

19-D-02243

s 9(2)(a)

Dear s 9(2)(a)

Thank you for your request of 23 September 2019 for the following under the Official Information Act 1982 (the Act):

*Maps from the end of the presentation shown at the Action for Healthy Waterways consultation meeting at Mystery Creek on 23 September 2019.*

The Ministry for the Environment has identified one document in scope of your request: "*Maps of nitrate concentrations shown at Mystery Creek consultation meeting for "Action for Healthy Waterways" programme, 23 September 2019*". These maps show the modelled nitrate-nitrogen concentrations at the most downstream point of each sub-catchment. The sub-catchments are defined using Waikato Regional Council's proposed Plan Change 1 sub-catchment boundaries.

The maps display output from computer models that have been developed to estimate the median water quality in New Zealand rivers, for the period 2013-17. The model was developed by the National Institute of Water and Atmospheric Research from measurements of nitrate-nitrogen at 855 sites across the country over the period 2013-17. Models were developed at the national scale and shouldn't be used for assessing compliance with attributes; actual site measurements are needed to assess individual sites. These data sets were published as part of Environment Aotearoa 2019.

For more detailed information on water quality in the Waikato Region you can visit the Land Air Water Aotearoa website: <https://www.lawa.org.nz/explore-data/waikato-region/river-quality/>

Please note that due to the public interest in our work the Ministry for the Environment publishes responses to requests for official information on our website on our [OIA responses page](#) shortly after the response has been sent.

If you have any queries about this, please feel free to contact our Executive Relations team.

Yours sincerely



**Martin Workman**  
Director, Water

Maps of nitrate concentrations shown at Mystery Creek consultation meeting for “Action for Healthy Waterways” programme, 23 September 2019

#### Background

The maps shown at the Mystery Creek consultation meeting on 23 September 2019 are overleaf (Figures 1 and 2). These maps were prepared by Adam Canning from Fish & Game, who was a member of MfE’s Science and Tech Advisory Group (STAG). They were produced to communicate the scale of impact of the STAG’s proposed Dissolved Inorganic Nitrogen (DIN) attribute in a way that is suitable for a presentation to a large audience.

Further details of the proposed attribute can be found in the Action for Healthy Waterways discussion document: [here](#)

Further details on the STAG are available [here](#)

#### Method used to produce maps

These maps show nitrate-nitrogen concentrations at the most downstream point of each sub-catchment. The sub-catchments are defined using Waikato Regional Council’s proposed Plan Change 1 sub-catchment boundaries.

These maps display output from computer models that have been developed to estimate the median water quality in New Zealand rivers, for the period 2013-17. The model was developed by NIWA from measurements of nitrate-nitrogen at 855 sites across the country over the period 2013-17.

Catchments with modelled nitrate concentrations higher than 1 mg/L are shaded yellow, orange or red and catchment names are shown.

Note that DIN is not equivalent to nitrate-nitrogen, but for simplicity the maps colour-code the modelled nitrate-nitrogen concentrations into levels that correspond to the difference between modelled concentrations and the proposed bottom line of 1 mg/L.

Released under the provision of  
the Official Information Act 1982

