

## Waituna Lagoon - Draft Living Activity Plan

Mana oranga; Mana tangata; Mana ki uta; Mana ki tai; Mana Waituna - Ensuring the wellbeing of the people, the land, the waters and the life-force of the Waituna

*All ideas are good, and all ideas mixed together will produce magnificent ideas*

*Respect each other and our values. Have trust in each other and a willingness to forgive, and accept each others point of view even if it differs.*

DairyNZ; Department of Conservation (DOC); Environment Southland; Fonterra; iwi; Living Water (DOC-Fonterra Partnership); Southland District Council (SDC)

Area No.	Areas/Topics	Activity No.	Activity	Lead	Others Involved	Date Start	Date Due	Funding
<b>A: On-Farm</b>								
1	Farm Management Practices	a	ES provision of advice and assistance on the sustainable management of water and land resources e.g. riparian management (fencing and planting, bank rebattering, drain maintenance) plans, shelter plans, effluent and nutrient management, silage pits/leachate, soil health, biodiversity, winter grazing, land use change, critical source areas, wetland creation/restoration	Katrina Robertson				ES
		b	Pilot focus farm plans, part of Land and Water 2020. Will identify where winter grazing occurring, critical source areas, riparian fencing and planting, nutrient management and other issues	Katrina Robertson			Done	ES
		c	Advice on winter grazing, riparian management	DairyNZ		Jan-14	Jun-15	
		d	Implementation of riparian planting, stock access control etc	Individual farmers	Katrina Robertson, Cain Duncan			ES, Fonterra
		e	Development of matrix of good management practices	DairyNZ, Environment Canterbury	Other Councils, DairyNZ, other industry bodies		Oct-16	DairyNZ, ECan, ES
		f	Understand nutrient load from the catchment	DairyNZ (David Burger)		Aug-14	May-15	DairyNZ
		g	Pasture trials for P loss	Living Water (John McCarroll and Nicola Toki)	AgResearch	Jul-14	?	Living Water
		h	Implement nutrient management practices on farm	Individual farmers	Katrina Robertson			ES
		i	Identification of existing wetlands on private land (should this be under catchment?)	Living Water -John and Nic; Katrina ES	Sarah (DOC) & Katrina (ES)	Jul-14	Oct-14	Living Water
		j	Identification of ecosystem services and values of wetlands	John & Nic (Living Water)		15		DOC

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		k	Protection of existing wetlands and indigenous vegetation	Individual farmers, <a href="#">Katrina Robertson</a> , <a href="#">Sarah &amp; John (DOC-Arawai Kakariki &amp; Living Water)</a> & <a href="#">Nic (Living Water)</a>	Graeme Watson, Brian Rance	Jul-14	Ongoing	<a href="#">ES</a> , <a href="#">QEII</a> , <a href="#">DOC (AK)</a> & <a href="#">Living Water</a>
		l	Tile drain interception passive filters (one in the north of the catchment for N and one in the south of the catchment for P)	DairyNZ, <a href="#">John &amp; Nic (Living Water)</a> , <a href="#">ES</a>	<a href="#">ES</a> & NIWA	Jul-14	Ongoing	<a href="#">Living Water</a>
		m	Restoration & riparian planting	Individual farmers	<a href="#">ES</a> , <a href="#">DOC (AK)</a> , <a href="#">Living Water</a> , Waituna Landcare Group (WLG), Gorge Road School, locals	Ongoing	Ongoing	<a href="#">ES</a> , <a href="#">DOC</a> , <a href="#">Living Water</a> and Waituna Landcare Group
		n	Economic modelling of impact of farm management changes	DairyNZ		Aug-13	Mar-15	DairyNZ
		o	Socio-economic study impact of farm management changes	DairyNZ		Aug-13	Mar-15	DairyNZ
2	Statutory Regulations	a	Regional and District plan provision to facilitate nutrient management	<a href="#">ES</a> or <a href="#">SDC</a>				
		b	Further rules in Regional or District Plans to control nutrient loads to Lagoon	<a href="#">ES</a> or <a href="#">SDC</a>				
		c	Impact of current changes in RPS and Plan in progress, including dairy conversions, effluent systems, protection of biodiversity including wetlands etc	<a href="#">ES</a> or <a href="#">SDC</a>				
		d	Water & Land 2020 & Beyond - prevent any further decline in water quality and help the community to achieve its goals for water	<a href="#">ES</a>			2020+	
		e	Southland Murihiku Conservation Management Strategy 2014-2024	<a href="#">John</a>		Underway	?	<a href="#">DOC</a>
3	Water Accord Implementation	a	Water Accord good nutrient management	DairyNZ and <a href="#">Cain Duncan</a>				DairyNZ, <a href="#">Fonterra</a>

