Select Committee Inquiry into the future management of water rights and associated assets administered by Tasmanian Irrigation Pty Ltd

Submission from the Department of Primary Industries, Parks, Water and Environment

December 2017

Department of Primary Industries, Parks, Water and Environment

Tasmanian Government

1. BACKGROUND

On 14 November 2017 the Legislative Council resolved to appoint a Select Committee to inquire into the future management of Tasmanian Irrigation Pty Ltd (TI).

The Department of Primary Industries, Parks, Water and Environment (DPIPWE) has prepared this submission to address the Terms of Reference: *inquire into and report upon the future management of water rights and associated assets that are currently administered by Tasmanian Irrigation Pty Ltd.*

The Submission aims to provide context regarding the role of irrigated agriculture in the Tasmania, TI's role in supporting agricultural growth, ownership structures and models for scheme management and greater local irrigator participation in the management of irrigation schemes.

2. IRRIGATION DEVELOPMENT IN TASMANIA

2.1 AgriVision 2050

Agriculture is a key pillar of the Tasmanian economy and the government's AgriVision 2050 policy is to grow the value of Tasmanian agricultural output to $10 billion by 2050.

In 2012-13, the gross value of agriculture was $1.19 billion and growth at the 20 year trend rate would increase gross value to $4.6 billion by 2050. Achieving the 2050 target requires the real growth rate to more than double.

Tasmania generates, on average, 12 per cent of Australia's water runoff (about the same as the entire Murray-Darling Basin) on less than 1 per cent of the nation's land area. Tasmania has a long history of irrigated agriculture. Irrigation helps Tasmanian farmers to overcome the seasonal dry spells in spring, summer and autumn when evaporation exceeds rainfall. Government policy during the past decade has led to the development of a highly successful public-private partnership approach to investment in, and expansion of, irrigation capacity in Tasmania. Increasing access to, and storage of, water is crucial to boosting the productivity of the primary industry sector toward the 2050 target.

Maximising the benefits of government's investment in irrigation extends beyond investment in irrigation infrastructure, to facilitation of the adoption of new processes, technologies and practices. To this end, the Tasmanian Government has concurrently invested extensively in research, development and extension (RD&E) to maximise production of higher value outputs as well as developing technologies that reduce production costs, increase profitability and ensure sustainability. RD&E provides the skills and knowledge necessary to make investments with greater confidence.

The investment in RD&E to date has specifically sought to:

- Expand the dairy industry to meet growing world demand through increased pasture productivity and better utilisation of feed grain;
- Providing the knowledge to unlock the full potential of the farmer's investment through accelerating their productivity and profitability. This is being achieved through delivering peer to peer networks, modelling tools and soil mapping components through the Water for Profit Program that supports investment in irrigation by farmers;
- Expand the grains industry to meet the growing demand for feed grain in the dairy industry;
- Expanding the research into application of precision irrigation systems, water management and irrigation efficiency as this is central to the vegetable industry's sustainable development;
- Expand intensive horticulture and viticulture (cool climate fruits, vegetables, wines) to achieve economies of scale critical to marketing and value chains; and
- Build high value, specialist plant crops like pyrethrum, essential oils, specialty grains and the production of pasture and vegetable seeds.

In addition to public investment in RD&E, private investment in irrigation infrastructure by farmers provides a driver to diversify production to include higher value products, which in turn provides an incentive for producers to invest in expanding their skills and knowledge.

The Tasmanian Government has also established the AgriGrowth Concessional Loan Scheme which has been designed to increase the value of agriculture and agri-food sectors in Tasmania. The Scheme funds projects that otherwise could not be brought forward and/or financed under normal banking arrangements. The Scheme has been used to support investment in irrigation infrastructure or to support further diversification of the enterprise.

Investment in irrigation, as a whole, has the capacity to:

- Enable more productive, profitable and viable farms and rural communities;
- Attract investment in agricultural industries across value chains including production, processing, manufacturing and exporting;
- Sustain productivity through better management of natural resources;
- Establish commercial and innovation networks that enhance productivity, profitability and sustainability; and
- Assist farmers manage production risk and potential impacts of a changing climate.

2.2 Importance of Irrigation to Tasmania

According to the Australian Bureau of Statistics in 2015-16, 103,876 hectares (7 per cent of land used for agricultural production) were irrigated and the gross value of irrigated agricultural production was $815 million. Notwithstanding that less than 10 per cent of the state's agricultural land is irrigated it produces 55 per cent of the gross value of Tasmania's agricultural production.

Irrigated land is estimated to produce more than 10 times the value per hectare compared with improved agricultural land that was not irrigated. The transformation in Tasmanian agriculture that is related regional, large-scale irrigation development managed by TI has been significant. Recognising that there has also been considerable private sector investment in irrigation

schemes and on-farm storage which contribute to this transformation. The development of the TI schemes provides an opportunity for the increased use and further sustainable development of the state's water. It makes highly reliable water supplies available for growth in agriculture through investment in infrastructure.

In many cases, the provision of highly reliable irrigation water supplies through the schemes has been recognised as a "game changer". Key outcomes relating to farm businesses include commercial certainty and security; flexibility and risk management in irrigation water requirements; and providing for farm business restructuring and modernisation.

TI in developing the Tranche 2 program conservatively estimated the additional on-farm investment for the five schemes at $1.69 for every $1 of public contribution. This represents a significant investment in Tasmania's regional economies, with the usual flow-on benefits to maintaining the viability of regional communities.

For example, the Midlands Irrigation Scheme, the largest scheme completed so far, is expected to contribute economic benefits valued at $193 million, with a benefit-cost ratio of 1.2. For this scheme, it is very clear that job creation and additional value are two benefits that have been provided to the Tasmanian economy through the recent program of investment in irrigation. The availability of water through the Midlands Irrigation Scheme is providing substantial benefits to land that was formerly used for marginal dryland sheep farming. For example, a major cherry producer has invested $3 million, plus a $1 million innovation grant from the Federal Government, to set up a state of the art cherry orchard in the midlands which would not have been possible without the availability of reliable irrigation water.

2.3 Investment in irrigation

The Tasmanian Government, in partnership with the Australian Government and private investors, has supported the development of irrigation schemes across the state. Not all irrigation schemes in Tasmania are publicly funded; a number of schemes have been developed without government support. However, given that many local communities have not the capital, or the capacity, to develop irrigation schemes on prime agricultural land, there is a strong economic argument for why successive Tasmanian Governments have led the development of irrigation schemes through the expertise of Tasmanian Irrigation, a State-owned Company.

The public-private partnership[1] model for irrigation development that has been adopted ensures that government support is prudently directed to assisting with capital costs for schemes designed to last 100 years. This model also ensures that the capital risks associated with each scheme are accepted by government only after private sector investors have achieved an appropriate level of commitment in terms of water entitlement purchases, and that an appropriate, broadly-based due diligence process is followed prior to scheme construction being approved.

The first stage of irrigation development using this public-private model (known as Tranche 1) has delivered ten irrigation schemes, which distribute stored winter flows for summer irrigation.

[1] The public-private partnership model in the Tasmanian irrigation development context refers to a collaborative approach between government and irrigators to determine demand for water storage and distribution systems and subsequently, the development of fit for purpose schemes. It does not indicate a partnership arrangement such that irrigators purchase an ownership share of the schemes.

In total, these schemes can deliver approximately 75,000ML of high reliability irrigation water to a potential area of 133,000 hectares. These schemes were progressively commissioned in the period from 2011-12 to 2015-16.

The second phase of irrigation development (Tranche 2) is well underway with a further five schemes completed, under construction or in the final stages of approval. These schemes will have a combined capacity of 28,000 ML with a potential to reach 82,000 hectares. Tranches 1 and 2 combined will make more than 100,000 ML of irrigation water available, delivering a major boost to agricultural productivity in the state.

The capital costs of developing all 15 Tranche 1 and 2 schemes is expected to be $483 million, with $362 million being contributed by the Australian and Tasmanian governments and with private investors (mainly irrigators) contributing $121 million. Irrigators are also investing heavily in on-farm systems (pipelines, pumps and irrigators).

Looking beyond Tranche 2, the Tasmanian and Commonwealth governments are jointly supporting an investigation into further opportunities in a potential third stage of development. Eight possible schemes are being considered for development, with the potential to make in excess of 45,000ML of summer irrigation water available. A further five scheme modernisation or augmentation projects are also being considered. This $2.5 million feasibility study of potential Tranche 3 schemes, which includes $1.78 million in Australian Government funding, is being undertaken by TI, utilising the company's expertise on scheme development.

3. TASMANIAN IRRIGATION

3.1 Why Tasmanian Irrigation was formed?

The Water Development Plan for Tasmania was launched in 2001, with the building of the Meander Dam in 2007 a direct outcome of a strategic approach to water development. This strategic approach to water development has continued since, with sustainable irrigation schemes developed and constructed under the Supporting More Efficient Irrigation in Tasmania program between 2010 and 2015, and most recently, the Tasmanian Irrigation Tranche 2 program under which five schemes are being developed and built between 2016 and 2019. Investigations into a Tranche 3 range of proposals is also being undertaken by TI to explore potential inter-connectivity, enhancement and modernisation of existing irrigation schemes as well as the development of potential new schemes.

In order to develop and construct irrigation infrastructure projects in 2008 the then Government established the Tasmanian Irrigation Development Board (TIDB) and Tasmanian Irrigation Schemes Pty Ltd (TIS), two subsidiaries of the Rivers and Water Supply Commission (RWSC), a Government Business Enterprise. TIDB was established to progress a number of important irrigation schemes across the state from the feasibility assessment stage through to construction and commissioning. TIS was established to administer state-owned irrigation schemes, and provide oversight and ensure compliance within associated water districts.

In 2011 under the *Irrigation Company Act 2011*, after a review by the Department of Treasury and Finance, the RWSC, TIDB and TIS merged into a single State-owned Company, known as Tasmanian Irrigation Pty Ltd. At the time in the Second Reading Speech, the rationale for the merger was:

"Tasmanian Irrigation Pty Ltd will be able to achieve the objectives of the entities in a more effective and efficient manner, with all the powers and functions of the existing businesses concentrated in one body ….

Tasmanian Irrigation Pty Ltd will continue to administer state-owned irrigation schemes and related water districts. Furthermore, the new entity will continue to progress the development and construction of Irrigation schemes across Tasmania."

3.2 The legislative framework under which Tasmanian Irrigation operates

TI operates under a range of legislation. Section 7 of the *Irrigation Company Act 2011* specifies the principal objectives of TI are to:

(a) to develop, own and operate irrigation schemes in Tasmania; and

(b) to operate its businesses and activities effectively and efficiently and in accordance with sound commercial practice.

