

Water Resources Policy

Policy #2003/2

GUIDING PRINCIPLES FOR WATER TRADING IN TASMANIA

Water Resources Division

Department of Primary Industries, Water and Environment

July 2004



With the introduction of the *Water Management Act 1999*, the trading of water access entitlements, as well as water itself, became possible in Tasmania. Over the last four years, such trading has been occurring to a limited degree, principally where access entitlements change ownership in conjunction with associated land titles or where water is sold from privately owned dams to downstream irrigators.

The Department is keen to facilitate the greater development of water trading as a key action under the Water Development Plan for Tasmania.

An effective water trading market provides greater flexibility for individual water users and enables cross sectoral trading. An effective market assists in ensuring that we make optimum use of our limited water resources. Being able to buy and sell water entitlements where embargoes on new water allocations exist provides opportunities for new enterprises with access to water and expansion of existing activities.

To assist in the further development of the water market “guiding principles for water trading in Tasmania” will clarify and provide certainty on the Department’s position on the interpretation of the relevant provisions of the Act.

Formal public comment on the principles is not being sought. Rather, feedback is invited on any aspect of this document at any time with the purpose of continually improving the water trading policy framework as both the Department and stakeholders gain further experience in this matter.

Dr Alan Harradine
General Manager (Water Resources)
Department of Primary Industries, Water and Environment

Table of Contents

1. Purpose of the guiding principles for water trading	1
2. Strategic framework.....	1
3. Overview of water trading	2
3.1. Trading in Tasmania.....	2
4. Scope of the guiding principles for water trading.....	4
5. Guiding principles for water trading	4
5.1. General principles to facilitate efficient water trading	5
5.2. Statutory requirements	6
5.3. Principles for enhancing market place information	6
5.4. Principles for the refusal of a trade.....	7
5.5. Principles for imposing conditions on transfers	7
5.6. Trading zones and exchange rates	8
5.7. Water quality	10
5.8. Compliance	10
5.9. Temporary transfers.....	10
6. Review	11
7. References	11
8. Definitions.....	12

Version	Author	Reason
July 2004	Christina Jackson	<i>Water Management Act 1999</i> was amended in June 2004 and the Guiding Principles were amended to reflect these changes.
February 2004	Christina Jackson	Guiding Principles released

1. Purpose of the guiding principles for water trading

The intent of the guiding principles is to provide a policy framework to facilitate effective and efficient water trading in Tasmania.

The Tasmanian Government has agreed to provide this framework as a commitment of the Bilateral Agreement for the implementation of the National Action Plan for Salinity and Water Quality. The policy also helps to demonstrate that the State Government is meeting its commitments under the COAG Water Reform Framework in regard to water trading.

The guiding principles apply to the assessment of all applications for transfers of water licences and water allocations under Part 6 of the *Water Management Act 1999*.

Where a greater level of guidance is needed trading rules will be established at a local level through the Water Management Planning process or as specific regional trading rules under these principles.

The principles will provide greater certainty in the Government decision making process to assist those users who are considering transferring water entitlements.

2. Strategic framework

The overriding framework for establishing guiding principles for water trading in Tasmania is based on the COAG Water Reform Principles and Tasmania's *Water Management Act 1999* (WMA).

Water trading is seen as an important outcome of the COAG Water Reform Framework which provided for the separation of water rights from land titles and enhancements to the systems of allocation of water (HLSGW 2001).

A key element of the COAG framework is that trading of water allocations and entitlements occurs within the social, physical and ecological constraints of catchments (AFFA 2003).

The Chief Executives Group on Water (CEOs) considers that enhancing water trading is crucial to Australia achieving environmental and economic benefits from the COAG water reform (Water Reform Task Group 2003). The CEOs group has identified key elements of a national framework that are required for an efficient and effective trading market and secure assets. At a national level, trading principles were endorsed as a best practice template for use by all jurisdictions (Water Reform Task Group 2003).

