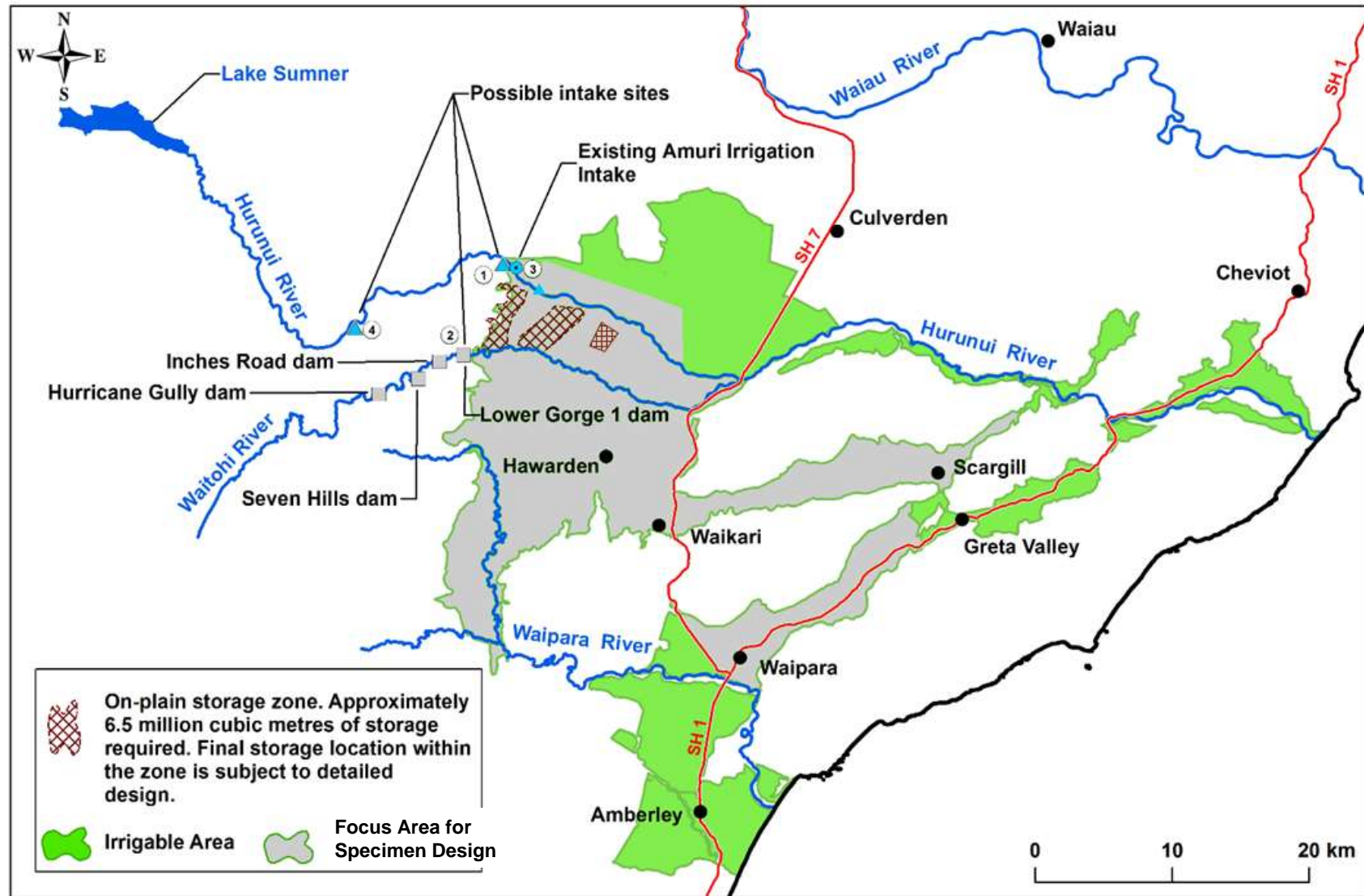
A large center pivot irrigation system is shown in a lush green field. The system consists of a long, dark, curved pipe supported by a series of metal trusses and wheels. The pipe is arched over the field, and the trusses are supported by a series of vertical poles. The sky is a clear, pale blue. The foreground is filled with green grass.