The *Corporations Act 2001* and the constitution of TI govern the operation of the company. TI's operations are also guided by the *Government Business Enterprises Act 1995,* the *Irrigation Company Act 2011*, the *Water Management Act 1999* and the *Irrigation Clauses Act 1973*. TI is subject to the Members' Statement of Expectations as issued by the Treasurer and Minister for Primary Industries and Water and as a state-owned company it is also subject to the Treasurer's Instructions.

The *Water Management Act 1999* specifies the regulatory arrangements relating to the establishment and administration of irrigation districts and provides the legislative underpinning for TI to be the responsible water entity for such districts. A responsible water entity is responsible for managing the water within a water district. This has been seen as desirable for the development and establishment of broad-scale, community irrigation schemes. This includes providing for the orderly allocation of water rights, management of restrictions should they be required, and ensuring the district operates in compliance with the various conditions which might be applied to it. In addition the *Irrigation Clauses Act 1973* provides the statutory basis for the construction and operation of irrigation schemes as well as the supply of water for irrigation and for water trading[2].

The *Water Management Act 1999* provides broad directions for the Minister for Primary Industries and Water to oversee the sustainable use and development of all freshwater resources in the State. There are range of other regulatory requirements under the Act that are applicable to TI including water licensing; watercourse conveyance; dam permitting; and dam safety provisions. These requirements are not unique to TI and apply to all irrigators and water entities.

In relation to the operation of its mini-hydroelectric generation facilities, these are regulated through the *Electricity Supply Industry Act 1995*. TI holds a generation license under this Act, issued by the Tasmanian Economic Regulator. Under the license, TI is responsible for meeting its obligations under the relevant legislation, code, guidelines and rules.

[2] Under the *Irrigation Clauses Act 1973* water can be supplied under a system of irrigation rights, or through general availability.

TI operates within the expectations of the Shareholding Ministers and the Government of the day. The benefits of that are greater accountability and responsiveness to the needs and aspirations of the Government in relation to agricultural policy, such as the current policy to significantly grow the value of agricultural output.

The intent is that TI will operate as a commercial enterprise and replicate private sector efficiencies and effectiveness, and as a state-owned company it can be required to pay dividends to its shareholders; however, current policy is that no dividends are collected.

3.3 National Water Initiative obligations

Tasmania, along with all the other states and territories, is a Party to the National Water Initiative (NWI) – an agreement between all Australian governments to improve the sustainability and efficiency of water management in Australia.

All irrigation schemes funded under the Tranche 1 and Tranche 2 programmes must be NWI-compliant. This is a condition of the funding arrangement between the Australian and Tasmanian governments.

Under this requirement, TI's obligations relate particularly to the following:

- maintenance of publicly accessible and compatible water register arrangements consistent with any established national water market system;
- implementing water charging regimes that reflect the full cost of supply to end users, including environmental externalities where feasible and practical;
- ensuring water metering arrangements are in place consistent with national standards for measurement and metering;
- contributing to demonstrating how environmental and other public benefit water is applied, reported and whether desired outcomes are achieved; and
- collecting, managing and reporting water data according to the standards and protocols established by the Bureau of Meteorology.

3.4 Schemes currently managed by Tasmanian Irrigation

TI currently manages:

- 13 irrigation schemes (see Table 1),
- owns the infrastructure of two locally managed irrigation schemes (Cressy Longford Irrigation Scheme and Winnaleah Irrigation Scheme),
- has recently assumed ownership of Lake Leake (a water storage operated by the Elizabeth Macquarie Irrigation Trust),
- manages one water delivery scheme (Togari Water Supply Scheme), one drainage district (Furneaux Drainage Scheme), and
- two riverworks districts (Welcome River Improvement Scheme and Montagu Catchment Area River Improvement Scheme).

The 13 irrigation schemes operated by TI supply water to approximately 900 water users and include pre-Tranche 1, Tranche 1 and Tranche 2 schemes. Four schemes are currently under construction or development, refer Table 2.

Table 2 below shows TI schemes which are not yet operational. TI has two irrigation schemes under construction and two more in the detailed design/approvals phase. The Swan Valley scheme is currently in the commissioning phase and is expected to deliver irrigation water during the 2017-18 season, construction is underway on the Duck scheme, construction on the North Esk scheme is expected to commence early in 2018, and the Scottsdale scheme is in the final approvals phase of development. TI also owns and operates two mini-hydro installations, associated with the Greater Meander and Midlands schemes, and has another under detailed design.

Table 1. Irrigation schemes owned and operated by TI.

Scheme	Inherited / Tranche 1 / Tranche 2	Annual volume (ML)	Region
Dial Blythe	Tranche 1	2,855	North-west
Great Forester	Tranche 1	1,980	North-east
Greater Meander	Inherited	36,000	North
Kindred-North Motton	Tranche 1	2,500	North-west
Lower South Esk	Tranche 1	5,298	North
Midlands	Tranche 1	38,500	South
Sassafras-Wesley Vale	Tranche 1	5,460	North-west
Sorell (South East Stage 3)	Tranche 1	3,000	South-east
South East Stage 1	Inherited	2,650	South-east
South East Stage 2	Inherited	1,975	South-east
Southern Highlands	Tranche 2	7,215	South
Upper Ringarooma	Tranche 1	5,700	North-east
Whitemore	Tranche 1	5,500	North

Water is supplied under a system of irrigation rights or through contractual arrangements. Irrigation rights are issued in accordance with the *Irrigation Clauses Act 1973* and provide water users with a secure, National Water Initiative (NWI) compliant water access entitlement.

Table 2. Irrigation schemes under construction/development

Scheme	Annual volume (ML)	Region
Duck	5,200	North-west
North Esk	4,685	North
Scottsdale	8,600	North-east
Swan Valley	2,000	East

3.5 Water rights

3.5.1 Water rights held by Tasmanian Irrigation

The *Water Management Act 1999* provides that all rights to the taking of water from the water resources of Tasmania are vested in the Crown, to be administered in accordance with the Act. Under the Act, the Minister for Primary Industries and Water may grant a water licence to take

water from a water resource. Such licences are water entitlements that are separate from land title, exclusive, tradeable and mortgageable, enforceable and recorded in a publicly accessible water register. TI currently holds eighteen water licences, endorsed with some 46 allocations authorising access to water for existing and future schemes[3]. Further details are provided in section 5.2.

It should also be noted that TI has contractual water supply arrangements in place with TasWater and Hydro Tasmania for the supply of water in particular irrigation schemes. These water supply arrangements are not provided for through the statutory entitlement framework of the *Water Management Act 1999*, but by way of commercial contracts between two corporate entities.

3.5.2 Supply of water to irrigators

Two types of water entitlement are used in regard to TI schemes – irrigation rights and zoned flow delivery rights. Irrigation rights are a component of the irrigation district construct, with a district appointed under the *Water Management Act 1999* in relation to each of the schemes.

Irrigation Rights

Irrigation rights are granted by TI in accordance with the *Irrigation Clauses Act 1973*. These statutory backed rights, which are fully tradeable, grant to their holders a right to be supplied in each irrigation season with a certain quantity of water. As such, TI has a statutory obligation to supply water in accordance with those rights and the terms and conditions to which they are subject.

Each irrigation right holder has a volume of water defined under their right to which they are entitled. These rights provide access to highly reliable irrigation water; indeed the level of reliability exceeds 95 per cent in each scheme. Notwithstanding the very high level of reliability, an approach is taken, similar to irrigation water supply elsewhere, in which "allocation announcements" are made at the start of the irrigation season. Allocation amounts may be amended during the season where conditions require it. The volume of entitlements and the percentage of that volume available to be supplied underpins those announcements.

The irrigation right system under which TI operates complies with the National Water Initiative and the Council of Australian Governments water reform obligations. Notably this is the case in relation to irrigation rights being separate from land title, exclusive, tradeable and mortgageable, and being enforceable and recorded in publicly-accessible water register.

TI is responsible for ensuring that irrigation right holders are complying with the terms and conditions specified in relation to any irrigation right. A key requirement in a number of irrigation schemes[4] managed by TI, is the requirement for each irrigation right holder being supplied with water from a scheme to have in place approved farm planning process, taking into account land capability, crop type and environmental approvals. In order to meet this requirement, the Tasmanian Government approved the use of Farm Water Access Plans as the basis by which each relevant irrigation right holder can demonstrate compliance with the farm planning requirement and ensure that their use of water delivered by a scheme was sustainable.

[3] There are 12 licences endorsed with 29 allocations that relate to the operation of existing irrigation schemes.
[4] Required for irrigation schemes funded under the Tranche 1 and 2 programs.

TI are obliged through the operating conditions of all its Tranche 1 and Tranche 2 schemes to undertake audits of farm water access plans.

Zoned Flow Delivery Rights

All TI schemes, except Greater Meander and South East 1 and 2, use a system of zoned flow delivery rights to manage the delivery of water to irrigation right holders, taking into account the capacity of infrastructure available to deliver water. Zoned flow delivery rights were made available to farmers at the same time they were issued with their irrigation rights.

Zoned flow delivery rights do not have a statutory underpinning; they are a contractual arrangement between TI and the irrigator. The need to hold zoned flow delivery rights comes about through the terms and conditions to which irrigation rights are subject (ordinarily an irrigation right would provide for the supply of water to the right holders land).

Zoned flow delivery rights, which are tradeable, grant to their holders a right to a share of the capacity of the schemes to deliver water within a zone. The quantum of a zoned flow delivery right is defined as a flow rate. Zones arise because of variations in pipeline diameters and other factors that limit the capacity of parts of a scheme to deliver water to different parts of an irrigation district.

3.6 Views of Water Right Holders

In August 2016, the Minister for Primary Industries and Water wrote to more than 2,500 water users seeking their feedback on their experiences during the 2015-16 irrigation season during which extremely dry conditions prevailed in the state. The survey was circulated to not only irrigators who hold water licences but also to those who source water from alternative supplies, including TI customers.

A total of 571 responses were received, of which 212 respondents indicated that they sourced water from schemes operated by TI. Appendix 2 provides some analysis of the responses from the 212 TI customers to DPIPWE's 2015-16 Irrigation Satisfaction Survey.

During the 2015-16 reporting period, extreme dry conditions prevailed and the survey results show that TI customers reported fewer restrictions on the supply of irrigation water delivered by TI (23 per cent reported restrictions) compared to water taken under a water licence for which restrictions are managed by DPIPWE (42 per cent reported restrictions).

DPIPWE's 2015-16 Irrigation Satisfaction Survey also sought to ascertain whether water users were satisfied with service and support provided by a water entity. On a state-wide basis, some 74 per cent of responses agreed or strongly agreed that they were satisfied with the service and support provided to them by one or more water entity during the 2015-16 irrigation season.

