

**MINUTES OF THE 60th MEETING OF THE SELWYN-WAIHORA ZONE COMMITTEE HELD
AT THE LARGE EXECUTIVE MEETING ROOM, SELWYN DISTRICT COUNCIL ON
TUESDAY 3 MAY 2016 COMMENCING AT 1 PM**

PRESENT

Allen Lim (Chair), John Sunckell, Ron Pellow, Maree Goldring, Riki Nicholas (Te Rūnanga o Wairewa), Victor Mthamo, George Tikao (Te Runanga o Onuku), Charles Crofts, (Te Runanga o Koukourarata), Terrianna Smith (Rununga Tuamutu), Clare Williams (Te Runanga o Ngai Tuahuriri) and Commissioner Tom Lambie (Canterbury Regional Council Representative)

IN ATTENDANCE (for part or all of meeting)

Ian Whitehouse (Zone Facilitator ECan), Mayor K Coe, John Benn (DOC), Tami Woods (ECan), Tim Davie (Acting Director Science– ECan), Stephen Bragg (ECan), Ms Tully (Community & Public Health, Canterbury District Health Board), Ms Michaela Rees (ECan), Robyn Gurnsey (Lincoln University), Angela Sheat (Community & Public Health, Canterbury District Health Board), Judith Earl-Goulet (Ecan) and Ms K Anderson (PA to Property and Commercial Manager)

The meeting was opened with a karakia by Mr Crofts.

APOLOGIES

Apologies were received from Hayley Moynihan and Bill Lambie and were accepted by the meeting.

Moved: Mr Sunckell/**Seconded:** Mrs Smith

‘That the Committee accept apologies for absence from Hayley Moynihan and Bill Lambie.’

CARRIED

Absent: Councillor Tim Scandrett

IDENTIFICATION OF URGENT GENERAL BUSINESS

Nil

CONFIRMATION OF MINUTES

1. **Minutes of the 59th Meeting of the Selwyn Waihora Zone Committee (Water Management) held on Tuesday 5 April 2016.**

Amendments:

Page 2	Replace ‘community engagement’ with ‘subgroup implementation’
Page 2	Add ‘Joint’ before statutory manager
Page 2	Replace ‘Cox’ with ‘Roberts’
Page 3	Replace ‘NZ Gap’ with ‘NZGAP’
Page 6	Remove ‘Mr Pellow’

Moved: Mr Pellow/**Seconded:** Mr Tikao

'That the minutes of the 59th meeting of the Selwyn Waihora Zone Committee (Water Management) held on Tuesday 5 April 2016 be confirmed as amended.'

CARRIED

MATTERS ARISING FROM MINUTES

Mr Crofts sought clarity around a number of matters from the previous minutes. Both Mr Whitehouse and Mr Sunckell provided explanations.

Mr Crofts also tabled a letter to the Combined Runanga Reps CWMS Forum requesting support for Te Runanga o Arowhenua's position regarding the sale of Lot 9 in the Ashburton Business Park and the taking of water. Members agreed to receive the letter but noted that Ashburton was outside the Zone area.

REPORT TO AND FROM REGIONAL COMMITTEE MEETING.

Mr Pellow indicated that the reports could be taken as read.

MEETINGS ATTENDED

1. Mr Pellow advised members that he attended a Regional Water Management committee meeting. Mention was made of his attendance at the Plan Change Implementation Sub-Group meeting, a CLVMA meeting and a Plan Change 1 briefing for rural professionals.
2. Mr Lim reported that he attended a Plan Change Implementation Sub-Group meeting and a CLVMA meeting. Mention was made of his attendance at a Plan Change 1 briefing for rural professionals and he presented the Annual Report to Selwyn District Council.

GENERAL PUBLIC CONTRIBUTION

Nil.

1. STATE OF TE WAIHORA/LAKE ELLESMERE 2015

Mr Davie (Ecan) spoke to his presentation noting that he would be covering the following topics.

- Define "state of the water"
- Background
- State of the lake – water
- Pressures
- Response

Mr Davie summarised state of the water as being:

Water quantity

- Rainfall and lake levels
- Tributary streams

Water quality

- Lake
- Tributary streams
- Groundwater

Background

He explained to members' the background including the lake's water balance that consists of inflows and outflows. Mention was made of the graph contained within the presentation.

The inflows and outflows were further defined for members as being:

Inflows

- Rainfall
- Tributary inflows
- Seawater intrusion

Outflows

- Intermittent lake openings
- evapotranspiration

Further explanation around background included the water as being an interconnected environment made up of surface water, ground water, freshwater and sea water.

