

Canterbury Water Management Strategy Waimakariri Zone Committee

Agenda

Monday 3 August 2020

3:30pm

***Function Room,
Rangiora Town Hall,
303 High Street,
Rangiora***

Members:

Michael Blackwell (Chair)
Cameron Henderson (Deputy Chair)
David Ashby
Erin Harvie
Carolyn Latham
Judith Roper-Lindsay
Wendy Main
Arapata Reuben (Te Ngai Tūāhuriri Rūnanga)
John Cooke (Te Ngai Tūāhuriri Rūnanga)
Sandra Stewart (WDC Councillor)
Megan Hands (ECan Councillor)

Chairperson and Members

CWMS WAIMAKARIRI ZONE COMMITTEE

Agenda for the meeting of the **CANTERBURY WATER MANAGEMENT STRATEGY WAIMAKARIRI ZONE COMMITTEE** to be held in the **FUNCTION ROOM, RANGIORA TOWN HALL, 303 HIGH STREET, RANGIORA** on **MONDAY 3 AUGUST** commencing at **3:30PM.**

Recommendations in reports are not to be construed as
Council policy until adopted by the Council

BUSINESS

PAGES

1. **BUSINESS**

1.1 **KARAKIA**

1.2 **APOLOGIES**

1.3 **WELCOME AND INTRODUCTIONS**

1.4 **REGISTER OF INTERESTS**

Advice of any changes or updates.

4 - 5

2. **Opportunity for the public to speak**

3. **ZIPA Implementation – Update – Sophie Allen (WDC, Water Environment Advisor) and Murray Griffin (Ecan, CWMS Facilitator)**

6- 24

4. **WWZC ZIPA Priority Setting – Workshop Review – Murray Griffin (Ecan, CWMS Facilitator)**

RECOMMENDATION

25

THAT the CWMS Waimakariri Zone Committee:

- a) **Review** its previous ZIPA recommendation priority setting exercise.
- b) **Confirm** any agreed ZIPA priorities be advanced as recommendations for inclusion the Environment Canterbury 2021-31 Long Term Plan.
- c) **Confirm** a preferred date, time and method for further review and priority setting on ZIPA recommendations, if required.

5. **COMMITTEE UPDATES – M Griffin (CWMS Facilitator, ECAN)**

- Proposed Plan Change 7
- Communications
- CWMS Regional Committee
- Action Points from the 6 July meeting

RECOMMENDATION

26-29

THAT the CWMS Waimakariri Zone Committee:

- a) **Receives** these updates for its information, and with reference to the Committee's 2020 work programme and community engagement priorities.

6. **CONFIRMATION OF MINUTES**

Minutes of the Canterbury Water Management Strategy Waimakariri Zone Committee meeting – 6 July 2020

30 - 35

RECOMMENDATION

THAT the CWMS Waimakariri Zone Committee:

- a) **Confirms** the minutes of the Canterbury Water Management Strategy Waimakariri Zone Committee meeting, held on 6 July 2020, as a true and accurate record.

Matters Arising

7. **GENERAL BUSINESS**

KARAKIA

NEXT MEETING

The next meeting of the CWMS Waimakariri Water Zone Committee is scheduled for the 7 September 2020 at 3:30pm.

WAIMAKARIRI WATER ZONE COMMITTEE

Register of Interests – at 1 July 2020

Name	Committee Member Interests
David Ashby	<ul style="list-style-type: none"> - Director/shareholder – Pineleigh Farm Limited - Director/shareholder – Dave Ashby Rural Consultants Limited - Shareholder – Waimakariri Irrigation Limited - Member – Cust Main Drain Water User Group
Michael Blackwell	<ul style="list-style-type: none"> - Director/ Shareholder – Blackwells Limited, Kaiapoi - Treasurer – North Canterbury Clay Target Association - 4Ha property, Tuahiwi
John Cooke	<ul style="list-style-type: none"> - Director/Shareholder – Executive Limousines 2015 Limited - Director/Shareholder – Express Hire Limited - Director/Shareholder – Secure Property Management Limited - Director/Shareholder – Testpro Limited - Director/Shareholder – Acropolis Wedding and Event Hire Limited - Director/Shareholder – Pines Beach Store Limited - Director/Shareholder – Coastal Dream 2005 Limited – 4Ha property, Kaiapoi - Interim Trustee – Section 6 Survey Office Plan 465273 Ahu Whenua Trust
Megan Hands	<ul style="list-style-type: none"> - Director/Shareholder – Landsavvy Limited - Member – NZ Institute of Primary Industry Management - Member – NZ Young Farmers - Member – Institute of Directors NZ - ECan Councillor
Erin Harvie	<ul style="list-style-type: none"> - Shareholder – Bowden Consultancy Limited, trading as Bowden Environmental - Member – NZ Hydrological Society - Associate member – NZ Institute of Primary Industry Management - Involvement with Cust River Water User Group
Cameron Henderson	<ul style="list-style-type: none"> - Dairy Farmer - Groundwater irrigator - Member – NZ Institute of Primary Industry Management - Member – NZ Dairy Environment Leaders Forum - Chairman – DairyCan - Canterbury Dairy Environment Leaders Forum - Chairman – North Canterbury Federated Farmers
Carolyn Latham	<ul style="list-style-type: none"> - Farmer – Sheep, beef - Director – Latham Ag Ltd Consulting - Shareholder – Silver Fern Farms, Farmlands - Registered Member – New Zealand Institute of Primary Industry Management
Wendy Main	<ul style="list-style-type: none"> - Dairy Farmer – Trinity Holdings (2001) Ltd - Registered Nurse - Member Federated Farmers - Consent to Farm and related consents for water and effluent with ECan - Shareholder – Silver Fern Farms, Farmlands, LIC

Arapata Reuben	<ul style="list-style-type: none"> - Chair – Ngāi Tūāhuriri Rūnanga - Trustee – Tuahiwi Marae - Trustee – Tuhono Trust - Trustee – Mana Waitaha Charitable Trust - Member – National Kiwi Recovery Group - Rūnanga Rep – Christchurch/West Melton Water Zone Committee - Rūnanga Rep – Ashburton Water Zone Committee
Judith Roper-Lindsay	<ul style="list-style-type: none"> - Director/ecologist – JR-L Consulting Ltd. - Landowner/small-scale sheep farmer, Ashley downs - Fellow – Environment Institute of Australia and New Zealand (EIANZ)
Sandra Stewart	<ul style="list-style-type: none"> - Self-employed journalist - Landowner, 4Ha Springbank – sheep & dogs - WDC Councillor

AGENDA ITEM NO: 3	SUBJECT: ZIPA Implementation – Update
REPORT TO: Waimakariri Water Zone Committee	MEETING DATE: 3 August 2020
REPORT BY: Sophie Allen, WDC Water Environment Advisor & Murray Griffin, CWMS Facilitator – Waimakariri, ECan	

Waimakariri Land & Water Solutions Programme – Update

Background

The Zone Implementation Programme Addendum (ZIPA) for the Waimakariri Water Zone was adopted by Waimakariri District Council and Environment Canterbury in December 2018. This report outlines progress on implementation of ZIPA recommendations up until the 23 July 2020.