The WMA provides the statutory basis for the use and management of freshwater resources in Tasmania. The WMA provides that all the State's freshwater resources are vested in the Crown, including surface and groundwater. The Act is administered by the Minister for Primary Industries and Water who has delegated functions such as granting of water licences

and allocations and approval of water transfers to specified positions within the Water Resources Division in the Department of Primary Industries, Water and Environment (DPIWE).

Division 4, Part 6 of the WMA provides the statutory arrangements for the transfers of licences and water allocations. Transfers of licences and water allocations can be permanent (“absolute”) or for a limited period (through a lease arrangement for a stated period).

3. Overview of water trading

“The rationale for developing water markets is straightforward: to allocate water to the use where it will be valued most highly. However, designing and implementing a market for water entitlements that is efficient, equitable and sustainable, is very difficult. A simple system allowing people to buy and sell entitlements with no outside intervention does not take account of issues such as losses incurred in supplying the entitlement at the new location, changes in security level or third party impacts such as return flows and environmental degradation. The cumulative effect of unconstrained trade could reduce the value of existing entitlements, decrease system reliability and jeopardise ecosystems” (Etchells, Malano and McMahon 2003).

An effective water trading market provides greater flexibility for individual water users. Being able to buy and sell water entitlements where embargoes on new water allocations exist provides opportunities for new enterprises with access to water and expansion of existing activities. The product being traded can be either a physical quantity of water or an entitlement to access water (ACIL 2003).

Water trading benefits the rural sector through an increase in the value of irrigation production as water moves to higher value uses. Where resources are scarce, the price paid for water through a trade may lead to improved efficiency of use. Environmental benefits may also be achieved with practices such as the movement of water to land better suited to irrigation.

Such benefits can only be achieved if an effective and efficient water trading market is established.

3.1. *Trading in Tasmania*

Water trading in Tasmania can be considered in three contexts:

3.1.1 *Transfer of water licences and the related water allocations due to a legal change in tenure of the property or infrastructure associated with their use.*

For example, the sale or lease (or ownership transfer from parents to children) of a rural property containing a dam, along with the sale or lease to the same buyer of the water licence and allocation for taking water into

the dam. In these situations, there is generally no change to the physical location at which the water allocation is taken.

The Water Reform Task Group (2003) considered that constraints on transfers due to a legal change in tenure need only relate to registration issues and who is eligible to obtain a licence and water allocation.

3.1.2 *Transfer of a licence and/or water allocation.*

For example, a licensee sells or leases the water licence and attached water allocation for the direct taking of water from a river during summer to an irrigator downstream. In these cases, there is generally a change to the physical location at which the water is taken, either upstream or downstream.

Constraints on the transfer of a licence and/or water allocation that result in the movement of a licence and/or water allocation to another part of the water resource are guided by the physical relocation of the extraction point, environmental impacts and impacts to existing users and infrastructure delivery constraints (Water Reform Task Group 2003).

3.1.3 *Physical sale of water.*

For example, the owner of a dam sells part or all of the water in the dam to a downstream neighbour on a one-off or a continuing basis. In this instance, the seller retains the water licence and allocation for taking water into the dam and the buyer needs another licence for taking the water from the river downstream¹.

Conditional on approval of the application for a licence is sighting an agreement between the buyer and the seller that ensures the seller is releasing water under conditions that will not result in adverse environmental impacts or impacts on existing users.

Another consideration is the quality of water being released from the dam. If the seller releases water from a dam at a lower quality than the receiving stream, the seller may contravene the *Environmental Management and Pollution Control Act 1994*. To avoid adverse impacts, the seller may be required to have the water quality checked before any releases are made.

The transfer may only take place with the approval of the Department (as delegate of the Minister). Such approval is the subject of these guiding principles.

To date, limited water trading has occurred in Tasmania and the market place tends to be spatially disconnected as a result of the relatively small catchments in the State. The majority of water trading, other than that directly related to rural property sales, has occurred within the major irrigation

¹ Note that if the water is physically transferred to the transferee direct from the dam by a pipe rather than the river or a stream, then the buyer does not need a licence and no “transfer” under the WMA is involved.

schemes and through privately arranged physical transfers between landholders.

