

Minutes of the Kopeopeo Canal Remediation Project Community Liaison Group meeting held at Eastbay REAP - Putauaki Room on 21 August 2018 commencing at 10:00am

Chair: John Pullar

Scribe: Ingrid McNiven (BOPRC)

Members present: Rene de Jong (Whakatāne Harbour Care Group), Tui Edwards (CS2 representative), Andrew Kohlrusch (Independent Monitor), Cameron Huxley (Toi Te Ora Public Health), Kathryn Barclay (Toi Te Ora Public Health), Tani Wharewera (CS3 and Hokowhitu Marae representative), Eula Toko (Cultural Monitor), Scottie McLeod (Whakatāne-Tauranga Rivers Scheme), Gary Searle (WDC)

Others present: Brendon Love, Ken Tarboton, Bruce Crabbe (BOPRC), Dr Chris Anderson (University of Waikato), Dr Joanne Kelly (University of Waikato), Des McCleary (Arrived 10.50am), Sharna McCleary, Pete McGowan (GHD), Tracey Godfrey,

Apologies: Amanda Austrin (CS1 representative), Neal Yeates, Shane McGhie (WDC), Clint Savage (DOC), Abby Tozer (BOPRC) Matt James (Independent Monitor Field Observer)

Absent: Hayden Power (Federated Farmers),

Action summary

No.	Actions of 21 August 2018	Responsible	Status
1	Term of Reference needed for Tani Wharewera – for his role as Community Monitor	Project Team	

Item 1: Welcome and karakia

- i. Tani Wharewera said the opening *karakia*. The Chair welcomed those present and thanked them for attending. Reminded we are discussing Kopeopeo Canal Project – not woodwaste or other contaminated sites.

Item 2: Apologies

Apologies were received for Abby Tozer, Amanda Austrin, Neal Yeates, Shane McGhie, Matt James and Clint Savage.

Motion: Apologies approved	Searle/Scottie	CARRIED
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Item 3: Minutes of previous meeting

a) **Matters arising:**

- i. No matters arising.

Motion: That the minutes of the Community Liaison Group meeting of 02 May 2018 be accepted as a true and correct record.	
De Jong/Edwards	CARRIED

Item 4: Communications

During the presentation given by Brendon Love (slides 3 & 4), the following points were commented on:

- i. Brendon noted not a lot of updates on the website lately due to slow progress.
- ii. A Public Notice was placed in the Beacon and via Radio (1XX announcement) about restricted access around CS3 during whitebaiting season due to H&S risks. Vehicle access not available. Walking/biking track is still open.
- iii. Project page – reminder about receiving email alerts when updates are published.

Questions and comments that were raised during the presentation:

- a) John Pullar – asked can you access the urupa from Bunyan Road – Eula answered yes – but the gate is locked. Would need to get the key.

Item 5: Tech Talk

During the presentation given by Professor Chris Anderson and Dr Joanne Kelly (slides 5-24), the following points were commented on:

- i. Bioremediation update – science/summary was discussed. Naturally occurring fungus.
- ii. Spoke about the chemical compound of dioxin/Furan – Dr Kelly noted it was lucky that the Kopeopeo Canal doesn't have any co-contaminants (Heavy metals) in the sediment which may limit microbial breakdown.
- iii. Poplar/willows are great to use as they grow fast.
- iv. Healing of sediment from Kopeopeo Canal – Joe Harawera legacy.
- v. Mentioned about the bailage on stopbanks – been very good as fungus is growing.
- vi. Joanne talked about the fungal based remediation – we are using white rot fungi and a soil fungus to degrade contaminants. The fungi are saprophytes and form complex mycelial networks in soil and wood. She spoke that the Lignin-degrading system is responsible for degradation of dioxin to CO₂.
- vii. Phytoremediation plays a part but fungus is really the driver in breakdown process. It has been used in a lot of other applications.
- viii. Discussion on how plant remediation works.
- ix. Described how the full scale bioremediation will work.
- x. How they grow fungus at the UoW was shown and wood pellet processing.

- xii. FAQ was presented and how the presentation hoped to have answered all of them.

Questions and comments that were raised during the presentation:

- i. Chairman asked – when the trees are harvested or lose leaves, candioxins get released in to the atmosphere? Dr Chris answered – the plant simply can't take up dioxins from the soil so this doesn't occur.
- ii. Chairman asked – there is a lot of comments about the stopbank contamination – can we use the bioremediation on the stopbank? – Dr Kelly replied, we are trialling this and we are into our 2nd year of the trial – “trees are growing well and all seems positive”.
- iii. Tani asked – is there an opportunity during the 15 year period to replace poplars/willows with native species? – Chris replied, yes...there is but as the remediation develops this will be introduced.
- iv. Tui asked about the black fungus on willows – is there a possibility of this fungus impacting the willows on the project? Chris answered yes, the possibility is there but its a nationwide problem –for remediation these trees are the best.
- v. Cameron asked – are you worried about a war between competing strains of fungi? Jo and Chris answered no
- vi. Bruce asked – it's still seen as an experiment – what is the agreement or comment to that? Chris answered – trial was success all those years ago, and that information was used to define the current full scale bioremediation plan. Not an experiment anymore – proven system which has been adopted all around the world. All we are doing is speeding up the natural process.