Summary of key progress

Joint work

- Collation of available data on the Coastal Streams catchments with gaps and recommendations for next steps, which was presented to the July Waimakariri Water Zone Committee. **(ZIPA Rec 1.1)**
- Kate Steel, the Ecologist - Biodiversity is working closely with Zipporah Ploeg (ECan) to support landowners, such as at the Springvale wetland (off Ashley Road) for willow management, and Waimakariri Irrigation Limited for dryland ecosystem remnants. **(ZIPA Rec. 1.18)**
- WDC Stormwater monitoring commenced at the end of July 2020 in Rangiora (carried out by Environment Canterbury). **(ZIPA Rec. 1.4-J)**

Waimakariri District Council

Improving Stream Health – Monitoring and Research

- WDC Stormwater Network Discharge Consent monitoring programmes have been drafted, with Rangiora and Woodend monitoring programmes lodged with Environment Canterbury. Draft conditions have been received for WDC review. Oxford and Kaiapoi application lodging has been delayed until mid-late 2020 (was due to be by the end of

2019), due a change from a 'Cultural Impact Assessment' to an 'Assessment of Impact on Rangatiratanga'. **(ZIPA Rec. 1.4-J)**

Improving Stream Health – Protecting and Enhancing Aquatic Biodiversity

- 'Drainage and Waterway Review' and 'Drainage Maintenance Management Plan' drafted and approved by WDC in July, with feedback received and incorporated from Drainage Advisory Groups, Ngāi Tūāhuriri Rūnanga kaitiaki and the WWZC. **(ZIPA Rec. 1.7,1.14)**
- Fish passage works for Plasketts Road and Ashworths Road drains are no longer planned in 2020-21, due to a reduction in ZIPA capital expenditure budget caused by the COVID-19 pandemic. **(ZIPA Rec. 1.8c)**

Improving Stream Health – Protecting and Enhancing Aquatic Ecosystem Health

- 'Drain shading' pilot was planned to be carried out in autumn 2020 however have been postponed due to COVID-19 until spring 2020. Native plants will be planted along problematic drains with the purpose of reducing high maintenance frequency. A project memo drafted and two drains sites chosen; Fernside Road (at Todds Road corner) and Tram Road (to the west of Jeffs Drain Road). Quotes are being sought from planting contractors. \$20K allocated in 2020-21. **(ZIPA Rec. 1.14)**
- WDC planners have drafted a 'Natural Character of Fresh Waterbodies' chapter of the draft District Plan, with provisions for appropriate landowners riparian set back distances for development and structures, and exotic planting restrictions for different situations. **(ZIPA Rec. 1.18)**

Improving Stream Health – Ngāi Tūāhuriri Values and Aquatic Ecosystems

- The WDC Drainage Maintenance Management Plan includes a discussion of mahinga kai, wāhi tapu and wāhi taonga in regards to drain management, including management of a specific watercress harvesting area on the mainstem of the Cam River downstream to the Bramleys Road bridge), following advice from Arapata Rueben. WDC staff presented a report to the Mahi Tahi Committee on the 16 June 2020 scoping the feasibility, benefits/detriments, and requirements for converting the Cam River flood gate into an electrically operated tide gate. The committee discussed cultural considerations mahinga kai, wāhi tapu and wāhi taonga, however the report from Te Ngāi Tūāhuriri Rūnanga Kaitiaki (via Mahaanui Kurataiao Ltd) is still to be received by WDC, which will indicate whether there is support or not for the proposal. **(ZIPA Rec. 1.20)**

Improving Stream Health – Ashley River/Rakahuri and Saltwater Creek catchment

- Below the Ashley Rakahuri gorge is proposed to be listed as a Significant Amenity Landscape, and Te Aka Aka as an Outstanding Natural Feature in the draft District Plan – Boffa Miskell report. **(ZIPA Rec. 1.22)**
- Upper Catchment of the Ashley Rakahuri (Puketeraki Ranges above the gorge, excluding the plain) recommended to be an Outstanding Natural Landscape in the draft District Plan, as per a Boffa Miskell report. **(ZIPA Rec. 1.24)**

Improving Stream Health – Urban Waterways

- A budget of \$10K is allocated in 2020-21 for local stormwater education resources – slightly reduced from the \$20K allocated pre-COVID-19 pandemic. A Section 17A review (under the Local Government Act) is being carried out for all environmental education by WDC, which likely decide how this budget is proposed to be allocated. **(ZIPA Rec. 1.25)**

Improving Stream Health – Project support

- Native planting for stream health and public amenity projects in the South Brook and Taranaki Stream commenced in November 2019. At Taranaki Stream Reserve, culverts and a gravel path have been construction to provide access to all sections of the reserve on the True Left side. Along the South Brook at Townsend Fields, a planting of 500+ riparian wetland species took place in November 2019. These plants have survived the dry summer well. A further community planting of 135 plants took place in June 2020 with the Rangiora Lions and Leos Clubs. Discussions are taking place with the WDC Youth Council about a further planting event. \$70K allocated in 2020-21. **(ZIPA Rec 1.26)**



Taranaki Stream Reserve – new gravel path providing access to the rest of the reserve.



South Brook at Townsend Fields – Riparian planting of 500+ plants shown in November 2019.

- Cam River Enhancement Fund: Waiting for a district-wide 'Maintenance and Minor Works in Waterways' consent to undertake further works. This consent application is being processed by Environment Canterbury. **(ZIPA Rec. 1.27)**
- \$10K allocated in 2020-21 for Kaiapoi River tidal plantings with wetland plants, to narrow the channel and create greater flushing flows. A project brief has been written, and plant list prepared, however this planting was postponed from February due to an issue with plant supply from the nursery, then again from late March- early April 2020 due to the COVID-19 pandemic. This planting is now waiting for warmer months again, better suited for wetland plantings. **(ZIPA Rec. 1.27)**

Protecting and enhancing Indigenous Biodiversity - Cross-outcome Recommendations

- WDC has created a new full-time role of Ecologist – Biodiversity. This role has been filled by Kate Steel, who started in mid-January **(ZIPA Rec. 2.2c)**.
- \$10K has been funded in 2019-20 towards a PhD position supervised by Dr Jonathan Tonkin at the University of Canterbury, which will examine and model climate change impacts on freshwater indigenous biodiversity in the Waimakariri Water Zone, particularly the likely impact of climate change on native fish communities. The PhD is also partially funded by the Department of Conservation. A memo about the funding allocation was approved by WDC Management Team. A further \$10K of funding has been allocated for 2020-21. **(ZIPA Rec. 2.4)**

Protecting and enhancing Indigenous Biodiversity - Protecting and enhancing ecosystem health

- \$10K has been allocated in 2020-21 for ecological survey work of ecological values (on an as-required basis), that can inform Council planning and operational activities. Preliminary survey work is intended to be carried out, potentially with contractor support, on the ecological values within the Waimakariri Stockwater Race network. This work will inform the Stockwater Race Bylaw review in 2020. **(ZIPA Rec 2.5)**

Protecting and enhancing Indigenous Biodiversity - Terrestrial and Aquatic Biodiversity

- WDC staff are working with volunteers at the Silverstream Reserve to enhance existing dry land habitat values. A number of locally or nationally rare dryland plants and invertebrates have been identified there. **(ZIPA Rec 2.8)**
- Providing biodiversity advice to landowners and community organisations, such as schools, Waimakariri Irrigation Limited and Enviroschools Canterbury. WDC Communications has shared promotional material about species at Silverstream Reserve and plans to enhance and protect. **(ZIPA Rec 2.1)**
- On-going discussions between the Ecologist – Biodiversity and WDC planners for biodiversity incentives in the District Plan, such as rates rebates and a draft policy on awarding 'in-situ development lot' rights (an ability to subdivision and sell a lot) in exchange for biodiversity protection. A report on these statutory biodiversity incentives was presented at the 7 July Waimakariri District Council meeting, approving the inclusion of 'in-situ development lot' rights in the proposed District Plan. **(ZIPA Rec. 2.10)**

Protecting and enhancing Indigenous Biodiversity - Coastal Habitats and Ecosystems

- Inanga spawning area improvements have been carried out for McIntosh Drain and Courtenay Stream. Pampas, gorse and willow removal, to reduce shading, was carried out in December 2019, with native grasses re-planted at Courtenay Stream after 1 June 2020, due to no disturbance of the sites during the inanga spawning window. Taranaki Stream will undergo improvements in spring/summer 2020-21, when the global consent is hopefully in place for bank regrading. Environment Canterbury has supported WDC inanga spawning area improvements with funding from the Regional Fish Habitat Improvement Fund. **(ZIPA Rec. 2.11)**



Inanga spawning habitat at Courtenay Stream, which was planted with suitable native grasses. Note also the trial of hessian biodegradable guards.