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		b	Supply Fonterra	Cain Duncan		Ongoing	Ongoing	Fonterra
		c	Sustainable Dairying: Water Accord preferred riparian management	DairyNZ and Cain Duncan				DairyNZ, Fonterra
<b>B: Catchment and Sub-Catchment</b>								
1	Stream bank reconstruction programme	a	Confirmation of final site for stream bank reconstruction and agreement of landowners	Katrina Robertson			31-Aug-14	MFE FSFWCUF Funding and ES
		b	Design of works at site	Noel Hinton, Joe Chisholm			31-Aug-14	MFE FSFWCUF Funding and ES
		c	Preparation and lodgment of application for variation to conditions of resource consent	Melissa Shipman (MWH Planner)	Rima Krause (MWH project support to ES), Warren Tuckey, Katrina Robertson	10-Jun-14	31-Aug-14	MFE FSFWCUF Funding and ES
		d	Construction	Noel Hinton, Joe Chisholm		1-Sep-14	28-Nov-14	MFE FSFWCUF Funding and ES
		e	Monitoring of effect	Roger Hodson	Chris Owen	1-Feb-14	15-Aug-14	ES
		f	Monitoring of effectiveness via eel habitat study	Living Water	Cawthron Institute and locals	1-Jun-14	?	Living Water
		g	Field day for bank reconstruction and constructed wetland	Katrina Robertson, DairyNZ	Living Water		November	ES, DairyNZ
		h	Ecological monitoring of the effectiveness of restoration on instream health: Waituna Creek before and after reconstruction work.	DOC (AK)	Cawthron Institute	1-Mar-14	1-Jun-15	DOC (AK)
		i	Waituna Creek restoration - develop restoration plan - to include fencing, planting, access, recreation and habitat improvement projects	DOC (AK)	Living Water	1-Sep-14	30-Jun-15	DOC (AK)
2	Constructed Wetlands	a	Constructed wetland on Kapuka Dairies - Ministry for the Environment Fresh Start for Freshwater Clean-up Fund (MFE FSFWCUF)	Katrina Robertson, Joe Chisholm, Warren Tuckey	NIWA			MFE FSFWCUF Funding, ES

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		b	Constructed wetland on Inglenook farm - MFE FSFUCUF	Katrina Robertson, Joe Chisholm, Warren Tuckey	NIWA, David Burger & Living Water			MFE FSFUCUF Funding, ES, DairyNZ, Living Water
		c	Constructed wetland feasibility study Phase 2	DairyNZ, ES	NIWA	1-May-14	1-Mar-15	DairyNZ
		d	Research on adding on to existing wetlands to achieve enhanced WQ effects as well as biodiversity	Nicola Toki				Living Water
3	Dairy NZ Action Plan	a	Water quality catchment modeling	DairyNZ (David Burger)			Complete	DairyNZ
4	Monitoring	a	Flow and water quality monitoring of streams in catchment at SOE sites	ES				ES
		b	Groundwater monitoring	ES				ES
5	Drainage outfall	a	Opening Waituna Lagoon for drainage of catchment	Lake Waituna Control Association	ES, DOC, iwi			Lake Waituna Control Association
		b	Maintaining drainage in Waituna Creek and its tributaries	Catchment Division	Waituna Liaison Committee			ES
6	Consents/Compliance	a	Processing and monitoring consents, and permitted activities	ES, SDC, DOC				ES, SDC, DOC
7	Spillway options	a	Investigate potential spillway options on Waituna Creek - Scoping Report	DOC (AK)	Landowners	1-Sep-14	Jun-15	DOC (AK)

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8	Craws Creek Restoration	a	Implement the Craws Creek Restoration Plan	DOC (AK)	Concessionaire	Jun-14	Jun-15	DOC (AK)
9	Weed control	a	Extensive weed control and surveillance programme on public conservation land	DOC (AK)	Contractors & locals	Jun-14	Jun-15	DOC (AK)
		b	Review of weed control work on public conservation land	DOC (AK)		Jun-14	Jun-15	DOC (AK)
		c	Write Awarua-Waituna Weed Control Strategy	DOC (AK)		Jun-14	Jun-15	DOC (AK)
10	Animal pest control programme	a	Extensive pest animal control and surveillance programme on public conservation land	DOC (AK)	Contractors & locals	Jun-14	Jun-15	DOC (AK)
		b	Review of pest animal control work on public conservation land	DOC (AK)		Jun-14	Jun-15	DOC (AK)
		c	Write Awarua-Waituna Animal Pest Management Strategy	DOC (AK)		Jun-14	Jun-15	DOC (AK)
11	Land Status Review	a	Scope out a review of the land status of public conservation land in the Awarua-Waituna Biological Management Unit	DOC (AK)	Ngai Tahu	1-Sep-14	Jun-15	DOC (AK)
12	Research	a	Restoration of Awarua Peatlands - response to drain filling	DOC (AK)		1-Oct-14	Jun-15	DOC (AK)
		b	PhD Native forest regeneration and succession in Awarua Waituna Wetlands	DOC (AK)	Olivia Burge (Uni of Canturbury)	1-Jun-14	Jun-15	DOC (AK)

