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*in the matter of:* a submission on proposed Plan Change 3 to the Land &  
Water Regional Plan – South Canterbury Coastal  
Streams

*to:* **Canterbury Regional Council**

*submitter* **Hunter Downs Development Company Limited**

Statement of evidence of Richard Timpany

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Dated: 25 September 2015

## **BRIEF OF EVIDENCE OF RICHARD TIMPANY**

- 1 My full name is Richard Mathew Timpany.
- 2 I am chief executive officer of Hunter Downs Development Company Limited (*HDDCL*) – a role I have held since June 2014.
- 3 I hold a LLB and BCom (finance) from Otago University.
- 4 Prior to taking up a role with HDDCL I consulted on irrigation schemes in Central Otago. My experience covered the legal and financial structuring, consenting and land access, liaison with farmers and the wider community.
- 5 Prior to this I have worked in the Capital Markets as a Trader in Sydney and London.
- 6 In preparing my evidence I have reviewed:
  - 6.1 the HDDCL submission on proposed Plan Change 3 (*PC3*) to the Land and Water Regional Plan (*LWRP*); and
  - 6.2 the evidence of **Ms Sarah Dawson, Dr Donna Sutherland, Mr Brian Ellwood**.

## **SCOPE OF EVIDENCE**

- 7 In my evidence I provide:
  - 7.1 some background on the proposed HDI Scheme;
  - 7.2 a high-level summary of proposed management regime;
  - 7.3 an indication of support for the scheme and an outline the HDI development programme; and
  - 7.4 a summary of HDDCL’s participation in the Zone Implementation Programme (*ZIP*) addendum development and participation with the Nitrogen Allocation Reference Group (*NARG*).

## **BACKGROUND TO HDDCL AND THE SCHEME**

### **HDDCL and its relationship with the HDI Scheme**

- 8 HDDCL is the entity that has been incorporated to develop the Hunter Downs Irrigation Scheme (*HDI Scheme*).

- 9 Its shareholders are Meridian Energy Limited (*Meridian*) and Hunter Downs Irrigation Limited (*HDIL*). HDIL is a widely held company principally comprising owners of property which will potentially be irrigated by the HDI Scheme.
- 10 HDDCL (in short the joint venture company between the above entities) will carry out the further development of seven years of collaborative work between Meridian and the South Canterbury Irrigation Trust (*SCIT*) (now renamed as the Hunter Downs Irrigation Scheme Trust (*HDIST*)). In terms of those interests:
- 10.1 Meridian's interests will be well known to those familiar with electricity and Canterbury – in short Meridian generates around 20% of New Zealand's electricity from six power stations in the Waitaki catchment, with resource consents in place to take and use water for a seventh; and
- 10.2 SCIT was set up in 2005 by the Mayors of Timaru, Mackenzie, Waimate and Waitaki District Councils. It is a charitable trust charged with the responsibility of identifying and promoting sustainable irrigation development as a means of supporting agricultural production and downstream economic growth within South Canterbury. Its primary interest is large scale irrigation infrastructure utilising water from the Waitaki River.
- 11 Meridian and SCIT (now HDIST) wished to maximise the use of Waitaki water for both regional irrigation and national electricity generation. In 2007 Meridian and SCIT jointly applied for resource consents to the take water downstream of Meridian's proposed power station. This water take and use consent was granted in 2011 and is discussed in detail in the evidence of **Mr Ellwood**.
- 12 HDDCL has 7 directors, two from each shareholder, one from Morven Glenavy Ikawai Irrigation Limited (the adjoining existing irrigation scheme that is likely to share some primary infrastructure with the HDI Scheme) and two independent directors to represent the wider community. The independents will be selected for their skills in consultation with Waimate and Timaru District Councils and Ministry for Primary Industries.
- Current Scheme Concept**
- 13 Construction of the HDI Scheme is yet to commence. I discuss the timing of the development of the current scheme concept later in my evidence.
- 14 As set out in the evidence of **Mr Ellwood**, the HDI Scheme is consented to take up to 20.5 m<sup>3</sup>/s of water with an annual water volume of up to 251 million m<sup>3</sup> from the Waitaki River.