Reducing Nitrates – Nitrate Limits for Private Well Supplies

- WDC has allocated \$10K in 2019-20 towards the testing of nitrate levels in private drinking wells. WDC carried out a pilot study of 19 private wells in Cust and Eyreton for nitrate and other chemical parameters in late 2019. One well was found over the MAV for nitrate, and one well for arsenic and manganese. The findings of this study were reported to the March 2020 WWZC meeting. This study is intended to be repeated in spring 2020 with a further \$10k allocated in 2020-21 **(ZIPA Rec. 3.16a)**
- WDC has distributed information about nitrate health impacts to well owners in the nitrate study, and issued a media release about nitrate, and the need for testing of private wells in March 2020. This media release was published in the Northern Outlook and stuff.co.nz **(ZIPA Rec. 3.16b)**
- WDC has drafted a pamphlet with guidance on well depth and well-head security, in collaboration with ECan Groundwater. This has been independently reviewed (by the Canterbury Drinking Water Reference Group). \$5K was allocated towards this in 2019-20, which has been used to produce up-to-date maps of contaminants in groundwater for the District to be presented in the pamphlet. The next step is graphic design and layout of the brochure **(ZIPA Rec. 3.17)**

Reducing Nitrates – Innovation

- Management structure of the Land and Water Committee created within Council in November 2019.
- Memorandum of Understanding drafted between ECan and WDC for ZIPA Implementation at staff-level. **(ZIPA Rec. 3.25)**

ZIPA Related:

- WDC - Kalley Simpson has submitted hearing evidence-in-chief for Plan Change 7 on behalf of the Waimakariri District Council. The evidence was regarding the request of WDC to have an exception to the 10-year consent duration maximum and consent review process (policies 8.4.36, 8.4.37 and 8.4.38) for community water supplies and nutrient discharge consents for wastewater and stockwater.

Environment Canterbury

Science

- Our groundwater and surface water scientists have been heavily involved in Plan Change 7 related work:
 - Supporting planners with writing the s42a report (published March 2020)
 - Answering questions from submitters in preparation for their evidence in chief (Deadline was 17 July 2020)
 - The expectation for the next 3-6 months is that the PC7 hearing process will still involve a large commitment for the rebuttal and supplemental evidence stage due to the many submissions and evidence in chief relating to nitrate transport in groundwater and the groundwater model.

(This commitment from the Science Teams aligns with the 59 ZIPA Recommendations addressed through proposed Plan Change 7)

Groundwater Team

- Ongoing monthly baseline nitrate concentration monitoring of springs in the Silverstream area in anticipation of landuse and nitrate loss changes within the WIL command area. **(ZIPA Recs. 3.1, 3.8, 3.18, 3.19 – Reducing Nitrates: Direction of travel, nitrate limits for streams and rivers, monitoring)**
- Writing an overview memo of the Infiltration Trench Trial in South Eyre (draft due for internal review). **(ZIPA Rec. 3.24 – Reducing Nitrates: Innovation)**
- Identification of optimal location for deep well (250m to 300m) south of the Waimakariri River has started to support research of groundwater flow and nitrate transport under the river towards Christchurch. **(ZIPA Recs. 3.19 – Reducing Nitrates: monitoring)**
- Creating a model user guide for the groundwater model used to support Plan Change 7. **(the 59 ZIPA recs addressed through proposed Plan Change 7)**

Surface Water Team

- In addition to the contributions to proposed Plan Change 7, the following areas have been areas of focus for the Surface Water Team and reporting back to the Zone Committee over the last six months.
- Kaiapoi River – salinity monitoring (**ZIPA Rec. 1.4 i – Improving Stream Health: monitoring and research, Rec 4.20 – Managing surface water quantity**)
- Kaiapoi Lakes – Supporting WDC in understanding the cyanobacterial blooms occurring in these artificial lakes towards a management approach and mitigation of these blooms. (**ZIPA Rec. 1.4 c, d, and j – Improving Stream Health: monitoring and research**)
- Lake Pegasus – attending discussions on the lake condition and management (**ZIPA Rec. 1.4 e – Improving Stream Health: monitoring and research**)
- Ashley River algal blooms – overview of characteristics and management options. (**ZIPA Rec. 1.6 – Improving stream health: monitoring and research**)
- Camwell Park wetlands – investigation and assessment in conjunction with ECan Zone Delivery and WDC 3 Waters. (**ZIPA Rec 4.13 – Managing surface water quantity: review of water permits**)
- Waimakariri Flow gauging – rationale explained by Tim Davie (ECan Acting Director of Science).
- Fish passage in Kairaki Creek, Courtenay and Taranaki Streams (**ZIPA Rec. 1.21 – Improving stream health: Ngāi Tūāhuriri values and aquatic ecosystems**)

Operations

Zone Delivery Team

- Approximately 15,000 riparian plants planted in Silverstream in the last 6 months with more to be planted in spring (**ZIPA Rec. 1.26 – Improving stream health: Project support**)
- Approximately 11kms of fencing in the zone – Lees Valley and Silverstream. (**ZIPA Recs. 1.24 – Improving stream health: Ashley River/Rakahuri and Saltwater Creek catchment, 1.27 – Improving stream health: Project support**)
- Braided River Revival will address numerous Waimakariri ZIPA recommendations. It will see at least \$500,000 being spent on the Ashley-Rakahuri in the next 2 years. This programme of work is currently being developed (WDC have been informed) and work is expected to start within the next two months. (**ZIPA Recs. 1.22, 1.23, 1.24 – Improving stream health: Ashley River/Rakahuri and Saltwater Creek catchment**)
- All Immediate Steps funding was allocated for 2019/20 (\$104,500) with four Immediate Steps project applications supported in the last 6months, totalling \$60,000. (**ZIPA Rec 2.3 – Protecting and enhancing Indigenous Biodiversity: Cross-outcome recommendations**)
 - Burgess Stream Project \$10,000

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|------------------------------|----------|
| ○ Hammonds wetland project | \$10,000 |
| ○ Springvale wetland project | \$14,000 |
| ○ Auld wetlands project | \$26,000 |
-
- A new floodgate at Taranaki Stream has been installed reducing the risk of flooding and increasing fish passage. **(ZIPA Rec. 1.21 – Improving stream health: Ngāi Tūāhuriri values and aquatic ecosystems, ZIPA Rec. 1.14 – Improving stream health: Protecting and enhancing aquatic ecosystem health)**
 - Drop in sessions for farmers requiring land use consents and general advice (advertised in local papers). **(ZIPA Rec. 1.2 a and b – Improving stream health: Cross Outcomes Recommendation)**
 - Regular meetings and engagement with industry and community groups including NextGen Farming, Ashley Rivercare, DoC, and Waimakariri Lifestyle Block Association. **(ZIPA Recs. 1.2 a and b, 1.3 – Improving stream health: Cross Outcomes Recommendation)**
 - A mahinga kai workshop was held prior to lockdown, a second was postponed. **(ZIPA Rec. 1.2 c – Improving stream health: Cross Outcomes Recommendation)**
 - ECan staff working with lower Ashley/Rakahuri farmers to form a sub-catchment group to address sediment runoff/stock access to Waikuku/Little Ashley Stream. **(ZIPA Rec. 1.2 c – Improving stream health: Cross Outcomes Recommendation, ZIPA Rec. 1.21 – Improving stream health: Ngāi Tūāhuriri values and aquatic ecosystems)**
 - Woody weed control at Pines Beach completed. **(ZIPA Rec 2.3 – Protecting and enhancing Indigenous Biodiversity: Cross-outcome recommendations)**