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		c	Asaphodes frivola (moth) - Research?	DOC(AK)	Contractor	1-Dec-14	Jun-15	Arawai Kakariki (DOC)
		d	Support Dairy NZ with hydrology of lower flood plains research	DOC (AK)	David Burger?			
13	Fencing	a	Visit all boundary fences within the Biological Management Unit and write a Fencing Plan for maintenance over the next 25 years	DOC (AK)		Jun-14	Jun-15	DOC (AK)
14	Hydrological Model report	a	Collate available information from various sources to look at water flow, water levels and identify gaps and priority areas for protection and restoration of wetland areas on private land.	Living Water	ES, DOC (AK), NIWA			Living Water
15	Fragmented Wetland mapping	a	Map fragmented wetlands on private land. Identify and prioritise wetland fragments for enhancement/protection and connection.	Living Water				
16	Tuna Habitat assessment	a	Tuna Habitat assesment-Identify suitable habitat for Tuna within Waituna, Moffat and Carran Creeks	Living Water	Cawthron, private landowners, Ngai Tahu			
17	Habitat mapping	a	Habitat mapping- Assessment of riparian planting and impacts on water quality within main water tributaries in catchment	Living Water	Cawthron, private landowners, Ngai Tahu			Living Water
<b>C: Lagoon</b>								
1	Multi-objective lagoon opening / closing regime	a	Prefeasibility investigation about diverting the lagoon to the Mataura River	Warren Tuckey				ES
		b	Prefeasibility engineering scoping of how and where to open/close Lagoon	Warren Tuckey, David Burger, Katrina Robertson, Sue Bennett (MWH project support to ES)	David Burger			Funding from ES, MFE FSFUCF, DairyNZ
		c	Detailed design of future lagoon opening and closing ??					
		d	Resource consent for Lagoon opening/closing	?	Murray Waghorn, Lake Waituna Control Association, ES, DOC, Ngai Tahu			????



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2	Cultural opportunities mapping and iwi reconnection	a	Cultural Opportunities mapping and iwi reconnection - Mapping in GIS system of place names, mahinga kai and assoicaetd histories	Dean Whaanga and Cathy Begley		Ongoing	Jun-15	TAMI, DOC (AK) & Living Water
<b>E: Reporting</b>								
1	Strategy, Action Plan and Activity Plan	a	Strategy and Action Plan	Waituna Working Group				Waituna Partners Group
		b	Activity Plan	Sue Bennett	Rima Krause	Ongoing	Ongoing	ES
2	Fresh Start for Fresh Water Clean-up Fund Reporting	a	Annual Plan for 2014/15	Katrina Robertson	Rima Krause	1-Jun-14	1-Jul-14	MFE FSFWCUF and ES funding
		b	Annual Report for 2013/14	Katrina Robertson	Rima Krause	1-Jul-14	30-Sep-14	MFE FSFWCUF and ES funding
		c	Quarterly Report for period to 30 September 2014	Katrina Robertson	Rima Krause	1-Oct-14	31-Oct-14	MFE FSFWCUF and ES funding
		d	Quarterly Report for period to 31 December 2014	Katrina Robertson	Rima Krause	1-Jan-15	31-Jan-15	MFE FSFWCUF and ES funding
		e	Quarterly Report for period to 31 March 2015	Katrina Robertson	Rima Krause	1-Apr-15	30-Apr-15	MFE FSFWCUF and ES funding
		f	Annual Report for 2014/15	Katrina Robertson	Rima Krause	1-Jul-15	30-Sep-15	MFE FSFWCUF and ES funding
3	Arawai Kakariki	a	Outcome Report 2007-2011	Sarah Thorne		1-Jun-14	31-Jan-15	DOC (AK)
		b	Five Year Strategic Plan	Sarah Thorne		1-Jun-14	31-Jan-15	DOC (AK)
		c	2014/15 Report cards	Mary Beech (DOC)	Sarah Thorne	1-Jan-15	31 June 2015	DOC (AK)
4	Living Water	a	Monitoring and data handling plan					
		b	Communication and engageement plan					
		c	3 Year Strategic Plan					
5	Ramsar	a	Ramsar Information Sheet 2014	DOC (AK)		1-Jun-14	31-Dec-14	DOC (AK)
		b	Ramsar international report	DOC		1-Jun-14	31 June 2015	DOC
		c	Notification of ecological change of site	DOC		1-Jun-14	31 June 2015	DOC
<b>F: Working and Partners Groups</b>								
1	Waituna Catchment Group	a	Meetings as required for members to update each other on their activities	Katrina Robertson	Warren Tuckey, Rob Phillips, Ali Timms			ES
2	Waituna Working Group	a	Provide support to the Waituna Partners Group, and undertake tasks as directed by the Partners' in an operational capacity		DairyNZ, DOC, ES, Living Water, Ngai Tahu, SDC			Meeting costs lie as they fall. ES funding Sue Bennett, MWH to keep Activity Plan updated.



