From: Hughey, Kenneth
To: Jo Macpherson; Karina Morrow
Cc: Michael Slater; Ken Hughey
Subject: Waitaki decision document 23 June 2022.docx
Date: Thursday, 23 June 2022 10:34:13 am
Attachments: Waitaki decision document 23 June 2022.docx

Morena all – the attached has been put together with haste, and as we all know haste can make waste. So, I'm sending it to you all while noting Mike intends signing off today.
Mike – naturally I am happy to do more work if required. I am doing Lincoln work starting 2 minutes ago but do have time! Jo and Karina – there will be gaps but I promised Mike this would be short and to the point and I think it achieves that? But if there are significant errors or gaps please let me know
and I will change!
Cheers Ken

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23 June 2022

TO: Mike Slater, DDG Operations

FROM: Ken Hughey, Chief Science Advisor

SUBJECT: Waitaki River consent renewal negotiations recommendation

1. Context:

Both Meridian and Genesis are in the process of renewing their consents under the RMA to operate their hydro electric facilities on the Waitaki River. Together they have begun, without prejudice, to negotiate side agreements to produce better outcomes and reduce the costs associated with many aspects of the consenting process. These negotiations have been on a one to one basis between the generators and other parties. DOC is considered by the generators, along with the three associated papatipu runanga, to be a key other party.

It is important to note that these consents cover all of the water related generating activities along the length of the river and therefore include the Lower Waitaki – previously this was separate. Therefore we were dealing with a whole of catchment context.

9 (2) (g) (i) [redacted] At that point the DDG Operations contacted the Chief Science Advisor (CSA) to assess his willingness to lead a reinvigorated approach with the generators. This was agreed to and a governance group of the DDG Operations, the Chief Science Advisor and the Director Eastern SI[1] was established and met when needed to be appraised of progress and issues. When necessary the DDG Operations and the CSA updated the Director-General. This brief memo updates you on the outcomes of those negotiations and recommends a way forward.

By way of reminder – DOC and the generators agreed that the negotiated package should exceed, from a biodiversity conservation perspective, anything likely to be achieved through continuing down the consent process line 9 (2) (h) [redacted]

2. The negotiation process in brief:

We essentially led the negotiations and used a 'getting to yes' approach based on defining and seeking agreement about the desired biodiversity outcomes to be sought via mitigation – to help achieve this we built a set of agreed negotiating principles that were supported also by Governance.

In summary the process involved:

- the CSA working with a 'technical advisory group'[2] which provided essential building block material based on the best available information – this enabled us to build and paint three initial scenarios across four defined river zones, and

[1] When Jo Macpherson was appointed Director ESI she essentially withdrew from ongoing active involvement in some negotiation meetings and with agreement was replaced by Karina Morrow.

[2] Richard Maloney, Colin O'Donnell, Dean Nelson, Nicki Atkinson

- a broader internal reference group that included the aforementioned, Susan Newell (legal), Herb Familton (planning) and Michael Hayward (communications). Weekly update meetings of the latter were held from mid-February, and as-need-be meetings were held with the TAG or individual members thereof. This was a fully transparent process. The only information that has been confidential is the proposed financial agreement emerging from our most recent meeting with the generators on 22 June 2022.
- regular scheduled negotiation meetings with the generators, typically weekly – these were mostly held over Teams but two very important meetings were face-to-face at the DOC office in Christchurch. The CSA attended all of these meetings and facilitated them, supported as noted by Jo Macpherson and Karina Morrow.
- Two hui with the three papatipu runanga' Waitaki Working Group – it is important to note that more dialogue is essential and that is understand by us and the Waitaki Working Group.

It is extremely pleasing to report that the internal support I have received from the TAG has been exceptional in all regards, notably in terms of quality and timing. We have worked really hard to be proactive with the generators and this has been noted by them – This could not have done without Richard and Dean on the technical side, and Susan and Herb on the legal and planning side. Others were also very supportive.

In terms of the actual negotiation process, and as noted above, we developed and presented three scenarios across four zones (We described this using an initial metaphor of a house and rooms, and options within). This approach resonated and enabled our TAG to present their 'ideal' (scenario 1) and lesser regarded scenarios. Perhaps not surprisingly, the generators, while accepting the approach, and understanding and supporting the ideal, faced a number of reality tests, including resourcing. They thus counter offered, against this context, but at a level no one in our teams supported. This situation created some healthy tension which we responded to by building two 'lesser' packages (within the context of our scenario 3).

3. The final packages and what has emerged:

We developed two final packages for negotiation with the generators. It is important to understand them, so in brief:

- Package 1 concentrated mitigation on affected rivers, i.e., the Lower Waitaki, the Upper and Lower Ōhau, Pūkaki, and Tekapō catchment. Its cost to implement on an annual basis was estimated to be $2.7m (+GST) and including Overheads and Research and Development – this package will deliver benefits to many at risk native bird species and terrestrial invertebrates.
- Package 2 was the above plus targeted work on the Lower Ahuriri and Tasman rivers and was in the order of $3.5m annually.

These packages were shared with the generators on 16 June and were the subject of a negotiation meeting on 17th June. We agreed to do some more work to firm up the OH and R&D components and met again on 22 June (noting also that before several of these meetings, including this one, the CSA had one on one phone discussions with their lead negotiator (9 (2) (a) from Meridian).

The result of the meeting on 22 June was that the generators presented what they described as their 'final' offer (Appendix 1). It was largely package 1 but at a reduced cost ($2.3m +GST) pa (and a number of other helpful aspects, e.g., annual 2% CPI adjustment, 10 year review), from 1 July 2025 (when the new consents will apply). The CSA and Jo Macpherson had a separate short meeting

without the generators and returned to the meeting and accepted the offer in principle (subject to Governance agreement and sign off by the decision maker (DDG Operations)).

The generators' proposal, as attached, is acceptable in principle to myself and Jo Macpherson. I discussed it (without divulging the financial component) with our reference group and they support the intent as well. The generators' next step is to await the Department's 'decision', at which point it will go to their ELTs and Boards for approval.

4. Matters to be addressed:

There are matters to be addressed that are consequential to accepting this agreement:

- Continued dialogue with the Waitaki Working Group will be essential. The agreement notes that long-finned eel related matters will be negotiated separately between the Group and the Generators – we proposed this and support it. Equally there needs to be agreement reached about governance and which will involve ourselves, the runanga and the generators. Governance will need to be in place before 1 July 2025 so that the strategic plan for the work can be approved
- DOC and the generators will need:
    - A joint letter of intent, signed at a DDG equivalent level. We did this for the out of scope negotiation. I will start this but work closely with others including Legal and Planning and Permissions, and obviously with the generators.
    - A memorandum of understanding that spells out the nature of the agreement and how it will operate. There is a lot of nuance not described above which is important and needs to be captured.
- This package is essentially a side agreement to the formal consent process. We will need to work in an integrated and transparent way to build this. It comes with some external perception risk – this means we may well need to engage with some ENGOs in particular.

5. Recommendations:

i. That you note the contents of this memo including the Generators' offer (Appendix 1);
ii. That you note the financial detail of the package shall remain confidential until both parties agree with the package;
iii. That you agree that package 1, described in 3 above, to be funded at $2.3m pa (+GST, +2%CPI pa, including OHs and R&D) and jointly governed by the Generators, the papatipu runanga (in a fashion to be co-designed) and DOC be approved in principle;
iv. That you agree with the consequential requirements outlined in 4 above;
v. That we note all of the above to the Director-General and upon agreement the Minister.

Appendix 1 – **Generators' Final Proposal**

9(2)(j)

[redacted]

:

9(2)(j)

[redacted]

7) 9 (2) (j) [redacted]

From: Richard Maloney
To: Ken Hughey; Jo Macpherson; Karina Morrow
Subject: RE: Waitaki Catchment_PACKAGES_June 2022_Short version - DOC-7051828 - updated 21 June.xlsx
Date: Tuesday, 21 June 2022 12:53:00 pm

Hi Ken
The only other thing you might consider is that costs have gone up since these costings were done – around 6-7% - we haven't included that.
That adjustment hasn't been made, so you may want to:

1. Set a date on these costs as at Oct 2021 and then get a CPI adjustment to the final agreed figure
2. Or add 6% to these figures across all the numbers right now so that the issue goes away – this will make them different to those you showed the companies last week.