WAIMAKARIRI DISTRICT COUNCIL**REPORT FOR INFORMATION****FILE NO and TRIM NO:** WAT-10-14 / 200526061824**REPORT TO:** Land and Water Committee**DATE OF MEETING:** 11 June 2020**FROM:** Sophie Allen – Water Environment Advisor**SUBJECT:** Zone Implementation Programme Addendum (ZIPA) projects summary 2020-21**SIGNED BY:**
(for Reports to Council,
Committees or Boards)
Department Manager
Chief Executive**1. SUMMARY**

- 1.1. This report details the proposed Waimakariri District Council capital and operational works programme for 2020-21 as developed from the Zone Implementation Programme Addendum (ZIPA)
- 1.2. The proposed 2020-21 programme includes the following Capital Expenditure projects;
 - 1.2.1. Fencing, biodiversity and amenity improvements for the South Brook at Townsend Fields and the Taranaki Stream Reserve;
 - 1.2.2. Tidal plantings within the Kaiapoi River;
 - 1.2.3. Continued work to improve inanga (whitebait) spawning habitat, located on land owned by Waimakariri District Council on the Courtenay Stream, Taranaki Stream and McIntosh Drain;
- 1.3. The proposed 2020-21 programme includes the following Operational Expenditure projects;
 - 1.3.1. A drain shading pilot on Fernside Road and Tram Road, to reduce weed cleaning by planting along drains with natives;
 - 1.3.2. Continued work to review Council drainage management, supporting the 'Maintenance and Minor Works in Waterways' consent application;
 - 1.3.3. Roll-out of an urban stormwater education programme in 2021;
 - 1.3.4. Research on incorporating climate change impacts for indigenous biodiversity management within the District;
 - 1.3.5. Ecological survey support for staff on project specific technical advice/or fieldwork;
 - 1.3.6. A repeat of the 2019 nitrate pilot study in 20 private wells in Cust and Eyreton, for trend analysis over time;
 - 1.3.7. Production of technical guidance for well owners (or potential well owners) for well depth and wellhead security;

- 1.4. There is continued provision in 2020-21 for the Ecologist – Biodiversity role and overheads.
- 1.5. A budget allocation of \$245k for 2020-21, for the ZIPA programme was provisionally approved in the Annual Plan deliberations on the 26 May 2020 from the general rate, for these proposed works. This is composed of \$50k Capital Expenditure and \$195k of Operational Expenditure.

2. **RECOMMENDATION**

THAT the Land and Water Committee:

- (a) **Receives** report No. 200526061824.
- (b) **Notes** the proposed 2020-21 Waimakariri District Council Zone Implementation Programme Addendum (ZIPA) work programme listed below of based on ZIPA recommendations;

Fencing, biodiversity and amenity improvements; tidal plantings within the Kaiapoi River; inanga spawning habitat improvements; a drain shading pilot; continued work to review Council drainage management; roll-out of an urban stormwater education programme in 2021; research on incorporating climate change impacts for indigenous biodiversity management; Ecological survey support; nitrate pilot study in 20 private wells; and production of technical guidance for well owners.
- (c) **Circulates** this report to Council, Rūnanga Liaison Group, Community Boards, the Waimakariri Water Zone Committee and Taranaki Stream Reserve Advisory Group for their information.

3. **BACKGROUND**

- 3.1 A report was presented on 29 January 2019 to Council, seeking a decision on the role of WDC in ZIPA implementation, staff resourcing, and funding of projects (refer to TRIM 181217148924). Three options were presented to Council.
- 3.2 Option A from the consultation document (called Option 2 in the Council report) was adopted by Council for the 2019-20 Annual Plan on 28 May 2019 (refer to TRIM 190501061992), with total allocation of \$305,000; an additional \$205,000 per annum for two years for 2019/20 and 2020/21 above \$100,000 per annum that was already allocated in the Long Term Plan.
- 3.3 Following the COVID-19 pandemic and related economic downturn, a reduction of the ZIPA Capex budget has been made from \$100k to \$50k for 2020-21 in the Annual Plan, and the stormwater education budget was reduced from \$20k to \$10k.

4. **ISSUES AND OPTIONS**

- 4.1. Of the \$245,000 total allocation for ZIPA implementation in 2020-21, \$50,000 is allocated to capital expenditure (CAPEX) projects (see Table 1), and \$195,000 to operational expenditure (see Table 2).

Table 1: Summary of capital expenditure for 2020-21 for the WDC ZIPA programme

CAPEX project	ZIPA recommendation	Budgeted amount
Fencing, biodiversity and amenity – South Brook at Townsend Fields and Taranaki Stream Reserve	1.26	\$30,000 (\$20,000 for South Brook and \$10,000 for Taranaki Stream)
Tidal plantings on the Kaiapoi River	1.27	\$10,000
Inanga spawning habitat improvements at Taranaki Stream and McIntosh Drain	2.11	\$10,000 (excludes an additional budget from Environment Canterbury Regional Fish Habitat Improvement Fund)
TOTAL		\$50,000

Table 2: Summary of operational expenditure for 2020-21 for the WDC ZIPA programme.

OPEX project	ZIPA recommendation	Budgeted amount
Continued review of Council drainage management	1.7	\$10,000
Continuation of a drain shading pilot, by planting along selective drains with native plants to reduce weed cleaning requirements	1.14	\$20,000
Urban stormwater education programme	1.25	\$10,000
Ecologist – Biodiversity role and overheads	2.2	\$110,000
Research on incorporating climate change impacts for indigenous biodiversity management	2.4	\$10,000
Incorporating ecological values into planning and operational works - Ecological advice and survey support for staff	2.5	\$10,000
Repeat of the 2019 nitrate pilot study in 20 private wells in Cust and Eyreton, for trend analysis over time	3.16	\$10,000
Production of technical guidance to well owners (or potential well owners) for well depth and wellhead security	3.17	\$5,000
Maintenance of Capex projects (e.g. weed control)	1.26, 2.11	\$10,000
TOTAL		\$195,000

- 4.2. The assessment criteria used to prioritise budget allocation for ZIPA Recommendation 1.14 included;
 - 4.2.1. Ecological benefits, such as stream shading and fish habitat creation or protection;
 - 4.2.2. Ability and desire to be accessed by the public;
 - 4.2.3. WDC-owned land; and
 - 4.2.4. Priority catchments as stated in the ZIPA (Cam, Kaiapoi, Taranaki, and Ashley Rakahuri catchments).

South Brook - Townsend Fields

- 4.3. The WDC-owned esplanade reserve on the South Brook beside the Townsend Fields Stormwater Management Area (see Figure 1) is recommended for continued planting with eco-sourced indigenous plants, and development of a rough surface loop path following both the north and south banks.
- 4.4. The surrounding area is undergoing development of urban housing, including the potential placement of a nearby retirement village. The area on the south side was cleared of willows

in August 2019, and therefore has bare areas suitable for planting. An initial planting of 500+ plants was carried out in 2019-20 (see Figure 2). The planting areas are suitable in terrain for community planting events to be held. Planting events were organised for autumn 2020, however were postponed due to the COVID-19 pandemic.