Hurunui Water Project Information Summary – HW Zone Committee

15 August 2016

Consented water take, storage and use area



Completed actions since consents awarded

Action	Date
Consents received	18 December 2015
Current CIIL (IAF) funding contract to 30 Nov 2016	23 March 2016
Walton farm survey	May 2016
Hydrology supply and demand analysis	May 2016
Specimen design issued	June 2016
ECI Contractor RFP issued	28 June 2016

Current Focus for Scheme Design

Likely to be largely piped - servicing approx. 21,000 ha. Key reasons:

- Forecast change in land use (less area and reduction in dairying) driving lower intensity irrigation and nutrient impacts.
- Farmer surveys indicate current demand for approx. 17,500 ha, and HWP currently allowing for some overbuild to 21,000 ha.
- Consented water take from Hurunui River supports 6.5 Mm³ of on-plains storage (sufficient for approx. 6 - 7,000 ha with high reliability).
- Good storage options for the Waitohi River take,
 - River has flow sufficient storage for approx. 10 - 11,000 ha with good reliability

Survey – 66 shareholders

	Extrapolated Survey Area	Forecast Mix
Sheep and beef	10,399	50%
Arable	5,390	26%
Dairy	2,267	11%
Mixed use	1,650	8%
Deer	1,236	6%
Other	58	0.3%
Total	21,000	100%

Hurunui N loss

Scaling up estimates across whole area (of Hawarden / Scargill)

- Current = 600 T N/yr for around 3,500 Ha of irrigation
- Future = 715 T N/yr for around 15,000 ha of irrigation
 - Increase of: 115 T N/yr
 - Extrapolated: 170 T N/yr ie at 21,000ha
 - Balmoral, 80 T N/yr
 - TOTAL **250 T N/yr**
- Consent allows increase in leaching of **360 T** across total command area within Hurunui catchment
- Existing irrigation ???
- Dry land Intensification on Shareholders farms???

Waipara Catchment

Meetings on 19 and 21 May:

CLWRP, Red Zone – no increase in nutrient discharge –
Plan Change 5

HWP has done more work.

- Consents have a useful (but not certain) clause.
- Planning work needs good information
- Walton has completed survey of Upper Waipara, Omihi information is pretty good, showing:
 - Upper Waipara: 1,500 ha from 6,830 ha
 - Omihi: 2,026 ha from 7,967 ha

Estimated Capital Cost

Capital Expenditure	Total
	(\$m)
On-plains storage	\$25.0
305 canal	\$11.5
Hurricane Gully dam	\$38.5
Lower George	\$6.5
Distribution network	\$97.0
Total Construction Cost	\$178.5
Detailed design costs	\$8.5
Land access, easement and purchase costs	\$7.5
Consenting and regulatory compliance	\$1.8
Feasibility loan repayments	\$2.0
Total Outlay (2016 prices)	\$198.3

Feasibility Costs and Funding Sources

HWP's Estimate of Feasibility Cost

- HWP estimates feasibility cost is \$6.4M.

Contractor Contribution (Cash and In-Kind Services)

- Contractor is well placed to complete some feasibility tasks using internal resources.
- Could reduce total cash requirement by providing some services to HWP on an in-kind basis (subject to CIIL agreement).

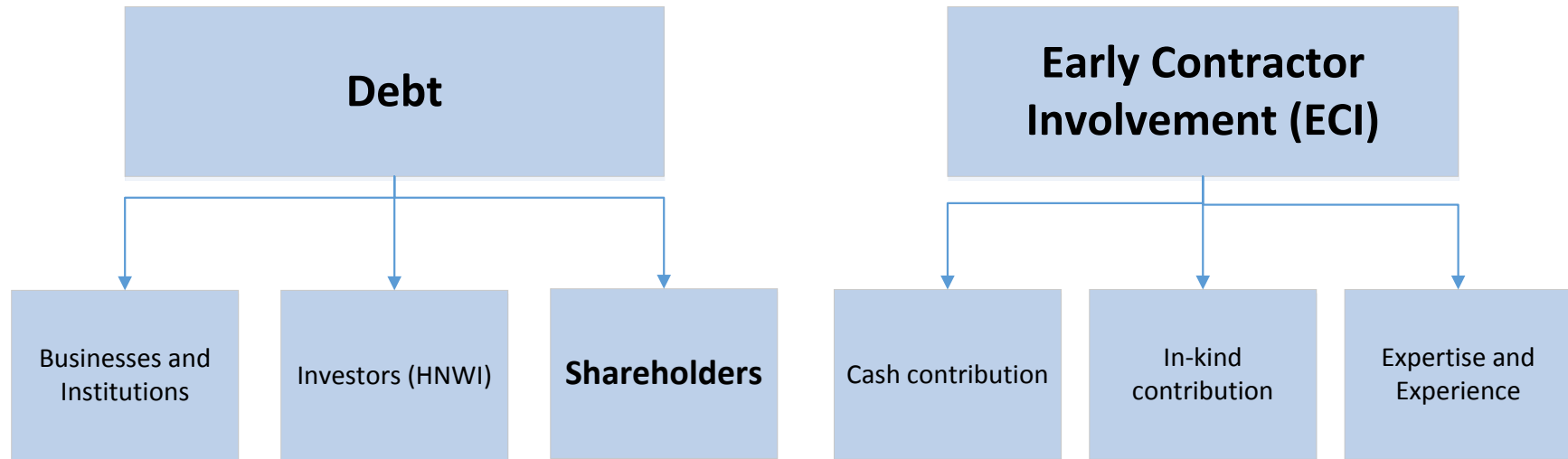
CIIL (IAF)