Number 1 is best, given this agreement may not come into play for another year or more?
Cheers

Richard

From: Ken Hughey <khughey@doc.govt.nz>
Sent: Tuesday, 21 June 2022 12:47 pm
To: Jo Macpherson <jmacpherson@doc.govt.nz>; Karina Morrow <kmorrow@doc.govt.nz>
Cc: Richard Maloney <rmaloney@doc.govt.nz>
Subject: Waitaki Catchment_PACKAGES_June 2022_Short version - DOC-7051828 - updated 21 June.xlsx
Team – have done some more work on spreadsheet consistent with Friday and needing to get out today.
What I have added is the change re contingency, but I have explained that in the Focus tab and left a calculation trail for transparency – Richard – we agreed on Friday that contingency can be covered by inflation adjustment and th review process. Hope this is OK? I have added also some explanatory material about overheads – happy to share the email from Dean if necessary?
Any comments before I send it out?
Ken

From: Richard Maloney
To: Ken Hughey
Subject: Waitaki Catchment_PACKAGES_June 2022_Short version - DOC-7051828 (2).xlsx
Date: Tuesday, 21 June 2022 12:12:47 pm
Attachments: Waitaki Catchment_PACKAGES_June 2022_Short version - DOC-7051828 (2).xlsx

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Here you go

Overall focus to meet a significantly lower budget envelope (see note below re flexibility and investment profile)

- Restricted work to core areas in Lower Waitaki and mid-rivers, and largely excluded the lakes and the upper rivers.
- Reduced focus to exclude some value protection (e.g., eels, gulls, weirs, trout management for native fish).

ZONE	ZONE NAME	Key focus of work
ZONE 1	Lower Waitaki, Hakataramea	Restoration of braid plains and side streams, wetland enhancement in catchment, island creation, weed control and targeted predator control, knowledge gaps filled.
ZONE 2	Lower Ahuriri catchment	Focussed restoration in key exemplar sites on lower river with associated weed and predator management, some broadscale river weed management, knowledge gaps filled (see note below)
ZONE 3A	Tasman	Surveillance for, and response to, predators in the Tasman
ZONE 3B	Pukaki, Upper and Lower Ohau Rivers	Exemplar sites with predator and weed management in lower river reaches focused on threatened species hotspots, and areas of terrestrial braid plain weeds managed, knowledge gaps filled
ZONE 4	Tekapo catchment	Focussed restoration in key exemplar sites on river with associated weed and predator management, wetland enhancement in catchment, island creation, wider river targeted weed and predator control, knowl dg gaps filled, restoration of two wetland bay areas on lake.

Note: **Flexibility and investment profile** (in the two packages) will enable early and prioritised intervention to maximise conservation delivery. Year 1 will involve some detailed planning, especially for Lower Waitaki work, after which some investment front loading over 2-5 years will enable early 'knock down' (woody weeds and predators) and then a transition to a more ongoing weighted maintenance regime, informed then by Research and Development.

Note: **Research and Development** (in the two packages) concentrates on monitoring, evaluation and adaptive learning to build cost ffectiveness of conservation delivery, and to fill key gaps in understanding. Work will be undertaken by DOC staff, post graduate research students (leveraged with oth rs where possible) and other external providers.

Package	Base scenario	Excluding zones	Excluding activities	Re-added for Package 2	Notes
PACKAGE 1	Scenario 3	• Exclude all of Zone 2 (Ahuriri and Lower Lakes) • Exclude all of Zone 3a (Hopkins, Dobson, Tasman, Lake Ohau) • Exclude mid-Lakes from Zone 3b	• Tuna management • Weirs and fish work • Some wetlands in the wider catchment • Black-backed gull control		*Tuna management subject to separate agreement between generators and Runanga*
PACKAGE 2	Scenario 3	• Exclude most of Zone 2 (Upper Ahuriri and Lower Lakes) • Exclude most of Zone 3a (Hopkins, Dobson, Lake Ohau) • Exclude mid-Lakes from Zone 3b • Exclude Cass, Godley, MacAulay from Zone 4	• Tuna management • Weirs and fish work • Some wetlands in the wider catchment • Black-backed gull control	• Lower Ahuriri selected work • Tasman predator surveilence and response	*Tuna management subject to separate agreement between generators and Runanga*

Average annual direct costs Scenario 3

Zone	Zone short name	Total (excl GST)
ZONE 1	Lower Waitaki, Hakataramea	$ 587,000
ZONE 3B	Pukaki, Upper and Lower Ohau Rivers	$ 1,065,000
ZONE 4	Tekapo catchment, Lake Tekapo	$ 674,000
	TOTAL average annual direct cost	**$ 2,326,000**

Research and Development included in totals	**Calcs**
R&D at 10% would be =	$ 233,000
R&D at 15% would be =	$ 349,000
R&D level in this package = $310,000 =	**13%**

Scenario 3 average annual costs (Direct+15%OH+15%contingency)

Zone	Zone short name	Total (excl GST)
ZONE 1	Lower Waitaki, Hakataramea	$ 763,000
ZONE 3B	Pukaki, Upper and Lower Ohau Rivers	$ 1,385,000
ZONE 4	Tekapo catchment, Lake Tekapo	$ 876,000
	TOTAL average annual direct + indirect cost	$ 3,0 3,000

Average annual direct costs Scenario 3

Zone	Zone short name	Total (excl GST)
ZONE 1	Lower Waitaki, Hakataramea	$ 587,000
ZONE 2	Lower Ahuriri catchment	$ 520,000
ZONE 3A	Tasman	$ 65,000
ZONE 3B	Pukaki, Upper and Lower Ohau Rivers	$ 1,065,000
ZONE 4	Tekapo catchment, Lake Tekapo	$ 674,000
	TOTAL average annual direct cost	**$ 2,910,000**

Research and Development included in totals	**Calcs**
R&D at 10% would be =	$ 291,000
R&D at 15% would be =	$ 437,000
R&D level in this package = $435,714 =	**15%**

Scenario 3 average annual costs (Direct+15%OH+15%contingency)

Zone	Zone short name	Total (excl GST)
ZONE 1	Lower Waitaki, Hakataramea	$ 763,000
ZONE 2	Lower Ahuriri catchment	$ 676,000
ZONE 3A	Tasman	$ 84,000
ZONE 3B	Pukaki, Upper and Lower Ohau Rivers	$ 1,385,000
ZONE 4	Tekapo catchment, Lake Tekapo	$ 876,000
	TOTAL average annual direct + indirect cost	$ 3,782,000

Sum of Average annual cost S3			
Weeds costs Package 1	**Zone short name**	**Total**	
Weeds via river and island clearance	Lower Waitaki	$	6,686
	Pukaki, Upper and Lower Ohau Rivers	$	34,221
	Tekapo catchment, Lake Tekapo	$	59,057
Weeds via river and island clearance Total		**$**	**99,964**
All other activities	Lower Waitaki	$	240,166
	Pukaki, Upper and Lower Ohau Rivers	$	180,643
	Tekapo catchment, Lake Tekapo	$	241,740
All other activities Total		**$**	**662,549**
Direct weed control	Lower Waitaki	$	340,000
	Pukaki, Upper and Lower Ohau Rivers	$	850,000
	Tekapo catchment, Lake Tekapo	$	331,214
Direct weed control Total		**$**	**1,521,214**
Grand Total		**$**	**2,283,727**

Sum of Average annual cost S3			
Weeds costs Package 2	**Zone short name**	**Total**	
All other activities	Ahuriri catchment	$	389,314
	Lower Waitaki	$	187,366
	Pukaki, Upper and Lower Ohau Rivers	$	180,643
	Tasman	$	64,286
	Tekapo catchment, Lake Tekapo	$	241,740
All other activities Total		**$**	**1,063,349**
Direct weed control	Ahuriri catchment	$	104,500
	Lower Waitaki	$	340,000
	Pukaki, Upper and Lower Ohau Rivers	$	850,000
	Tekapo catchment, Lake Tekapo	$	331,214
Direct weed control Total		**$**	**1,625,714**
Weeds via river and island clearance	Ahuriri catchment	$	25,800
	Lower Waitaki	$	59,486
	Pukaki, Upper and Lower Ohau Rivers	$	34,221
	Tekapo catchment, Lake Tekapo	$	59,057
Weeds via river and island clearance Total		**$**	**178,564**
Grand Total		**$**	**2,867,627**

From: Richard Maloney
To: Ken Hughey; Hughey, Kenneth
Subject: FW: Waitaki Catchment_PACKAGES_June 2022_Short version - DOC-7051828 - updated 20 June.xlsx
Date: Tuesday, 21 June 2022 11:26:50 am

Hi Ken
Dean sent this through to you earlier today – looks good to run at 15% OH, he has costed this out as below …
R