The level of satisfaction reported in relation to TI was higher than the state-wide figure, with 83 per cent agreeing or strongly agreeing that they were satisfied with the service and support provided by TI. Given that difficult conditions prevailed during the 2015-16 season, the results indicated that overall the majority of water users considered that they are getting a very good level of service in a difficult season.

4. OWNERSHIP OF SCHEMES

The irrigation scheme infrastructure owned by TI provides substantial benefits to Tasmania as a whole, and in particular, provides very substantial benefits to the local communities within which the infrastructure is located.

Establishment of TI as a state-owned company has enabled successive Australian and Tasmanian governments to provide funding to support development of the schemes. TI's portfolio of irrigation scheme assets represents a significant public investment in infrastructure that is designed, and expected, to provide a community benefit well into the future – the design life of the schemes is 100 years. Private irrigators participating in the various schemes have purchased water rights that are perpetual and tradeable. These water rights have significant intrinsic value.

The funding model under which irrigation development in Tasmania has progressed in more recent years involves the use of both public and private funds to meet capital costs of scheme development. This has resulted in hundreds of millions of public funds being expended on irrigation projects through TI.

It is important to note that the scheme design does not convey a right to the physical assets that make up the schemes themselves. The funds were never intended to be a grant of funds to private interests and therefore the sale or transfer of these assets into private hands is not being considered, or supported, by the current Tasmanian Government. This is consistent with the principal objectives set out in the TI portfolio legislation, the *Irrigation Company Act 2011*. Determining where ownership could vest outside the Crown would be complex.

Maintaining public ownership of TI's assets will provide certainty to governments that their funding will continue to underpin the community benefit purpose which motivated the decision to increase investment in irrigation in the state. The Tasmanian Government will remain well positioned to ensure that it receives, on behalf of tax-payers, the expected economic return on its investment. It will also ensure continued equitable access to the infrastructure for the local community and maintenance of these valuable community assets by an asset-focused owner.

5. MANAGEMENT OF IRRIGATION SCHEMES

The core business of TI is to construct and operate irrigation scheme infrastructure appropriately and operate its businesses and activities effectively and efficiently and in accordance with sound commercial practice.

TI also provides, on a commercial basis, administrative and management support to schemes owned by TI and managed by local communities.

This Government has always stated (refer to GBE hearings 2016) that, where appropriate and feasible, consideration will be given to local community management of these schemes. This is supported through TI's Statement of Expectations and its Statement of Corporate Intent.

5.1 Management – Water Entities

Under Part 9 of the *Water Management Act 1999* only a water entity as defined under the Act can be responsible for the administration and management of an irrigation district.

If a group of landowners wanted to assume management responsibility for a district they would need to form either a body corporate incorporated under the Corporations Act or a trust under the *Water Management Act 1999*.

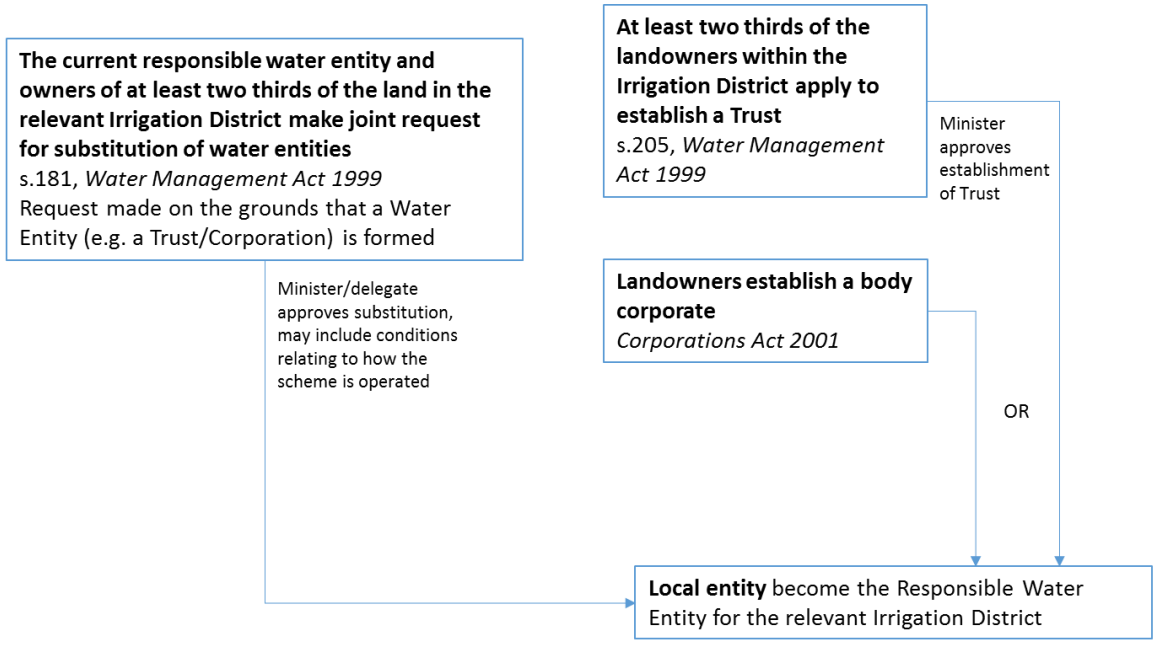
In order to take over management responsibility of an irrigation district currently managed by TI, the owners of at least two thirds of the land in an irrigation district and TI need to make a joint request for substitution of water entities under section 181 of the *Water Management Act*. Section 181(2) states that such a request may be made on the basis that landowners have agreed to establish a water entity. Figure 1 details the steps required to achieve alternate scheme management.

An application to establish a Trust under the *Water Management Act 1999*, also requires comprehensive Trust rules, details of how funds will be managed, consideration of Crown land implications and whether works owned by the Crown or other water entities are to be managed by the new Trust.

Generally, an application to appoint a Trust as a responsible water entity is considered where the following conditions and situations apply:

- extensive member experience in undertaking the relevant activity/ managing the resource;
- proposed medium annual turnover;
- strong focus on local management; and
- a need for varied and a high level of member involvement in decision making.

Figure 1. Process towards becoming a Responsible Water Entity.



In considering an application to establish a Trust under the *Water Management Act 1999*, sufficient information would need to be provided to demonstrate that a proposed entity will be able to operate efficiently and effectively and will be financially viable in its role in assisting to further the objectives of the Act.

5.2 Issues to consider in management of irrigation schemes

The Productivity's Commission's Draft Report on National Water Reform noted that water reforms have significantly improved the way in which water resources are managed and water services are delivered, resulting in significant benefits for the community[5].

The regulatory frameworks provided by the *Water Management Act 1999* and *Irrigation Clauses Act 1973* ensures the sustainable use and development of all freshwater resources in the State. In addition, the current regulatory framework provides for public safety outcomes and ensures a level of accountability that informs the government as the regulator where management action may be required. This is also supported through the implementation of NWI consistent arrangements and the development and operation of sustainable irrigation schemes.

Management of irrigation schemes can be complex and there are certain aspects that TI are well set up to address, such as dealing with environmental obligations and financing issues, that any substituted water entity would also need to undertake.

Any reduction in the efficiency and effectiveness of the current regulatory framework would likely be considered undesirable in terms of managing the fresh water resource in Tasmania.

5.2.1 Obligations of a responsible water entity in the administration of a scheme

Water entities such as TI, and including Trusts, established to administer irrigation districts have been afforded a range of powers and duties under the *Water Management Act 1999* and the *Irrigation Clauses Act 1973* including:

- powers to grant irrigation rights and the requirement to maintain an irrigation rights register;
- powers to set by-laws in relation to a range of matters including the regulation of the charges, terms, and conditions upon which water will be supplied;
- powers to install meters and to undertake on-ground compliance;
- powers to acquire land, enter land and undertake works, and to manage and protect works; and
- the requirement to provide the Minister with an annual report showing full financial statements and details of all activities undertaken in discharging its responsibilities as a responsible water entity.

In addition Trusts are regulated in accordance with Part 10 and Schedule 3 of the *Water Management Act 1999*, regulation 29 of the *Water Management Regulations 2009* and the *Water Management (Electoral and Polling) Regulations 2009*. Trusts have a range of powers under the Act including the power to borrow money; to appoint employees to carry out its responsibilities; and power to borrow on overdraft. On top of the day-to-day duties relating to the

[5] http://www.pc.gov.au/inquiries/current/water-reform#report

administration of a water district, the Trustees are also responsible for maintaining accurate accounts, records and proceedings of the Trust.

The body established to administer an irrigation scheme needs to have the capacity to run the scheme in a contemporary manner (including the supply and trade of water through the scheme) and undertake on-going maintenance and provide for further investment and infrastructure renewal.

Given the complexity and size of TI schemes, to undertake these functions the water entity requires sophisticated systems and access to appropriate capital and human resources. As a state-owned business TI has these in place.

5.2.2 Compliance with conditions regarding the taking and conveyance of water

Tasmanian Irrigation, in accordance with the provisions of Part 6 of the *Water Management Act 1999* currently hold 18 water licences that authorise the taking of water around the state. Four of the eighteen licences relate to schemes currently under development, construction or commissioning (Swan Valley Irrigation District, Duck Irrigation District, North Esk Irrigation District and the Scottsdale Irrigation District). A further two of the eighteen licences related to the supply of water for the Togari Water Supply Scheme[6] and the taking of water from Riley's Creek Dam near Geeveston for aquaculture.

Among the irrigation schemes currently operated by TI, some are supplied under contractual arrangements from either Hydro Tasmania or TasWater and therefore a water licence authorising the taking of water is not required[7]. This includes the Lower South Esk Irrigation Scheme and the South East Irrigation Scheme Stage 2 and Stage 3 (Sorell).

TI hold twelve water licences that relate to irrigation schemes that are currently operational with each licence endorsed with one or more water allocations that specify the various conditions under which water may be taken. Table 3 details the number of allocations associated with these schemes. Appendix 1 provides some examples of licences issued to TI.

In addition to the granting of water licences, Watercourse Authorisations under Part 6A of the *Water Management Act 1999* have also been issued to TI to enable the lawful conveyance of water in a watercourse[8]. Watercourse Authorisations currently exist for the Southern Highlands Irrigation Scheme, Midlands Irrigation Scheme and the Upper Ringarooma Irrigation Scheme. Appendix 1 includes the conditions associated with Watercourse Authorisations for some of these schemes.