Mention was made that the lake is phytoplankton dominated with a shift from macrophyte domination to phytoplankton that occurred in 1968 triggered by the Wahine storm. This shift was probably assisted by gradual nutrient enrichment prior to 1968 and has resulted in the more frequent appearance of cyanobacteria blooms. These blooms are potentially toxic for both humans and animals and can result in de-oxygenation, for example killing fish.

State of the water quality

Mr Davie made reference to the various monitoring sites in the District. These monitoring sites cover:

- aquatic ecosystem health
- lake water quality and ecology
- recreational water quality and
- river and stream water quality

Determining water quality state

Mention was made that the indicators are perceived as the following:

- Are not direct measurements
- Calculated based on raw data
- Describe the general condition

One indicator can be described as the Lake Trophic Status (TLI). This is an indicator of enrichment and is based on measurements of nutrients (TN and TP), water clarity and algae.

Mr Davie referred members to the TLI graph for Te Waihora explaining the various trophic states and explaining where the graph indicates increasing and decreasing nutrients and phytoplankton. It was noted that there is pressure driving the lake TLI and these aspects of pressure include the following:

- Nutrient enrichment from inflowing streams – supports increased algal growth
- Mixing and resuspension of benthic sediments and in-lake cycling of associated nutrients

Water quality of tributary streams

A further indicator has been defined as Water Quality Index (WQI). This indicator is a combination of water quality measurements including nutrients (N & P), water clarity and faecal bacteria. He referred members to the handout regarding WQI 2015 levels.

The pressures driving water quality in tributary streams was defined as the following:

- Faecal inputs
 - stock access or wipe-off losses in land drainage
 - birds
 - leaking septic tanks
- Phosphorus
 - losses via drainage or soil erosion
- Elevated nitrogen concentrations
 - Nitrate leaching and upwelling groundwater

He summarised the groundwater monitoring map to the meeting noting the nitrate concentrations at various monitoring sites.

Aquatic ecosystem health of tributary streams

It was noted that invertebrate taxa is used as an indicator of stream health. Stream health can be impacted by:

- Sedimentation, algae or macrophyte overgrowth
- Riparian fencing and planting
- Land use

Mr Davie advised the meeting that the pressure of aquatic ecosystems originates from:

- Lack of intact riparian vegetation
- High sediment inputs
- Excessive in stream plant growth supported by high nutrient inputs

- Reduced or intermittent flows
- Nitrate toxicity

The graph regarding suitability for recreation around the District was explained to members.

Members were advised of the potential for major toxic species in Te Waihora. These species were outlined as being:

- Anabena
- Nodularia
- Picocyanobacteria

Catchment Pressures Summary

- Elevated nitrogen in groundwater, tributary streams, Te Waihora
 - nitrate toxicity
 - cyanobacteria blooms
 - macrophyte/aquatic plant growth
- Phosphorus
 - cyanobacteria blooms
- Faecal contamination
 - recreation
- Sedimentation
 - smothers benthic habitat

Response

- Plan Change 1 (Selwyn Waihora sub regional plan)
 - Cultural zone around the lake
 - improving agricultural practice with GMP
 - stock exclusion rules for lake, waterways and drains
 - minimum flows and restriction regimes in tributary streams
- Whakaora Te Waihora
 - restoration work
- Stream augmentation
 - Boggy Creek and deep groundwater
- Wetland research

Members sought clarity around a number of issues.

Mr Davie was thanked by the meeting.

2. COMMUNICATING PUBLIC HEALTH RISKS OF HIGH NITRATE LEVELS IN DOMESTIC WATER SUPPLIES

Ms Tully (Community & Public Health, Canterbury District Health Board) spoke to the meeting.

She indicated that she would summarise the Nitrate Communication Plan to members.

Background

Ms Tully advised the meeting that Nitrate is an emerging issue throughout Canterbury since the 2000s with the trend for increasing levels in ground water, particularly private bores.

Mention was made of the early discussion with Council about drinking water and the health issues such as Methaemoglobinaemia. She indicated that there is a joint work plan with ECan and a need to protect those currently at risk.

She summarised the long term strategies through the CWMS. Mention was made that in the short term, there is a need to warn those at risk.

Objectives

Ms Tully outlined the objectives of the nitrate-risk programme noting the following:

- Providing region wide targeted advice
- Raise awareness with health professionals
- Key organisations work together to deliver consistent messages

Focus Group

Pregnant women and those with bottle fed infants under 6 months of age on own private bore. The message is getting out via lead maternity carers.

Community Water Supplies

Ms Tully advised the meeting that community supplies are monitored by the water supplier, i.e. the Council.

Mention was made that their water safety plans need to address chemical risk to drinking water. It was noted that some water suppliers now need to monitor their water for nitrate and there is a need to have a plan as to what they will do if they transgress the MAV.