From: Dean Nelson <dnelson@doc.govt.nz>
Sent: Tuesday, 21 June 2022 10:02 am
To: Hughey, Kenneth 9 (2) (a) [redacted]
Cc: Richard Maloney <rmaloney@doc.govt.nz>; Karina Morrow <kmorrow@doc.govt.nz>
Subject: RE: Waitaki Catchment_PACKAGES_June 2022_Short version - DOC-7051828 - updated 20 June.xlsx
Hi Ken,
I realise this needs to get back to you so in lieu of more accurate information on overhead costs, I have made the following calculations based on what I could find.
Some assumptions. I believe that there will need to be two full time weed sprayers (currently 0.5 FTE for PRR which is not adequate) – B band. Public holidays and annual leave considered overheads
Separate my position back into two Senior Rangers so there is one full time Senior Ranger(E Band) for PRR. Full salary an overhead
Supervisor/contact manager position (E Band) With the extra staff and much bigger emphasis on weeds there needs to be a role like this. Full salary in overhead.
Minimum of three C band rangers (currently two). Public holidays and annual leave considered overheads
Three 4WD vehicles. One would be a dedicated weed spraying vehicle with tank and sprayer.
One car/RAV 4 type vehicle. Overheads include lease and all annual running/maintenance costs. Vehicles up here do long miles
PRR currently pays $20,000 for office overheads but has paid that for as long as I can remember. I feel that would need to be significantly increased to reflect increased staff and use of the yard facilities etc.
So based on all that these are the overhead costs that I have come up with.
Senior Ranger and Supervisor/contract manager salaries $180,000
3 x C band rangers A/L and public holidays $21,500
2 x B Band rangers A/L and public holidays $12,500
Staff uniforms, PPE and equipment allowances $5000
Office space, computers, yard space and facilities, electricity, insurance etc $40,000
Three 4WD vehicles plus one car leases @ $1000/month $48000
Three 4 WD annual running/maintenance costs $24,000
One car annual running/maintenance costs $6000
Total $337,000
Based on the package 1 figure in your table Ken, 15% overhead is $348,900 so we are within about $12k. Anything to add or increase in these amounts above?
Cheers, Dean

From: Hughey, Kenneth 9 (2) (a) [redacted] >
Sent: Tuesday, 21 June 2022 8:25 am
To: Dean Nelson <dnelson@doc.govt.nz>

Subject: Fwd: Waitaki Catchment_PACKAGES_June 2022_Short version - DOC-7051828 - updated 20 June.xlsx

Sent from Workspace ONE Boxer
---------- Forwarded message ----------
From: "Hughey, Kenneth" <9 (2) (a) [redacted]>
Date: 20/06/2022 12:01 pm
Subject: Waitaki Catchment_PACKAGES_June 2022_Short version - DOC-7051828 - updated 20 June.xlsx
To: Richard Maloney <rmaloney@doc.govt.nz>
Cc: Karina Morrow <kmorrow@doc.govt.nz>,Jo Macpherson <jmacpherson@doc.govt.nz>,Dean Nelson <dnelson@doc.govt.nz>,Colin O'Donnell <CODONNELL@doc.govt.nz>,Nicki Atkinson <natkinson@doc.govt.nz>,Ken Hughey <khughey@doc.govt.nz>
Richard (et al for noting)
Following our Friday negotiation meeting I have done some edits to the short version spread sheet. In summary and to check in with you:

- Focus tab: I have included two notes concerning 1. Flexibility and Investment Profile; 2. Research and Development. It is important to spell out our intent here, but to leave both a bit open (in my view). Are you happy with this wording?
- Exclusions tab: I have added the Hakataramea in Zone 1 – OK?
- Weeds P1 and P2 tabs – please put a comma into Pukaki, Upper and Lower Ohau rivers, as just presented.

I'm aiming to get his back to the generators with other financial material either late tomorrow or Wednesday morning.
Thanks Ken

From: Herb Familton
To: Karina Morrow; Ken Hughey
Subject: FW: Lower Waitaki River Conservation and Restoration - Draft Report
Date: Monday, 20 June 2022 3:55:06 pm
Attachments: Instream.2022.Lower Waitaki Restoration Costing.xlsx
Instream.2022.Lower Waitaki.docx
Instream.2022.Lower Waitaki.pdf

I presume you had this report. First time I'd seen it.
Herb

From: Clinton Webb <cwebb@instream.co.nz>
Sent: Monday, 28 February 2022 1:26 pm
To: Brad Edwards <bedwards@doc.govt.nz>; Marine Richarson <mricharson@doc.govt.nz>; Rosemary Miller <rmiller@doc.govt.nz>; Alexander Macdonald <alemacdonald@doc.govt.nz>
Cc: DLVC_INSTREAM CONSULTING LTD <gburrell@instream.co.nz>
Subject: Lower Waitaki River Conservation and Restoration - Draft Report

Hi all,
Please find our attached draft report and restoration matrix.
The restoration costings are complete, except we are still waiting on a price estimate for the bird tracking tags. That means there is still some uncertainty around the cost of the bird meta-population study. I have followed up and will update as soon as I get the information
Thank you for the opportunity to be involved with this highly rewarding project. We look forward to hearing your feedback.
Ngā mihi nui,
Clinton

Clinton Webb | Freshwater Ecologist | Instream Consulting Limited
314 Tuam Street, PO Box 1200, Christchurch 8140, New Zealand
9 (2) (a) | E: cwebb@instream.co.nz | www.instream.co.nz

Project name	Lower Waitaki River Catchment Conservation and Restoration
DOC contacts	Marine Richardson (mricharson@doc.govt.nz) Rosemary Miller (rmiller@doc.govt.nz) Alexander Macdonald (alemacdonald@doc.govt.nz) Brad Edwards (bedwards@doc.govt.nz)
Contractor	Instream Consulting Ltd
Contractor contacts	Greg Burrell (gburrell@instream.co.nz) Clinton Webb (cwebb@instream.co.nz)
Contractor project number	21310201
Date of data submission	28-Feb-22

Project name	Lower Waitaki River Catchment Conservation and Restoration
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Methods The Restoration Matrix was produced by Instream, and it supports a report of conservation values, pressures, and restoration opportunities in the Lower Waitaki River catchment.
Costed items reflect restoration actions identified as priorities following a literature review, interviews with people from various agencies, and a costing workshop held between Instream and DOC on 28 January 2022.
The scope included providing rough, order of magnitude cost estimates for priority restoration activities.

Items were costed by contacting experts with relevant experience, suppliers, and using our expert opinions. To produce these costings, a variety of assumptions were made. These are listed against each line item.
For items including staff time, consultants were costed at $120/hr, and DOC staff at $33/ hr (maximum C Band ranger rate).
A default overhead of 12.5% was applied to the total costs.
Total costs have been rounded to the nearest thousand, to avoid indicating false precision.

From:	Hughey, Kenneth
To:	Richard Maloney
Cc:	Karina Morrow; Jo Macpherson; Dean Nelson; Colin O"Donnell; Nicki Atkinson; Ken Hughey
Subject:	Waitaki Catchment_PACKAGES_June 2022_Short version - DOC-7051828 - updated 20 June.xlsx
Date:	Monday, 20 June 2022 12:01:57 pm
Attachments:	Waitaki Catchment_PACKAGES_June 2022_Short version - DOC-7051828 - updated 20 June.xlsx

Richard (et al for noting)

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3. Weeds P1 and P2 tabs – please put a comma into Pukaki, Upper and Lower Ohau ri ers, as just presented.

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Thanks Ken

Overall focus to meet a significantly lower budget envelope (see note below re flexibility and investment profile)

- Restricted work to core areas in Lower Waitaki and mid-rivers, and largely excluded the lakes and the upper rivers.
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ZONE 1	Lower Waitaki	Restoration of braid plains and side streams, wetland enhancement in catchment, island creation, weed control and targeted predator control, knowledge gaps filled.
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Note: **Research and Development** (in the two packages) concentrates on monitoring, evaluation and adaptive learning to build cost effectiveness of conservation delivery. Work will be undertaken by DOC staff, post graduate research students (leveraged with others where possible) and other external providers.