Item 7: Project Update

During the presentation given by Brendon Love and Ken Tarboton the following points were commented on:

- i. Overview of progress so far – Main dredging completed past SH30 bridge along Shaw road.
- ii. Section 4 has been completed and validated. 3 areas required re-dredging. Part of that we believe is due to the DTM (Digital Terrain Model) and boundaries and non-target material (clay/sand). But we are working on this and looking to fix this for section 5 onwards with a new DTM. Brendon then presented the slide showing the Kopeopeo Canal Typical Cross Section image – current DTM and potentially revised DTM.
- iii. Dredging within Section 5 is underway.
- iv. Sampling with new push tube – new 1.2m sediment coring device provides visual evidence of type of material in canal.
- v. Weed removal – this time it was cut before removal to leave roots in place. Same method of removal as Kope Drain Road.
- vi. Pump station intake canal validation completed.

- vii. Geobags – equivalent of 15 geobags have been filled to date. 611 bulk bags of oversized material has also been removed.
- viii. Coming up in the next 1-2 months we expect to complete:
 - a. New DTM in section 5
 - b. Validate section 5
 - c. Update to EMVP
 - d. Undertake flocculent trials
 - e. Clean up trial site on Kope Canal Road – this material will be put into the canal and dredged
 - f. Move water treatment plant to CS3

Questions and comments that were raised during the presentation:

- a) Tui asked the question – why aren't we testing and dredging the area with potential contaminants shown on the image – Brendon answered the area is beyond the dredge corridor where there is little to no contaminated sediment. The issue is the the boundary of the area to be dredged was slightly too wide and resulted in the stop bank to collapse. Brendon then went on to state, we are not changing anything – but we need to get the right balance between removing all the sediment and avoiding structural effects on stopbanks/bridges, etc. It is always a “clean up to extent practicable”, and this approach still achieves the project objectives.

Item 8: Independent Monitor

During the presentation by Pete McGowan who has been on site observer during Matt James's annual leave. The following points were commented on:

- i. IM reports for May, June and July will be posted online soon
- ii. He clarified CS3 has been complete in terms of HDPE liner
- iii. Pete noted he was very impressed with how the system for sampling was when the new acrylic tubes were used.
- iv. Pete spoke on the Canal Sediment validation images showing the re-dredged spots.
- v. Pete presented the 4 section validation numbers that ranged between 21 and 57 pg/g which is below the remedial target of 60 pg/g.
- vi. IM Observations
 - a. Turbidity levels have been a small issue – spoke about the samples collected by Project Manager July 2018. Noted the levels with regard to dioxin levels on the different dates.
 - b. Pete showed various images he took around sites on the canal

Questions and comments that were raised during the presentation:

Item 9: Cultural update

During the presentation (slide 51), the cultural monitor commented on the following points:

- i. The cultural monitor noted low level of oversized material during re-dredging of section 4.
- ii. Noted nothing has caused for her to be concerned

Item 10: Health, Safety and Monitoring

During the presentation by Des McCleary the following points were commented on:

- i. Corrections – dry contents of the bags are 46.75%
- ii. Rupture of the slurry transfer hose is incorrect and actually a disconnection of hose fitting occurred
- iii. Mentioned they (ESL) working on a solution for CM so to view remotely on a screen rather than being there
- iv. Very proud of the team with regards to Health and Safety – no lost time injuries (LTI), no medical incident and no first aid incidents
- v. Additional security gate at CS3 entrance
- vi. CS3 remains locked – site is holding water to prevent liner lifting
- vii. Attention to worker safety – we rotate staffing 5day / 6day working week. In addition to working days we also have maintenance days.
- viii. Paroa shift – pulled the barge to lift off the dredge
- ix. Noise monitoring – ongoing
- x. Eel processing – no adverse effects or uncontrolled odours
- xi. Traffic management plan (TMP) is working well – working alongside WCL on Shaw Road land development– full credit for local support.

Item 11: Other business and date of next meeting

- i. Tui asked about the community monitor role especially when we get down the canal further – Tani is available and is nominated to take over from Kere Akuhata who has been too busy

Tui moved (Eula Seconded) that Tani is to replace Kereama in this role effective now. The Project team is to distribute the terms of reference for the role to Tani.

Next meeting: CLG discussed and agreed to meet on a 2-monthly basis. A tentative date is set for Tuesday October 23rd

Meeting closed at 12.45pm