Since 2003 an agreement between Hydro Tasmania, the Department of Primary Industries, Water & Environment and the Tasmanian Farmers and Graziers Association has led to greatly increased transfers of water in hydro electric districts such as the South Esk basin.

Hydro Tasmania has a much larger share of water available for trading compared with the water entitlements of irrigators and other licensees but its water resources are intimately linked with the electricity market.

Since the *Water Management Act 1999* commenced in January 2000, the surface water resources of the hydro electric districts have been, in effect, fully allocated. The tripartite agreement has streamlined the procedure for transfers of water between Hydro Tasmania and other users in the districts, especially for the taking of water into new dams during winter. Under this arrangement, several thousand Megalitres of water has been transferred.

4. Scope of the guiding principles for water trading

The guiding principles provide the policy framework to assist in the implementation of Division 4, Part 6 of the WMA relating to the transfer of water licences and allocations.

Transfers of irrigation rights within Irrigation Districts are covered under the *Irrigation Clauses Act 1973*. These principles do not cover the trading of irrigation rights within Districts.

5. Guiding principles for water trading

It is the role of Government to ensure that the management and use of water resources results in positive socioeconomic benefits that do not impact unacceptably on the resource or ecosystems that depend on the resource (Water Reform Task Group 2003). For an effective water market, constraints on trade need to be as few as possible, predominantly associated with the need to ensure ecological sustainability and the preservation of property rights of others (Tisdell *et al*, 2002).

The following principles provide the context for how trading can be managed to achieve this outcome whilst enabling an effective trading market to develop. The principles are consistent with the objectives of the WMA, the COAG Water Reform Framework and the principles identified by the Water Reform Task Group (2003).

The Minister has delegated statutory functions such as granting of water licences and allocations and approval of water transfers to specified positions within the Water Resources Division in DPIWE under section 10 of the WMA. These principles will assist those delegated officers when water transfers are assessed.

Where a greater level of guidance is necessary to facilitate water trading at a local level, trading rules will be established that provide location specific interpretation of the general guidelines. Trading rules may be set out in a Water Management Plan made under the WMA or as specific regional trading rules under these principles.

5.1. General principles to facilitate efficient water trading

- 5.1.1. Transfers and any water trading rules that are developed are to be consistent with the objectives of the WMA and other relevant statutory instruments and policies².
- 5.1.2. Constraints on transfers are to be imposed only where necessary to meet the objectives of the WMA and other relevant statutory instruments and policies.
- 5.1.3. Transfers of water allocations will not be permitted where the existing and proposed extraction points are not hydrologically connected.
- 5.1.4. All persons and entities entitled to own water licences may own and trade those statutory licences and water allocations issued under Part 6 of the WMA. This can be undertaken through a lease arrangement (a “limited period transfer”), absolute sale or through other trading options that may evolve over time.
- 5.1.5. A limited period transfer may be undertaken for any duration up to the remaining term of the transferor’s relevant water licence or allocation.
- 5.1.6. The applicant will be responsible for providing additional information to support an application where necessary to demonstrate that a proposed transfer will not result in adverse impacts on the environment or other legitimate water users.
- 5.1.7. Water trading principles and specific trading rules are to be responsive to improved knowledge about a catchment and its aquatic environment and a better understanding of the impact of trading on water users.
- 5.1.8. Trading should not impact on the ability to set and meet interim environmental water allocations³ or environmental water provisions⁴ established through Water Management Plans.

² This includes but is not limited to the *Environmental Management and Pollution Control Act 1994*, *Threatened Species Protection Act 1995* and State Policy on Water Quality Management 1997.

³ Refer definition in Water Resources Policy #2003/1.

- 5.1.9. To facilitate trade, relevant information on water licences and allocations will be readily available on a publicly accessible register.
- 5.1.10. Registered third party interests in water licences⁵ and allocations will be protected by requiring written agreement of those parties to a proposed transfer. A transfer will not be approved without this written agreement, except for a temporary transfer (see section 5.9 below).
- 5.1.11. Transfers of water licences and allocations as a consequence of a change in the legal tenure of land or infrastructure (a transfer covered by section 3.1.1 above) are a simple administrative process which in normal circumstances will require only the consent of registered third party interests.