Package	Base scenario	Excluding zones	Excluding activities	Re-added for Package 2	Notes
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PACKAGE 2	Scenario 3	• Exclude Hakataramea from Zone 1 (Lower Waitaki) • Exclude most of Zone 2 (Upper Ahuriri and Lower Lakes) • Exclude most of Zone 3a (Hopkins, Dobson, Lake Ohau) • Exclude mid-Lakes from Zone 3b	• Tuna management • Weirs and fish work • Some wetlands in the wider catchment • Black-backed gull control	• Lower Ahuriri selected work • Tasman predator surveilence and response	*Tuna management subject to separate agreement between generators and Runanga*

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Average annual direct costs Scenario 3

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ZONE 1	Lower Waitaki	$ 587,000
ZONE 2	Lower Ahuriri catchment	$ 520,000
ZONE 3A	Tasman	$ 65,000
ZONE 3B	Pukaki Upper and Lower Ohau Rivers	$ 1,065,000
ZONE 4	Tekapo catchment, Lake Tekapo	$ 674,000
	TOTAL average annual direct cost	**$ 2,910,000**

Research and Development included in totals	**Calcs**
R&D at 10% would be =	$ 291,000
R&D at 15% would be =	$ 437,000
R&D level in this package = $435,714 =	**15%**

Scenario 3 average annual costs (Direct+15%OH+15%contingency)

Zone	Zone short name	Total (excl GST)
ZONE 1	Lower Waitaki	$ 763,000
ZONE 2	Lower Ahuriri catchment	$ 676,000
ZONE 3A	Tasman	$ 84,000
ZONE 3B	Pukaki Upper and Lower Ohau Rivers	$ 1,385,000
ZONE 4	Tekapo catchment, Lake Tekapo	$ 876,000
	TOTAL average annual direct + indirect cost	$ 3,782,000

Sum of Average annual cost S3			
Weeds costs Package 1	**Zone short name**	**Total**	
Weeds via river and island clearance	Lower Waitaki	$	6,686
	Pukaki Upper and Lower Ohau Rivers	$	34,221
	Tekapo catchment, Lake Tekapo	$	59,057
Weeds via river and island clearance Total		**$**	**99,964**
All other activities	Lower Waitaki	$	240,166
	Pukaki Upper and Lower Ohau Rivers	$	180,643
	Tekapo catchment, Lake Tekapo	$	241,740
All other activities Total		**$**	**662,549**
Direct weed control	Lower Waitaki	$	340,000
	Pukaki Upper and Lower Ohau Rivers	$	850,000
	Tekapo catchment, Lake Tekapo	$	331,214
Direct weed control Total		**$**	**1,521,214**
Grand Total		**$**	**2,283,727**

Sum of Average annual cost S3			
Weeds costs Package 2	**Zone short name**	**Total**	
All other activities	Ahuriri catchment	$	389,314
	Lower Waitaki	$	187,366
	Pukaki Upper and Lower Ohau Rivers	$	180,643
	Tasman	$	64,286
	Tekapo catchment, Lake Tekapo	$	241,740
All other activities Total		**$**	**1,063,349**
Direct weed control	Ahuriri catchment	$	104,500
	Lower Waitaki	$	340,000
	Pukaki Upper and Lower Ohau Rivers	$	850,000
	Tekapo catchment, Lake Tekapo	$	331,214
Direct weed control Total		**$**	**1,625,714**
Weeds via river and island clearance	Ahuriri catchment	$	25,800
	Lower Waitaki	$	59,486
	Pukaki Upper and Lower Ohau Rivers	$	34,221
	Tekapo catchment, Lake Tekapo	$	59,057
Weeds via river and island clearance Total		**$**	**178,564**
Grand Total		**$**	**2,867,627**

From: Richard Maloney
To: Hughey, Kenneth; Karina Morrow; Susan Newell; Colin O"Donnell; Michael Hayward; Herb Familton; Ken Hughey; Nicki Atkinson; Dean Nelson
Cc: Jo Macpherson
Subject: RE: Quick update on today"s mtg with generators
Date: Monday, 20 June 2022 10:22:49 am

Sounds like progress Ken.
Yes, I'd be happy if we landed between package levels - we can make a difference with that level of resource, if we are careful about expectations and are strategic in prioritising what we chose to undertake first based on greatest ecological outcomes gained.
Good luck for the next session.
Cheers
Richard

From: Hughey, Kenneth 9 (2) (a) >
Sent: Friday, 17 June 2022 5:33 pm
To: Karina Morrow <kmorrow@doc.govt.nz>; Richard Maloney <rmaloney@doc.govt.nz>; Susan Newell <snewell@doc.govt.nz>; Colin O'Donnell <CODONNELL@doc.govt.nz>; Michael Hayward <mhayward@doc.govt.nz>; Herb Familton <hfamilton@doc.govt.nz>; Ken Hughey <khughey@doc.govt.nz>; Nicki Atkinson <natkinson@doc.govt.nz>; Dean Nelson <dnelson@doc.govt.nz>
Cc: Jo Macpherson <jmacpherson@doc.govt.nz>
Subject: RE: Quick update on today's mtg with generators

9 (2) (g) (i)

9 (2) (a)

From: Karina Morrow <kmorrow@doc.govt.nz>
Sent: Friday, 17 June 2022 2:24 PM
To: Richard Maloney <rmaloney@doc.govt.nz>; Susan Newell <snewell@doc.govt.nz>; Colin O'Donnell <CODONNELL@doc.govt.nz>; Michael Hayward <mhayward@doc.govt.nz>; Herb Familton <hfamilton@doc.govt.nz>; Ken Hughey <khughey@doc.govt.nz>; Nicki Atkinson <natkinson@doc.govt.nz>; Dean Nelson <dnelson@doc.govt.nz>
Cc: Jo Macpherson <jmacpherson@doc.govt.nz>; Hughey, Kenneth <9 (2) (a)
Subject: RE: Quick update on today's mtg with generators

9 (2) (g) (i) .
Sent from Workspace ONE Boxer
On 17/06/2022 2:21 pm, Herb Familton <hfamilton@doc.govt.nz> wrote:
Sounds promising. I liked the 9 (2) (j) question....
Herb

From: Karina Morrow <kmorrow@doc.govt.nz>
Sent: Friday, 17 June 2022 2:05 pm
To: Ken Hughey <khughey@doc.govt.nz>; Richard Maloney <rmaloney@doc.govt.nz>; Herb Familton <hfamilton@doc.govt.nz>; Susan Newell <snewell@doc.govt.nz>; Dean Nelson <dnelson@doc.govt.nz>; Colin O'Donnell <CODONNELL@doc.govt.nz>; Michael Hayward <mhayward@doc.govt.nz>; Nicki Atkinson <natkinson@doc.govt.nz>
Cc: Jo Macpherson <jmacpherson@doc.govt.nz>; Hughey, Kenneth <9 (2) (a) >
Subject: RE: Quick update on today's mtg with generators
Hi Ken
Yep, spot on – they did say they would come back with a "considered response" to our proposal but felt close to landing it.
Dean will do some work on the Over Head on Monday Ken.
Karina

From: Ken Hughey <khughey@doc.govt.nz>
Sent: Friday, 17 June 2022 1:57 pm
To: Richard Maloney <rmaloney@doc.govt.nz>; Herb Familton <hfamilton@doc.govt.nz>; Susan Newell <snewell@doc.govt.nz>; Dean Nelson <dnelson@doc.govt.nz>; Colin O'Donnell <CODONNELL@doc.govt.nz>; Michael Hayward <mhayward@doc.govt.nz>; Nicki Atkinson <natkinson@doc.govt.nz>
Cc: Jo Macpherson <jmacpherson@doc.govt.nz>; Karina Morrow <kmorrow@doc.govt.nz>; Hughey, Kenneth <9 (2) (a) >
Subject: Quick update on today's mtg with generators
Dear All

1. I sent out the two packages yesterday – first to 9(2)(a) at Meridian so I could have a phone chat with him before sharing more widely. I was pleased I did that as a positive heads up to him and affirmation to me that we are heading in the right direction.
2. Later in the day I sent the packages to all on the negotiation meeting for today
3. That meeting began with me talking our way through the package: approach, exclusions, research etc – that worked well and I was able, with support from Karina and Jo, I think to explain all points of clarification. I pointed out that while package 1 will deliver I remain concerned about some missing elements and also about Ahuriri and Tasman work – we had a positive chat about that concern and how it might be addressed
4. Considerable discussion occurred around the research, and the OH and contingency costings – we got there on the research but I will add a bit of wording to the spreadsheet, and Karina is going to do some work on the OH and me the contingency. I think the parties are comfortable with where we are at, at least roughly.
5. 9(2)(a) from Genesis then posed a great question which went roughly like: Would DOC be happy if we landed somewhere in this package space. We had a good discussion about this which I think indicated to us that we are getting very close to landing something significant, although I have been over confident before. But I think there was a pretty good feeling in the Teams Room (Jo and Karina?)?
6. We left with work to do and mostly it is described above, with some other work in the governance space. We are meeting again next Wednesday – trying to get to an agreement

before I leave DOC on the 30th! This meeting will require us to change the time slightly for our update meeting.