Monitoring, compliance and the law

Ms Tully summarised the various legislation regarding drinking water sources, treatment and supply.

Health Implications

- Methaemoglobinaemia generally affects babies 3 months of age and under
- Nitrate converts to nitrite in gut
- Fetal haemoglobin combines with nitrite preventing oxygen from combining
- Blueness around mouth, hands, feet
- Affects breathing and can be life threatening

Ms Tully provided an explanation as to why babies are more susceptible to methaemoglobinaemia. She noted that breast milk is best and can't be passed to the child even when mothers consume water with high nitrate concentration.

Delivery

- Ms Tully reported that on the CPH website the following can be located:
- Regional Council mapped risk areas
- Frequently asked questions section
- Pamphlet about blue baby syndrome
- Laboratory testing information
- Advisory notes to key medical people and LMCs (leading maternal carers)
- Presentations to LMCs
- Regional and local Zone committees briefed as well as Territorial Local Authorities.

Ms Tully provided examples within her presentation and handed out copies of the pamphlet about blue baby syndrome.

Water Testing

She noted that in terms of water testing:

- It is important to use IANZ accredited laboratories
- Know the method of analysis is reliable
- CPH have a list of local laboratories and phone number so n website
- Testing is recommended for E.coli as well as nitrate.

Follow Up

Ms Tully advised the meeting that they have recently updated hard copy leaflets that are available and undertaken MOH presentations to midwives. She reported that the nitrate-risk maps are updated as required and CDHB will continue to submit on variations to regional plans and update zone committees as well as advocate for better national controls.

Evaluation

Mr Tully indicated that an evaluation was carried out in July 2014 with 23 midwives responding as well as one medical centre. She reported that generally there is a good awareness of nitrate issue but midwives would like to increase their understanding. Concerns were raised about increasing nitrate levels.

Members sought clarity around a number of issues and discussed nitrate levels in further detail.

Ms Tully was thanked for her presentation.

Break for afternoon tea at 3:00pm

Meeting resumed at 3:20pm

3. SELWYN TE WAIHORA PLAN CHANGE UPDATE

Ms Woods (Ecan) provided an update to the meeting regarding the Selwyn Te Waihora Plan Change.

Members discussed the update in further detail.

4. PROPOSED ENVIRONMENT CANTERBURY 2016/17 WORK PROGRAMME TO PROGRESS 5-YEAR DELIVERY OUTCOMES

Ms Rees (ECan) spoke to the meeting referring to her presentation regarding the 2016/17 Work Programme.

Members discussed the outcomes and milestones in further detail requesting various wording changes to better reflect the objectives of the work programme for 2016/2017.

Ms Rees confirmed that she would make the amendments.

Moved- Ms Goldring/**Seconded-** Mr Crofts

'That The Zone Committee endorses the Environment Canterbury Work Programme 2016/17.'

CARRIED

5. ZONE TEAM (VERBAL) UPDATE

Ms Rees (ECan) provided a verbal update regarding the Zone team and where they are at in terms of implementation of various projects.

6. ZONE FACILITATORS REPORT

Mr Whitehouse (ECan) summarised his report to the meeting making reference to the new member Christine Henderson who will be the new representative for Rapaki Runanga on the Zone Committee replacing Te Whe Phillips.

It was noted that there had been discussions at the May meeting on the 5 year Delivery Outcomes and milestones will all these being agreed by the committee except Outcome 4 "The catchment is managed in a way that integrates Ngai Tahu values across all outcomes and how these will be achieved." Mr Whitehouse indicated that Outcome 4 has now been discussed by the Runanga representatives noting that they wished for an overarching statement to be including in the 5 year Delivery Outcomes,

"Kaitikaitanga should be across all outcomes for the Zone, work program embed Kaitiakitanga across all work programs of the zone"

Committee members discussed the milestones for Outcome 4 in further detail requesting various wording changes and an additional milestone:

Milestone 4.10 Monitoring

Integrate COMAR and State of the Takiwa monitoring with Environment Canterbury's water monitoring programme.

The rūnanga representatives asked Commissioner Lambie to be the zone committee sponsor for this outcome. Commissioner Lambie agreed.

Moved- Mr Sunckell/**Seconded-** Mr Pellow

'That the Zone Committee agrees to Outcome 4 of the 5-Year Delivery Outcomes and Milestones subject to changes agreed at the meeting.'

CARRIED

He referred to the updated Zone Committee 2016 Work Programme and reported that there are submissions from ECan and the Canterbury Mayoral Forum on "Next Steps for Fresh Water" relating to Te Waihora.

The meeting was closed with a karakia by Mr Crofts and Mr Bragg.

The Chair thanked all in attendance and the meeting closed at 5.06pm.

DATED this 7th day of June 2016



CHAIR