- Letter of Intent is for up to \$3.3M
- \$ for \$ contribution for qualifying costs (This is most, but not all of HWP expenses)
- Formal application for these funds follows the committed Shareholder Loan and ECI Contract being in place after 31 August 2016

	Estimated Contribution (\$M)	Comment
HWP Shareholders	\$0.75 - \$1.0	Feasibility conditional on min. \$750k from shareholders.
CIIL (IAF)	\$3.0 - \$3.3	Estimated \$6.0M of costs qualify for CIIL funding.
Contractor	\$2.4 - \$2.8	Cash and in-kind contributions.
Total	\$6.4	

\$1 Shareholder = \$6 project funding

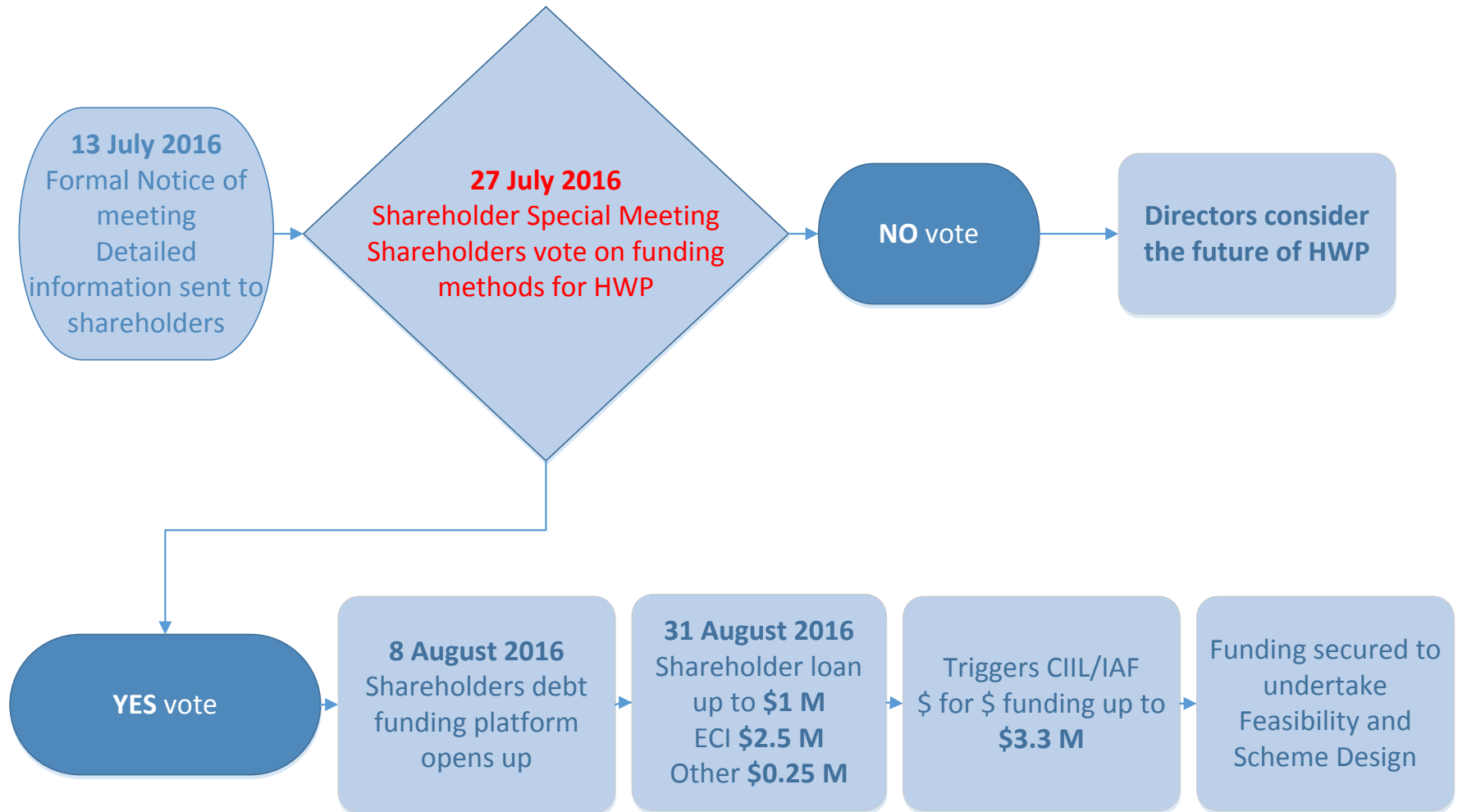
HWP Board Feasibility Potential Funding Decisions