I think those were the main points?

Cheers and thanks again for your support.

Ken

From: Richard Maloney
To: Ken Hughey
Subject: Waitaki weed costs
Date: Thursday, 16 June 2022 9:12:10 am
Attachments: Waitaki Catchment_PACKAGES_June 2022_Short version - DOC-7051828.xlsx

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Hi Ken
I've added two tabs for the weeds, one for each package.
I've given you the direct weed work, and the indirect (ie island and river clearance work) separately, and have given this for each site.
Hope that helps.
Richard

From: Karina Morrow
To: Ken Hughey; Jo Macpherson
Subject: Waitaki Negotiations Meeting 15/6/22 Important Points
Date: Wednesday, 15 June 2022 3:42:55 pm
Importance: High

Hi Jo/Ken

There were a few important discussions at today's Waitaki negotiations Meeting which I think are worth bringing to your attention. I did record the session but I only remembered to do this about a quarter of the way through so will cover all points below:

- Herb and Karina met with 9(2) (j) this morning to discuss the Hydro reconsenting process in general terms. 9 (2) (h) [redacted].
- We discussed the existing weed control that 9(2)(j) undertakes as part of its global consent in the river network. It is our view that this should be retained (i.e. that we would be wanting to undertake this as part of PRR going forward). Richard had details on this.
- If negotiations are not favourable (based on the new packages Richard has designed) we would be in a good position to suggest to the Generators that through the consent process we would be arguing for flows in the Ohau, Pukaki and Lower Tekapo to support habitat (for which we have good evidence around). This would obviously impact on generating ability for the Generators (we feel like this is a strong negotiation point)
- It is critical to understand whether the current flows in the Ohau form part of the existing environment and therefore are proposed to be retained by the Generators. If these are to be stopped/re-negotiated this could impact on habitat. As above, it would be good to understand if the recreation flows in the Tekapo and Pukaki form part of the existing environment and are to be retained or are being renegotiated with other parties. If they are not to be retain d – this would suggest they are picking and choosing a bit what is the "Existing Environment". Would be good to ask them this as early as possible.

Most of this is covered in the recording which I have sent through a link to.

Happy to discuss details as is Richard.

Karina

From: Rosemary Miller
To: Ken Hughey; Hughey, Kenneth
Subject: FW: Ken"s view of the world - 30 May 2022
Date: Wednesday, 15 June 2022 1:25:28 pm
Attachments: Copy of Approximate current costs Waitaki catchment June 2022_NA edits.xlsx
Lower Waitaki River Conservation and Restoration - Draft Report.msg

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Hi Ken

I am just working through the briefing. I note your comment re WE have completed, thanks to Richard Maloney and others, a review of conservation related investment with links to freshwater in the catchment. So just wanted to double check with you – have you used the Instream Consulting costings (this was additional work we contract them to do through Nga Awa over and above the baseline report).

Brad has provided me with a good summary of the significant impacts that the mitigation package is attempting to resolve. I have summarised his comments into this para:

1. The operation of the hydrodams in the mid Waitaki results in significant impacts downstream, e.g. flow releases swamping nesting threatened birds, loss of native herbs and grasslands due to the weed spraying programme, loss of large floods which would have naturally cleared the river, impacts to migratory fish lifecycles through loss of access and direct mortality of migrants through the turbines, change to the hydrological cycles and geomorphological processes and increased wider braid plain encroachment encouraged by flood mediation of dams.

So just wanted you to see that as it provides useful context to the negotiation section.
I've got the attached from Nicki, so will work out where and how to weave it into the briefing story.
Cheers Rosemary

From: Nicki Atkinson <natkinson@doc.govt.nz>
Sent: Wednesday, 15 June 2022 11:36 am
To: Rosemary Miller <rmiller@doc.govt.nz>
Subject: FW: Ken's view of the world - 30 May 2022

From: Nicki Atkinson
Sent: Wednesday, 1 June 2022 4:43 pm
To: Richard Maloney <rmaloney@doc.govt.nz>; Ken Hughey <khughey@doc.govt.nz>
Cc: Dean Nelson <dnelson@doc.govt.nz>; Colin O'Donnell <CODONNELL@doc.govt.nz>; Hughey, Kenneth <9 (2) (a) [redacted]; Karina Morrow <kmorrow@doc.govt.nz>; Herb Familton <hfamilton@doc.govt.nz>
Subject: RE: Ken's view of the world - 30 May 2022

Hi Ken

I've added the bio costs to Richard's spreadsheet (attached), both the TSU costs as well as the costs across the Freshwater teams. There's not much in the way of Nga Awa work happening in the Waitaki at the moment, it's still in the 'set-up/development' phase but there's also a lot of other work happening nationally that would apply to the Waitaki, e.g. our work on understanding/improving trap and transfer for tuna. For these pieces of work I've pro-rated the cost based on the number of DOC regions the work is applicable too. You can choose whether to include this or not.

I've also included the Geraldine Ops work that I know about.

I think I sent this to you awhile back but will add it again in case you missed it – Nga Awa has commissioned a report on the Lower Waitaki and how to restore it, with costing for the restoration work, so highly relevant & useful for this work. See attached.

Some other costs comparisons that may be of interest – Nga Awa got $48M in Job for Nature

money for fencing and planting and pest control across 6 river sites. One of these was the Rangatata catchment (both upper and lower) which got $20M of the $48M over four years.
And to answer your question re Ngai Tahu engagement as I understand from Brad Edwards, the Nga Awa River Ranger, they have had some initial conversations with the Runanga and heard that their focus was on the consenting process for the time being, they have also done their own catchment plan and are hoping agencies would come in to be part of this in time. Brad's focus currently in more on the Rangatata River, it's intended that the Waitaki Nga Awa work will develop more over coming years, alongside Iwi.
Thanks,
Nicki

From: Richard Maloney <rmaloney@doc.govt.nz>
Sent: Wednesday, 1 June 2022 12:21 pm
To: Ken Hughey <khughey@doc.govt.nz>
Cc: Dean Nelson <dnelson@doc.govt.nz>; Nicki Atkinson <natkinson@doc.govt.nz>; Colin O'Donnell <CODONNELL@doc.govt.nz>; Hughey, Kenneth <9 (2) (a) >; Karina Morrow <kmorrow@doc.govt.nz>; Herb Familton <hfamilton@doc.govt.nz>
Subject: FW: Ken's view of the world - 30 May 2022
Hi Ken
Wasn't sure if you actually wanted a response to this, so I haven't commented on your text.
I have had a look at the $$ contributions you have listed – its not clear yet what this list is supposed to represent with regard to combinations of current, ongoing, regular costs, but it does seem to be missing a number of relevant things.
Therefore, I have taken your list, and put it into excel, and have added the most obvious gaps (still needs to add int the ones that you may get from Nicki and others in Bio Gp via your request). There are some missing values that it would be useful for you and Dean to collate to complete this.
Hope that helps.
Cheers

Richard

From: Ken Hughey <khughey@doc.govt.nz>
Sent: Tuesday, 31 May 2022 11:21 am
To: Dean Nelson <dnelson@doc.govt.nz>; Nicki Atkinson <natkinson@doc.govt.nz>; Colin O'Donnell <CODONNELL@doc.govt.nz>; Richard Maloney <rmaloney@doc.govt.nz>
Cc: Adrian Gilby <agilby@doc.govt.nz>; Aaron McKay <aamckay@doc.govt.nz>; Hughey, Kenneth <k9 (2)(a) z>
Subject: Ken's view of the world - 30 May 2022
Hi Team – please find attached a think piece as a starter for Thursday. This is not meant to be the definitive view of the world, but hopefully something to respond to.
Note I will not be at tomorrow's catch up meeting, and that after our workshop on Thursday I am heading off to meet with the 3 papatipu runanga at 1pm
Thanks and looking forward to Thursday morning.
Ken