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[6] The Togari Water Supply was proclaimed in 1974. Water is supplied from the Galesford Dam and pumped throughout the scheme via pipeline, and used mainly for dairy wash down. TI do not issue water entitlements in this scheme.

[7] Water sourced by TI from Hydro Tasmania or TasWater has been legally taken by those entities under a water licence or Special Water Licence issued under the *Water Management Act 1999*. Therefore, TI do not require a water licence when sourcing water taken previously by another licensee.

[8] Under section 123A of the *Water Management Act 1999*, a person must not convey, via a watercourse, water that has been taken and stored pursuant to the Act or the *Irrigation Clauses Act 1973*, unless the person holds an authority authorising the conveyance of water via a watercourse.

Table 3. Water licences issued under the *Water Management Act 1999* for irrigation schemes currently operated by TI, water licence details

Scheme	**Water Licence Number**	**Number of water allocations endorsed on the licence(s)**
Dial Blythe Irrigation Scheme	9325	5
Great Forester Irrigation Scheme	9281	1
Greater Meander Irrigation Scheme	9000	1
Kindred North Motton Irrigation Scheme	9311	1
Lower South Esk Irrigation Scheme	9128	3
Midlands Irrigation Scheme	no water licence, contractual arrangement with Hydro Tasmania	n/a
Sassafras Wesley Vale Irrigation Scheme	9204	1
Sorell Irrigation Scheme (South East Stage 3)	no water licence, contractual arrangement with TasWater	n/a
South East Irrigation Scheme Stage 1	8047	3
South East Irrigation Scheme Stage 2	no water licence, contractual arrangement with TasWater	n/a
Southern Highlands Irrigation Scheme	9131	5
Upper Ringarooma Irrigation Scheme	9384	2
Whitemore Irrigation Scheme	9129	1
Winnaleah Irrigation Scheme*	8048 9214	4 2

*scheme operated by irrigator group but TI hold water licences

All water licences and watercourse authorisations issued under the *Water Management Act 1999* are subject to a range of conditions that must be complied with. Conditions are site specific and may include comprehensive water quality or water quantity monitoring, water metering, circumstances under which water may be taken, requirements to release flows at certain times of year[9], and the operation, on-going monitoring and maintenance of gauging stations.

The *Water Management Act 1999* and *Water Management Regulations 2009* set out the penalties that can be imposed for non-compliance with either the conditions associated with a water licence or a watercourse authority.

Any water entity substituted for TI would be required to comply with the conditions in the relevant water licence(s) and water course authority. As such the new water entity would need to have the expertise to ensure compliance with water licence and watercourse authority conditions as well as the capacity to operate and maintain stream flow gauging stations, groundwater sites and the collection and analysis of water quality information and ecological information. Stream gauging stations require maintenance and calibration and this cost vary from $5,000 to $10,000 per site per year; TI currently operate 15 stream gauging sites. Field

[9] This includes the provision of environmental high flow events.

instrumentation is required for gauging and these incur an initial setup cost ranging from $10,000 to $50,000 depending on the equipment required.

The current licence and legislative requirements for the collection and analysis of water quality and ecological data would incur an annual cost of approximately $200,000.

5.2.3 Compliance with Environmental Protection Notice

As part of the approval process for the construction on the Meander Dam, an Environment Protection Notice (EPN) was issued under the *Environmental Management and Pollution Control Act 1994*. TI has obligations under the EPN to report to the Environment Protection Authority and these obligations would transfer to the water entity operating the Meander Dam.

5.2.4 Compliance with conditions associated with irrigation schemes

Part 9 of the *Water Management Act 1999* provides for the establishment and administration of irrigation districts. This includes requirements to prepare an annual report as well as the head of power to impose conditions on the operation of a district by the water entity responsible for the district's administration. Appendix 1 details the types of district conditions that apply in schemes operated by TI.

Section 186 of the *Water Management Act 1999* provides that if a water entity materially contravenes a condition of the irrigation district, the Minister may revoke its approval to administer a district.

Some of the district conditions require the entity managing the scheme to undertake a substantial amount of work, for instance in approving the development of the Midlands and Lower South Esk Schemes, ensuring landscape and farm-scale environmental sustainability is taken into account. Farm-scale requirements are addressed through the requirements for Farm Water Access Plans (WAPs) to be developed by irrigation right holders with TI required to undertake random compliance audits of Farm Water Access Plans. WAPs were developed as one element of Tasmania (and irrigators) meeting the environmental conditions imposed on Tranche 1 schemes, and subsequently carried over to Tranche 2 schemes. In relation to WAPs, the environmental condition is one of the criteria which are required to be met under the terms of the funding agreement between the Australian and Tasmanian governments.

5.2.5 *Environment Protection and Biodiversity Conservation Act 1999 (Cwth) (EPBC Act)* obligations

The EPBC Act is the Australian Government's key piece of environmental legislation to protect matters of national environmental significance. The EPBC Act defines when and how potential impacts of an action on matters of national environmental significance must be assessed with any proposal or 'action' that is likely to have a significant impact requiring the approval of the Commonwealth Environment Minister under the Act. The Tranche 1 and 2 irrigation scheme developments were referred to the Commonwealth for consideration through the strategic assessment process under Part 10 of the EPBC Act[10].

[10] For further information regarding the strategic assessment program refer to http://dpipwe.tas.gov.au/water-site/Pages/Assessment-Documentation-MWS.aspx

An outcome of this strategic assessment process was that the Commonwealth Environment Minister provided approval under section 146B of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) in relation to various actions associated with the construction and operation of the Lower South Esk and Midlands Water Schemes (refer Appendix 3). These permissions are in force until 2111 and must be met by the water entity managing these irrigation schemes.

To support the strategic assessment process, two protocols have been endorsed by the Commonwealth to meet the requirements under the EPBC Act. This includes a *Landscape Monitoring Protocol* and a *Quality Assurance Protocol*[11]. Landscape monitoring programs for water quality, aquatic ecosystem health and habitat for key species (e.g. burrowing crayfish, green and gold frogs and giant freshwater crayfish) have been implemented by TI. The reporting requirements have been provided in Appendix 4.

In addition to the Landscape Monitoring Protocol, the Quality Assurance (QA) Protocol is used to determine the efficacy monitoring to identify how well the Farm Water Access Plans identify matters of national environmental significance, provide management prescriptions that are appropriate for the species, and ensure that commitments under the EPBC Act are being met. The *Quality Assurance Protocol* places obligations on the water entity administering the Midlands and Lower South Esk Irrigation Schemes covering the following matters:

- Pre-qualification process for consultants preparing Farm Water Access Plans.
- Initial training provided to consultants.
- Quality assurance and compliance auditing of Farm Water Access Plans.
- Independent verification of the quality assurance system.
- Regular reporting to the Commonwealth and State governments.
- Information management and delivery to Tasmanian environmental databases arising from the preparation of Farm Water Access Plans.

5.2.6 Dam safety obligations

Dam safety obligations for TI's suite of water storages are twofold. These obligations are monitored by DPIPWE on behalf of the Minister who is the Dam Safety Regulator.

Firstly, for all TI dams, routine monitoring and inspections and periodic surveillance must be undertaken in accordance with Australian National Committee on Large Dams (ANCOLD) guidelines and the *Water Management (Safety of Dams) Regulations 2015*.

Secondly, as determined by the Dam Safety Regulator, all dams with a consequence category of Significant or greater are to be managed under a portfolio arrangement, in accordance with the ANCOLD Risk Assessment guidelines.

A Portfolio Risk Assessment (PRA) is to be undertaken and a Dam Safety Management Plan is to be developed. The PRA is to identify dams that are above the ANCOLD limit of tolerability, and the dam safety program is to show how dams that are above the limit are managed and how they will be brought below the limit of tolerability (and satisfy the As Low As Reasonably Possible principal).

[11] Protocols are available at: http://dpipwe.tas.gov.au/Documents/Landscape-Monitoring-Protocol.pdf and http://dpipwe.tas.gov.au/Documents/Quality-Assurance-Protocol.pdf

The Department receives annual reports from the TI on progress being made on the PRA and the dam safety program. The annual report includes details of any completed works and works proposed within the next 12 months, as well as a schedule of future works for a 5 year period.

5.2.7 Other reporting requirements

The Commonwealth *Water Regulations 2008* specify the water information that certain organisations must give to the Bureau of Meteorology and the time and format in which it must be given. TI is listed as a Category B, D, E and H Person and is compelled to provide data to the Bureau[12].

TI is obligated to provide the Bureau of Meteorology with a range of data, the W*ater Regulations 2008* specify eleven categories of water information, many of which are applicable to TI[13]. Additionally, the Regulations require organisations to give metadata and contextual information about water information.

Given that the reporting requirements apply to both public and private entities, any change to a new water entity would mean that TI's existing reporting obligations are likely to still be required. TI shares a substantial amount of data with the Bureau of Meteorology and has a well-established protocol for data sharing.

5.3 Mechanisms for greater irrigator involvement

The Government position is that it remains open to facilitating opportunities for greater irrigator involvement in scheme management (including operations) and where feasible and appropriate, facilitate local community management of these schemes.

It is noted that each TI scheme already has a committee of local irrigators which provides a forum for TI and irrigators to consult on irrigation scheme matters.

From a policy perspective, options for greater irrigator involvement in the management and/or operation of TI-owned irrigation schemes could be scheme-specific and might include:

- undertaking or assisting with compliance monitoring;
- rostering deliveries;
- facilitating trades;
- operating infrastructure;
- setting scheme penalties for access right breaches;
- price setting;
- restriction management; and
- undertaking basic scheme maintenance.

[12] Category B persons —other agencies of the Commonwealth or a State; Category D persons —owners or operators of major storages; Category E persons —rural water utilities; Category H persons —providers of water information for flood forecasting and warning.

[13] The categories cover surface water resource information; ground water resource information; water storage information; meteorological information; water use information; information about water rights, allocations and trades; information about urban water management; information about water restrictions; water quality information and water information for flood warning purposes.

There is a significant degree of complexity around providing irrigators with a greater role in managing or operating publicly owned irrigation schemes, and each situation will require careful consideration. DPIPWE and the Department of Treasury and Finance would be able to support this process where necessary.