- 4.5. There are two bridges already in place. A further, smaller wooden footbridge could be installed in future years to allow for a rough surface loop path, (i.e. a mown grass and dirt track) to be completed.
- 4.6. Tall vegetation, mostly of exotic trees, shade the waterway, however could be selectively replaced with native species over time.
- 4.7. The loop path could be improved to a wider built-up gravel footpath suitable for wheelchairs and strollers at a later date, particularly if an esplanade reserve was created when the land is subdivided along an adjacent section of the South Brook that is currently without an esplanade reserve. That would complete the link for access to the west through to Lehman's Road. There is also potential in the future to extend biodiversity works and a path along the South Brook in the reach east of Townsend Road, to connect through to the South Brook Dog Park.



Figure 1: Indicative planting (light red areas), existing bridges (red rectangles), rough track (purple line) and potential future wooden footbridge (blue rectangle) on the South Brook, beside the Townsend Fields Stormwater Management Area.



Figure 2: Riparian planting carried out along the South Brook at Townsend Fields in 2019-20.

Taranaki Stream Reserve

- 4.8. A WDC-owned drainage reserve along the Taranaki Stream between Waikuku Beach Road and the Ashley Rakahuri River Stopbank (see Figure 3) is recommended for continued planting with eco-sourced indigenous plants.
- 4.9. In 2019-20 two culverts were installed by the Greenspace team across existing drains to provide access to the public and to enable planting. A crushed rock path and steps onto the stopbank were also installed for public access (see Figure 4). Due to COVID-19, this path has not been officially opened to the public yet.
- 4.10. The planting areas are suitable in terrain for community planting events to be held. The Woodend–Sefton Community Board together with the Greenspace team have carried out multiple plantings at the northern end of the site, together with community members from the Taranaki Stream Reserve Advisory Group. There is community interest to extend the plantings along the Taranaki Stream. WDC staff will continue to engage and involve the Taranaki Stream Reserve Advisory Group and adjacent landowners on works proposed in this report.
- 4.11. Existing Greenspace budget of \$2,000 in 2020-21 for native planting will be incorporated into the budget for the proposed works in Figure 3.
- 4.12. This reach of the Taranaki Stream is also a site for proposed for inanga spawning habitat improvements, by regrading of the true left bank.



Figure 3: Indicates the 2020-21 planting (red areas), as well as the two installed culverts (blue rectangles) and path (orange line) connecting Ashley Rakahuri River stopbank walkway to a trail along Waikuku Beach Road, installed in 2019-20. Re-grading of the true left bank is planned as part of inanga spawning area improvements.



Figure 4: A crushed rock path was installed in 2019-20 for planting access and amenity along the Taranaki Stream Reserve.

Tidal plantings on the Kaiapoi River

- 4.13. WDC staff recommend to continue intertidal planting on the margins of the Kaiapoi River, building on two previous years of successful planting. The plantings constrict flows, to increase flushing that prevent sediment build-up, and also provide fish habitat. The work is partially as earthquake recovery work, as water plant beds were lost in the 2010-2011 earthquakes or from saltwater intrusion events in the lower Kaiapoi. \$10,000 of the ZIPA budget is allocated to this intertidal planting.
- 4.14. This planting was planned for 2019-20, however due to nursery stock shortage and contractor availability followed by the COVID-19 pandemic, this work was not able to be completed in the 2019-20 year.
- 4.15. Greenspace has produced a spatial planting plan, which incorporates both terrestrial and aquatic tidal plantings. This plan takes into consideration Kaiapoi town planning, Kaiapoi Regeneration Zone planning, and Environment Canterbury priorities. Trial tidal planting in 2017 and 2018 have indicated suitable plant species and water depth. *Schoenoplectus tabernaemontani* and Raupo (*Typha orientalis*) are the two species which have been the most successful, and therefore will be used exclusively for the tidal planting in 2020-21.

Inanga spawning habitat improvements

- 4.16. Aquatic Ecology Ltd (AEL) reviewed inanga spawning sites and quality of habitat in the Waimakariri District in reports from 2017 and 2019. There are significant inanga (whitebait) spawning sites located on WDC land, which have been identified for improvements to increase spawning success.

- 4.17. Proposals for co-funding for inanga habitat improvements submitted in 2019-20 to the Regional Fish Habitat Initiative Fund available from Environment Canterbury were successful. This funding is available to be spent in the 2020-21 year.
- 4.18. Re-grading of true right bank of Taranaki Stream directly above the tidegate, followed by planting with suitable native vegetation for inanga spawning is proposed to be carried out in 2020-21 (see proposal Trim 190731107334). This was originally proposed for 2019-20, however, is waiting for the 'Maintenance and Minor Works in Waterways' resource consent to be in place to carry out the works.
- 4.19. There was removal of some gorse and willow at McIntosh Drain on the true right above the tidegate, however a re-spray is recommended in 2020-21 for regrowth. Re-grading of the true left bank above the tidegate is recommended, followed by suitable native vegetation for inanga spawning (see proposal Trim 190731107405).
- 4.20. Pampas and willows were removed in 2019-20 at Courtenay Stream on the true left above the tidegate (see proposal Trim 190802108229), with a planting planned in June 2020. This planting may be move to 2020-21 as a late carry-over due to limited capacity of contractors for planting, due to the COVID-19 delays to the planting season.

Stormwater Education

- 4.21. An urban stormwater education programme is proposed to be delivered in 2020-2021. A supplier of this programme is currently being scoped.

Fish passage projects

- 4.22. Fish passage improvements projects have been removed from the budget 2020-21 budget due to COVID-19 budget restrictions, therefore the following projects will not proceed at this stage as previously indicated:
 - 4.22.1. Modifications on the No.3 Drain outlet (along Plaskett Road) into the Cust Main Drain, to install mussel spat rope or ramp to allow indigenous fish, such as bluegill bully, to pass.
 - 4.22.2. Modifications on the Ashworth Road Drain outlet into the Cust Main Drain, to install mussel spat rope or ramp to allow indigenous fish, such as bluegill bully, to pass.
- 4.23. The Management Team have reviewed this report and support the recommendations.

5. COMMUNITY VIEWS

5.1. Groups and Organisations

- 5.1.1. Waimakariri Water Zone Committee – An update on ZIPA projects was presented at the December 2019 meeting. Quarterly reporting on ZIPA progress to the April 2020 meeting was planned, however is postponed until August 2020 due to the COVID-19 pandemic.

5.2. Wider Community

- 5.2.1. The wider community was consulted on the role of WDC and budget allocation for the ZIPA in the draft 2019-20 Annual Plan public consultation in March-April 2019. Some budgets are smaller than was indicated in the draft Annual Plan consultation for 2020-21 due to COVID-19 pandemic budget revisions.

6. IMPLICATIONS AND RISKS

6.1. Financial Implications

- 6.1.1. There are no new financial implications of this report, as budget has been already allocated for 2020-21. This report is for more detailed information of the intended projects only.

6.2. Community Implication

- 6.2.1. The community will benefit from opportunities to engage with waterway restoration (increased wellbeing and connection to the local environment), improved amenity, improved indigenous fish populations and habitat, for their intrinsic value and fishing, such as whitebaiting.

6.3. Risk Management

- 6.3.1. ZIPA projects will be reported on quarterly to the Waimakariri Water Zone Committee. ZIPA Capex spend is reported quarterly in a summary capital expenditure report to the Audit and Risk Committee. This provides information of any risk of an under or overspend.

6.4. Health and Safety

- 6.4.1. The ZIPA projects for 2020-21 are contingent on no return to Level 3 or 4 of COVID-19 response. Projects would be able to proceed under Level 2.

7. CONTEXT

7.1. Policy

- 7.1.1. This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. Legislation

- 7.2.1. Resource Management Act (1991). Consent to undertake works within the bed of a river, lake or wetland may require resource consent, unless permitted under the Canterbury Land and Water Regional Plan. All capital expenditure works requiring consent are anticipated to be covered by a 'Maintenance and Minor Works in Waterways' global consent that WDC has lodged with Environment Canterbury.