5.2. *Statutory requirements*

- 5.2.1. Transfers of water allocations are subject to the transferee holding a relevant water licence or applying for and obtaining a relevant water licence (except for a temporary transfer under s103 of the WMA – refer to section 5.9 of this paper).
- 5.2.2. Rights to take water under Part 5 of the WMA are not tradeable (ie. entitlements that do not require a licence). This includes “riparian rights” to take water for specified purposes, as well as rights to take dispersed surface water and groundwater from land owned or occupied by the water user.
- 5.2.3. Applications to transfer groundwater can only be considered where the groundwater usage is licensed under Part 6 of the WMA. Due to Tasmania’s complex hydrogeology, applications will be considered on a case by case basis and may require the applicant to provide information to demonstrate that the proposed extraction points before and after the transfer are hydrogeologically linked.

5.3. *Principles for enhancing market place information*

- 5.3.1. Changes in ownership following an approved transfer are to be recorded on the Water Information Management System (WIMS) register immediately after approval.
- 5.3.2. Market disclosure of information enables an effective water trading market to develop. If this information is not available from private sources then Government should collate non-confidential data from

⁴ Refer definition in Water Resources Policy #2003/1.

⁵ Under Section 61 of the WMA.

buyers and sellers where it is demonstrated that its non-availability is restricting markets⁶.

5.4. Principles for the refusal of a trade

- 5.4.1. Circumstances under which an application for a transfer may be refused must be consistent and clearly designated.
- 5.4.2. Such circumstances are defined by section 98 of the WMA, under which a proposed transfer may be refused on the basis that the proposed transfer:
 - (a) is inconsistent with a relevant Water Management Plan or the objectives of the Act; or
 - (b) may have an adverse impact on existing water users; or
 - (c) contravenes the Environmental Management and Pollution Control Act 1994; or
 - (d) if the transferor and/or transferee have been convicted of an offence against the WMA or accepted a water infringement notice; or
 - (e) either the proposed transferor or transferee has not paid any fee or other amount payable under this Act.
- 5.4.3. In regard to 5.4.2(d), where the decision on the application is made by a delegate of the Minister, this discretionary power will only be invoked where the specific circumstances of the offence and of the proposed transfer make it reasonable to expect that a similar offence could result from the transfer. In such a situation, the preferred action is to impose conditions on the proposed transfer to mitigate against such an offence rather than to refuse the transfer application.
- 5.4.4. In regard to 5.4.2(e), where the decision on the application is made by a delegate of the Minister, this discretionary power to refuse an application will be invoked whenever there are relevant outstanding fees, although in the first instance, the applicant will be given the opportunity to make reasonable arrangements for the timely payment of such fees.

5.5. Principles for imposing conditions on transfers

- 5.5.1. Conditions imposed on extraction, diversion and use (to the extent possible under the WMA) of water resulting from a transfer should only be used to manage:

⁶ Disclosure of pricing information will largely depend on a ruling by the State Revenue Office on whether or not duty is payable in relation to water transfers. A determination is expected in 2004.

- environmental impacts; including impacts on water dependant ecosystems;
- hydrological, water quality, hydrogeological and geomorphological impacts;
- delivery constraints; or
- impacts on other water users.

5.5.2. Section 101 of the WMA provides that in approving a transfer application, the Minister (or his or her delegate) may impose conditions on the transfer. This provision must be applied in a consistent and transparent manner.

5.5.3. Conditions of approval of a transfer should only be applied to mitigate matters that would otherwise lead to a refusal of the application under section 98 of the WMA.

5.6. *Trading zones and exchange rates*

5.6.1. Trading zones and exchange rates can be used to address potential adverse impacts of proposed transfers in a clear and consistent manner and hence facilitate the development of water markets.

An exchange rate can be applied to a water allocation to quantify any reduction in that allocation as a result of the transfer. For example, if a transfer results in the extraction point for the water allocation moving downstream, then the allocation may need to be reduced to take account of evaporative and seepage losses.

