

Report No.	16-252
<b>Information Only - No Decision Required</b>	

## SCIENCE PROGRESS REPORT

### 1. PURPOSE

- 1.1. The purpose of this item is to introduce Members of Council's Environment Committee, the Science and Innovation Progress report for 1<sup>st</sup> July to 31<sup>st</sup> October 2016.

### 2. RECOMMENDATION

That the Committee recommends that Council:

- a. receives the information contained in Report No. 16-252 and Annex.

### 3. FINANCIAL IMPACT

- 3.1. There is no financial impact associated with recommendations in this paper.

### 4. COMMUNITY ENGAGEMENT

- 4.1. The Science and Innovation work programme at Horizons is reported on publicly to the Environment Committee regularly throughout the year and also communicated via various forums and methods.

### 5. SIGNIFICANT BUSINESS RISK IMPACT

- 5.1. There is no immediate financial impact associated with this report.

### 6. SUMMARY

- 6.1. The Science and Innovation work programme has progressed a range of work over the reporting period, with much of the teams energy applied to scoping and contracting of new projects and work programmes. Staff vacancies have delayed some external contracting of work. However, much of this work will be underway by the end of the calendar year, with a view to delivering these projects by 30 June 2017.
- 6.2. In terms of capacity, the Science and Innovation team has been working hard to rebuild following the promotions of Logan Brown to Freshwater and Partnerships Manager and Abby Matthews to Science and Innovation Manager. The Groundwater Scientist, Freshwater Scientist and Natural Resources Scientist positions have now been filled by Stephen Collins, Michael Patterson and Staci Boyte, respectively. This has led to us recruiting two new Research Associates to support the biomonitoring programme, and we have recently welcomed Miriam Niessen and Ariana Blackwood to the team. Raelene Mercer returned from maternity leave in September and will now form part of the Science and Innovation leadership team as Senior Scientist – Allocation, along with Maree Patterson (Senior Scientist – Water Quality) and James Lambie (Science Co-ordinator). Manas Chakraborty, Harold Barnett, Melanya Yukhnevich, Amy Shears and Stacey Binsted round out our team. Further recruitment will be underway shortly to fill two fixed-term roles for maternity leave cover.

- 6.3. This Environment Committee report has been redesigned at the request of the previous Committee. Rather than report on the progress of each of the eight science portfolio's the new report format will cover the four activity areas set out in Horizons Long-term Plan: Water Quality and Quantity, Land, Biosecurity and Biodiversity, and Environmental Reporting and Air Quality Monitoring, to align with our 2016-17 Science and Innovation Operational Plan. Each of the four sections provides the following:
- **Activity Overview** - an overview of each activity and an update on progress to date against performance measures outlined in Horizons Annual Plan;
  - **Activity Highlights** - a commentary on key deliverables and progress made during the reporting period. The aim of this section is to enable us to draw attention to key outputs throughout the year at times when they are most relevant to the Committee. Please note that the un-numbered paragraphs set the context for each work programme, while the numbered paragraphs provide an update of progress made during the reporting period;
  - **Spotlight On** – covers a topic of interest, or key deliverable for each activity that is likely to be of interest to Council, and to the general public. For example, for this report we have focused on four key outputs: (1) our new coastal and estuary monitoring and research programme, with a particular focus on estuary susceptibility mapping; (2) gravel use monitoring and reporting; (3) the Regional Pest Management Plan; and (4) Swimming and Recreation.
  - **Activity Progress Report** – provides a year-to-date report on progress across the full Science and Innovation programme. These tables will be updated for each Environment Committee report with an aim to provide a complete progress report by the end of the 2016-17 reporting year.
- 6.4. Water Quality and Quantity activity includes monitoring and research delivered via the Water Quality State of Environment, Water Quality Monitoring and Research, Groundwater and Allocation portfolios. Highlights from the reporting period include scoping of the water metering programme for takes between 5 and 10 L/s; a groundwater level survey of the Whakarongo area, north of Palmerston North; fish passage trials in the Manawatu to test effectiveness; and initiation of a stocktake of information on our Region's fisheries, in partnership with Fish and Game.
- 6.5. A new focus for the Water Quality and Quantity programme during the 2016-17 year will be providing our community with a better understanding of the suitability of our Region's popular swimming spots for recreational use. This includes an expanded monitoring programme, covering over 80 sites across the Region. We have also been working closely with Horizons' communications team to deliver a safe swim spot summer campaign to improve community understanding of water quality for recreation, highlight Horizons' work, and update the website to allow up-to-date "swimmability" reporting for the public.
- 6.6. During the next reporting period (November 2016 – January 2017) the focus for the Water Quality portfolio will include delivery of the contact recreation monitoring programme; completion of a radon survey to identify groundwater inflows to surface water in the Rangitikei catchment; and completion of a draft report of catchment contaminant accounting (also in the Rangitikei).
- 6.7. Land activity includes monitoring and research delivered via the Land and Fluvial portfolios. Highlights during the reporting period include initiation of two new projects as

part of our Sediment Transport research programme: (1) Development of a farm scale model of sediment loss using SedNetNZ; and (2) an investigation of sediment transport in the Manawatu and Whanganui catchments. Both projects are co-funded with Landcare Research and will significantly build knowledge of sediment transport in our Region.

- 6.8. The work programme for Land will move from programme scoping and planning to implementation during the next reporting period. For the fluvial portfolio, the focus will now shift to delivery of a LiDAR and field survey of the Rangitikei catchment, which is planned for early 2017. Scoping of a longer-term monitoring and research programme for the fluvial portfolio is underway, with a workshop with research providers planned for early in the calendar year.
- 6.9. The Biosecurity and Biodiversity section reports on the monitoring and research programme delivered via the Biodiversity portfolio. Highlights during the reporting period include progress with delivery of the Regional Pest Plan and Possum Control Operation Strategy, and advancing the surveying of our Top 100 wetlands. A stocktake of information for the Region's lakes is also progressing well.
- 6.10. During the next reporting period, the Biosecurity and Biodiversity work programme will focus on delivery of the bird monitoring survey at Totara Reserve, and delivery of the Regional Pest Plan.
- 6.11. Environmental Reporting and Air Quality Monitoring activity incorporates the State of Environment and Policy and Air Quality portfolios, along with the provision of technical support to the Regulatory Group through consents, consents monitoring and RMA Advice. Highlights for Environmental Reporting and Air Quality Monitoring during the reporting period include: (1) a refresh of LAWA rivers, lakes, coastal and water quantity modules; (2) contribution by staff to a number of national work programmes and community initiatives; and (3) initiation of seven new Envirolink funded projects.
- 6.12. An exceedance in air quality was detected at the Taumarunui monitoring station during the Easter break. The cause of the exceedance was not determined however, our investigation concluded the breach was likely due to an isolated incident. An exemption was sought from the Minister for the Environment, and this has now been granted.
- 6.13. The focus for Environmental Reporting and Air Quality Monitoring during the next reporting period will include delivery of a public campaign to promote our Region's swim spots, in partnership with Horizons' communications team. Scoping of the 2018 State of Environment report will also kick off early in the new calendar year.

## **7. SIGNIFICANCE**

- 7.1. This is not a significant decision according to the Council's Policy on Significance and Engagement.

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**ANNEXES**

A Science & Innovation Progress Report