These funding sources can all be leveraged by CIIL (IAF): \$ for \$ grant

- Local businesses that benefit from economic activity may be prepared to “sponsor”
- High net-worth individuals may subscribe to a special purpose loan. Max. 20, \$2M limit
- Majority of debt from shareholders – Commitment a requirement of other investors
- CIIL (IAF) Letter of Intent for up to \$3.3M held by HWP
 - Contracting for this grant will follow shareholder debt and ECI, (October 2016)
 - The CIIL contract is the last “link” to fund the Full Feasibility

Process for Feasibility Funding



Shareholder Loan

LendMe – Peer to Peer Lending

- **Lower Cost**
- **Legal protection (at economic cost)** – LendMe is licensed with FMA
- **Lenders contribution** - is held in trust by Magna Trust
- **Convenience** – Web based, good information (assistance has been arranged for those not keen on web).
- **If minimum target not achieved** – funds returned directly to lenders
- **If ECI not achieved** – funds returned directly to lenders
- **If Loan is over subscribed** (>\$1 million) – Pro rata drawn
- **Interest** – at Farmer Borrow rate (5.25% to 8.25% depending on sum)
- **Unsecured**
- **Opened 08 August, Closes 31 August**

Integration Update
Presentation to Zone Committee
August 2016

Reticulation Integration

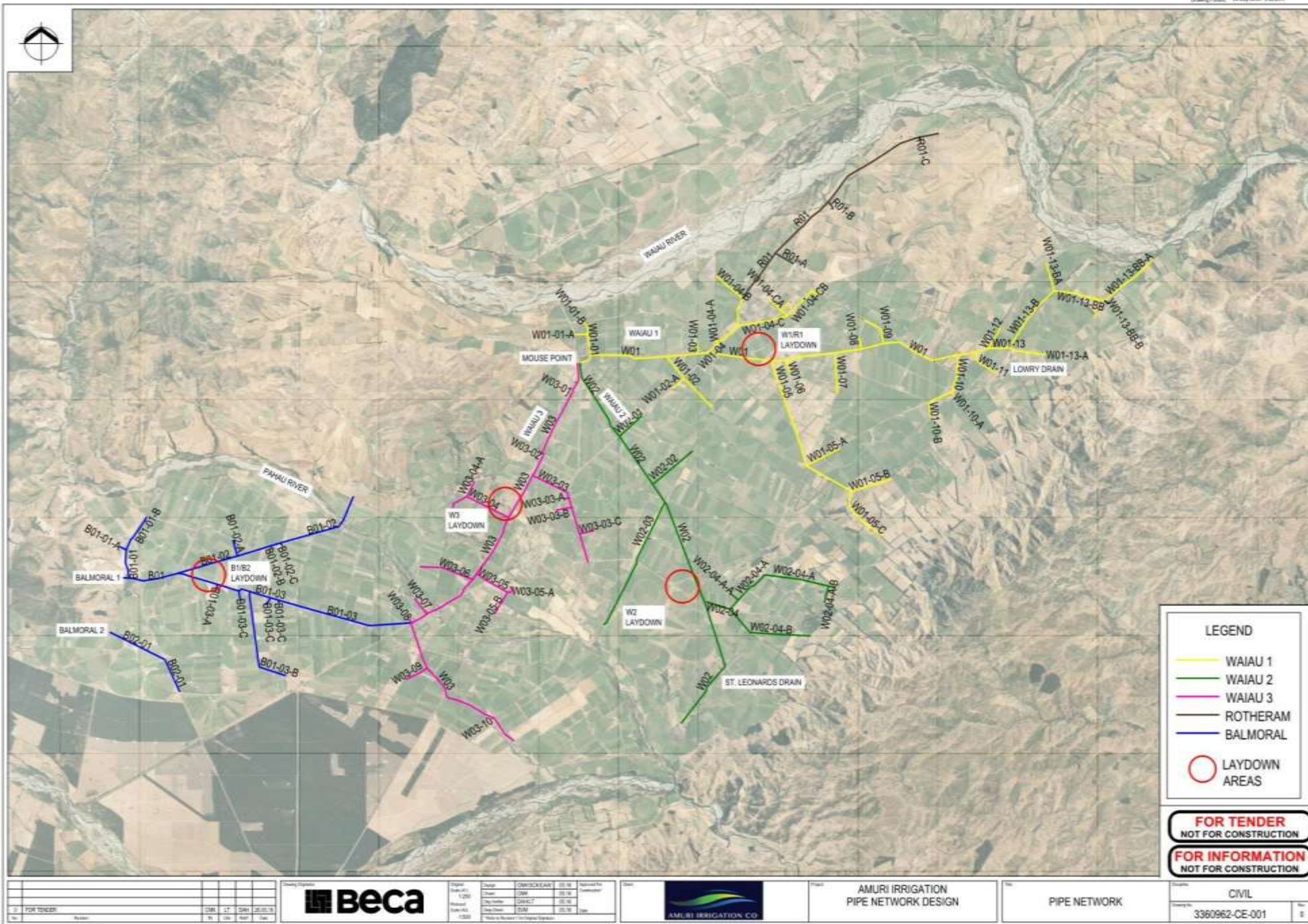
- Reticulation networks separated by Hurunui River
- South side – HWP
- North side – AIC & NTF

