

Issue

The motion "CR1 Coastal Water" was passed at Annual Conference in 2007 to develop specific coastal water policy.

CR1 Coastal Water

That the Association lobby government to:

- (a) Establish policy that distinguishes between eastern fall water and western flow water;
- (b) Develop integrated water management plans for coastal rivers, that take into account existing and proposed Water Sharing plans as well as present and future needs for urban, rural and industrial supply; and
- (c) Review Eastern Fall harvestable rights to determine potential increases.

As an action to further this policy, the CRM Committee sought input and advice on technical and other issues from relevant departments and coastal members with the intention of highlighting a number of issues facing coastal farmers and irrigators. These issues have been included in the briefing note, along with a detailed background outlining the importance of the coastal industry, as well as the relevant legislation which applies to the region.

The document includes a number of recommendations which are proposed to be debated at Executive Council and potentially adopted as Association policy.

Background

- This Document is structured as follows:
 - Background information on:
 - Production value and irrigation dependence of agriculture on NSW Coast
 - Macro Water Sharing Plans,
 - regulated and unregulated rivers,
 - urban encroachment,
 - harvestable rights, and
 - the embargo on water licences.
 - Key issues identified by coastal irrigators
 - The special characteristics of coastal streams
 - Physical and legislative barriers to agricultural growth
 - Water pricing
 - Population growth/ urban encroachment
 - Resource planning
 - Increasing and promoting greater storage of water
 - Government policy and funding
 - Relevant Association policy
 - Issues for consideration in new policy development
 - Recommendations
- ***Production value and irrigation dependence of Agriculture on NSW Coast***
 - **NSW Coast**

We can define the coastal region of NSW as that which is east of the great dividing range..

Snowy Mountains

The Snowy Mountains are the one area in NSW where water flows both east and west of the divide. It would seem logical then to say that the Monaro lies in the eastern fall region, however the focus of this document is largely on the clash between urban and rural water in the coastal

environment (subject to coastal rainfall). Based on this we can say that the Snowy/ Monaro region is a separate issue and therefore falls outside the scope of this document.

There are a number of different agricultural commodities being produced on the coast of NSW, many of which have varying degrees of dependence on irrigation. Beef, dairy, poultry, eggs, fruit, vegetables, nurseries, cutflowers and turf all have reasonably strong presence on the coast and many also have a reasonably strong dependence on irrigation for production.

While coastal NSW has higher average rainfall what areas west of the divide, this coast rainfall is frequently not be sufficient to sustain a crop to the end of its life. Many coastal farmers have built their businesses up with irrigation as an essential component of their operations.

In general, there is a lack of data identifying commodities and resource inputs on a regional basis. This has made it difficult to determine exactly what types of industries exist along the coast and their overall dependence on licenced water/irrigation. The Australian Bureau of Statistics has indicated that it will be releasing a report in March titled "Agricultural Commodities: Small Area Data" which may help to provide more accurate data on the subject.

The significant barriers to collecting accurate data include such things as: the large number of growers and the relatively small size of the farms (hectares).

It is advised that the following information on production is intended to give a rough idea of the value of agriculture on the coast, and its dependence on irrigation.

Sydney Region

There is a wide variety of agricultural enterprises in the Sydney Region, with a high concentration of intensive production. A report titled "The Value of Agriculture in the Sydney Region" (February 2003) makes reference to a number of statistics surrounding the Sydney Region. It should be noted that the report refers to census statistics from 1997 (highlighting the scarcity of information).

	Intensive Horticulture	Extensive Horticulture	Intensive Animals	Extensive Animals	Extensive Cropping	Total \$
ABS Census	100,165,010 (21.5%)	42,230,330 (9.0%)	315,935,100 (67.7%)	7,747,200 (1.7%)	812,590 (0.2%)	466,890,230
Rural Land Studies	391,744,611 (40.3%)	155,768,549 (16%)	399,017,532 (41.1%)	23,021,812 (2.4%)	1,446,250 (0.1%)	970,998,754
NSW Agriculture	536,690,000 (52.4%)	117,162,902 (11/4%)	324,617,870 (31.7%)	43,498,240 (4.3%)	1,453,900 (0.14%)	1,023,422,912

The Rural Lands Studies were conducted over a ten year period by a series of consultants and councils.