- 15 This includes irrigation water for the area covered by the consent for the Waihao Downs Irrigation Scheme. On that basis that scheme exercises its own consent, the HDI Scheme consent is limited to a flow of up to 17.5 m<sup>3</sup>/s, with a volume up to 213 million m<sup>3</sup> per annum. The HDI Scheme consent includes the requirement for Water Supply Agreements and Best Practice Farm Management Plans to be in place to ensure sustainable water use.
- 16 The intake location is located downstream of the Waitaki Dam (after water has been used for hydro-electricity generation throughout the Waitaki system).
- 17 The final take point is likely to include an enlargement of the existing Morven Glenavy Ikawai Irrigation Scheme intake(s). From this intake, the HDI Scheme will consist of a network of canals, pump stations and pipes (forming primary and secondary distribution systems). The HDI Scheme has a 74 year modelled run of river reliability of over 95%.
- 18 In simple terms, the preferred scheme is essentially a pressurised piped distribution network with some limited open canal and gravity pipeline elements at the southern end. The network provides supply from the Waitaki River to up to 40,000 hectares of irrigation (consented) within a command area of around 60,000 hectares. In practical terms this irrigable area that extends from near Studholme in the south to the outskirts of Timaru in the north. The scheme area extends westwards to approximately the RL 200m contour in the vicinity of Waimate, decreasing to around RL 100 near Otipua. The final extent of irrigation within the command area will depend on current shareholder demand and future uptake.
- 19 The command area (i.e. the area within which irrigation can occur under the water consent held) is shown in the **Figure 1**. This figure also includes further areas that are capable of being irrigated by the Scheme (and for which further investigations and shareholder uptake may support the command area being extended in the future).

Figure 1 - HDI command area



20 Overall, HDDCL is taking a very careful and consultative approach to the further consenting and wider development of the HDI Scheme.

- 21 This includes the establishment of what is referred to as the Hunter Downs Implementation Advisory Group (the *Advisory Group*):
- 21.1 the Advisory Group is a further opportunity to provide leadership and advice to achieve good community outcomes – through the direct involvement of *inter alia* Te Rūnanga o Arowhenua, Te Rūnanga o Waihao and Te Rūnanga o Moeraki, potential irrigators, Meridian, the wider community and other potential interested stakeholders; and
- 21.2 more particularly, the Advisory Group will support the HDI Scheme development, the long term effective and efficient operation of the HDI Scheme and better environmental outcomes and practices (through providing advice and informed perspectives that will assist in the development and prioritisation of the consents and the on-going operations of the HDI Scheme).
- 22 HDCCL considers the Advisory Group will be a ‘corner stone’ of the HDI Scheme’s wider desire to give effect to augmentation and wider environmental enhancement.
- 23 HDDCL understands the benefits new infrastructure can bring to the region and is keen to maximise the wider uses and benefits. The delivery of augmentation water for flushing and improving water quality in to the lagoon is factored into the scheme capacity.
- 24 The exact detail of how that water will be delivered and funded is still being developed. The Advisory Group again is key to framing the discharge consents for augmentation and ensuring the most benefit is derived.