Work type	Work	Per annum	Significant recent one-offs		Notes
Weeds	[redacted] river weed work J4N funded via [redacted]	$800 000			
	[redacted] DOC rabbit control in Tekapo Ohau Pukaki Tasman				
Rabbits	Ahuriri Godley riverbeds	$600 000	Dean can you check total ha and frequency		Costs are $150/ha (aerial 1080) over about 20000 ha = $3m ll lets say every 5 years = $600k per annum
Species mgmt	Doc kaki programme	Dean			
Research and management	DOC [redacted] Uni Predator fence insects	$ 0 000		$1 0 000	one-off was recent fence bu ld
Research and management	DOC/Uni [redacted] River dynamics research Cass	$1 0 000			includes $10k [redacted] DOC support University in-kind and scholarships
Research and management	DOC/Uni/PRR black fronted tern movements research	$80 000			Excludes $20k PRR
Research and management	DOC/PRR River terr invertebrate sampling	$40 000			Excludes $10k PRR
Research and management	DOC grasshopper and weta field and advice	$20 000			TSU time
Monitoring	PRR grasshopper annual surveys	$0			Costs in PRR line below
Research and management	DOC/PRR [redacted] Tu Te Rakiwhanoa Mackenzie rivers invertebrate refence collection work	$20 000			Excludes $10k PRR
Research and management	DOC hedgehog impacts on invertebrate/lizard research	$60 000			Calculated as 40% of total project costs (4 of 6 sites for invertebrates 2 of 6 sites for lizards and 2 of 6 sites for hedgehog trapping methods)
Weeds	[redacted] Weeds and river works operation budget?	$178 000			
Species mgmt	DOC [redacted] fish weirs	Dean			
Monitoring	[redacted] nutrinent river monitoring	Ken			
	Other costs from TSU FW Threats Bio teams	Ken requested			
	[redacted] DOC/farmer River fence maintainence - Tekapo Pukaki Ohau	?			
PRR weeds and predator	Meridian via PRR	Dean			This is the PRR work
PRR weeds and predator	Genesis via PRR	Dean			This is the PRR work
What is this work Ken?	Meridian with [redacted]	Ken			
What is this work Ken?	Genesis with [redacted]	Ken			
	[redacted] DOC tenure review wetland and riverbed puchases (eg Cass Ahuriri riverbeds Mt Gerald wetland)		$3mill-$7.5 mill		I haven't calculated this but it will be at least this much
Geraldine Ops					
	Lower waitaki weed work ops team	70000			
	Lower Waitaki ops budget for nga awa work going forward	90000			
Freshwater work					
Reseach and management	Nga Awa Waitaki river restoration report with costings			50000	
	Nga Awa Waitaki R land encroachment study (from 2019/20)			60000	couple of years ago but still a very relevant piece of work/cost
Reseach and management	Nga Awa staff time: 0.5FTE Snr Ranger 0.3FTE C Band and 0.2FTE Tech Advisor	00000			
	Nga Awa work on sediment movment in Rangitat - applicable to a l braided rivers **pro rated (1/4th)**			25000	work that will support nga awa restoration at Waitaki and other rivers. Total cost was $ 00k. Proportioned as 1 out of 4 doc regions work is applicable too
Reseach and management	Migatory Fish programme - guidance on Inanga monitoring **pro rata (1/9th)**			2000	work that will support nga awa restoration at Waitaki and other rivers. Total cost was $20k. Proportioned as 1 out of 9 doc regions work is applicable too
Reseach and management	Migatory Fish programme - kanakana larval fishing methods **pro rata (1/9th)**			2000	work that will support nga awa restoration at Waitaki and other rivers. Total cost was $15k. Proportioned as 1 out of 9 doc regions work is applicable too
Reseach and management	Migratory fish programme - glass eel reseach work **pro rata (1/9th)**			3000	work that will support nga awa restoration at Waitaki and other rivers. Total cost $30k. Proportioned as 1 out of 9 doc regions work is app icable too
Reseach and management	Migatory fish programme - NIWA report on eel trap and transfer **pro rata (1/7th)**			3000	work that will support nga awa restoration at Waitaki and other rivers. Total cost [redacted]0k Proportioned as 1 out of 7 doc regions work is applicable too
Reseach and management	CRESP programme - reduced flow scenarios with trout and non migratory glaxias reseach **pro rata (1/2)**			30000	work that will support nga awa restoration at Waitaki and o her rivers. Total cost [redacted]0k Proportioned as 1 out of 2 doc regions work is applicable too
Reseach and management	Freshwater Biosecurity programme support to check clean dry - **pro rata (1/9th)**	6000			work that will support nga awa restoration at Waitaki and oth [redacted]ivers. [redacted]l cost 50k Proportioned as 1 out of 9 doc regions work is applicable too
TSU					
Reseach and management	Technical Support for Waitaki River (Colin etc)	15000			
Reseach and management	Woody vegetation restoration on Eastern South Island limestone*	30000			*These projects are on limestone ecosystem within th Waitaki Valley
Reseach and management	Control and influence of invasive swarding grasses on native plant*	7000			
Reseach and management	Rare calcicolous plant propagation and translocation; and Po linators of rare calcicolous plants: diversity and efficiency*	10000			
Reseach and management	Threatened Plant Monitoring in the Waitaki*	15000			

From: Richard Maloney
To: Ken Hughey
Subject: Waitaki Catchment_PACKAGES_June 2022_Short version - DOC-7051828.xlsx
Date: Wednesday, 15 June 2022 11:16:24 am
Attachments: Waitaki Catchment_PACKAGES_June 2022_Short version - DOC-7051828.xlsx

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Have clarified those points and saved as new version in DOCCM – is clarification text okay?
R

Overall focus to meet a significantly lower budget envelope

- Restricted work to core areas in Lower Waitaki and mid-rivers, and largely excluded the lakes and the upper rivers.

ZONE	ZONE NAME	Key focus of work
ZONE 1	Lower Waitaki	Restoration of braid plains and side streams, wetland enhancement in catchment, island creation, weed control and targeted predator control, knowledge gaps filled.
ZONE 2	Lower Ahuriri catchment	Focussed restoration in key exemplar sites on river with associated weed and predator management, some broadscale river weed management, knowledge gaps filled
ZONE 3A	Tasman	Survelience for, and response to, predators in the Tasman
ZONE 3B	Pukaki, Upper and Lower Ohau Rivers	Exemplar sites with predator and weed management in lower river reaches focused on threatened species hotspots, and areas of terrestrial braid plain weeds managed, knowledge gaps filled
ZONE 4	Tekapo catchment	Focussed restoration in key exemplar sites on river with associated weed and predator management, wetland enhancement in catchment, island creation, wider river targeted weed and predator control, knowl dg gaps filled, restoration of two bay areas on lake.

Package	Base scenario	Excluding zones	Excluding activities	Re-added for Package 2	Notes
PACKAGE 1	Scenario 3	• Exclude all of Zone 2 (Ahuriri and Lower Lakes) • Exclude all of Zone 3a (Hopkins, Dobson, Tasman, Lake Ohau) • Exclude mid-Lakes from Zone 3b • Exclude Cass, Godley, MacAulay from Zone 4	• Tuna management • Weirs and fish work • Some wetlands in the wider catchment • Black-backed gull control		*Tuna management subject to separate agreement between generators and Runanga*
PACKAGE 2	Scenario 3	• Exclude most of Zone 2 (Upper Ahuriri and Lower Lakes) • Exclude most of Zone 3a (Hopkins, Dobson, Lake Ohau) • Exclude mid-Lakes from Zone 3b • Exclude Cass, Godley, MacAulay from Zone 4	• Tuna management • Weirs and fish work • Some wetlands in the wider catchment • Black-backed gull control	• Lower Ahuriri selected work • Tasman predator surveilence and response	*Tuna management subject to separate agreement between generators and Runanga*

Average annual direct costs Scenario 3

Zone	Zone short name	Total (excl GST)
ZONE 1	Lower Waitaki	$ 587,000
ZONE 3B	Pukaki Upper and Lower Ohau Rivers	$ 1,065,000
ZONE 4	Tekapo catchment, Lake Tekapo	$ 674,000
	TOTAL average annual direct cost	**$ 2,326,000**

Research and Development included in totals	**Calcs**
R&D at 10% would be =	$ 233,000
R&D at 15% would be =	$ 349,000
R&D level in this package = $310,000 =	**13%**

Scenario 3 average annual costs (Direct+15%OH+15%contingency)

Zone	Zone short name	Total (excl GST)
ZONE 1	Lower Waitaki	$ 763,000
ZONE 3B	Pukaki Upper and Lower Ohau Rivers	$ 1,385,000
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	TOTAL average annual direct + indirect cost	**$ 3,023,000**

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	TOTAL average annual direct cost	**$ 2,910,000**

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R&D at 10% would be =	$ 291,000
R&D at 15% would be =	$ 437,000
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From: Richard Maloney
To: Ken Hughey
Subject: Waitaki Catchment_PACKAGES_June 2022_Short version - DOC-7051828.xlsx
Date: Wednesday, 15 June 2022 9:04:59 am
Attachments: Waitaki Catchment_PACKAGES_June 2022_Short version - DOC-7051828.xlsx
Importance: High

Kia ora Ken
Attached and in DOCCM (restricted access).
This is the short version. Let me know if you need anything else, or if its not making sense.
Cheers

Richard

Overall focus to meet a significantly lower budget envelope

- Restricted work to core areas in Lower Waitaki and mid-rivers, and largely excluded the lakes and the upper rivers.