Despite the variance in value of agriculture identified by the three groups above, it is clear that agriculture in the Sydney Region is of considerable value, with an estimated value between \$500m and \$1b dollars, with much of this reliant on irrigation water.

o Intensive Industry on the NSW Coast

- 85% of broiler production occurs on the NSW coast using approximately 727ML per year.
- 30% of egg production occurs on the NSW coast using approximately 227 ML per year.
- Both of these industries are heavily dependant on licenced water.

o Dairy on the NSW Coast

The dairy industry has provided rough estimates that suggest the majority of NSW dairy production occurs on the NSW Coast (estimating greater >75%). Based on a survey of NRM practices for dairy farms it is estimated that farms on the coast are becoming increasingly irrigated. It was found that approximately 74% of the dairies in the south of the state (southern central area which includes Bega) are irrigated. Data on the north coast of the state indicates that approximately 60% of the dairy farms are irrigated.

There is also a strong trend seen in both areas that indicates the average proportion of land irrigated has increased significantly in the south and the north of the state.

In the south there has been a shift from 8% of dairies irrigating over 80% of their land (year 2000) to around 30% of dairies irrigating over 80% of their land (year 2006).

The same trend can be seen in the north of the state where around 1% of dairies irrigated over 80% of their land (year 2000) and now there is 11% of dairies irrigating over 80% of their land (year 2006).

An average farm in the north of the state is said to use approximately 200ML per year.

An average farm in the south of the state is said to use approximately 400ML per year.

It is stated that average irrigation use for a dairy is approximately 454ML, and can get up to 640ML in some areas (Murray) or down to 160ML in other areas such as western Victoria.¹

o **Horticulture on the NSW Coast**

The biggest horticultural crops in NSW are citrus, pomefruit (apples), bananas, potatoes, and vegetables. The key coastal crops in a general sense are bananas, berries, macadamias, pecans, lychees, stonefruit, avocados, vegetables, greenhouse tomatoes and flowers/nursery/turf. Much of the horticulture production on the coast occurs in the Sydney, Hunter and North Coast Regions. Of these only far north coast crops of bananas and avocados are said to be rain fed, while the rest would be either on unregulated river/ground water or only very recently regulated. The vast majority requires some irrigation source.

Data from Horticulture Australia indicates that horticulture is highly dependent on irrigation water. In general, horticulture uses an average of 11 ML per ha in a high demand year in a low rainfall area, and an average of 2.5 ML per ha in a low demand year in a high rainfall area.²

ABS data indicates that

- 82.6% of vegetables in NSW are irrigated
- 75.4% of fruit in NSW is irrigated
- 90% of nurseries, cutflowers and cultivated turf are irrigated.

▪ **Vegetables**

- The Sydney Basin alone is responsible for approximately \$215 million of production. If we compare this against Horticulture Australia's value for total vegetable production of approximately \$300 million dollars it may be said that the Sydney Basin accounts for a significant proportion of NSW total production.^{4, 2}

▪ **Fruit**

- The Sydney Basin is responsible for approximately \$50 million of production annually, including
 - o \$35 million of stone fruit production and is one of the major producers of Australia's stone fruit during the months from October to December.
 - o \$10.5 million of Pome fruit production

▪ **Other Fruit**

- The North Coast of NSW is responsible for approximately \$120-140 million production in other fruit.
- Approximately 100% of bananas and avocados are grown on the coast, (mostly rain-fed)
- 20% of citrus is grown on the coast, with approximately 10% (\$12 million) of this grown in the Sydney Basin and 5% (\$6 million) grown on the Central Coast.⁴
- More than 80% of NSW strawberries are grown within 80km of Sydney, with an estimated value of \$5 million.⁴

▪ **Grapevines**

- The Hunter Region is responsible for approximately 10% of NSW grapevine production valued at around \$30 million.³

▪ **Nurseries/ flowers/ cultivated turf**

¹ Watson, P., 2006, Dairying for Tomorrow, Survey of NRM Practices on Dairy Farms.