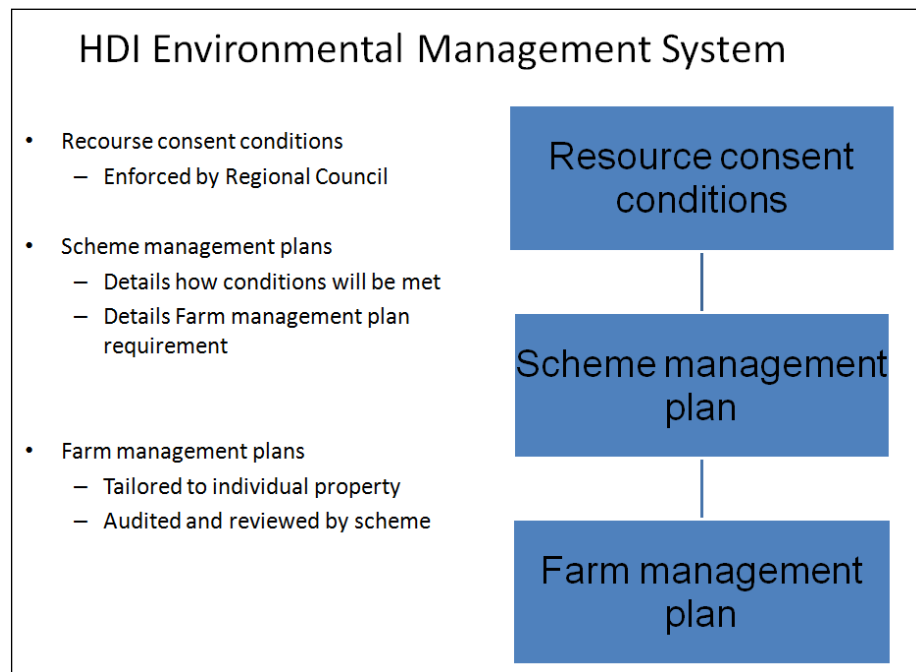
### **THE PROPOSED MANAGEMENT REGIME**

- 25 There are four core layers of land use control that will be implemented by the HDI Scheme. These are:
- 25.1 the requirement for the Scheme to prepare and maintain a Scheme Management Plan;
- 25.2 the requirement for individual farmers to hold and abide by an individual Farm Environmental Management Plan (*FEMP*); and
- 25.3 the requirement for a water user agreement between the individual shareholder and the HDI Scheme (which will

include various provisions around enforcement and compliance)

- 26 This structure will ensure that where, for example, the requirement of a specific FEMP for property is not met by the shareholder then the HDI Scheme is in a position to reduce or potentially cease supply to that shareholder. The requirements are all formally set out in the conditions of consent.
- 27 The Scheme Management Plan sets out the protocols, policies and procedures that the HDI Scheme will follow in the development, operation and maintenance of the scheme. This plan ensures that both the scheme operators and the water users can achieve high environmental standards and sustainable outcomes.
- 28 **Figure 2** shows the relationship between the consent conditions, the Scheme Management Plan and the individual FEMPS. In simple terms the Scheme Management Plan's objectives are to be implemented by the FEMPS and are both transferable and enforceable to individual farm properties via a water supply agreement between the HDI Scheme and the individual shareholder.

**Figure 2 – Hierarchy of Management and scheme regulation**



- 29 A FEMP will need to be in place before any water is supplied. The requirements that will need to be in place under the FEMP include:

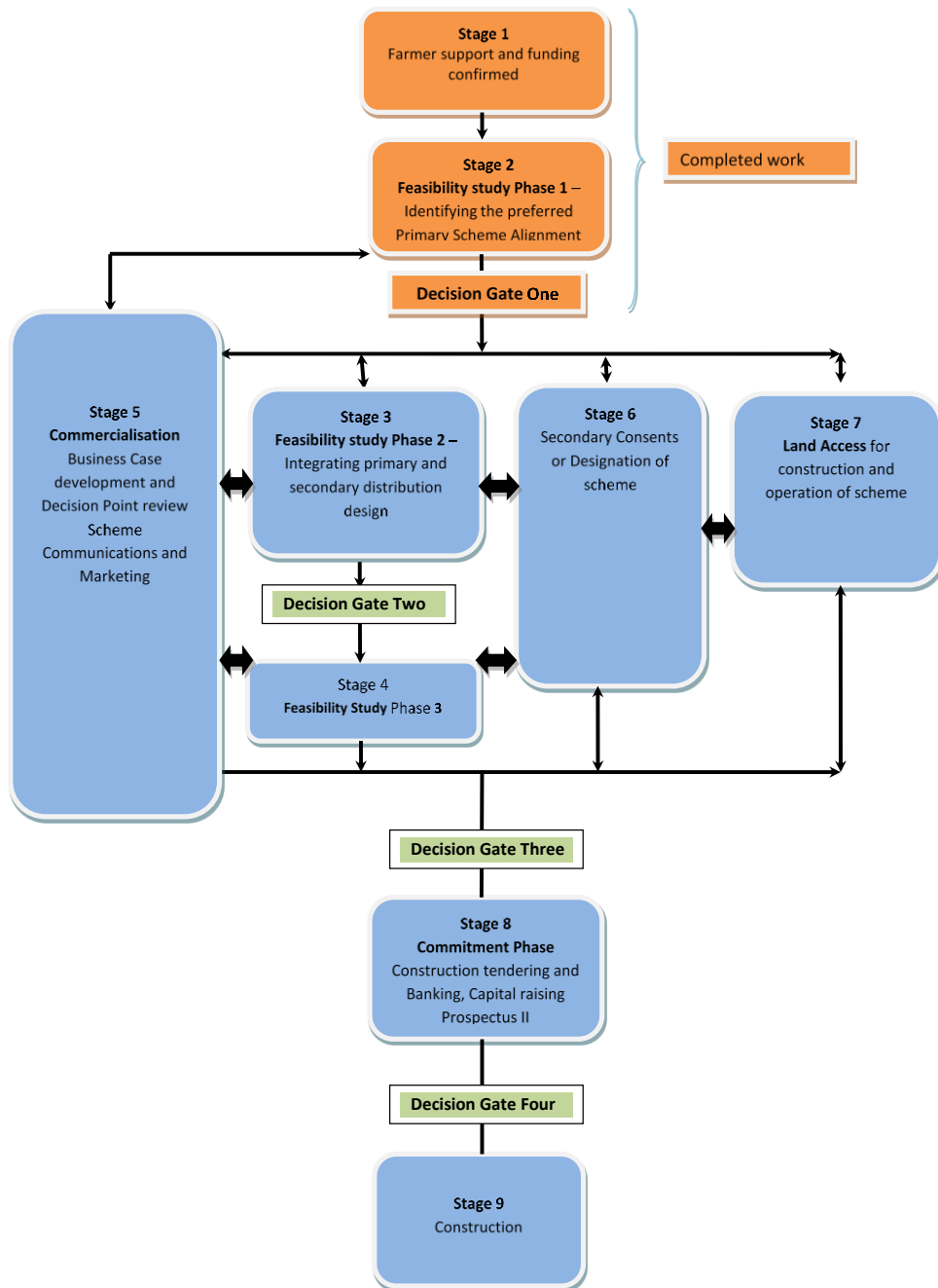
- 29.1 a requirement for accredited design of irrigation infrastructure that takes into account specific impacts identified for each property and applying those constraints to the design (e.g. soil water holding capacity, soil water infiltration rates and land slope);
  - 29.2 preparation of nutrient budget;
  - 29.3 development of riparian management in accordance with Council guidelines including certain stock exclusion, uncultivated buffer along streams, race and drainage management; and
  - 29.4 identification and protection of known mudfish sites.
- 30 In terms of PC3, it is note that the effects of the HDI Scheme area were assessed cumulatively via the resource consenting of the water take and use. In addition, HDDCL considers the FEMPs, the Scheme Management Plan, the use of water supply agreements and consent conditions associated with the take and use of water create a robust regime for managing the change in land use and limiting adverse effects through the PC3 regime.
- 31 An example of the requirements built into the HDI regime is that all on farm irrigation equipment design is undertaken by an Irrigation NZ accredited designer and has measurable performance criteria that are audited during commissioning. The use of the design code will ensure that factors that influence system performance (e.g. soil type, infiltration rate, water holding capacity and slope) are taken into account at the design stages where corrections are easily made. Getting the equipment design right limits the risk of surface runoff, and overwatering causing increased drainage and nutrient leaching.
- 32 A further example is the requirement for nutrient budgets, Overseer will be used to predict the drainage water nitrate concentration and progressively apply mitigation measures as the concentration increases with a nitrogen input limit of 200kg/ha/yr if the concentration of nitrate exceeded 16g/m<sup>3</sup>.