AIC Pipe Upgrade

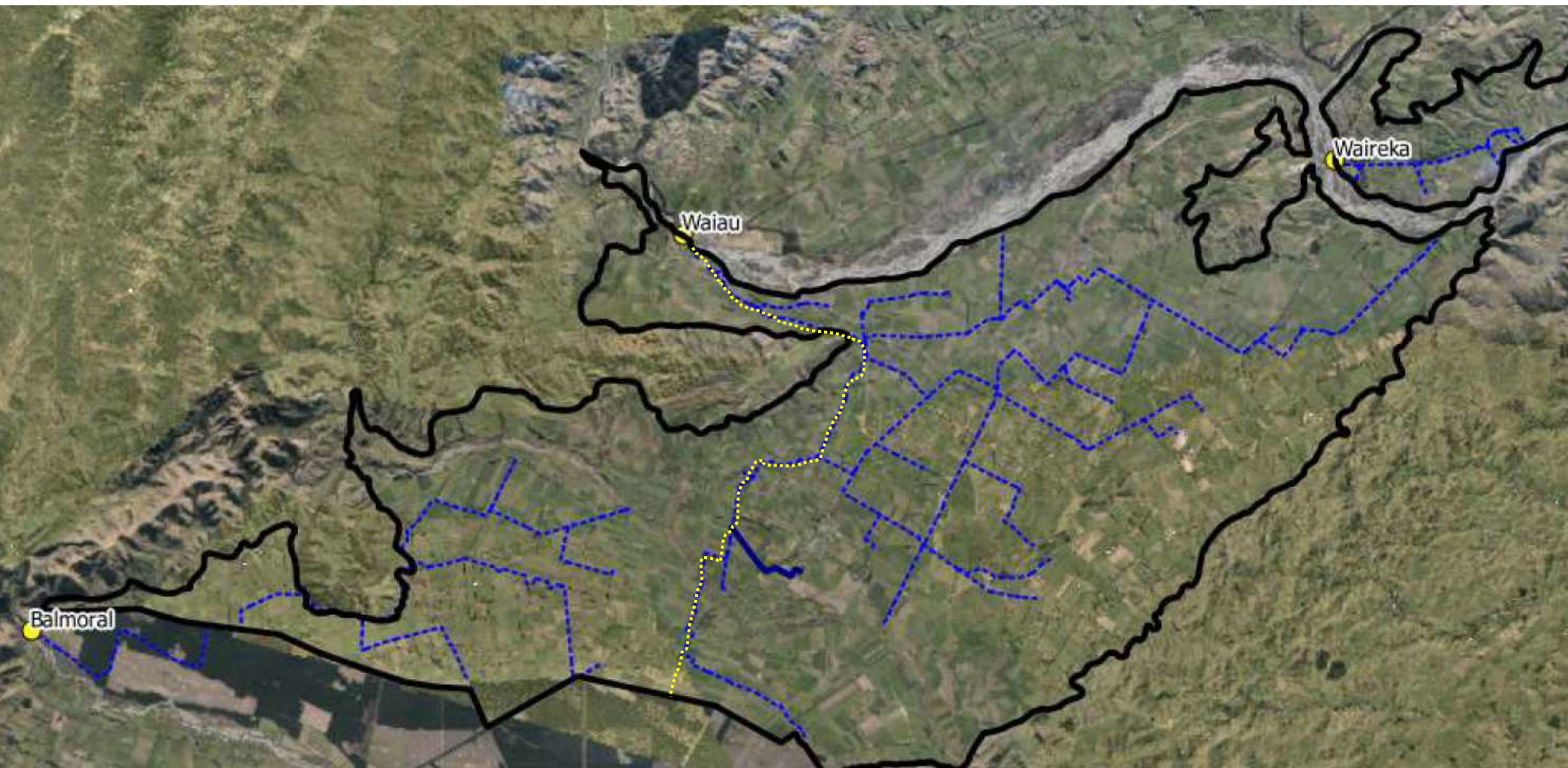
- Share issue fully subscribed
- Funding confirmed
- Contractor negotiations almost complete
- Announcement at shareholder meeting on Thursday

