.

Yours sincerely

[Signature]

David Hammond
Chief Executive
Thames-Coromandel District Council

Project Executive
Moanataiari Project
## Attachment

Block-by-Block Summary of Results from the HRA - Arsenic

<table>
<thead>
<tr>
<th>Block</th>
<th>No. of Properties</th>
<th>Potential No. of people</th>
<th>95 Percentile Arsenic at Surface (ppm)</th>
<th>Additional Risk Based on HRA derived SGV for Arsenic (No change in behaviour) 50ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>23</td>
<td>138</td>
<td>154</td>
<td>0.00208%</td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td>72</td>
<td>249</td>
<td>0.00398%</td>
</tr>
<tr>
<td>3</td>
<td>22</td>
<td>132</td>
<td>176</td>
<td>0.00252%</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>96</td>
<td>108</td>
<td>0.00116%</td>
</tr>
<tr>
<td>5</td>
<td>21</td>
<td>126</td>
<td>48</td>
<td>0.00000%</td>
</tr>
<tr>
<td>6</td>
<td>62</td>
<td>372</td>
<td>32</td>
<td>0.00000%</td>
</tr>
<tr>
<td>7</td>
<td>15</td>
<td>90</td>
<td>66</td>
<td>0.00032%</td>
</tr>
<tr>
<td>8</td>
<td>26</td>
<td>156</td>
<td>91</td>
<td>0.00082%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>197</td>
<td><strong>1,182</strong></td>
<td></td>
<td><strong>Average 0.00136%</strong></td>
</tr>
</tbody>
</table>