Trading zones can be established to facilitate trade within and between geographic areas (eg. sub-catchments). Within a trading zone, the exchange rate for transfers is 1.0 and between zones the exchange rate is less than 1.0. That is, a trading zone is the geographical area within which it is assumed that water transfer losses and changes in water surety are negligible.

The concept of trading zones and exchange rates is far more developed on mainland Australia, in particular in the Murray Darling Basin where water transfers may involve the relocation of the extraction point by hundreds of kilometres.

The principles below are the first attempt to apply these concepts usefully in the Tasmanian context. The principles will be amended as the water market in Tasmania develops and more information is available on the usefulness and applicability of trading zones and exchange rates. Water Management Plans may also redefine trading zones and exchange rates.

- 5.6.2. A trading zone is taken to be a section of a single water resource between major tributaries. Major tributaries are defined as those tributaries that are named on a 1:25 000 map.
- 5.6.3. Within a trading zone, transfers of water allocations will be permitted with an exchange rate of 1.0 (ie. the transferred water allocation will not be reduced in volume or reliability to address transfer losses) unless specific local circumstances such as the presence of karst or underground flows result in less water being physically available at the post-transfer extraction point.
- 5.6.4. Exchange rates will never exceed 1.0 as an entitlement holder can not sell a greater right than that represented by and endorsed upon a water allocation.
- 5.6.5. It is recognised that trading water allocations upstream or downstream between two trading zones will be more complex due to the greater potential for evaporative and seepage losses and the impact of inflows from tributaries.

At this stage, it is not practical to establish firm exchange rates between the various trading zones and each application will need to be considered on its specific circumstances.

However, DPIWE acknowledges the necessity to be clear and consistent in both its requirement for information to support transfer applications and in its assessment of those applications.

To this end, DPIWE will further develop the concept of set exchange rates between trading zones and make these exchange rates publicly available to assist potential buyers and sellers of water.

In the interim, applications for transfers between trading zones will be dealt with in accordance with principle 5.6.6 below.

- 5.6.6. The relative location of the transferor and transferee within a catchment will determine what site specific conditions if any are imposed on a transfer.

For example, trading water allocations downstream past the confluence of significant tributaries will generally have far fewer impacts than trading water allocations upstream.

Applications will be assessed for likely evaporative, seepage and other potential losses, impact of tributary inflows and impact of proposal on key environmental features⁷.

⁷ The Conservation of Freshwater Ecosystem Values Project currently being undertaken by DPIWE will provide the most significant information to be considered in this assessment.

In general, it is expected that the greater the distance over which the extraction point is to be moved, the greater the potential impact.

5.7. Water quality

- 5.7.1. The transfer of a licence and/or water allocation and the physical transfer of water should not directly result in adverse impacts on the water quality of the resource, including any protected environmental values or water quality objectives that have been established for a catchment.
- 5.7.2. For types of transfers covered by section 3.1.1 and 3.1.2 above, this will normally be taken into account in assessing the potential impact of the proposed transfer on the river environment.
- 5.7.3. For types of transfers covered by section 3.1.3 above, DPIWE will require that wherever there is doubt about the potential impact of the water release, the quality of water to be transferred from storages via natural watercourses must be assessed prior to its release. Such transfers will only be approved where the quality of the stored water is not expected to have adverse impacts on the watercourse.

5.8. Compliance

- 5.8.1. It is important that both transferee and transferor comply with the conditions of a transfer. In situations where non-compliance would have a direct impact on other water users and/or the environment, a condition of approval of the transfer will require that the transferee and where relevant, the transferor, install meters to monitor their taking and release of water.

5.9. Temporary transfers

- 5.9.1. Section 103 of the WMA provides that a person who does not hold a water licence may apply for a temporary transfer of a water allocation for up to 21 days without needing to first obtain a relevant licence.

A temporary *transfer* is relevant where the proposed transferee requires the use of a *licensed water allocation* (as opposed to requiring the use of water released from a dam (as per section 3.1.3 above). For example, an irrigator may transfer an allocation for a direct take of water during summer from the licence of an upstream neighbour.