Appendix 1. Example of the regulatory obligations that apply to irrigation schemes operated by Tasmanian Irrigation

Dial Blythe Irrigation Scheme

Scheme volume	2,855 ML
Water licence No:	9325 (see below)
Irrigation District appointment	19/02/2014
Irrigation District conditions of approval	1. The Responsible Water Entity must supply water to holders of irrigation rights[1] for use in accordance with a Farm Water Access Plan[2]. 2. The Responsible Water Entity must make By-laws that require users of water supplied under irrigation rights or general availability to operate in accordance with a Farm Water Access Plan. 3. The Responsible Water Entity must ensure a random annual compliance audit of a minimum of 10 per cent of prepared Farm Water Access Plans, unless otherwise agreed by the Minister, is undertaken by suitably qualified person(s) approved by the Minister. 4. The Responsible Water Entity must provide to the Minister annually an audit plan specifying the compliance audit procedure to be followed and the number of Farm Access Plans to be audited in the relevant year. 5. The Responsible Water Entity must supply water to holders of irrigation rights through a meter that meets the relevant standards set out in the *National Framework for Non-urban Water Metering*[3]. 6. The Responsible Water Entity must undertake the supply of water consistent with the conditions of any Watercourse Authority, issued from time to time pursuant to Part 6A of the *Water Management Act 1999*, used in the course of that supply. 7. The Responsible Water Entity must provide an annual report to the Minister on the administration and operation of the Irrigation District with includes the results of the annual compliance audit, and where non-compliance has been detected, specifies the level of non-compliance and the corrective action taken[4]. 8. The Responsible Water Entity must seek the Minister's approval to amend any By-laws required as a condition of the Irrigation District.

	Notes: 1. A holder of an irrigation right means the person supplied with water under that right irrespective of whether they are the owner of the right. Where relevant, the Responsible Water Entity must also supply water under the system of general availability for use in accordance with a Farm Water Access Plan. 2. A Farm Water Access Plan is a plan approving and stating conditions for the use of water on land in the irrigation district, and completed using the property management planning modules for soil, water and biodiversity endorsed by the Minister. A Farm Water Access Plan must be prepared by a pre-qualified consultant who has been approved by the Minister and the Responsible Water Entity. 3. The *National Framework for Non-urban Water Metering* was approved by the Council of Australian Governments (COAG) in December 2009. Where relevant, the Responsible Water Entity must also supply water under the system of general availability through a meter that meets the relevant standards set out in the *National Framework for Non-urban Water Metering*. 4. The annual report as required under section 182(1) of the *Water Management Act 1999* must be consistent with guidelines produced from time to time by the Department responsible for administration of the *Water Management Act 1999*. The report must also contain an analysis of annual results from farm scale monitoring required by Farm Water Access Plans.
Watercourse Authority conditions	None Issued
Dam safety obligations	Dam name: South Riana Dam Consequence category: High C Dam safety inspection/reporting obligations Routine visual inspections: 3 per week Intermediate Surveillance Report: Annual Comprehensive Surveillance Report: 5 yearly

Tasmanian Government

Department of Primary Industries, Parks, Water and Environment

Water Management Act 1999

(Pursuant to Part 6)

WATER LICENCE

TASMANIAN IRRIGATION PTY LTD
PO BOX 84
EVANDALE TAS 7212

Licence No. 9325

Expiry Date 30 November 2055

Client ID 26268

File No. 23 82 07

Licence Holder TASMANIAN IRRIGATION PTY LTD

This licence authorises the taking of water in accordance with the following, subject to the conditions specified herein. Notwithstanding the expiry date shown above, this licence is subject to the payment of annual fees under the Water Management Regulations, and is not valid until the Department has received payment of these fees. The fees are due on 30 November each year.

All allocations are in megalitres or ML (1 ML = 1 million litres)

Allocation 15674

Period Amount (ML)	Surety Level	Start Date	End Date	Purpose
4000.000	5	1 May	31 Oct	Irrigation

Water Resource	Offtake Easting (GDA94)	Offtake Northing (GDA94)
BLYTHE RIVER	410630	5433820

Water Restriction Management: Maximum Daily Take (ML/Day):	33.000

Note: This Maximum Daily Take is only applicable when water restrictions are imposed. The restriction Notice may refer to this Maximum Daily Take and may specify what percentage of this volume can be taken per day.

Allocation Conditions

1.Any water taken under this allocation must be measured and recorded by a water meter (an instrument that measures and records a flow or level of water and includes any ancillary device attached to or incorporated in the instrument). The water meter's specification, installation, validation and maintenance must comply with the relevant Department approved non-urban water meter standard.
2.The licence holder must maintain records that demonstrate the quantity of water taken. When directed by the Minister, the licence holder must provide the Minister with the records in the manner specified by the Minister.
3.Data collected from the Blythe River streamflow measurement site must be delivered in a format agreed to by the Department and approved by the Manager, Water Management and Assessment Branch.
4.Water may only be taken at the Blythe River offtake when inflows exceed the following daily rates for the respective months: May 86ML/day; June 130 ML/day; July 147 ML/day; August 173 ML/day; September 147 ML/day and October 112 ML/day.

Relevant Water Management Plans

No management plans apply

Tasmanian Government

Department of Primary Industries, Parks, Water and Environment

Water Management Act 1999

(Pursuant to Part 6)

WATER LICENCE

Allocation 15675

Period Amount (ML)	Surety Level	Start Date	End Date	Purpose
1408.000	5	1 Nov	30 Apr	Irrigation

Water Resource	Offtake Easting (GDA94)	Offtake Northing (GDA94)
BLYTHE RIVER	410630	5433820

Water Restriction Management: Maximum Daily Take (ML/Day):	12.000

Note: This Maximum Daily Take is only applicable when water restrictions are imposed. The restriction Notice may refer to this Maximum Daily Take and may specify what percentage of this volume can be taken per day.

Allocation Conditions

1.Any water taken under this allocation must be measured and recorded by a water meter (an instrument that measures and records a flow or level of water and includes any ancillary device attached to or incorporated in the instrument). The water meter's specification, installation, validation and maintenance must comply with the relevant Department approved non-urban water meter standard.
2.The licence holder must maintain records that demonstrate the quantity of water taken. When directed by the Minister, the licence holder must provide the Minister with the records in the manner specified by the Minister.
3.Data collected from the Blythe River streamflow measurement site must be delivered in a format agreed to by the Department and approved by the Manager, Water Management and Assessment Branch.
4.Water may only be taken at the Blythe River offtake when and whilst the flows, as measured immediately downstream of the offtake, are greater than the following thresholds: November 112 ML/day; December 69 ML/day; January 52 ML/day; February 43 ML/day; March 43 ML/day; April 52 ML/day.

Relevant Water Management Plans

No management plans apply

Allocation 16325

Period Amount (ML)	Surety Level	Start Date	End Date	Purpose
1470.000	7	1 May	31 Oct	Irrigation

Water Resource	Offtake Easting (GDA94)	Offtake Northing (GDA94)
UNNAMED TRIB OF BLYTHE RIVER	410549	5434593

Water Restriction Management: Maximum Daily Take (ML/Day):	0.000

Note: This Maximum Daily Take is only applicable when water restrictions are imposed. The restriction Notice may refer to this Maximum Daily Take and may specify what percentage of this volume can be taken per day.

Allocation Conditions

1.Any water taken under this allocation must be measured and recorded by a water meter (an instrument that measures and records a flow or level of water and includes any ancillary device attached to or incorporated in the instrument). The water meter's specification, installation, validation and maintenance must comply with the relevant Department approved non-urban water meter standard.
2.A hydrometric monitoring or metering system must be installed to measure flows entering, stored in and leaving the dam unless otherwise approved in writing by the Manager, Water Management and Assessment Branch.
3.Metering and streamflow data collected from the inflow and outlet points must be delivered in a format agreed to by the Department and approved by the Manager, Water Management and Assessment Branch.
4.The licence holder must maintain records that demonstrate all flows outside the take period have been passed, the quantity of water taken, as well as any environmental passing flows and periodic releases as per conditions of this allocation. When directed by the Minister, the licence holder must provide the Minister with the records in the manner specified by the Minister.
5.A minimum inflow of 3 ML/day must be passed immediately downstream of the Unnamed Tributary of Blythe River offtake before any water is taken under this allocation.
6.The licensee is required to provide environmental flushing flows as follows:
i.If between 1 April & 30 June there has not been 2 flow events of at least 20ML/day for 2 consecutive days in the stream immediately below the dam, then two events of 20ML/day for 2 continuous days must be released from the dam; and
ii.If between 27 September and 27 October there has not been a flow of at least 20ML/day for 2 consecutive days in the stream immediately below the dam, then 20ML/day for 2 continuous days must be released from the dam.

Relevant Water Management Plans

No management plans apply

Tasmanian Government

Department of Primary Industries, Parks, Water and Environment

Water Management Act 1999

(Pursuant to Part 6)

WATER LICENCE

Allocation 16795

Period Amount (ML)	Surety Level	Start Date	End Date	Purpose
90.000	5	1 May	30 Nov	Irrigation

Water Resource	Offtake Easting (GDA94)	Offtake Northing (GDA94)
UNNAMED TRIB OF BLYTHE RIVER	410610	5434684

Water Restriction Management: Maximum Daily Take (ML/Day):	1.000

Note: This Maximum Daily Take is only applicable when water restrictions are imposed. The restriction Notice may refer to this Maximum Daily Take and may specify what percentage of this volume can be taken per day.

Allocation Conditions

1. The licence holder must maintain records that demonstrate the quantity of water taken. When directed by the Minister, the licence holder must provide the Minister with the records in the manner specified by the Minister.
2. Whenever the licence holder is taking water under this allocation, at least fifty (50) percent of the instantaneous stream flow at the offtake point must be passed downstream.

Relevant Water Management Plans

No management plans apply

Allocation 16796

Period Amount (ML)	Surety Level	Start Date	End Date	Purpose
50.000	5	1 May	30 Nov	Irrigation

Water Resource	Offtake Easting (GDA94)	Offtake Northing (GDA94)
UNNAMED TRIB OF BLYTHE RIVER	410882	5434832

Water Restriction Management: Maximum Daily Take (ML/Day):	0.500

Note: This Maximum Daily Take is only applicable when water restrictions are imposed. The restriction Notice may refer to this Maximum Daily Take and may specify what percentage of this volume can be taken per day.

Allocation Conditions

1. The licence holder must maintain records that demonstrate the quantity of water taken. When directed by the Minister, the licence holder must provide the Minister with the records in the manner specified by the Minister.
2. Whenever the licence holder is taking water under this allocation, at least fifty (50) percent of the instantaneous stream flow at the offtake point must be passed downstream.

Relevant Water Management Plans

No management plans apply

General Licence Conditions

The Minister may vary the conditions of this licence at **one (1) yearly** intervals from the date of issue.