7.3. Community Outcomes

- 7.3.1. There is a healthy and sustainable environment for all
- Harm to the environment from the impacts of land use, use of water resources and air emissions is minimised.
 - Cultural values relating to water are acknowledged and respected.
 - The demand for water is kept to a sustainable level.
 - Harm to the environment from the spread of contaminants into ground water and surface water is minimised.
- 7.3.2. There are areas of significant indigenous vegetation and habitats for indigenous fauna
- Conservation and restoration of significant areas of vegetation and/or habitats is encouraged.

7.3.3. Public spaces and facilities are plentiful, accessible and high quality

- People enjoy clean water at our beaches, rivers and lakes.
- There is a wide variety of public places and spaces to meet people's needs.
- There are wide-ranging opportunities for people to enjoy the outdoors.

7.4. **Delegations**

7.4.1. No delegations apply to this report. It is a report for information only.

AGENDA ITEM NO: 4	SUBJECT: WWZC ZIPA Priority Setting – Workshop Review	
REPORT TO: Waimakariri Water Zone Committee		MEETING DATE: 3 August 2020
REPORT BY: Murray Griffin – CWMS Facilitator, Waimakariri		

PROPOSAL

Having provided feedback on the ZIPA recommendations in 2019, this workshop will provide the committee with time to review those earlier proposed priorities. The workshop will focus on two areas of discussion:

- 1) A review of the committee's previous ZIPA recommendation priority setting.
- 2) An initial confirmation of priorities that could be advanced as recommendations for inclusion the Environment Canterbury 2021-31 Long Term Plan.

CONTENT

A summary of the previous ZIPA recommendation priority setting exercise will be provided for the committee in advance of this workshop.

RECOMMENDATION

That the Zone Committee:

- **Review** its previous ZIPA recommendation priority setting exercise.
- **Confirm** any agreed ZIPA priorities be advanced as recommendations for inclusion the Environment Canterbury 2021-31 Long Term Plan.
- **Confirm** a preferred date, time and method for further review and priority setting on ZIPA recommendations, if required.

AGENDA ITEM NO: 5	SUBJECT: Committee Updates
REPORT TO: Waimakariri Water Zone Committee	MEETING DATE: 3 August 2020
REPORT BY: Murray Griffin, CWMS Facilitator – Waimakariri, ECan	

PROPOSAL

This agenda item provides information on topics of relevance to this committee, and updates on items from previous committee meetings.

RECOMMENDATION

That the Zone Committee:

Receives these updates for its information, and with reference to the committee's 2020 work programme and community engagement priorities.

COMMITTEE UPDATES

The following items are tabled for the committee:

1. Proposed Plan Change 7 (Waimakariri)

Proposed Plan Change 7 (of the Canterbury Land and Water Regional Plan) has been developed to respond to emerging resource management issues, to give effect to relevant national direction, to implement recommendations from the Hinds Drains' Working Party, and to implement recommendations in the Waimakariri and Orari-Temuka-Opihi-Pareora (OTOP) Zone Implementation Programme Addenda (ZIPA).

The Independent Hearing Panel has indicated it is hopeful a hearing will begin in late September / Early October but have not yet announced a timetable for the hearing.

Evidence in Chief was exchanged on 17 July. Expert caucusing will occur through the month of August. Rebuttal Evidence is to be lodged by 18 September.

For more information, go to:

<https://ecan.govt.nz/your-region/plans-strategies-and-bylaws/canterbury-land-and-water-regional-plan/change-7/>

2. Waimakariri Water Zone Committee – Communications

Environment Canterbury answered two sets of questions from Stuff relating to Courtenay Stream, the first on 30 June. A local person contacted the media

outlet, claiming: "There is an ongoing problem with pollution of the Courtney Stream from a large transport company close to the north side of the old highway bridge over the Waimakariri River. It was first observed on August 5th 2018 and reported to the ECan hotline for action. Did the compliance team at ECan contact the company and if so did they follow up in any meaningful way to get full compliance?"

ECan response: "There are a number of industries in the area. The land is owned by W W Keighley & Co Ltd and there is a stormwater system entering the stream. This is fully consented [CRC101618]. The owner and lessees of the land have consents to discharge to the stream. One of those industries is a transport company, Steve Murphy Ltd, which has consent to discharge contaminant on to land to water [CRC081402]. The company has been visited to assess compliance with this consent. At the last visit, in late 2018, it was fully compliant with its consent. It used low chemical washes to wash its trucks. We do not believe there is an ongoing problem with pollution in Courtney Stream. Our environmental water quality site is downstream of the site, and previous sampling does not indicate anything of note compared with other Waimakariri lowland streams. However, we have not sampled for contaminants specifically related to these types of activities (detergents). The compliance team has visited the company, as described above, and there were no compliance issues. We are due to visit it again shortly."

And another inquiry on 21 July asking about ECan follow-up:

ECan response: "We have visited the site again this month. Two main consents remain active – the first for the truck wash and the second for discharge to stormwater, which covers the entire site and discharges into Courtenay Stream. The truck company uses a biodegradable cleaning agent known as ct-18, which is specified in the consent. The truck wash consent was monitored as being compliant. The stormwater consent was also monitored. Sediment-laden water was seen discharging into the stream due to the gravel hard stand area covering much of the yard and recent rainfall. The landowner is looking at ways to trap the sediment before reaching the stream and is committed to resolving this issue. Environment Canterbury staff will continue to monitor the site and work closely with the landowner to achieve a resolution."

3. CWMS Regional Committee

The last CWMS Regional Committee meeting was held on Tuesday 11 February 2020 and it has not met since. The CWMS Regional Committee is aiming to reconvene in July. Carolyne Latham will update the committee on the regional committee reconvening.

The link to the CWMS Regional Committee meeting papers is provided below:

<https://ecan.govt.nz/data/document-library/?Search=regional+water+management+committee%2C+agenda&documentTypes=-1&pageSize=12&start=1&sortDir=desc>

4. Action Points from 6 July meeting

4.1 Investigation into the automation of the Cam River Floodgate (ECan) –

An update on this investigation will be provided to the committee when it is suitably advanced.

4.2 Monitoring of the Kaiapoi River (ECan) – As an initial follow up to the request from the 6 July meeting for monitoring data on the ecological value, the following monitoring data is referred to the committee from the LAWA website (Land, Air, Water Aotearoa).

Please refer to the following link for monitoring data collected at 4 sites on the Kaiapoi River: <https://www.lawa.org.nz/search?argument=Kaiapoi+River+>

- **Kaiapoi River at Island Road – water quality data** at this site over a 5,10, and 15-year trends for: bacteria, clarity, nitrogen, and phosphorus.
- **Kaiapoi River at Boat Ramp** – updates ‘can I swim here?’
- **Kaiapoi River at Harpers Road – water quality data** at this site over a 5,10, and 15-year trends for: bacteria, clarity, nitrogen, and phosphorus. **Ecological data** shows the results from macroinvertebrate sampling at this site. It displays three ecological indicators: macroinvertebrate community index, taxonomic richness, and percent EPT (*EPT are macroinvertebrates that are sensitive to water pollution. These are Ephemeroptera (mayfly), Plecoptera (stonefly) and Trichoptera (caddisfly).*
- **Kaiapoi River at Heywards Road – Ecological data** shows the results from macroinvertebrate sampling at this site. It displays three ecological indicators: macroinvertebrate community index, taxonomic richness, and percent EPT.

4.3 NPS for Freshwater Management 2020 (ECan) – The Government release / gazetting of the NPS for Freshwater is imminent, but presently we don’t have a confirmed release date.

4.4 Effluent discharge into the Waimakariri River (ECan) – This issue has been passed onto the Christchurch/West Melton monitoring team who have included it in their regular monitoring.