Reticulation Integration

- AIC pipe upgrade frees up Waiau Main Race - 3 m³/s capacity to deliver Waiau water to Balmoral property
- AIC & NTF in discussions regarding Waiau Main Race
- AIC & NTF have agreement on integration of NTF into Balmoral scheme



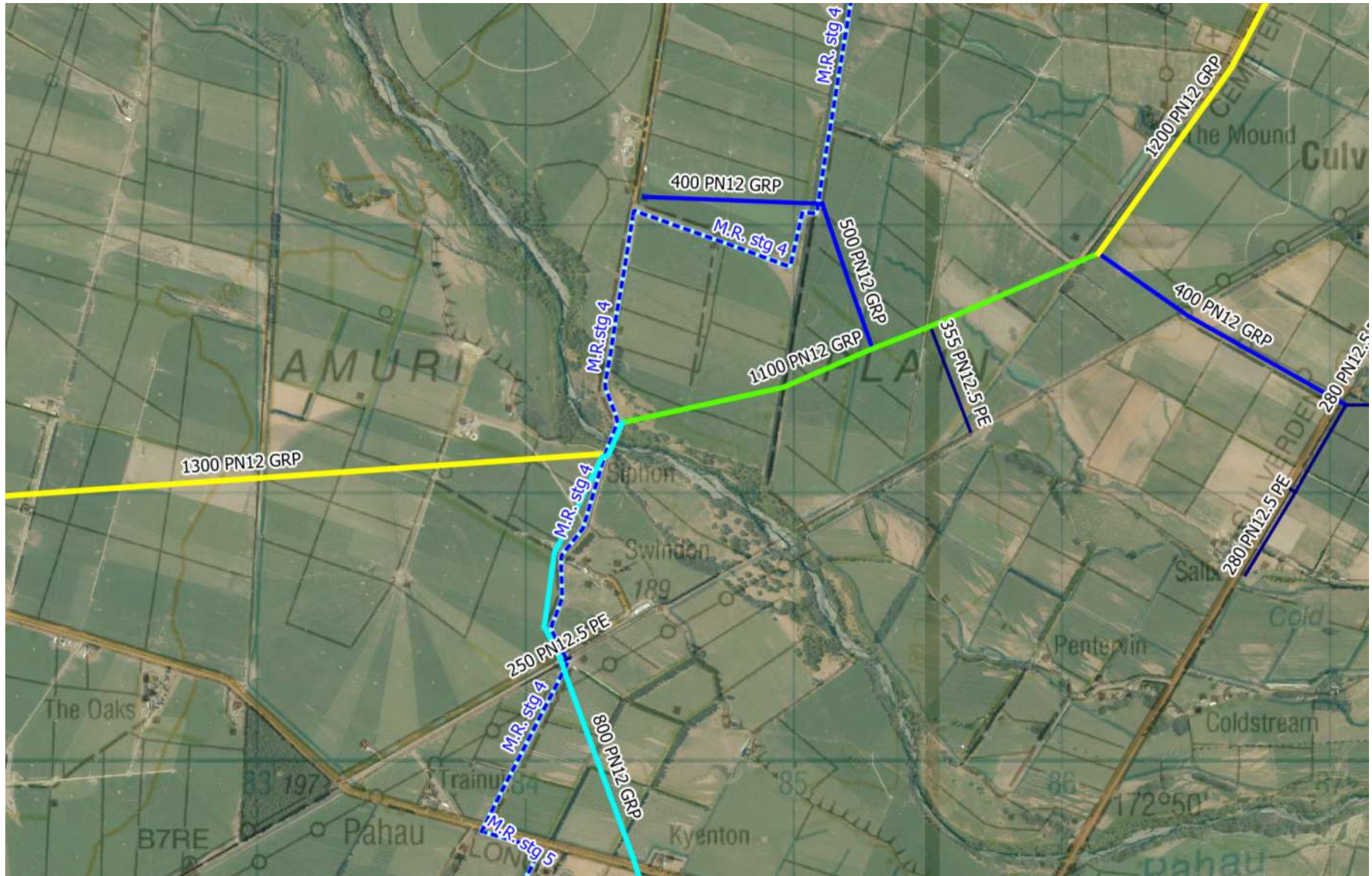
AIC Open Race Network



Balmoral-Waiau Link

- Pipe link allows 3.5 m³/s to flow from Balmoral scheme to Waiau scheme
- Hydro-generation capacity in oversized pipe
- Reduced booster pumping = energy savings
- Allows upper catchment Hurunui storage to supply Waiau scheme
- Significant future flexibility