Midlands Irrigation District

Scheme volume	38,500 ML
Water licence No:	No water licence
Irrigation District appointment	18/04/2012
Irrigation District conditions of approval	1. The Responsible Water Entity must only supply water for use in accordance with a Farm Water Access Plan[1]. 2. The Responsible Water Entity must make By-laws that require users of water to operate in accordance with a Farm Water Access Plan. 3. The Responsible Water Entity must ensure a random annual compliance audit of 15% of prepared Farm Water Access Plans is undertaken by suitably qualified person(s) approved by the Minister. 4. The Responsible Water Entity must only supply water through a meter that meets the relevant standards set out in the *National Framework for Non-urban Water Metering*[2]. 5. The Responsible Water Entity must undertake the supply of water to users of water consistent with the conditions of any Watercourse Authority issued from time to time pursuant to Part 6A of the *Water Management Act 1999* used in the course of that supply. 6. The Responsible Water Entity must provide an annual report to the Minister on the administration and operation of the Irrigation District[3]. 7. The Responsible Water Entity must seek the Minister's approval to amend any By-laws required as a condition of the Midlands Irrigation District. 8. The Responsible Water Entity must send Hydro Tasmania extracts from its annual report that describe any works completed during the reporting year, and the total volume of water used by irrigators inside the Midlands Irrigation District. 9. The Responsible Water Entity for the Midlands Irrigation District must enter into an agreement with the Responsible Water Entity administering the Lake Leak/Elizabeth/Macquarie River Irrigation District and the Tooms Lake/Macquarie River Irrigation District specifying how the operation of the Midlands Irrigation District is to be conducted in relation to the existing water districts. *Notes:* 1. A Farm Water Access Plan is a plan approving and stating conditions for the use of water on land in the irrigation district, and completed using the property management planning modules for soil, water and biodiversity endorsed by the Minister. The Farm Water Access Plan must be prepared by a pre-qualified consultant who has been approved by the Minister and the Responsible Entity.

	2. The *National Framework for Non-urban Water Metering* was approved by the Council of Australian Governments (COAG) in December 2009. This agreement has committed Tasmania to operate in accordance with the *Australian Technical Specification 4747 for Water Meters*. As of June 2010 this Australian Technical Specification will become an Australian Standard. 3. The annual report as required under section 182(1) of the *Water Management Act 1999* must be consistent with guidelines produced from time to time by the Department responsible for administration of the *Water Management Act 1999* and must contain the following information: 1. the details of audit results and any action taken against non-compliant landowners; 2. an analysis of annual results from farm scale monitoring required by Farm Water Access Plans.
Watercourse Authority conditions	Duration: 1 June 2014 to 31 May 2029 Watercourses into which water to be conveyed is to be released include Floods Creek then Blackman and Macquarie Rivers; Isis River; Kitty's Rivulet and the Jordan River. Conditions: 1. Whenever water is being supplied and delivered to holders of irrigation rights in the Midlands Irrigation District, there must be no net reduction in flow in any water course as a result of conveying water in those water courses. 2. Prior to the conveyance of water under this authority, a Conveyance Management Plan (CMP) must be prepared to the agreement of the Department of Primary Industries, Parks, Water and Environment (the Department) and Tasmanian Irrigation Pty Ltd. The CMP must describe: 1. procedures for the supply and delivery of water and determination of daily loss rates; 2. water supply and delivery information (release volumes, order volumes, extraction volumes), streamflow data and other relevant environmental information (e.g. evaporation data) used in determining daily loss rates; 3. monitoring information used in providing guidance in the determination of loss rates, including streamflow gauging data and any specific loss assessments that may be undertaken from time to time; and 4. adaptive management processes. 5. Conveyance of water must at all times be conducted in a manner consistent with the CMP, which may be amended from time to time by agreement between the Department and Tasmanian Irrigation Pty Ltd. 6. At the end of each of the summer and winter water supply periods (1 October to 28 February and 1 March to 30 September respectively), a conveyance account is to be prepared. The account is to be prepared on a weekly basis and include: 1. the volume of water ordered; 2. the volume of water taken; 3. the volume of water conveyed; 4. the volume of water provided to cover losses

	5. the volume of water losses as determined in accordance with the CMP. The conveyance accounts are to be provided to the Minister as part of the annual water entity report. 6. The conditions of this approval may be varied at one (1) year intervals, or at any time upon the request of Tasmanian Irrigation Pty Ltd.
Dam safety obligations	Dam name: Upper Floods Creek Dam Consequence category: Significant Dam safety inspection/reporting obligations Routine visual inspections: 2 per week Intermediate Surveillance Report: Annual Comprehensive Surveillance Report: 5 yearly Dam name: Arthurs Levee Dam Consequence category: Low Dam safety inspection/reporting obligations Routine visual inspections: Weekly Intermediate Surveillance Report: Annual Comprehensive Surveillance Report: 5 yearly

Upper Ringarooma Irrigation District

Scheme volume	5,700 ML
Water licence No:	9384 (see below)
Irrigation District appointment	27/03/2013
Irrigation District conditions of approval	1. The Responsible Water Entity must supply water to holders of irrigation rights[1] for use in accordance with a Farm Water Access Plan[2]. 2. The Responsible Water Entity must make By-laws that require users of water supplied under irrigation rights or general availability to operate in accordance with a Farm Water Access Plan. 3. The Responsible Water Entity must ensure a random annual compliance audit of a minimum of 10% of prepared Farm Water Access Plans, unless otherwise agreed by the Minister, is undertaken by suitably qualified person(s) approved by the Minister. 4. The Responsible Water Entity must provide to the Minister annually an audit plan specifying the compliance audit procedure to be followed and the number of Farm Water Access Plans to be audited in the relevant year. 5. The Responsible Water Entity must supply water to holders of irrigation rights through a meter that meets the relevant standards set out in the *National Framework for Non urban Water Metering*[3]. 6. The Responsible Water Entity must undertake the supply of water consistent with the conditions of any Watercourse Authority, issued from time to time pursuant to Part 6A of the *Water Management Act 1999*, used in the course of that supply. 7. The Responsible Water Entity must provide an annual report to the Minister on the administration and operation of the Irrigation District which includes the results of the annual compliance audit, and where non-compliance has been detected, specifies the level of non-compliance and the corrective action taken4. 8. The Responsible Water Entity must seek the Minister's approval to amend any By-laws required as a condition of the Upper Ringarooma Irrigation District. *Notes:* 1. A holder of an irrigation right means the person supplied with water under that right irrespective of whether they are the owner of the right. Where relevant, the Responsible Water Entity must also supply water under the system of general availability for use in accordance with a Farm Water Access Plan. 2. A Farm Water Access Plan is a plan approving and stating conditions for the use of water on land in the irrigation district, and completed using the property management planning modules for soil, water and biodiversity endorsed by the

	Minister. A Farm Water Access Plan must be prepared by a pre qualified consultant who has been approved by the Minister and the Responsible Water Entity. 3. The *National Framework for Non-urban Water Metering* was approved by the Council of Australian Governments (COAG) in December 2009. Where relevant, the Responsible Water Entity must also supply water under the system of general availability through a meter that meets the relevant standards set out in the *National Framework for Non-urban Water Metering*. 4. The annual report as required under section 182(1) of the *Water Management Act 1999* must be consistent with guidelines produced from time to time by the Department responsible for administration of the *Water Management Act 1999*. The report must also contain an analysis of annual results from farm scale monitoring required by Farm Water Access Plans.
Watercourse Authority conditions	Duration: 25 years from July 2014 Watercourse used in conveyance: Ringarooma River Conditions: 1. Whenever water is being supplied and delivered to holders of irrigation rights in the Upper Ringarooma Irrigation District, or any other person as may be authorised by Tasmanian Irrigation Pty Ltd from time to time, there must be no net reduction in flow in any water course as a result of conveying water in those water courses. 2. Prior to the conveyance of water under this authority, a Conveyance Management Plan (CMP) must be prepared to the agreement of the Department of Primary Industries, Parks, Water and Environment (the Department) and Tasmanian Irrigation Pty Ltd. The CMP must describe: 1. procedures for the supply and delivery of water and determination of daily loss rates; 2. water supply and delivery information (release volumes, order volumes, extraction volumes), streamflow data and other relevant environmental information (e.g. evaporation data) used in determining daily loss rates; 3. monitoring information used in providing guidance in the determination of loss rates, including streamflow gauging data and any specific loss assessments that may be undertaken from time to time; and 4. adaptive management processes. 5. Conveyance of water must at all times be conducted in a manner consistent with the CMP, which may be amended from time to time by agreement between the Department and Tasmanian Irrigation Pty Ltd. 6. At the end of each of the summer and winter water supply periods (1 October to 28 February and 1 March to 30 September respectively), a conveyance account is to be prepared. The account is to be prepared on a weekly basis and include: 1. the volume of water ordered; 2. the volume of water taken;

	3. the volume of water conveyed; 4. the volume of water provided to cover losses 5. the volume of water losses as determined in accordance with the CMP. 6. The conveyance accounts are to be provided to the Minister as part of the annual water entity report. 7. The conditions of this approval may be varied at one (1) year intervals, or at any time upon the request of Tasmanian Irrigation Pty Ltd.
Dam safety obligations	Dam name: Dunns Creek Dam Consequence category: High B Dam safety inspection/reporting obligations Routine visual inspections: 3 per week Intermediate Surveillance Report: Annual Comprehensive Surveillance Report: 5 yearly

Tasmanian Government

Department of Primary Industries, Parks, Water and Environment

Water Management Act 1999

(Pursuant to Part 6)

WATER LICENCE

TASMANIAN IRRIGATION PTY LTD
PO BOX 84
EVANDALE TAS 7212

Licence No. 9384

Expiry Date 30 November 2053

Client ID 26268

File No. 24 01 32

Licence Holder TASMANIAN IRRIGATION PTY LTD

This licence authorises the taking of water in accordance with the following, subject to the conditions specified herein. Notwithstanding the expiry date shown above, this licence is subject to the payment of annual fees under the Water Management Regulations, and is not valid until the Department has received payment of these fees. The fees are due on 30 November each year.

All allocations are in megalitres or ML (1 ML = 1 million litres)

Allocation 15808

Period Amount (ML)	Surety Level	Start Date	End Date	Purpose
6500.000	5	1 May	30 Nov	Irrigation

Water Resource	Offtake Easting (GDA94)	Offtake Northing (GDA94)
DUNNS CREEK	556582	5429610

Water Restriction Management: Maximum Daily Take (ML/Day):	46.000

Note: This Maximum Daily Take is only applicable when water restrictions are imposed. The restriction Notice may refer to this Maximum Daily Take and may specify what percentage of this volume can be taken per day.