4.5 CCC Styx River monitoring information – Having noted the regular interest in the Pūharakekenui Styx River at Waimakariri Water Zone Committee, although this water body is outside of the Waimakariri Zone, Diane Shelander (CCC Senior Policy Analyst/Environmental Scientist) has provided the following information.

Assuming that the zone committee, and other members of the public, have an interest in Pūharakekenui Styx River they may wish to know about the routine water monitoring that the City Council undertakes. The City Council has a

surface water quality monitoring programme, about which annual reports are prepared. These reports are publicly accessible on the City Council's web site here: <https://ccc.govt.nz/environment/water/waterways/waterway-monitoring/>

A draft report for 2019 has been completed, with a final version available in the near future.

MINUTES OF THE MEETING OF THE CANTERBURY WATER MANAGEMENT STRATEGY WAIMAKARIRI ZONE COMMITTEE HELD IN THE WAIMAKARIRI DISTRICT COUNCIL CHAMBERS, 215 HIGH STREET, RANGIORA ON MONDAY 6 JULY 2020 AT 3:30PM.

PRESENT

Michael Blackwell (Chairperson), Cameron Henderson (Deputy Chairperson), Dave Ashby, Carlyne Latham, Judith Roper-Lindsay, John Cooke (Te Ngāi Tūāhuriri Rūnanga representative), and Megan Hands (ECan Councillor).

IN ATTENDANCE

Councillor P Redmond (Councillor Waimakariri District Council), B Stokes (Farmer), J Larsen (Farmer), L Pocock (Oxford Farmers Market), M Bate (Kaiapoi Resident), D Shelander (Christchurch City Council), H Zenos (Lincoln University)

G Cleary (WDC Manager Utilities and Roading), S Allen (WDC Water Environment Advisor), K Steel (WDC Ecologist-Biodiversity), A Arps (ECan Zone Manager), A Meredith (ECan Principal Water Quality & Ecology Scientist), A Kreleger (ECan Senior Groundwater Scientist), A McLeod (ECan Senior Communications Advisor), S Bragg (ECan CWMS Tangata Whenua Facilitator), M Griffin (ECan CWMS Facilitator) and T Kunkel (WDC Governance Team Leader).

1 BUSINESS

1.1 Apologies

Apologies were received and sustained from Councillor Sandra Stewart, Erin Harvie, Wendy Main, and Arapata Reuben for absence.

CARRIED

1.3 Welcome and Introductions

The Chairperson welcomed all the members present. He requested the CWMS Waimakariri Zone Committee members, and attendees to introduce themselves to the members of the public that may be listening.

1.4 Register of Interests

No changes or updates were made.

2 OPPORTUNITY FOR THE PUBLIC TO SPEAK

2.1 M Bate – Kaiapoi Resident

M Bate showed photos taken of various rivers within the Waimakariri district. He stated that parts of the Kaiapoi River seemed to be recovering after the Covid-19 lockdown as there were black swans and Canadian geese spotted at the river behind Kaiapoi Borough School. The Styx River also seemed to be recovering, and it was encouraging to see whitebait present in the clear water. M Bate expressed concerns about the aquatic health of the Waimakariri River and the Cust Main Drain. He stated that the native species would not be able to breed in these environments.

M Bate stated that he had a major concern about the sediment collection at the site effluent from Christchurch Ready Mix Concrete was spilling into the Waimakariri River. He suggested that Christchurch Ready Mix Concrete should be requested to construct a drainage pond to settle any sediment before it flowed into the Waimakariri River.

C Henderson enquired as to how often the effluent from Christchurch Ready Mix Concrete spilled into the Waimakariri River. As this information was not available, ECan was requested to investigate and report back to the CWMS Waimakariri Zone Committee.

With regard to the Kaiapoi Lakes, M Bate advised the algae was still present in the lakes, but not at such a high concentration. There were however dead rushes on the side of the lake, and fishing seemed to be depleted. It was still his opinion that the lack of aquatic life in the lakes was caused by chemicals. To ensure the future health of the Kaiapoi Lakes, the growth of aquatic weed needed to be encouraged. If the aquatic weeds required management, they should be cut and removed for the lake.

S Allen advised that the Council and ECan had both confirmed they had not used pesticides to control the vegetation at the Kaiapoi Lakes. L Pocock enquired if the lack of aquatic life could be due to pesticides from historic sprayings being captured in sediments on the lakebed.

In response, A Meredith advised that the die-off of aquatic life in waterways could be contributed to by various factors such as an increase in nitrates, sediments and salinification. None of the factors could be identified as the sole cause of the lack of aquatic life. He stated that he was glad to see the health of the weed beds in the Kaiapoi River improving.

A Meredith also advised that ECan was currently unable to retrieve the data from the data loggers in the Kaiapoi River and would, therefore, report on this matter at a later date. ECan was however continuing the salinity monitoring in the river.

M Bate enquired why the Cam River Floodgates could not be lowered to allow weeds to grow naturally. A Meredith explained that ECan was currently conducting investigations into the automation of the Cam River Floodgate to become a tide gate and to limit saline intrusion into the lower Cam River. However, this was an extensive process that required detail engineering designs, various resource consents and permissions, as well as consultation with all interested parties. The project specifics would be brought to the CWMS Waimakariri Zone Committee for consideration at a later date.

J Roper-Lindsay advised that when the CWMS Waimakariri Zone Committee published the Zone Implementation Programme Addendum (ZIPA) it requested that the ecological health and fauna and flora of various waterways be regularly monitored, including the Kaiapoi River. She requested that the CWMS Waimakariri Zone Committee be provided with an update on the monitoring of the Kaiapoi River.

3 KAIAPOI LAKES UPDATE – S ALLEN (WDC) AND A MEREDITH (ECAN)

S Allen and A Meredith briefed the CWMS Waimakariri Zone Committee on the follow-up work done by the Council and ECan staff with regard to nutrient management at the Kaiapoi Lakes. They highlighted the following issues:

- Brief history of the management of the public own lakes in Kaiapoi;
- Cyanobacterial blooms;
- Council lakes on the western side of the road;
- The Lakes Subdivision;
- Council lakes on the eastern side of road;
- Thermal stratification and aeration.

J Cooke enquired if the Cyanobacteria could be filtered or vacuumed off from the lakes. A Meredith explained that Cyanobacteria was a very fine cellular organism, and would, therefore, be difficult to filter-off. Hence it was better to stop the Cyanobacteria from blooming by good management of the lakes, rather than dealing with the bloom afterwards.

J Roper-Lindsay asked if the Kaiapoi Lakes were cutting into the groundwater. A Meredith confirmed that some of the lakes, such as the subdivision lakes which were deeper, were cutting into the groundwater. He added that due to the Kaiapoi Lakes being created from mining activity when the northern motorway was built, some of the pea gravel and grit sediments were still being found in the lakes. Some carbon rich water was also found in the lakes. S Allen advised that the main problem could also be phosphorous being held by the sediments that was being released due to the lack of oxygen in the water.

J Roper-Lindsay enquired what the Council's overall aim was with the management of the lakes. A Meredith advised that the lakes were Council assets being managed as parks for human enjoyment.