² Horticulture Australia Limited Statistics 2003 (ABS 2001/02) & Barraclough and Co – 1999 Audit of Water irrigation Use Efficiencies.

³ Neil Clark & Associates, (2005), Commonwealth Electoral divisions and Horticultural Production, Bendigo, Victoria.

- The NSW Coast is responsible for approximately 70% of production of nurseries/ flower and cultivated turf. The farm gate value of the:
 - cut flower industry in the Sydney Region is estimated at approximately \$185 million.⁴
 - nursery industry in the Sydney Region is estimated at \$65 million.⁴
 - turf industry in the Sydney Region is estimated at \$55 million.⁴
- **Mushroom Industry**
 - Wester Sydney produces 80% of NSW's production valued with a farm gate value of \$70 million.⁵
- **Macro Water Sharing Plans**
 - Water sharing rules will be developed for broad areas after sub-catchments or aquifers have been classified on the basis of their social, economic and ecological values. Where people or regional economies are highly dependent on water extraction, macro water plans will aim to affect those uses as little as possible. Where ecosystems are dependent on stream flows or groundwater and are likely to be affected by extraction, plans will aim for more control of water extraction. Where both needs apply, they will be balanced.⁶
 - The plans will bring water users still operating under the Water Act 1912 into the one licensing system managed under the Water management Act 2000 and are current for 10 years.
 - The plans clearly define shares in available water for license holders. They also provide irrigators and farmers with continuing or 'perpetual' licenses, which have a title separate from the land, enabling better water trading opportunities.
 - The goal for river plans is to protect environmental water in low flow periods through managing total volumes extracted each year. The total license entitlements are typically less than 5% of the average annual flow in many unregulated systems. The goal for groundwater plans is to manage extractions within a sustainable yield which is less than 60% average annual recharge from rainfall.
 - Macro water plans are now being prepared for most of the remaining unregulated rivers and groundwater sources in NSW and will include approximately 30 surface water plans and up to 12 groundwater plans.
 - Macro water sharing plans will reflect the following priorities for access to water:
 - Environmental health of rivers and riparian zones;
 - Basic landholder rights;
 - Town water, licensed domestic and stock use;
 - Other extractive uses – irrigation, farming, mining
 - The Association has compiled an update on the status of Macro Water Sharing Plans, including when the targeted consultation phase and public exhibition phase are scheduled to take place and when they are likely to be completed. This document is available on the Association website under CRM .Water.
 - The Department of Water and Energy (DWE) has indicated that NSW Farmers Association could potentially act as a representative "targeted consultee" for individual licence holders on Macro Water Sharing Plans. The issues raised in this phase of consultations are limited to generic/overall comments on the plan provisions not on individual licence holder issues, as DWE has limited resources.
- **Regulated vs Unregulated Rivers**
 - Regulated Rivers have a large dam at some point along the river. They have 2 main sets of rules applying to the system
 - 1. Release rules from the dam, and
 - 2. Access Rules for licenses
 - Unregulated Rivers generally **do not** have a dam along the course of the river, however, there are exceptions to this, such as the unregulated systems in the Sydney Region, which have dams for town water supplies. (e.g. Nepean) They have 1 main rule set applying to the system, being the access rules for licenses.

⁴ Gillespie, P. D., Mason, D., (2003), The Value of Agriculture in the Sydney Region, NSW Agriculture, Environment Planning & Management Sub-Program.

⁵ Australian Mushroom Growers Association (AMGA, 2002).