Allocation Conditions

1. Water meters or hydrographic monitoring stations must be installed to measure flows entering, stored in and leaving the dam.
2. Water meter(s) that conform to the Department's Water Meter Standard, v9, July 2010 as amended from time to time, are to be installed where water is taken from a water resource unless otherwise agreed in writing by the Minister.
3. The recording and reporting of data obtained from the water meter(s) that are required to be installed as a condition of licence is to conform to the Department's Water Meter Standard, v9, July 2010 as amended from time to time, unless otherwise agreed in writing by the Minister.
4. Metering, storage and flow data collected must be delivered in a format agreed to by the Department and approved by the Manager of Water Management and Assessment Branch.
5. Water must not be taken when inflows are less than 12 ML/day. When inflows are between 12 ML/day and 132 ML/day, one third of the inflow must be released downstream. When inflows are above 132 ML/day, a minimum of 52 ML/day must be released downstream.
6. Water must not be taken when the flows, as measured at Ringarooma River upstream of the Moorina Road Bridge, fall below the following thresholds: May 109ML/day; June 267 ML/day; July 400 ML/day; August 400 ML/day; September 400 ML/day; October 297 ML/day; November 152 ML/day.

Relevant Water Management Plans

Ringarooma River Catchment Water Management Plan

Tasmanian Government

Department of Primary Industries, Parks, Water and Environment

Water Management Act 1999

(Pursuant to Part 6)

WATER LICENCE

Allocation 15809

Period Amount (ML)	Surety Level	Start Date	End Date	Purpose
3000.000	5	1 May	30 Nov	Irrigation

Water Resource	Offtake Easting (GDA94)	Offtake Northing (GDA94)
RINGAROOMA RIVER	559139	5430920

Water Restriction Management: Maximum Daily Take (ML/Day):	21.500

Note: This Maximum Daily Take is only applicable when water restrictions are imposed. The restriction Notice may refer to this Maximum Daily Take and may specify what percentage of this volume can be taken per day.

Allocation Conditions

1. The licensee must not take water from a water resource except through a water meter.
2. Water meter(s) that conform to the Department's Water Meter Standard, v9, July 2010 as amended from time to time, are to be installed where water is taken from a water resource unless otherwise agreed in writing by the Minister.
3. The recording and reporting of data obtained from the water meter(s) that are required to be installed as a condition of this licence is to conform to the Department's Water Meter Standard, v9, July 2010 as amended from time to time, unless otherwise agreed in writing by the Minister.
4. Metering and flow data collected from the Ringarooma River at Cotton's Bridge must be delivered in a format agreed to by the Department and approved by the Manager of Water Management and Assessment Branch.
5. Water must not be taken when the flows, as measured at Ringarooma River upstream of the Moorina Road Bridge, fall below the following thresholds: May 109ML/day; June 267 ML/day; July 400 ML/day; August 400 ML/day; September 400 ML/day; October 297 ML/day; November 152 ML/day.
6. Water must not be taken when the flows, as measured at Cottons Bridge, fall below the following thresholds: May 43ML/day; June 111 ML/day; July 175 ML/day; August 212 ML/day; September 175 ML/day; October 120 ML/day; November 81 ML/day.

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General Licence Conditions

The Minister may vary the conditions of this licence at **one (1) yearly** intervals from the date of issue.

Appendix 2. Analysis of Tasmanian Irrigation customers who responded to DPIPWE's 2015-16 Irrigation Satisfaction Survey

BACKGROUND

In August 2016 the Minister for Primary Industries and Water, wrote to more than 2,500 water users seeking their feedback on their experiences during the 2015-16 irrigation season during which extremely dry conditions prevailed over the state. The survey was circulated to not only irrigators who hold water licences but also to those who source water from alternative supplies, including TI customers.

The survey questions were developed by TI and the Department of Primary Industries, Parks, Water and Environment and sought responses to the following:

1. Region of the state.
2. Irrigation water used between October 2015 and April 2016.
3. Source of supply.
4. Awareness of the Extreme Dry Conditions Policy.
5. Assistance to farming businesses of the Extreme Dry Conditions Policy.
6. Restrictions to supply of irrigation water during October 2015 and April 2016.
7. Satisfaction with service and support supplied by the relevant water provider.
8. On opportunity to make further comments were also provided.

A total of 571 responses were received and the Department analysed the responses and released a report on its findings in December 2016 (http://dpipwe.tas.gov.au/water/irrigation-development/report-on-the-irrigation-satisfaction-survey-season-2015-16).

A total of 212 respondents flagged that they source water from schemes operated by TI and further analysis of their responses is provided below. It provides a good insight into the perceptions and expectations of TI's customers during the challenging dry conditions that prevailed in 2015-16.

RESULTS

Number of TI customers who responded to the survey

A total of 212 irrigators who source water from TI responded to the survey of which 65 per cent (134 respondents) were solely supplied from TI. The remaining 35 per cent (74 respondents) indicated that irrigation water was supplied not from just TI. For example, water may be accessed under an irrigation right supplied by TI or another water entity such as Cressy-Longford Irrigation Scheme or Elizabeth Macquarie Irrigation Trust. The same person may also be accessing water through arrangements with TasWater or a transfer from Hydro Tasmania. In addition, water could also be legally taken in accordance with a water licence issued under the *Water Management Act 1999*.

In total, the 212 respondents were supplied 64,650 Megalitres during 2015-16, however, the survey results do not distinguish the quantity of water supplied from TI compared with an alternative water source. As detailed in Table 1, there was a good distribution of survey responses from customers of TI from various regions of the State.

Table 1. Overview of survey respondents who were TI customers.

Region	Number of respondents	Irrigation water usage (Megalitres)	
		TI only water source	TI plus other sources of supply (including on-farm storage)
North West	37	2,895	1,470
North	74	16,931	9,492
North East	21	69	8,138
Midlands	35	5,596	13,955
South	43	576	5,521
Region not stated	2	–	6
TOTAL	212	26,067	38,582

Limitations on sources of supply placed on irrigation water delivered from a range of sources for the period October 2015 – April 2016?

As detailed in Table 2, during the extreme dry conditions in 2015-16, respondents reported fewer restrictions on the supply of irrigation water delivered by TI compared to water taken under a water licence.

Table 2. Limitations placed on the supply of water.

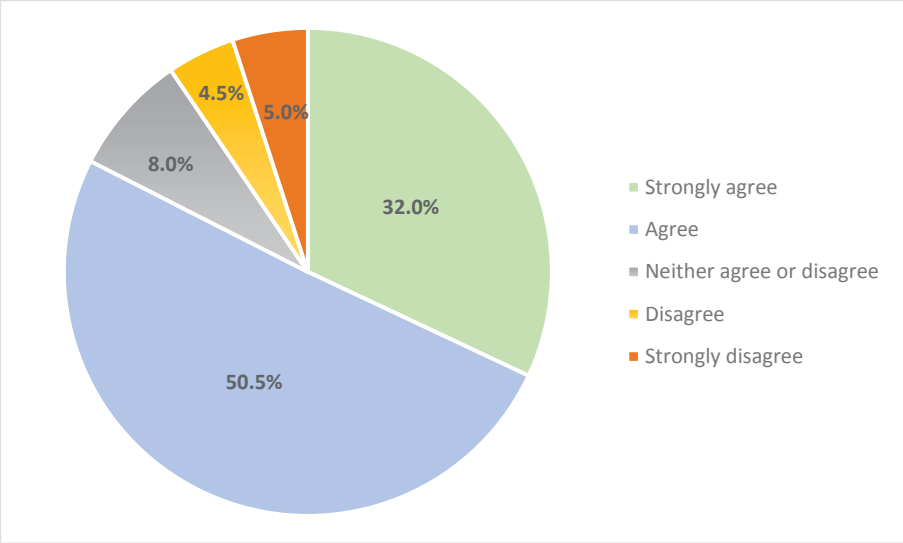
Source of supply	Limitation placed on supply – number and % for each entity		Total number of valid responses
	Yes	No	
DPIPWE (water licence)	81 (42%)	110 (58%)	191
Tasmanian Irrigation	48 (23%)	158 (77%)	206

Satisfaction with the service and support from relevant water providers.

The survey also sought to ascertain whether water users were satisfied with service and support provided by a water entity. On a state-wide basis, some 74 per cent of responses agreed or strongly agreed that they were satisfied with the service and support provided to them by one or more water entity during the 2015-16 irrigation season.

The level of satisfaction reported in relation to TI was higher than the state-wide figure, with 83 per cent agreeing or strongly agreeing that they were satisfied with the service and support provided by TI. A further 8 per cent neither agreed nor disagreed that they were satisfied and 10 per cent were dissatisfied with TI. Given that difficult conditions prevailed during the 2015-16 season, the results indicated that overall the majority of water users considered that they are getting very good level of service in a difficult season.

Figure 1. Satisfaction level with TI during the 2015-16 irrigation season reported by 200 respondents.



Additional feedback from survey respondents

The survey also provided respondents with the opportunity to provide further comments at the end of the survey including general statements on the seasonal conditions, farming business or water supply; suggested improvements; positive feedback; and negative comments and concerns. Further details regarding the general nature of these comments can be found in the Department's report (http://dpipwe.tas.gov.au/water/irrigation-development/report-on-the-irrigation-satisfaction-survey-season-2015-16).

There were a number of general statements regarding the seasonal conditions, farming business or water supply. Some respondents noted that without water during 2015-16 that their particular business would have needed to destock or crops would have failed. Others detailed the strategies they had in place to cope with dry conditions (less stock, crops not planted, utilising water from bores or on-farm storages). It was also noted that it was a tough year with crop failures and in some instances water could not be taken because there was no flow in the river.

Particular key issues raised by respondents who source TI water have been summarised in Table 3. These comments should be taken in the context of farming and supplying water during a period of extremely dry conditions in 2015-16.

Table 3. Issues raised in individual responses.

	Number of comments	Proportion of customers who made comments	Key issues
Concerns and negative feedback	25	12%	1. Cost of water 2. Restrictions/inadequate supply 3. Poor management and poor communication 4. Difficulty with transfers and trading 5. Focus is on water sales and not delivery 6. Scheme size is limited to water sales and not future potential 7. Duplication of DPIPWE services
Suggested improvements	18	8%	1. Supported more development in the South East Irrigation Scheme 2. Irrigation scheme costs reflect what farmers want 3. Address how increases in power costs are increasing TI's costs. 4. Communication by the Department and TI needs to be improved in relation to stock and domestic rights, imposition of restrictions and how water trading can be facilitated 5. Reducing costs for the Dial Blythe scheme through natural filling 6. Obtaining additional water for Daisy Bank dam 7. Overlapping take periods for DPIPWE allocations and TI water
Positive comments	18	8%	8. Schemes worked well and provided much needed water security and reliability of supply. 9. Scheme managers were supportive and approachable with a common sense approach.

Appendix 3. Approval decisions for the taking of actions in accordance with an endorsed program under the EPBC Act for the Midlands Water Scheme.