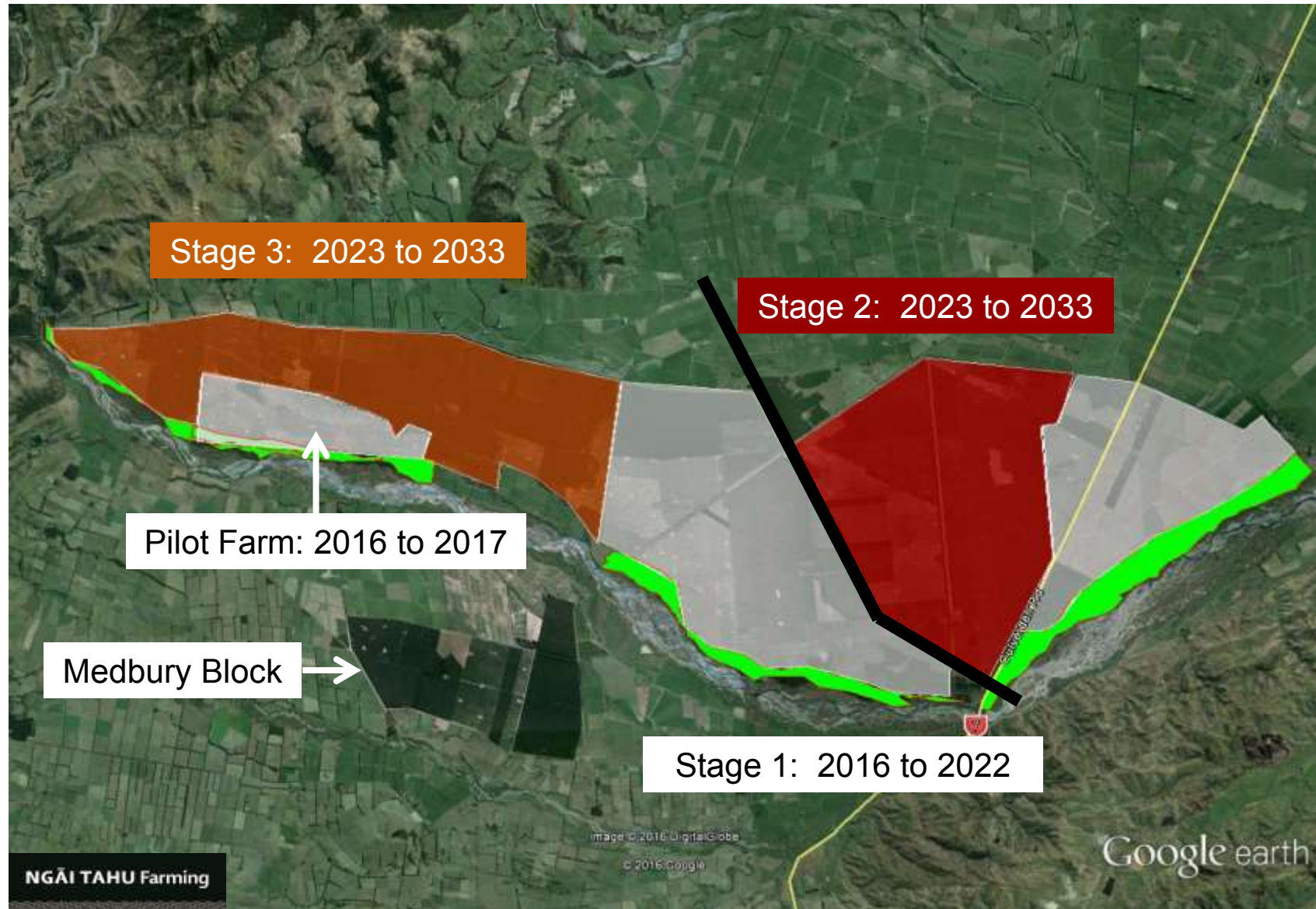
Balmoral-Waiau Link



Emu Plains Update

- Emu Plains Incorporated Society has been formed
- Members and funds being sought
- Waiau B permit to be applied for
- 2+ m³/s Waiau B allocation available u/s of Stanton
- Waiau B allocation ~85% reliable
- Access to unused A water improves reliability
- Buy-in from existing Emu Plains irrigators essential
- AIC will continue to work with and support EPIS

BALMORAL DEVELOPMENT OVERVIEW – 2016 TO 2033



NTF – HWP Heads of Agreement

- NTF has withdrawn its consent Application for Balmoral
- NTF shareholding in HWP will reduce from 9,182 shares to 780 shares – ie Medbury only
- Medbury will be “standard” HWP shareholder / irrigator
- HWP will transfer to NTF part of its consents :
 - 1 cumec of B block water (from the 10 cumecs “B” consented to HWP)
 - Nitrogen load Increase of 80 tonnes/year Root Zone method (from the total 1427 tonnes modelled for Root Zone in the Hurunui catchment within HWP Command Area).
- NTF will apply for consents that no longer overlap