⁶ Department of Water and Energy, 2007, Overview of Macro Plans

- All major coastal river systems aside from the Hunter, Brogo and Toonumbar are unregulated.
- **Environmental needs of coastal rivers and their capacity to sustain diversion.**
 - Diverting water from a river system for irrigation, or other use, changes the natural flow regime of river. These diversions have the potential to degrade environmental values in a catchment by producing an inadequate flow regime. Developing and implementing suitable environmental flows is a key process to ensure that diversions from a river equate with the ecological needs of the river.
 - Many coastal rivers are subject to high rainfall and as such many have large flows/plumes of water that run out to sea. In discussions with DWE it is recognised that where large plumes of fresh water have been running out to sea (out mouth of river) for a few days, it could be suggested that the environmental needs of the river system and the receiving marine environment have been met and that there is opportunity for additional water use (diversion of water). Recent storms along the coast (e.g Hunter and North Coast) have resulted in large plumes of water running out to sea, providing an example when irrigation allocations could have been increased without compromising environmental flows.
 - There may be an opportunity for a sustainable increase in diversion limit in coastal systems. The variable nature of rainfall and water flow events raises questions about how we best obtain a sustainable diversion limit in a cost-efficient manner. Larger storages may help to facilitate water harvest from coastal systems (infrequent water flows) where there is potential for an increased diversion limit.
- **Urban Encroachment**
 - Association policy is that additional urban water requirements resulting from urban expansion should not be at the detriment of existing agricultural landholders entitlements/allocations.
 - The irrigation industry is vital to the survival of many rural and regional communities. If water rights are reallocated from irrigators to Town Water Supplies (TWS) there may be negative impacts on the local community, as well as individual irrigators. It is important to consider the flow on effects of a reduced irrigation industry on communities, including the cost to consumers.
- **Harvestable Rights**
 - Harvestable rights allow landholders to collect up to 10% of the average regional **runoff** on their property and use this water in a farm dam, or dams provided the dam is built on a hillside or minor stream. Regional runoff is calculated on the basis of average rainfall, soil type and other parameters. The harvestable right is intended to satisfy essential farm needs, such as stock and household water, however, it can be used for any purpose including commercial irrigation.
- **Where can farm dams be built without a licence?**
 - Farm dams that are part of your harvestable right on your property and can be located on hillsides, gullies and minor water courses. Minor watercourses are defined as 1st or 2nd order watercourses that do not permanently flow.
 - Any watercourse that has no other watercourse flowing into it is classed as 1st order. Where two first order watercourses join, the watercourse becomes 2nd order. If a 2nd order watercourse is joined by a first order watercourse – it remains a 2nd order watercourse. When two or more 2nd order watercourses join they form a 3rd order water course.
 - The harvestable rights stream order can only be determined from a topographic map (available at local newsagencies)
- **When do you need a licence for a dam?**
 - **Licences are required** when dams exceed the limit of 10% harvestable right, or if the dam is situated on a third order stream (not on minor slope).
 - **Licences are not required** for farm dams built before 1999, when the harvestable right was introduced.
 - **Dams are not required** to be included in the harvestable right when it is used for
 - Control or prevention of soil erosion
 - Flood detention and mitigation
 - Capture, containment and recirculation of drainage and/ or effluent
 - Endorsed by DNR for specific environmental purposes
 - Dams without a catchment

- **Embargo on new water access licenses (including farm dams greater than 'Harvestable Rights')**
 - As stated earlier the macro plans will bring water users still operating under the Water Act 1912 into the one licensing system managed under the Water management Act 2000 and will be issued with water access licenses.
 - Generally, new water access licences for commercial purposes (irrigation, industry, and mining) with a share of the available water are no longer being granted (embargo). If you need to obtain a permanent share of water you will have to purchase an existing licence on the water market.
 - In 1995 the NSW Government placed an embargo on new water licences for most unregulated coastal streams because of concerns over declining river health.
 - Some water sharing plans may recommend specific exemptions to apply for specific purpose licenses – such as domestic and stock, Aboriginal cultural, or local water utility access licenses. Granting the licence is not automatic and is granted on the rules of local water sharing plan and an assessment from Department of Water and Energy.
 - This embargo applies to all forms of access licenses including farm dams which capture **greater** than 10% of runoff (Harvestable Right).

