

LGOIMA request WRC flood modelling

Information request: I am a stakeholder in TCDC Whangamata stormwater improvement project

**Replies by Rick Lifting Regional Resilience Team Lead, WRC in RED.**

**Replies by Brian Richmond, Project Manager, Resource Use, WRC in Blue**

**Rick also had chat with Ian on 25 Nov at 5.10pm, confirmed that the modelling was undertaken by TCDC and WRC had not input/awareness of the modelling. Also note that WRC understands the model was for stormwater network management, not for specific flood modelling.**

I am seeking the 1%AEP flood modelling for the Wentworth and Otahu Rivers and Whangamata Harbour catchments. I see on the portal only Waipa and Waikato Rivers modelling is available:

1. I am told the 1%AEP which I cannot find in E1 Surface Water in the building code (2%AEP maximum) is the following: a rainfall event of **374mm in 24-hours**. The Coromandel has not experienced any rainfall of this magnitude. During Cyclone Gabriel, we experienced 118mm of rain during the 24-hours of Monday 13<sup>th</sup> February 2023 (Whitianga figures as no such monitoring in Whangamata that we are aware of), with the total over the cyclone about 180mm over three days.  
Request: Is the rainfall figure of 374mm in 24 hours correct for the Whangamata catchment for a 1%AEP. **Unsure where TCDC obtained the 1% AEP value. Does not correlate with HiRDS High Intensity Rainfall System data for Whangamata.**
2. Where did this 1%AEP come from? **Refer TCDC**
3. Is the 1%AEP required by law to be provided by WRC and included in flood mapping **Modelling not undertaken by TCDC. WRC is not legally required to produce 1% AEP flood maps for all or any of the Waikato region, however, we are currently working on comprehensive flood models for the entire region, which will include the 1% AEP (current and future climates)**
4. If the flood mapping causes flooding (adverse effect) on properties in Whangamata is WRC legally required to attach this as a warning onto property files? **Regional councils do not hold property specific information on Natural Hazards, that is the role of District/City councils. However, anyone can ask for natural hazards information held by WRC for a property (refer to Waikato Regional Hazards Portal [Waikato Regional Hazards Portal](#))**
5. If not, and if required, how does WRC discharge its legal duties in respect to warnings of natural hazard flooding? **Modelling not undertaken by TCDC, see Q 4.**
6. If required to be entered onto property files does WRC have a policy as to the 'level of adverse effect' to apply to those properties eg adverse as to depth of water, velocity and likely damage to assets, versus localised surface water that will not cause damage to buildings or threat to life? **Modelling not undertaken by TCDC. However, refer to Waikato Regional Policy Statement ([RPS2022-Part-3-Domains-and-Topics-2-of-2.pdf](#) page 16 to 26) re High Risk Flood Zones**

<b>High risk flood zones</b>	Land that is subject to river or surface flooding during an event with an annual exceedance probability of no more than one per cent, and during such an event: <ol style="list-style-type: none"><li>i. the depth of flood waters exceeds one metre;</li><li>ii. the speed of flood waters exceeds two metres / second; or</li><li>iii. the flood depth multiplied by the flood speed exceeds one.</li></ol>
------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

7. If the 'delta' or sand dunes area of Whangamata experiences 374mm in 24 hours (assuming 1%AEP is correct) what would be the model for rainfall in the catchments further up the ranges – example higher precipitation levels occurs due to ground elevation **Modelling not undertaken by TCDC. WRC Pinnacles rain gauge (nearest to Whangamata) 1% AEP rainfall (24 hr period) is 517 mm**
8. Does the model take into account obstructions like the 2 bridges over the Causeway and the bypass? **Modelling not undertaken by TCDC**
9. Has such a model been done for 1%AEP **Modelling not undertaken by TCDC**
10. If not what is the highest rainfall event that has been modelled **Modelling not undertaken by TCDC**
11. Could I please have access to this in blown up portal as when I go into the portal the blue shading disappears once I start zooming in. **The blue shading (Regional Scale Flood Hazard) in the Waikato Regional Hazards Portal does not show at scale 1:50,000 or less as the data is not to be used at a higher (zoomed in) scale.**
12. Does WRC share this modelling with any councils in the area **yes and all district/city councils refer to the Waikato Regional Hazards Portal in LIM reports.**
13. If so when was the 1%AEP model shared with TCDC **Local Scale flood modelling has been provided to TCDC between 2006 and 2016. There is no Local Scale flood modelling undertaken by WRC for Whangamata (refer Hazards Portal).**
14. WRC manages TCDC Comprehensive Stormwater Discharge Consent #105668. Has TCDC advised WRC that it has produced a 1%AEP flood mapping model? **No, not formally, however WRC is communicating with TCDC about the Whangamata model as is a stormwater network model, not a flood model.**
15. Does the CSDC require TCDC to have a 1%AEP model? **No**
16. If the CSDC does require TCDC to have a AEP model what is the AEP required. **There is no requirement in the CSDC.**
17. If the 1%AEP shows widespread 'flooding' is TCDC required to report this in its reports under the CSDC. **If TCDC undertakes flood modelling then they should be updating their catchment maps in the Annual CSDC Report.**
18. If so, please forward to me of TCDC last report showing
  - a. The AEP% used in the model
  - b. The date of that model
  - c. A copy of the model
  - d. The extent of properties affected
  - e. The advice TCDC provided to WRC under the CSDC to 'manage or mitigate the adverse effects of flooding' eg s31 RMA when approving development or land use
  - f. The date WRC received that advice or if more than one please list. I can then chose which ones I want to see.
19. If TCDC has not provided the models or actions TCDC is taking to manage and/or mitigate flooding how is WRC expected to know about flooding in Whangamata. **WRC is communicating with TCDC about the Whangamata model.**
20. Did WRC provide feedback or any response regarding how TCDC should or could manage and/or mitigate the flooding the model identified? **No**
21. What advice has WRC provided to TCDC about the natural hazard flooding under various AEP events from the catchments of the Wentworth River, Otahu River and Whangamata Harbour catchments. **WRC and TCDC communicate about natural hazards for specific areas as part of general council business. Would be a significant effort to obtain ALL communications for the above areas. The most recent collaborative work for the Whangamata area was through the**

Shoreline Management Pathway (SMP) project [Shoreline Management Pathways Project | TCDC.](#)

Thank you

Ian Holyoake 021607611

ian@moisturedetection.co.nz