A temporary transfer is taken to apply to an emergency situation where a water user may need to obtain water urgently for a short

term purpose, such as to apply a final irrigation to a crop where all available water from other sources such as a farm dam has been used up.

- 5.9.2. In the interests of encouraging sustainable and responsible water use, it is considered undesirable for this provision to be used other than in such an emergency situation. This is reflected by section 103(4) of the WMA which provides that in approving an application for a temporary transfer, the Minister may make conditions which “limit the period before which a second or subsequent temporary transfer may be made to the applicant”.
- 5.9.3. In invoking the spirit of this provision, DPIWE will normally make any approval conditional on applying for a maximum of 21 days with no further applications for a similar transfer approved within 3 months after that time. Where necessary, DPIWE will work with the transferee to facilitate a more appropriate transfer arrangement being made before the end of the 21 day period.
- 5.9.4. In the interests of promoting equitable and sustainable water resource management, for the “transfer” arrangement to continue on expiry of this period, an application for a water licence must be made by the transferee.

6. Review

The guiding principles will be subject to ongoing review as more experience of water trading in Tasmania is gained. The overall aim of such review is to ensure that the principles facilitate trading while mitigating adverse impacts on the environment and other water users.

7. References

ACIL Tasman 2003, *Water Trading in Australia current and prospective products*, ACIL Tasman, Sydney.

AFFA 2003, *Water Reform*, Department of Agriculture, Fisheries and Forestry Australia, Canberra website
URL:http://www.affa.gov.au/docs/nrm/water/water_reform/index.html

Etchells, T, Malano, H, McMahon, T.A. *Developing methodology to calculate water trading exchange rates*. Australian Journal of Water Resources, Vol 7 No. 1, 2003.

HLSGW 2001, *A national approach to water trading, discussion paper*, High Level Steering Group on Water.

Tisdell, J., Ward, J. and Grudzinski, T. 2002, *The development of water reform in Australia*, technical report 02/5, CRC Catchment Hydrology, Melbourne.

Water Reform Task Group 2003 *Report on enhancing water trading*, Report to the Chief Executive Officer's Group on Water and COAG Senior Officials Group on Water.

Water Resources Policy #2003/1. *Guidelines to assess applications for new water allocations from watercourses during winter.*

8. Definitions

Absolute transfer

An absolute transfer of a water entitlement involves the outright sale of all or part of licensed water entitlement. The seller reduces their water allocation and the purchaser will require a new water licence or a variation to an existing licence before the transfer can proceed.

Exchange rate

Numerical exchange rates determine how much of the transferor's water allocation can be taken by a transferee within and between trading zones.

Licence

As defined in Part 1 of the *Water Management Act 1999*, a licence granted and in force under Part 6.

Limited period transfer

A limited period transfer enables a licensee to transfer part or all of a licence or water allocation for a limited period of time (equivalent to a lease). The length of time for such a transfer is governed by the time remaining before the expiry of the seller's water licence or the allocation. The purchaser will require a new water licence or a variation to an existing licence before the transfer can proceed. At the end of the "lease", the control of the licence and/or water allocation automatically reverts to the transferor.

Trading Zone

Trading zones identify the specific areas where trading may occur and they simplify administration of trade and use of exchange rates. A trading zone is located on a single water resource between major tributaries that are named on a 1:25 000 map.

Temporary transfer

Under Section 103 of the WMA temporary transfers of a water allocation of a licence to a person who is not a licensee for a period not exceeding 21 days. In this lease arrangement the water entitlement is retained by the seller and a temporary transfer to a person (who does not require a licence) is permitted to overcome a significant water shortage.

Water allocation

As defined in Part 1 of the *Water Management Act 1999*. The quantity of water that a licensee is entitled to take and use under a licence.

Water Management Plan

A plan made under Part 4 of the *Water Management Act 1999*.

Water resource

As defined in Part 1 of the *Water Management Act 1999*, a watercourse, lake or any dispersed surface water or groundwater.