APPROVAL DECISION FOR THE TAKING OF ACTIONS IN ACCORDANCE WITH AN ENDORSED PROGRAM UNDER THE *ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999* (EPBC ACT)

MIDLANDS WATER SCHEME, TASMANIA – ARTHURS PIPELINE IRRIGATION SCHEME

General	Further explanatory information related to this approval decision is at Annexure 1.
Approved action/class of actions	All actions associated with the taking of water from Arthurs Lake by the Water Entity and construction of the Arthurs Pipeline Irrigation Scheme as described in the report *Strategic Assessment for the Water Access Program, Midlands Water Scheme, Tasmania - Program Report* (DPIPWE, February 2011).
Relevant controlling provisions	The approval has effect for: • World Heritage properties (sections 12 & 15A) • National Heritage places (sections 15B & 15C) • Wetlands of international importance (sections 16 & 17B) • Listed threatened species and communities (sections 18 & 18A) • Listed migratory species (sections 20 & 20A)
Period for which approval has effect	The approval has effect until 31 December 2111

Person authorised to make decision

Name and Position	The Hon Tony Burke MP Minister for Sustainability, Environment, Water, Population and Communities
Signature	Tony Burke
Date of decision	18.4.12

Explanatory information

This approval decision is made under section 146B of the Environment Protection and Biodiversity Conservation Act 1999 (the EPBC Act) which provides for the Minister for the Environment (the Minister) to approve actions, or classes of actions, undertaken in accordance with an endorsed policy, plan or program. An approval under section 146B of the EPBC Act has the same effect as an approval given under Part 9 of the EPBC Act. Actions approved under this decision will not require separate referral, assessment or approval under the EPBC Act in order to be taken.

On 11 April 2011 the Minister endorsed the Tasmanian Government program for implementation of the Midlands Water Scheme as described in the report *Strategic Assessment for the Water Access Program, Midlands Water Scheme, Tasmania - Program Report* (Department of Primary Industries, Parks, Water and Environment (DPIPWE), February 2011).

The endorsed program includes component irrigation schemes that can be implemented separately. The endorsed program commits to the preparation of construction environmental management plans for each component. Construction plans must be approved by the Minister before construction can commence.

This approval only applies to the classes of actions associated with construction and operation (abstraction of water) of the Arthurs Pipeline Irrigation Scheme and does not include any actions associated with the on-farm components of the Midlands Water Scheme.

In this approval, Water Entity means Tasmanian Irrigation, or successor water entities. Water entities and their roles and responsibilities are outlined in the report *Strategic Assessment for the Water Access Program, Midlands Water Scheme, Tasmania - Program Report*, (DPIPWE, February 2011) and are prescribed under the Tasmanian *Water Management Act 1999.*

APPROVAL DECISION FOR THE TAKING OF ACTIONS IN ACCORDANCE WITH AN ENDORSED PROGRAM UNDER THE *ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999* (EPBC ACT)

MIDLANDS WATER SCHEME, TASMANIA – LOWER SOUTH ESK IRRIGATION SCHEME

General	Further explanatory information related to this approval decision is at Annexure 1.
Approved action/class of actions	All actions associated with the taking of water from the South Esk River by the Water Entity and construction of the Lower South Esk River Irrigation Scheme (excluding the Winton Dam supply option) as described in the report *Strategic Assessment for the Water Access Program, Midlands Water Scheme, Tasmania - Program Report* (DPIPWE, February 2011).
Relevant controlling provisions	The approval has effect for: • World Heritage properties (sections 12 & 15A) • National Heritage places (sections 15B & 15C) • Wetlands of international importance (sections 16 & 17B) • Listed threatened species and communities (sections 18 & 18A) • Listed migratory species (sections 20 & 20A)
Period for which approval has effect	The approval has effect until 31 December 2111

Person authorised to make decision

Name and Position	The Hon Tony Burke MP Minister for Sustainability, Environment, Water, Population and Communities
Signature	Tony Burke
Date of decision	31.5.11

Explanatory information

This approval decision is made under section 146B of the EPBC Act which provides for the Minister for the Environment (the Minister) to approve actions, or classes of actions, undertaken in accordance with an endorsed policy, plan or program. An approval under section 146B of the EPBC Act has the same effect as an approval given under Part 9 of the EPBC Act; therefore actions approved under this decision will not require separate referral, assessment or approval under the EPBC Act in order to be taken.

On 11 April 2011 the Minister endorsed the Tasmanian Government program for implementation of the Midlands Water Scheme as described in the report *Strategic Assessment for the Water Access Program, Midlands Water Scheme, Tasmania - Program Report,* (Department of Primary Industries, Parks, Water and Environment (DPIPWE) February 2011).

The endorsed program includes component irrigation schemes that can be implemented separately. The endorsed program commits to the preparation of construction environmental management plans for each component. Construction plans must be approved by the Minister, before construction can commence.

This approval only applies to the classes of actions associated with construction and operation (abstraction of water) of the Lower South Esk Irrigation Scheme and does not include any actions associated with the Winton Dam sub-option or Arthurs Lake Irrigation Scheme.

In this approval, Water Entity means the Tasmanian Irrigation Development Board, or successor water entities. Water entities and their roles and responsibilities are outlined in the report *Strategic Assessment for the Water Access Program, Midlands Water Scheme, Tasmania - Program Report,* (DPIPWE, February 2011) and prescribed under the Tasmanian *Water Management Act 1999.*

APPROVAL DECISION FOR THE TAKING OF ACTIONS IN ACCORDANCE WITH AN ENDORSED PROGRAM UNDER THE *ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999* (EPBC ACT)

MIDLANDS WATER SCHEME, TASMANIA – WATER ACCESS SYSTEM

General	Further explanatory information related to this approval decision is at Annexure 1.
Approved action/class of actions	All actions associated with the on farm use of water under the water access system as described in the report *Strategic Assessment for the Water Access Program, Midlands Water Scheme, Tasmania - Program Report* (DPIPWE, February 2011).
Relevant controlling provisions	The approval has effect for: • World Heritage properties (sections 12 & 15A) • National Heritage places (sections 15B & 15C) • Wetlands of international importance (sections 16 & 17B) • Listed threatened species and communities (sections 18 & 18A) • Listed migratory species (sections 20 & 20A)
Period for which approval has effect	The approval has effect until 31 December 2111

Person authorised to make decision

Name and Position	The Hon Tony Burke MP Minister for Sustainability, Environment, Water, Population and Communities
Signature	Tony Burke
Date of decision	13.11.12

Explanatory information

Section 146B of the EPBC Act provides for the Minister for the Environment (the Minister) to approve actions, or classes of actions, undertaken in accordance with an endorsed policy, plan or program. An approval under section 146B of the EPBC Act has the same effect as an approval given under Part 9 of the EPBC Act. Actions approved under this decision will not require separate referral, assessment or approval under the EPBC Act in order to be taken.

On 11 April 2011 the Minister endorsed the Tasmanian Government program for implementation of the Midlands Water Scheme as described in the report *Strategic Assessment for the Water Access Program, Midlands Water Scheme, Tasmania - Program Report* (Department of Primary Industries, Parks, Water and Environment, February 2011).

The endorsed program includes two component irrigation schemes: the Lower South Esk and Arthurs Pipeline (also referred to as the Arthurs Lake Irrigation Scheme). Construction and operation of these schemes was approved under section 146B of the EPBC Act on 31 May 2011 and 18 April 2012 respectively.

Access to, and use of water on-farm, from these schemes will be made available through a Water Access System which is described in the endorsed program. The program also commits to the preparation of *Quality Assurance* and *Landscape Monitoring* protocols to ensure the Water Access System operates in accordance with the program's objectives. Both protocols have been approved in accordance with the endorsed program.

This approval applies to the classes of actions associated with the Water Access System as described in the program.

Appendix 4. Landscape Monitoring Protocol Reporting Obligations

Extract from section 8.1 of the Landscape Monitoring Protocol (for further details refer to http://dpipwe.tas.gov.au/Documents/Landscape-Monitoring-Protocol.pdf)

The landscape monitoring report must contain the following information:

1. The details of audit results and any action taken against non-compliant landowners.
2. An analysis and interpretation of results from landscape monitoring required by the Program.

The report must summarise the operation of the Irrigation District and provide the results of landscape scale monitoring of impacts on relevant matters of national environmental significance (MNES) to the Commonwealth Environment Minister and the Tasmanian Minister for Primary Industries and Water after three years, and every five years thereafter. The purpose of an initial three year report is to provide for earlier adaptive management through reporting at a shorter three year interval in the uptake stage of the scheme. This will enable a quicker adaptive management response at the time of the largest land use change. The irrigation scheme is due to commence operations in June 2014. The three year (first) report will therefore be in 2017. This aligns with Monitoring Vegetation Extent Project (MVEP) reporting; there are considerable efficiencies to be derived from this alignment. The subsequent reports will follow at five yearly intervals e.g. 2022. If the irrigation scheme commences earlier or later the reporting dates will be adjusted accordingly to three (and thereafter) five yearly intervals.

The first three year report and five yearly reporting cycles operate on a calendar year. Landscape monitoring reports will be submitted to the Commonwealth Environment Minister and the Tasmanian Minister for Primary Industries Water within 6 months of the end of the calendar year of the reporting cycle[1].

The report should identify landscape level changes in condition and extent of MNES through periodic landscape monitoring and identify those components of change which can be attributed to the construction and operation of the Midlands Water Scheme (MWS). Reporting on landscape level monitoring will incorporate the review and interpretation of the monitoring which has been undertaken. The interpretation of data will be related back to the construction and operation of the MWS to identify any direct or indirect impacts from the scheme, monitor the success of any mitigation measures and adapt accordingly.

Because the three year report is the first report it will focus on monitoring design and set up parameters as well as reporting on each objective measure in the program. The three year report will initially report on:

1. The details of audit results arising from Quality Assurance reports from Water Entity audits and any action taken against non-compliant landowners.
2. Details of prioritisation of the bore network once 85 per cent of the areas where water is to be applied are known.
3. Establishment of monitoring networks under the Landscape Monitoring Program and augmented monitoring via irrigation district conditions and Farm Water Access Plans.
4. Description of monitoring results for high risk MNES.

[1] For the three year reporting cycle – the first report will need to be submitted prior to the 30 June 2018 – six months after the end of the reporting period in December 2017.

5. Establishment of identified and reporting against management thresholds and trigger levels.
6. Progress with, and mechanisms for, data centralisation.
7. A description of the adaptive management framework to be adopted for management responses and corrective actions in response to triggered thresholds.
8. Review of practicalities and effectiveness of indicators.