### **SUPPORT FOR THE SCHEME – AND AN OUTLINE OF THE DEVELOPMENT**

- 33 The programme of work for the HDI scheme has been split into nine stages (**Figure 3**):



**Figure 3: Programme of work**



- 34 The funds for Stage 1 (complete) were contributed by Meridian with matching contributions from the Irrigation Acceleration Fund (*IAF*) (part of the Ministry for Primary Industries). It covered communications and promotion activities for the first Prospectus and the procurement of professional services to undertake the feasibility design and early commercialisation work.

- 35 The first prospectus was issued on 4 March 2014. The minimum level of subscription required (at least \$4 million) was met, and HDIL has achieved the support of landowners representing greater than 20,000 ha of land within the scheme command area (a precondition agreed between Meridian and HDIL to beginning Stage 2).
- 36 Meeting these requirements activated the Scheme Agreement entered into by HDIL and Meridian. Under that agreement, both parties must pay certain amounts to HDDCL to fund pre-construction works. Indicative funding contributions at this stage are \$3 million from Meridian, and \$4.1 million from HDIL.
- 37 In addition, HDDCL obtained approval from the Irrigation Acceleration Fund (*IAF*) for additional funding of what is now \$6.0 million.
- 38 The Stage 2 feasibility study is now completed and stages 3, 5, 6, and 7 are accordingly underway. HDDCL has sufficient capital to undertake the remainder of the pre-construction phase.
- 39 HDDCL will undertake the full capital-raising project for the HDI Scheme construction by issuing a further prospectus. This issue of shares is expected to occur following the completion of Stage 8, expected to be completed in mid-2017.
- 40 Following further capital raising, the development phases of the HDI Scheme are shown in **Figure 3**. By 2018 it is anticipated that the HDI scheme will commence with a two year construction programme.
- 41 Ostensibly, it is intended that HDI Scheme operational costs will be met by HDIL shareholders.
- 42 As set out in its original submission, the provision of augmentation to Wainono Lagoon (to which the HDI Scheme is committed) will potentially require a wider community response (given that the benefits extend well beyond the HDI Scheme). Potentially that mechanism for requiring a contribution to augmentation could be provided by PC3 – although while the final approach is still to be determined (and given the relative timeframes for developing the Scheme), HDDCL is believes that all beneficiaries of improved water quality should provide contribute and the Council is one suitable entity to enable the funding to be required via PC3 and collected via, for example, targeted rates.

**HDDCL and ZIP/NARG process**

- 43 HDDCL has supported the Zone Committee in the development of the Zone Implementation Programme (*ZIP*) addendum and it has participated in the community discussions on the Scenarios for future development. One of HDDCL's directors and a farmer in the Otaio area (Ross Rathgen) was a member of the Nitrogen Allocation Reference Group (*NARG*). Ross contributed to the selection of the nutrient allocation model and the selection of soil type classification for the maximum caps.
- 44 As noted in the Evidence of **Mr Ellwood** the HDI Scheme has invested a lot of time and resources in to the assessments analysis of the effects and benefit from irrigation and landuse intensification.
- 45 The certainty that PC3 can create for the HDI Scheme, building on the ZIP expectation of a developed HDI Scheme in terms of nutrient allocation and future landuse capacity, is very important for scheme members. Without confidence in the PC3 rules that the HDI Scheme can intensify (allowing current farming systems to profitably use the irrigation water supplied by the HDI Scheme) no development will be possible.
- 46 To date the processing of the nutrient discharge consent is a recent example of where the HDI Scheme has relied heavily on the output of the ZIP addendum and the agreement reached in the NARG. This alignment is helping build scheme members' confidence to invest and HDDCL seeks that such alignment continue through the PC3 process.

Dated: 25 September 2015

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Richard Timpany