Issues identified by Coastal Irrigators

Key issues identified by a reference group of coastal irrigators are discussed below

1.1 The special characteristics of coastal streams

- Water management on coastal areas of NSW needs to be treated by government separately to inland water management due to the coasts very different climate, hydrology and water demands. Irrigation has an important place in the economics of coastal valleys and needs to be both protected and enhanced.
- **Extraction of available water:** Coastal streams are usually short, fast flowing and have very low consumptive use. In many cases between 3% and 10% of long term average yield is all that is used by all extractors. Often rain that falls in the headwaters is flowing into the sea in 5 days or less. Therefore the coastal irrigation industries have enormous opportunity for sustainable growth.
- **Catchment size and amount of storage:** When considering catchment yields for the coast it is important to appreciate the size of the catchment and it's proximity to the sea. Coastal catchments are relatively small and storage effects throughout the catchment are minimal as compared to inland rivers. As such, the contribution of base flow to streams is also small and therefore stream flows are highly dependent and sensitive to rainfall events. Consequently excess stream flows resulting from high energy rainfall drains to the coast and is discharged to the sea. In addition to the high variability of annual and monthly stream flows coastal catchments are also subject to a high variability of daily stream flows, which is directly related to high rainfall variability. This has a significant impact on water availability throughout the year, particularly during dry years where consecutive months with no rainfall causes very low daily stream flows.

1.2 Physical and legislative barriers to agricultural growth

- **Embargo:** There is an embargo in place on the issuing of new licences or increase of licensed volumes on unregulated coastal water sources, with the exception of some ground water systems. This embargo has been in place since 1995. The embargo was meant to be a temporary measure until water sharing plans were in place. 12 years later we only have a smattering of plans in place with the majority of water users with no security of access conditions. Farmers want security in their access conditions so they have confidence to invest.
- **Metering:** Trading in the regulated system has been active for many years, however, in the unregulated system it is relatively new and has not become established for various reasons. The main reason for the lack of trading is the difficulty in valuing water and lack of metering.
- **Lack of storage:** Most eastern fall streams are unregulated. There are very few dams or weirs in place to control flows. Most have water users groups in place who self monitor flow rates and implement pumping restrictions and cessations. Coastal users have demonstrated very effective self regulation over many years. Generally unregulated coastal irrigators have small volume licences, but there are many thousands of them. At this time most of them are not metered.
- **Cost of water:** Coastal regulated systems have varying storages. Hunter-moderate, Toonumbar-small, Lostock-20,000 megalitres, and Brogo-small. Therefore there are high fixed costs per ML which have to

be met by irrigators with small allocations. On average coastal water is 2 to 3 times more expensive per ML than inland water.

- Coastal irrigators rely on piped and pressurised systems (as opposed to flood irrigation) which reduce water losses but have high application and maintenance costs. Most irrigators pump directly from rivers or streams.

1.3 Water Pricing

- Water pricing on regulated streams.
 - Water pricing should not be cross subsidised
 - Regulated pricing on the coast should be based on the rate for the Hunter Regulated system. Tying pricing to the Hunter is more representative of sustainable water pricing on the coast.
 - New IPART prices for bulk water on the Brogo and Toonumbar are moving towards full cost recovery. Due to the small number of irrigators on these systems (as with other coastal systems) full cost recovery pricing is not sustainable. In larger systems, such as the Hunter and the Murray these costs are able to be spread across a larger number of users. Irrigation industry on coastal regulated systems may not survive if a small number of irrigators are pushed to bear full cost recovery of a system.
 - IPART tables below highlight the differences in price of water between Toonumbar, Brogo, Hunter and the Murray Valleys.
 - Costs of regulated streams that exceed the Hunter price should be paid by the government on behalf of irrigators (as a Community Service Obligation)
- Water pricing on regulated and unregulated streams
 - Support more detailed analysis of costs attributed to supply water so as to remove cross subsidies and to have transparency in water pricing.