Moved: C Henderson

Seconded: J Roper-Lindsay

THAT the CWMS Waimakariri Zone Committee:

- (a) **Receives** this update for its information and supporting the committee's sub-catchment

CARRIED

4 ASHLEY RAKAHURI COASTAL STREAMS UPDATE – M GRIFFIN (CWMS FACILITATOR, WAIMAKARIRI)

M Griffin advised that over the Covid-19 lockdown ECan and the Council staff had reviewed information on the streams in the coastal Rakahuri Sub-catchment. A summary pack of the information previously provided to the CWMS Waimakariri Zone Committee was distributed to members. The summary pack included the following:

- Living Streams Programme – Taranaki Creek, Waikuku Stream, Little Ashley Stream Catchment Report (2003);
- Ecological Assessments for Minimum flows of spring fed tributaries of the Lower Ashley River/Rakahuri (2017);
- Waimakariri ZIPA recommendations;
- Waimakariri ZIPA engagement;
- Ashley Floodplain Maps
- Area in Taranaki / Little Ashley / Waikuku catchments currently requiring Farming Land Use Consents Maps;
- Proposed Coastal Protection Zone (PC7) Maps;
- Mahaanui Iwi Management Plan – Rakahuri Chapter
- Minutes from the Coastal Drainage Advisory Group and Woodend Pegasus Community Board.

C Henderson enquired what the properties in the Taranaki / Little Ashley / Waikuku catchments area currently required Farming Land Use consents for. A Meredith stated within the coastal protection zones, if a farm was beyond a certain size it required a consent to farm.

With regards to the concerns about Pegasus Lake, G Cleary reported that the ownership of Pegasus Lake was still vested with the township owner. Hence the ownership had changed hands a few times in the last years. The lake was currently not in compliance with its ECan consents and an abatement notice was, therefore, issued on 7 March 2019 due to the persistent seasonal stratification of the lake and persistent seasonal algal blooms.

G Cleary further advised that the water quality of the lake was being monitored by technical experts (Golders) engaged by the previous township owners and now by the new owners, Templeton Group. Generally, the water quality of the lake had been degrading over time, primarily due to the increasing nutrients in the lake. He added

that the Mayor and the Council's Chief Executive would be attending a public meeting being held on 8 July 2020 by the Templeton Group to discuss the issues with the lake. It was envisaged that the ownership of the lake would eventually vest with the Council. However, the Council would not accept vesting of the lake until it achieves compliance with its resource consents.

S Allen advised that after reviewing all the above-mentioned documentation the following gaps were identified:

- There were various knowledge gaps, including not knowing the extent of the invasive fish population in the Taranaki Stream. A Meredith explained that the seals on the old Taranaki Floodgate were broken and a new floodgate was, therefore, designed and installed. The new floodgate included a fish passage facility, similar to a 'window'. ECan was currently monitoring the new floodgate to ascertain the effect of a new floodgate that sealed properly, before it would be opening the 'fish-window'. ECan would continue to monitor the 'fish-window' once it was opened.
- Understanding and respect of cultural history associated with these local waterways.
- Need to establish which structure, such as an informal catchment group, formal trust, or society would be best to run the programme.
- Prioritisation – of projects and funding alignment (e.g. aligning with Long Term Plan processes and Central Government funds).

S Allen stated that staff was recommending a QBL Approach, i.e. Environment, Cultural, Social, and Economic going forward. Firstly, the structure of the management of the work programme needed to be determined. Then a formal recommendation on structure would be obtained from the CWMS Waimakariri Zone Committee, followed by prioritisation and projects ideas. It is suggested that the Coastal Rakahuri Discussion Group be reconvened to discuss the structure to manage the work programme. It was also suggested that that Ngāi Tūāhuriri values field trips be undertaken in September/October 2020.

J Roper-Lindsay stated that at previous briefings it was indicated that individual landowners were keen to do things their own way on their own land, and the proposed programme seemed very prescriptive. S Allen advised that it was envisaged that an inclusive approach would be followed where various parties, including landowners, worked together.

A Arps explained that a successful catchment base approach seemed to be "informed from the grass roots up". A process, therefore, needed to be developed that would ensure that the existing information reaches the people on the ground, without it being perceived as being "authoritarian" or prescriptive.

C Henderson suggested that, instead of focusing on the proposed structure, the Council and ECan should concentrate on the projects that have already been identified and could be actioned immediately. C Latham agreed and stated that the Council and the ECan should concentrate on projects on public land.

D Ashby advised that extensive work had already been done by landowners and the Council and ECan, therefore, needed to focus on filling in the gaps. The gap identified was that the Council, ECan and the landowners needed knowledge of the cultural history of the local waterways and mahinga kai. The CWMS Waimakariri Zone Committee, the landowners, and the people doing the audits for the Farm Environmental Plans also needed to be educated on mahinga kai. D Ashby stressed that there was no need for additional plans, the Council and ECan just needed to secure funding and action existing plans. In conclusion, D Ashby provided an update about his and ECan's meetings with landowners in the coastal Rakahuri catchment area.

Subsequent to discussion, it was agreed that the way forward would be workshopped at the next CWMS Waimakariri Zone Committee meeting.

Moved: J Roper-Lindsay

Seconded: C Henderson

THAT the CWMS Waimakariri Zone Committee:

- (a) **Receives** this update for its information and supporting the Committee's sub-catchment engagement and action planning in the coastal Rakahuri.

CARRIED

5 LAND AND WATER COMMITTEE UPDATE – M GRIFFIN (CWMS FACILITATOR, WAIMAKARIRI)

5.1 Proposed Plan Change 7 (Waimakariri)

M Griffin reported that the dates for the hearings on the proposed Plan Change 7 of the Canterbury Land and Water Regional Plan had not yet been set. The Independent Hearing Panel had however indicated the hearings would begin in late September / early October 2020.

5.2 Waimakariri Water Zone Committee – Communications

No discussion emanated from this item.

5.3 Increasing nitrate-nitrogen trends in Christchurch wells

In response to questions from C Latham, A Kreleger advised that there were three locations that had deep wells at various levels. One location north of the river and two to the south of the river that were instated in 2018. These wells had not been included in the analysis as there needed to be a minimum number of samples taken from a well to be included in the trends analysis. She added ECan was also investigating the possibility of sinking a deeper bore to approximate 300m, to gain better information.

5.4. Immediate Steps Biodiversity Funding Approach

No discussion emanated from this item.

5.5 CWMS Regional Committee

The last CWMS Regional Committee meeting was held on Tuesday 11 February 2020 and it has not met since. It was anticipated that the CWMS Regional Committee would reconvene in July 2020.

5.6. CWMS Zone Committee Review – June update and survey analysis report

No discussion emanated from this item.

5.7 Letter from Mr Craig McIntosh

M Griffin responded to a previous letter received from Mr McIntosh and would also respond to the current letter received by the Chairperson.

Moved: C Latham

Seconded: D Ashby

THAT the CWMS Waimakariri Zone Committee:

- (a) **Receives** these updates for its information, and with reference to the Committee's 2020 Work Programme and Community Engagement priorities.

CARRIED

6 CONFIRMATION OF MINUTES

6.1 Minutes of the Canterbury Water Management Strategy Waimakariri Zone Committee meeting – 8 June 2020

Moved: D Ashby

Seconded: J Cook

THAT the CWMS Waimakariri Zone Committee:

- (a) **Confirms** the amended Minutes of the Canterbury Water Management Strategy Waimakariri Zone Committee meeting, held on 8 June 2020, as a true and accurate record.

CARRIED

6.2 Matters Arising

None

7 GENERAL BUSINESS

7.1 ECan Long Term Plan

Councillor M Hands advised that ECan's Council had started its Long Term Plan process, and she would keep the CWMS Waimakariri Zone Committee updated. She also reported that the Coastal Plan was funded as part of ECan's 2020/21 Annual Plan.

7.2 The new National Policy Statement for Freshwater Management 2020

C Henderson requested that the CWMS Waimakariri Zone Committee be updated on the NPS for Freshwater Management 2020 at the next meeting.

KARAKIA

S Bragg provided the karakia to close the meeting.

NEXT MEETING

The next meeting of the CWMS Waimakariri Water Zone Committee was scheduled for the 3 August 2020 at 3:30pm.

Chairperson

Date