NTF – HWP Heads of Agreement

- NTF and HWP will work jointly with ECan to draft up the changes.
- NTF will subscribe to the current shareholder loan – \$78,000
 - Ie: enough for Medbury
- NTF and HWP have agreed to work cooperatively on:
 - Storage North side
 - The 2018 HWRRP Review
 - Expect that AICL will also be involved

Joint work with ECan is underway – no problems envisaged

NTF – HWP Heads of Agreement

- NTF and HWP will work jointly with ECan to draft up the changes.
- NTF will subscribe to the current shareholder loan – \$78,000
 - Ie: enough for Medbury
- NTF and HWP have agreed to work cooperatively on:
 - Storage North side
 - The 2018 HWRRP Review
 - Expect that AICL will also be involved

Joint work with ECan is underway – no problems envisaged

The objective is to get over the “overlapping” consents situation and work on the two different areas that can be serviced by the different schemes.

HWP Shareholders - current

HWP has a strong independent board and approximately 180 shareholders

Shareholder	Shares	Percentage
Ngai Tahu	9,182	29.6%
MainPower	4,089	13.2%
David Teece	2,027	6.5%
Amuri Irrigation	995	3.2%
HIPT	149	0.5%
Other Shareholders	14,571	47.0%
Total	31,013	100%

HWP Shareholders – post NTF agreement

Shareholder	Shares	Percentage
Ngai Tahu	780	3.3%
MainPower	4,089	17.2%
David Teece	2,027	8.5%
Amuri Irrigation	995	4.2%
Treasury stock	1190	5.0%
HIPT	149	0.6%
Other Shareholders	14,571	61.2%
Total	23,801	100%

Hurunui Storage Requirements

Scheme		Hurunui water		Waiau water		Area (ha)	Target reliability	Storage (Mm3)		m3/ha	
		A	B	A	B			In-scheme	Tributary		
HWP	Stage 1		9	N/A		6,000	93.2%	6.5	0	1,083	
	Stage 2					10,000	95.0%	0	25	2,500	
	Stage 3					5,000	95.0%	0	17	3,400	
AIC	Balmoral	5		N/A		8,500	96.0%	0.08	4	480	
	Waiau	N/A		11	0	18,500	97.0%	0	2	108	
Independent irrigators (upper and lower Hurunui)		3.2		N/A		5,000	96.0	0	2.4	480	
NTP Stage 1	Upper forest	Part of AIC Balmoral									
	Lower forest	N/A		0	1.5	1,200	96.0%	0.8	0	667	
NTP Stage 2	Upper forest		1	N/A		2,250	95.0%	0	4	1,778	
	Lower forest	N/A		0	1*	600	95.0%	0.4	0	667	
NTP Stage 3	Lower forest	N/A		0		1,200	95.0%	0.8	0	667	
Total						58,250		9	54.4		
	*Consent not held. Aspirational										

Hurunui Storage

- HWP investigating on-plains pond and smaller Waitohi dam
- NTF, with AIC support, has investigated Glenrae and other Hurunui tributary sites
- AIC has investigated Pahau River dam feasibility
- Individual options may work but not optimal
- Immediate integrated demand = 37M m³
- Aspirational integrated demand = 54M m³

Hurunui Storage Integration

- Upper catchment storage necessary for integration
- Any integrated solution will be in Zone B and/or A
- Waitohi large dam with pumping not cost effective
- Current Regional Plan:
 - Prohibits dam in Zone A (plan change required)
 - Non-complying activity in Zone B
 - Objectives and Policies make consenting a dam in Zone B very difficult – high risk to applicants

Hurunui Storage Integration

- Integrated storage more cost effective for all
- HWP has 1 year before committing significant funds to Waitohi
- A 1 year window exists for advancing full integration:
 - ZC to consider rezoning storage sites – ZIP addendum?
 - A plan change to rezone storage sites and create a supportive framework for a dam consent application

Hurunui Storage Integration

- Best case is a proposed plan change notified within 1 year
- Still provides significant uncertainty for HWP – a Waitohi in the hand...
- Integrated storage:
 - More cost effective for all
 - One storage site has reduced environmental footprint

Waiau Storage Integration

- Emu Plains will require some storage
- Waiau A permit irrigators may also wish to enhance reliability
- Integrated storage options do not exist in Zone C for the Waiau catchment
- Any revisiting of Infrastructure Development Zones should include Waiau catchment