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Package	Base scenario	Excluding zones	Excluding activities	Re-added for Package 2
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PACKAGE 2	Scenario 3	• Exclude most of Zone 2 (Upper Ahuriri and Lower Lakes) • Exclude most of Zone 3a (Hopkins, Dobson, Lake Ohau) • Exclude mid-Lakes from Zone 3b • Exclude Cass, Godley, MacAulay from Zone 4	• Tuna management • Weirs and fish work • Some wetlands in the wider catchment • Black-backed gull control	• Lower Ahuriri selected work • Tasman predator surveilence and response

Average annual direct costs Scenario 3

Zone	Zone short name	Total
ZONE 1	Lower Waitaki	$ 587,000
ZONE 3B	Pukaki Upper and Lower Ohau Rivers	$ 1,065,000
ZONE 4	Tekapo catchment, Lake Tekapo	$ 674,000
	TOTAL average annual direct cost	**$ 2,326,000**

Research and Development inclusions	Calcs
R&D at 10% would be =	$ 233,000
R&D at 15% would be =	$ 349,000
Our R&D level = $310,000 =	**13%**

Scenario 3 average annual costs (Direct+15%OH+15%contingency)

Zone	Zone short name	Total
ZONE 1	Lower Waitaki	$ 763,000
ZONE 3B	Pukaki Upper and Lower Ohau Rivers	$ 1,385,000
ZONE 4	Tekapo catchment, Lake Tekapo	$ 876,000
	TOTAL average annual direct + indirect cost	**$ 3,023,000**

Average annual direct costs Scenario 3

Zone	Zone short name	Total	
ZONE 1	Lower Waitaki	$	587,000
ZONE 2	Lower Ahuriri catchment	$	520,000
ZONE 3A	Tasman	$	65,000
ZONE 3B	Pukaki Upper and Lower Ohau Rivers	$	1,065,000
ZONE 4	Tekapo catchment, Lake Tekapo	$	674,000
	TOTAL average annual direct cost	**$**	**2,910,000**

Research and Development inclusions	**Calcs**	
R&D at 10% would be =	$	291,000
R&D at 15% would be =	$	437,000
Our R&D level = $435,714 =		**15%**

Scenario 3 average annual costs (Direct+15%OH+15%contingency)

Zone	Zone short name	Total	
ZONE 1	Lower Waitaki	$	763,000
ZONE 2	Lower Ahuriri catchment	$	676,000
ZONE 3A	Tasman	$	84,000
ZONE 3B	Pukaki Upper and Lower Ohau Rivers	$	1,385,000
ZONE 4	Tekapo catchment, Lake Tekapo	$	876,000
	TOTAL average annual direct + indirect cost	**$**	**3,782,000**

From: Karina Morrow
To: Hughey, Kenneth; Jo Macpherson; Susan Newell; Richard Maloney; Nicki Atkinson; Michael Hayward; Dean Nelson; Colin O"Donnell; Herb Familton
Cc: Ken Hughey
Subject: RE: Quick update on today"s f2f with generators
Date: Thursday, 9 June 2022 3:54:45 pm

Hi Ken

9 (2) (i) [redacted]

Karina

From: Hughey, Kenneth <9 (2) (a) [redacted]>
Sent: Thursday, 9 June 2022 3:24 pm
To: Jo Macpherson <jmacpherson@doc.govt.nz>; Susan Newell <snewell@doc.govt.nz>; Richard Maloney <rmaloney@doc.govt.nz>; Nicki Atkinson <natkinson@doc.govt.nz>; Michael Hayward <mhayward@doc.govt.nz>; Dean Nelson <dnelson@doc.govt.nz>; Colin O'Donnell <CODONNELL@doc.govt.nz>; Herb Familton <hfamilton@doc.govt.nz>; Karina Morrow <kmorrow@doc.govt.nz>
Cc: Ken Hughey <khughey@doc.govt.nz>
Subject: Quick update on today's f2f with generators

Dear all

A well organised, constructive, but tough session. We do agree on a lot, well pretty much everything, except the $$. They did come back with a counter offer which I have shared with Richard because we need to do some work around it, and with Herb because I saw him sitting by himself in the tea area and I needed to download! I was pretty clear that the counter, in my view, was still not enough! 9(2)(j) [redacted], 9 (2) (j) [redacted]

Basically, and Richard and I have chatted, I have asked him to have a quick look at what 2, 2.5 and 3m would buy us in terms of biodiversity outcomes, in two packages: 1. Focussed on the lower Waitaki and impacted Basin rivers – Ohau, Pukaki and Tekapo, largely in the woody weed and predator control spaces; 2. The 1st package and targeted work on the Ahuriri and Tasman. We need to think about this terms of some potential front loading but also in terms of phasing (the two in fact are very complementary).

In relation to the above we are meeting, over Teams, again next Friday morning, for an hour.

Thanks for your continued support!

Ken

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9 (2) (a) [redacted]

From: Dean Nelson
To: Richard Maloney; Ken Hughey
Subject: RE: Copy of Approximate current costs Waitaki catchment June 2022_ver2.xlsx
Date: Tuesday, 7 June 2022 1:53:38 pm
Attachments: Copy of Copy of Approximate current costs Waitaki catchment.xlsx

Hi Richard,
Couple of minor changes – braided river surveys, Tasman, Dobson, Haka are PRR as is outcome monitoring of BFT on Tasman.
Cheers, Dean

From: Richard Maloney <rmaloney@doc.govt.nz>
Sent: Friday, 3 June 2022 3:39 pm
To: Ken Hughey <khughey@doc.govt.nz>
Cc: Dean Nelson <dnelson@doc.govt.nz>
Subject: Copy of Approximate current costs Waitaki catchment June 2022_ver2.xlsx
Latest version

Sum of Per annum		
Work area	**Work type**	**Total**
Freshwater work	Reseach and management	106,000
Freshwater work Total		**106,000**
Lower Waitaki	Weeds	910,000
Lower Waitaki Total		**910,000**
Terrestrial Science work	Reseach and management	77,000
Terrestrial Science work Total		**77,000**
Upper river catchment	[redacted] Biosecurity funding	20,000
	Zone committee funding	104,000
	Outcome monitoring	9,912
	Pest bird control	57,957
	Pest control - possum	112,805
	Predator Control avian	30,594
	Predator Control mammalian	241,532
	Rabbit fencing	84,825
	Rabbits	738,452
	Research and management	215,000
	Species management - Braided riverbed bird surveys	5,516
	Species management - invertebrates	8,065
	Species management - kaki	242,466
	Species management - lizards	6,716
	Species management - threatened and ephemeral plants	13,020
	Species management - threatened fish	23,200
	Staff costs not covered elsewhere	215,730
	Tenure review	7,128,000
	Weeds	1,102,635
Upper river catchment Total		**10,360,425**
Grand Total		**11,453,425**

