

Agenda for Water Quality TAG meeting

18 October 2014 at 9:30 am

Bay of Plenty Regional Council Rotorua office

1 **Apologies**

2 **Matters from last meeting**

Action Point	Notes	Action or person responding
Item 2(a) Bruere: Add to next agenda: Chris and Paul W. to discuss possible updates to Tikitapu model.	Report nearly complete discuss if need to add any GW updates	Agenda item
Item 2(b) Howard- Williams: Complete internal loads report in view of clarification on Rerewhakaaitu sediment loads with Piet, David and Chris.		Clive: This work is being undertaken with NIWA contract and will be reported when completed.
Item 3 (a) Howard- Williams: to provide information on rates of breakdown of weed	Info to Paul Scholes for use in Okawa Bay report	Completed
Item 3(a) McBride: Report back to next TAG with completed report on Rotoehu De-stratification		Awaiting final report
Item 3(a) Bruere: Refer advice to land management officers that spraying in Okawa Bay is likely to lead to nutrient releases that could trigger algal blooms	Have informed LINZ that weed spraying in Okawa Bay should be severely limited to avoid creating bloom conditions.	Done, awaiting final advice*
Item 3(a) Hamilton: Run Rotoiti model to determine the effect of weed spraying in Okawa Bay		This will not be necessary once memo from Scholes completed, see above*
Item 3(a) Gibbs to come back to group with more details on combined effects of capping materials in mesocosms. Advise if any support council can give and also of potential impacts on our programme.		Completed, in Max's hands
Item 3(a) Hamilton: Advise on opportunity for mesocosm trials in University of Waikato campus lakes.	David has opportunity to test liming on Waikato Univ lakes.	Refer to next SAG meeting.
Item 3(b) White: Send report to Andy of the outlines of GW monitoring. (Rerewhakaaitu modelling)		Paul White, undertaking this as part of existing work
Item 3(b) Bruere: Circulate the GNS outlines of the GW monitoring to group to WQTAG (see above)		Not yet available
Item 4(d) Hamilton: Prepare statement on nutrient loading to Lake Rotomā and the need to		Complete

deal with nutrients from septic tanks.		
Item 4(d) Hamilton: Reassess statement on N and P from TAG 2007 and ensure it is still applicable to lakes.		New statement completed
Item 4(d) Bruere: Circulate statement to TAG for ratification for all lakes including Rotomā. (Relating to N vs P and removing loads from septic tanks) to WQTAG		Complete
Item 4(d) McIntosh/Bruere: get BOPRC Investigations Section and Environmental Data Services to look at nutrient analyses for N and determine if an inter-lab comparison is required to determine if apparent changes in nutrient concentrations can be in part attributable to changes in analytical techniques		Paul Scholes has progressed this matter.
Item 4(e) White: Undertake simple GW work to establish GW catchment boundaries for Rotomā.		Not commissioned yet, monitoring started McIntosh
Item 4(f) Bruere: Recommend development of methodology for establishing P loads from land use. Take to Land TAG and talk to Sandy Elliott		Andy refer to new Land TAG.
Item 5.2 White: Repeat the NIWA monitoring work and install a shallow water bore at Steep Street for ongoing monitoring.		Scholes progressing
Item 8 (a) Bruere: Organize smaller target group to look into the question raised how do we go about describing sustainable N load with John Mac, Clive and David.		See attached notes and N and P statement.
Item 11 (d) Bruere: Get a position paper written on weed issues for next meeting, with the objective of briefing the Lakes Programme on weed issues and potential avenues for solutions.		Defer to next TAG meeting
Item 12/13 Bruere: Add agenda items 12 and 13 to next meeting agenda		Item 12 re Rerewhakaaitu on agenda, item 13 left off as Scholes has looked at cyano bacteria results and correlation low. Await end of summer results and progress from David re: cyano buoy project.
Item 14 (a) Peterson: Re-calibrate detainment bunds verification based on an area basis over the range of catchment areas		John Paterson to present at meeting.

used to determine performance.		
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3 **Model updates**

- (a) Rerewhakaaitu (David)
- (b) Rotokakahi (David)
- (c) Ōkaro catchment modelling(David/ Ryan M)
- (d) Tikitapu report (Chris McB)
- (e) Tarawera nutrient target and nutrient budget (Chris McB) see report circulated.

4 **Ground water:**

Tarawera update progress (Paul White)

5 **Alum dosing protocol update**

- (a) Update on Rotorua and Rotoehu alum dosing (Niroy)
- (b) Review the Rotoehu target? (Andy)

Notes: The Rotoehu protocol target is 13 -17 mg/m³. The lake WQ target is 3.9 TLI and this relates to 353mg/m³ N and 30.9 mg/m³ P. The lake is close to TLI at 3.95 for the last two years. Alum doing was planned to dose about 40 L/hr. We are now dosing 45 L/hr. This could create some possible compliance issues if we continue to chase the target of 13 – 17 mg/m³. Currently the lake is at about 28 mg/m³. The N level is below the TLI target also. Need to consider amending the protocol to limit the upper dose rate limit. In comparison for Lake Rotorua we are dosing 130 L/hr into the lake at about 10 times Rotoehu area and similar average depth. In comparison Rotoehu is being dosed with alum at about 3 times the dose rate per unit volume of Rotorua. It is hard to justify any further increase in dosing rate.

6 **Rotorua sewage update**

- (a) RDC sewage steering committees (Andy/Alison)
- (b) SWAT project on Whakarewarewa (David/Wang)
- (c) Sewage TAG (Alison)
- (d) N isotope work brief progress?(Warwick)
- (e) Discharge location modelling for the RDC TAG (David)

7 **Rotorua Modelling project for N&P and Alum impact**

The Rotorua model, 435 t N target and lake N load final report. (David)

8 **Nano-bubble trial**

Update from David and the next steps, refer to SAG

9 **Aquatic weeds and Lake SPI**

Position paper on-hold until next TAG meeting, discussion on need for position statement. (All)

10 **Rerewhakaaitu**

(a) To get high-frequency buoy in Lake Rerewhakaaitu (Andy/Chris) update?

(b) David Burger to bring report to next WQTAG meeting on Rerewhakaaitu farmers projects.

11 **Detainment bunds verification (John Paterson/David H)**

12 **Other business**

(a) Land TAG update (Andy) TOR

(b) SAG update (Andy) (Mention that we going to take the Nano bubbles to them and discuss the timing of the next Ōkaro Alum dose and Rotorua benthic chamber work and sediment core efflux)

(c) Weed spraying Okawa Bay (Paul Scholes).

(d) Inter-lab comparison progress (Paul Scholes)

(e) TLI report 2013/14 (Paul Scholes)