Valley Toonumbar System	Water Years				
	2005/06	2006/07	2007/08	2008/09	2009/10
General Security	\$8.14	\$7.22	\$6.10	\$5.05	\$4.06
Usage (\$/ML)	\$5.42	\$11.01	\$16.08	\$20.80	\$25.21

Valley Brogo	Water Years				
	2005/06	2006/07	2007/08	2008/09	2009/10
General Security	\$8.15	\$7.76	\$6.96	\$6.29	\$5.65
Usage (\$/ML)	\$5.43	\$10.30	\$14.69	\$18.78	\$22.60

Valley Hunter	Water Years				
	2005/06	2006/07	2007/08	2008/09	2009/10
General Security	\$4.72	\$5.22	\$5.54	\$5.84	\$6.10
Usage	\$4.70	\$6.59	\$8.21	\$9.72	\$11.12

Murray- Lower Darling Valley	Water Years				
	2005/06	2006/07	2007/08	2008/09	2009/2010
General Security	\$4.02	\$3.56	\$3.01	\$2.49	\$1.99
Usage	\$1.09	\$1.82	\$2.46	\$3.06	\$3.62

1.4 Population growth/ urban encroachment

- Population is predicted to double in the next 50 years on the coast. Urban water authorities will be seeking greater access and these authorities currently take priority over all other users under current legislation, without compensation to irrigators. This is a particular issue in periods of low flow. Inequities will continue

to expand as time goes on and has the potential to become one of the greatest dilemmas that the coast will face.

1.5 Resource Planning

- **Macro Water Sharing Plans:** The development of coastal macro and micro water sharing plans needs to consider the following;
 - Coastal irrigators need to be meaningfully involved in the decision making process.
 - Development of these across the coastal areas needs to be consistent.
 - The plans should be fully integrated and include urban water users.
 - The plans are to define property rights including water from aquifers.
 - The affect of activities such as mining, gas extraction, plantation expansion and bottled water business on aquifers and harvestable rights are currently not accounted for. This has produced a distortion of resource use above current restrictions applied to others.
 - Better (map based) information is need about :
 - topographic and hydrological conditions,
 - current, and future embargoes and areas identified as suitable for irrigation development
 - The department must clearly communicate its actions to all stakeholders in an appropriate and timely manner.
 - Consider and use recommendations from existing reports such as the sustainable use report compiled by the Department of Infrastructure, Planning and Natural Resources (DIPNR).
 - There may be a need for an amnesty to bring out unlicensed water users and a structural adjustment program to address possible over allocation due to active and sleeper licences in some aquifers.
- **Rural Subdivision:** Local councils need to improve planning of rural subdivision and hobby farms to restrict water volumes extracted under riparian rights. Developers need to go to the water market to secure water for these subdivisions rather than the current free for all access.
- **Metering:** Support a partnership program for introduction of standardised metering.

1.6 Increasing and promoting greater storage of water

- **Harvestable Rights:** Farmers have a right to harvest 10% of run-off into farm dams and use that water without the requirement of a licence. In many cases, however, farmers are unable to capture their full harvestable right as construction of dams on third order streams or above is prohibited without a licence, and licences are hard to obtain. In hilly short catchments (as is typical on the coast) restriction to on 1st and 2nd order streams demands that farmers must construct large numbers of small dams in order to capture the 10% harvestable right. (Quite often this is cost prohibitive.. Amendments to the regulations regulation effecting dam construction on third order streams are required.
- **On farm, public or cooperative storage:** Water storage in general, whether on farm, public or cooperative needs needs to be encouraged . Future climate change predictions of longer dry periods with more intense storm activity will only extenuate the boom (high flow) and bust (low flow) cycles of the coastal river systems. To maintain effective irrigation access during periods of low flow, and to help maintain environmental flows, storages are required.
- Policy that supports and encourages dam construction is required and the significant hurdles of red tape need to be minimised.
- **Incentives to extract high flow water:** High flow extraction to store water in a farm dam storage facility using surface water allocation should be encouraged so as to reduce extraction in low flow periods.
 - The proposed 2.5 to 1 rate as an incentive to move users out of low flows does nothing to encourage extraction at times of high flow, because much of it would be lost to evaporation. An incentive of at least 10 – 1 from low flow licence to dam filling is required.
 - Current State Water policy for imposing the usage charge for off allocation water discourages on farm storage of this high flow water. Off allocation water on regulated coastal streams should not be charged at all.

1.7 Government policy and funding

- State and Federal governments don't seem to recognise that there is an irrigation industry on the coast. Initiatives such as the waiver of fixed charges for the MDB illustrate this when, for example, the Hunter received no assistance when there was a reduction in allocated water delivery from 100% down to just 8%

and no carry-over. The recent Federal Government Exceptional Circumstances water grant of \$20,000 is again only for the MDB. Coastal irrigators experience the same problems of low allocations during droughts, water efficiency issues and aging infrastructure. There seems no logical reason to deny them access to support.