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		b	Additional members to be invited onto the Waituna Working Group as required.	Waituna Working Group	Waituna Partners Group			
3	Waituna Partners Group	a	<ul style="list-style-type: none"> <li>To facilitate and promote the integrated management of the Waituna Lagoon and catchment;</li> <li>Approval of action and/or operational plans prepared by the Working Group;</li> <li>The provision of leadership within their organisations and the community in relation to implementation of the Vision;</li> <li>The identification and consideration of significant existing and emerging issues;</li> <li>The receiving of reports on activities being undertaken by the Partners and other relevant organisations;</li> <li>Ensuring agreed outcomes from the Partners Group are implemented within their organisations;</li> <li>Coordination and approval of funding applications and/or requests prepared by the Working Group.</li> </ul>	Rotating chair	DOC, ES, Living Water, Ngai Tahu, SDC			Meeting costs lie as they fall.
<b>G: Community Liaison</b>								
1	Catchment Stories	a	Catchment Stories to be updated & published on ES website (stories from locals about living in Waituna)	Gail Jefferies				ES
2	Field Day	a	Field day to be organised as above for bank reconstruction and constructed wetland	Katrina Robertson		For October or November 2014		
3	Living Water	a	Business Plan	John McCarroll and Nicola Toki		3 June for approval with both organisations		
		b	Canterbury University Grad student research	Nicola Toki				
4	Morgan Foundation River Awards	a	Information for River Awards	Katrina Robertson				
5	Newsletters	a	DOC newsletter-Bogpaper	DOC (AK)		1-Jun-14	31 June 2015	DOC (AK)
		b	Environment Southland	Gail Jefferies				ES
		c	Farmlink stories	Living Water				
		d	Waituna Partners Group combined newsletter	Waituna Working Group				
6	Communication road map	a	Report on communication road map	Glen Lauder				
7	Communication Plan	a	Comms Plan for Waituna Partners Group	Waituna Working Group				
8	Community Groups	a	Waituna Landcare Group (Chair Gay Munro)	Katrina Robertson, Sarah Thorne				ES, DOC and Living Water

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		b	Waituna Liaison Committee - advise and assist Council in the development of annual maintenance works programmes and budgets, and provide an important local contact for each river community regarding special river and land drainage management issues (Chair Ewen Pirie).	Noel Hinton, Warren Tuckey, Katrina Robertson				ES
		c	Dairy farm focus discussion group (rotating host - Barry Warnock, Cor Aarts, Gerald Spain, Greg Hart, Phil Brock)	Katrina Robertson	Rob Phillips, Ali Timms			ES
		d	Lake Waituna Control Association (Chair Ewen Pirie)	Warren Tuckey, Katrina Robertson				ES
9	Education about Waituna	a	Trips for school groups, universities, community groups etc.	Katrina Robertson, ES EE team, AK & Living Water		1-Jun-14	31 June 2015	ES, DOC and Living Water
10	Promotion	a	Develop a virtual tour of the wetlands	DOC (AK)	Venture Southland, locals, Southland oral history project	1-Oct-14	Jun-15	DOC (AK)
		b	Develop a full set of promotional materials for AK and the wetland	DOC (AK)	Contractors	1-Jun-14	Jun-15	DOC (AK)
		c	Scope out opportunities for improved recreational facilities on public conservation land at Waituna	DOC (AK)		2014/15	Jun-15	DOC (AK)