Work area	Work type	Work	Per annum	Significant recent one-offs	Notes
Upper river catchment	Weeds	[redacted] river weed work J4N funded via [redacted]	$ 830,914		Zones 4 and 3A
Upper river catchment	Weeds	DOC	$ 29,781		
Upper river catchment	Weeds	[redacted]	$ 48,940		Tekapo and Dobson
Upper river catchment	Weeds	[redacted] separate to above	$ 15,000		Dobson
Upper river catchment	Rabbits	[redacted] funded rabbit control via [redacted] in Tekapo, Ohau, Pukaki, Tasman, Ahuriri, Godley riverbeds	$ 610,584		
Upper river catchment	Rabbits	DOC in Tasman riverbed	$ 127,868		
Upper river catchment	Staff costs not covered elsewhere	[redacted] project	$ 215,730		
Upper river catchment	Species management - kaki	Kaki management	$ 242,466		
Upper river catchment	Species management - lizards	Lizard monitoring - [redacted]	$ 6,716		Protected by predator control
Upper river catchment	Species management - threatened fish	Macrophyte control, trout barrier maintenance and monitoring	$ 23,200		Includes some [redacted] staff time for trout removal in Fork Stream
Upper river catchment	Species management - invertebrates	Grasshopper surveys and monitoring	$ 8,065		
Upper river catchment	Species management - threatened and ephemeral plants	Plant surveys, seeding and germination trials, monitoring and survey	$ 13,020		
Upper river catchment	Predator Control mammalian	Various species [redacted] via [redacted]	$ 30,119		Quite a bit missing out of here - probably it is staff time shown in row 8
Upper river catchment	Predator Control mammalian	Various species [redacted] via DOC	$ 151,413	$92,000	Huxley Hopkins for traps
Upper river catchment	Predator Control mammalian	Various species [redacted] separate to above	$ 60,000		Dobson, trap costs not available
Upper river catchment	Pest control - possum	Possum control Huxley Hopkins	$ 112,805		
Upper river catchment	Predator Control avian	[redacted] black-backed gull control	$ 30,594		
Upper river catchment	Pest bird control	[redacted] Canada goose control	$ 57,957		
Upper river catchment	Research and management	Tier monitoring site Tasman Rv	$ 15,000		
Upper river catchment	Research and management	DOC/[redacted] Uni Predator fence insects	$ 10,000	$130,000	one-off was recent fence build
Upper river catchment	Research and management	DOC/Uni/[redacted] River dynamics research Cass	$ 110,000		includes $10k [redacted] DOC support, University in-kind and scholarships
Upper river catchment	Research and management	DOC grasshopper and weta field and advice	$ 20,000		TSU time
Upper river catchment	Research and management	DOC hedgehog impacts on invertebrate/lizard research	$ 60,000		Calculated as 40% of total project costs (4 of 6 sites for invertebrates, 2 of 6 sites for lizards and 2 of 6 sites for hedgehog trapping methods)
Upper river catchment	Weeds	[redacted] Weeds and river works operation budget?	$ 178,000		Lower Waitaki and Tekapo
Upper river catchment	Rabbit fencing	[redacted] DOC/farmer River fence maintainence - Tekapo, Pukaki, Ohau	$ 84,825		
Upper river catchment	[redacted] Zone committee funding	Fencing and other river/wetland projects	$ 104,000		Possible overlap with [redacted] weed work?
Upper river catchment	[redacted] Biosecurity funding	Weed control	$ 20,000		
Upper river catchment	Tenure review	[redacted] DOC tenure review wetland and riverbed puchases (eg Cass, Ahuriri riverbeds,Mt Gerald wetland)	$ 7,128,000		Crown contribution estimate for tenure review wetlands and river areas
Lower Waitaki	Weeds	Meridian contribution to [redacted] work	$ 375,000		Approx split from Jeff Page email 11 April
Lower Waitaki	Weeds	[redacted] weed control + mechanical works	$ 375,000		Approx split from Jeff Page email 11 April
Lower Waitaki	Weeds	Lower waitaki Geraldine ops team	$ 70,000		
Lower Waitaki	Weeds	Lower Waitaki ops budget for nga awa work going forward	$ 90,000		
Freshwater work	Reseach and management	Nga Awa Waitaki river restoration report with costings		$ 50,000.00	
Freshwater work	Reseach and management	Nga Awa Waitaki R land encroachment study (from 2019/20)		$ 60,000.00	couple of years ago but still a very relevant piece of work/cost
Freshwater work	Reseach and management	Nga Awa staff time: 0.5FTE Snr Ranger, 0.3FTE C Band and 0.2FTE Tech Advisor	$ 100,000		
Freshwater work	Reseach and management	Nga Awa work on sediment movment in Rangitat - applicable to all braided rivers **pro rated (1/4th)**		$ 000.00	work that will support nga awa restoration at Waitaki and other rivers. Total cost was $100k. Proportioned as 1 out of 4 doc regions work is applicable too
Freshwater work	Reseach and management	Migatory Fish programme - guidance on Inanga monitoring **pro rata (1/9th)**		$ 2,000.00	work that will support nga awa restoration at Waitaki and other rivers. Total cost was $20k. Proportioned as 1 out of 9 doc regions work is applicable too
Freshwater work	Reseach and management	Migatory Fish programme - kanakana larval fishing methods **pro rata (1/9th)**		$ 2,000.00	work that will support nga awa restoration at Waitaki and other rivers. Total cost was $15k. Proportioned as 1 out of 9 doc regions work is applicable too
Freshwater work	Reseach and management	Migratory fish programme - glass eel reseach work **pro rata (1/9th)**		$ 3,000.00	work that will support nga awa restoration at Waitaki and other rivers. Total cost $30k. Proportioned as 1 out of 9 doc regions work is applicable too
Freshwater work	Reseach and management	Migatory fish programme - NIWA report on eel trap and transfer **pro rata (1/7th)**		$ 3,000.00	work that will support nga awa restoration at Waitaki and other rivers. Total cost $30k Proportioned as 1 out of 7 doc regions work is applicable too
Freshwater work	Reseach and management	CRESP programme - reduced flow scenarios with out an non migratory glaxias reseach **pro rata (1/2)**		$ 30,000.00	work that will support nga awa restoration at Waitaki and other rivers. Total cost $60k Proportioned as 1 out of 2 doc regions work is applicable too
Freshwater work	Reseach and management	Freshwater Biosecurity programme support check clean dry - **pro rata (1/9th)**	$ 6,000		work that will support nga awa restoration at Waitaki and other rivers. Total cost $50k Proportioned as 1 out of 9 doc regions work is applicable too
Terrestrial Science work	Reseach and management	Technical Support for Waitaki River (plan, etc)	$ 15,000		
Terrestrial Science work	Reseach and management	Woody vegetation restoration on Eastern South Island limestone*	$ 30,000		*These projects are on limestone ecosystems within the Waitaki Valley
Terrestrial Science work	Reseach and management	Control and influence of invasive seeding grasses on native plants*	$ 7,000		
Terrestrial Science work	Reseach and management	Rare calcicolous plant propagation and translocation; and Pollinators of rare calcicolous plants: diversity and efficiency*	$ 10,000		
Terrestrial Science work	Reseach and management	Threatened plant Monitoring in the Waitaki*	$ 15,000		
Total cost (directs), excludes overheads, indirects and contingency			$ 11,437,997	$ 397,000	

Work type	Work	Per annum	Significant recent one-offs	Notes
Weed management	PRR	$ 158,614	$ 95,337	Zones 4, 3A, 3B, 2. One o f is ower Ohau weed control 2019/20. Needed ever 2-3 years
Outcome monitoring	Monitoring BFT breeding success as part of Tasman predator control	$ 9,912		
Predator Control mammalian	Various species	$ 152,663	$ 20,000	Tasman, Te n Island. One off is trap replacement Tern Island
Predator control avian	PRR black-backed gull control	$ 24,447		
Research and management	Braided riverbed bird surveys - Tasman, Dobson, Hakataramea	$ 5,516		Tasman every year. Other two part of a three year cycle th n switch to another two rivers
Research and management	Tern Island black-fronted tern monitoring	$ 16,048		Protected by predator control
Research and management	Lizard monitoring	$ 6,304		
Research and management	DOC/Uni/PRR black fronted tern movements research	$ 100,000		
Research and management	DOC/PRR River terr invertebrate sampling	$ 50,000		
Research and management	DOC/PRR/[redacted] Tu Te Rakiwhanoa Mackenzie rivers invertebrate refence collection work	$ 30,000		
PRR approx total		**$ 553,504**	**$ 115,337**	

Glentanner east of road 461	461	
Mt Cook station Jollie fan + TL river flats of tasman 400	400	
Mt Gerald wetland 749	749	
Godley Peaks TL above Sutherlands hut 100	100	
Lower Cass Rv bed 92. Cant get the bit that is due to come out soon.	500	est
Ben Avon pond area down to east branch (river flats/swamps outside of BenAvon reserve) 123	123	
Birchwood swamp etc on Birchwood station 713	713	
Ahuriri River at Longslip 100	100	
Probably something on Huxley Gorge station at temple stream area? 576	576	
Also tarn Brae 164	164	
9-Scientific Reserve The Wolds	150	
11-Pukaki Kettleholes	31	
15-Wairepo Kettleholes	400	
18-Lower Ahuriri Riverbed/CA	200	
19-Tara Hill Ponds	85	
	4752	

ha	4752
Approx cost pe ha	$1,500
Total contri tion	$7,128,000