1.8 Conclusion

- There is obvious need for integrated water management planning for coastal surface and ground water, done on a catchment by catchment basis. This would take into account the forecast of future needs for agricultural, industrial and urban/rural residential use, so that water supply authorities and governments have accurate information on which to base decision making as well as to reduce the chances of conflict between those competing for the resource.
- Coastal irrigated industries have a very strong and profitable future, but only if Government's recognise their unique characteristics and, in doing so, create policy that enhances the opportunities for agriculture, urban growth and the environment.

Relevant Association policy

- 04 Feb EC
That in respect to stock and domestic water rights:
 - (a) That no further rural residential or urban subdivision be consented to until adequate water supply for stock and domestic purposes has been secured.
 - (b) Water for stock as required, with no requirements that this water be pumped.
- 07 Mar EC
That the Association lobby the State and Federal Governments to ensure that the National Plan for Water Security:
 - (a) ensures that new urban water demand is met by urban water savings and not from agricultural supply
 - (b) fully supports all of the principles and agreements established by the National Water Initiative;
 - (c) guarantees that compensation will be payable if property entitlements are adversely affected
 - (h) protects the viability of existing irrigation communities.

Issues for consideration in new policy development

Population growth is possibly one of the biggest problems facing Coastal NSW into the near future, leading to greater urban and rural residential water use. Population growth results in a greater need and dependence on water.

Questions to ask include:

- Where does new water for expansion/ growth come from? (Increasing harvestable ability? Trading between water users? Improving water use efficiencies?)
- Is there scope for increasing private water storages?
- What is an efficient and fair method for planning and allocating coastal water resources?

The document highlights the need for improved planning and regulation of NSW Coastal Water. There may be opportunities for farmers to play a part in this regulation through greater on farm storages.

Due to the nature of coastal rainfall which dumps large volumes of water over short periods of time, there is a great deal of water that runs back out into the ocean. If some of this water is able to be captured it may help address problems of Local Governments on the coast who are finding it increasingly difficult to meet urban water demands. It will also aid in providing greater certainty to irrigators and possibly extra allocation water.

Considering this it may be viable to propose that farmers help regulate the flow of water with greater on farm storages. This would not replace the need to improve urban and rural water use efficiencies, however would act as another new source of water to the system. Pumping into on farm storages would be promoted during high flow periods (recent floods are a good example) which would be determined by increased monitoring/ metering.

It is important that policy is developed to encourage farmers to invest in on farm storage as well as for governments or private organisations to invest in communal or public storages that can deliver water for both agricultural and urban usage. In rapidly urbanising areas such as Tweed and Byron Shire Council, there is limited opportunity for future dam sites on publicly owned land. It is vitally important that farms near coastal communities are not subject to compulsory acquisition (as is the case in Queensland with the proposed Traveston Dam on the Mary River).

A possible solution to this problem may include a number of smaller dams (both on stream and off stream) on privately owned land that could be used for rural and urban requirements. The arrangements will vary depending on the community dynamics and landscapes. A more integrated approach may be warranted, where farms are looked upon as a partner in providing urban water supply, while at the same time increasing storage for farm use.

Farmers may disagree as to whether existing agricultural water should be traded to urban and rural residential development. Some farmers may have the view that agricultural water should remain tied to agricultural purposes while others may argue that agricultural water should be able to be sold to urban/ rural residential landholders on an open water market.

Entering into a water market where agricultural water can be used for urban development may increase the price of water. We must ask if there is a place for security or protection of agricultural water, however, we must also consider the current rights of farmers (Water stakeholders) to trade their water into the urban system.

If coastal agriculture does become priced out of the market, there is an increased probability that food/ agricultural produce will need to be imported.

Issues for consideration in Macro Water Sharing Plan process

Macro Plans are due for completion by mid 2009. According to the DWE it is unlikely that there will be any flexibility from the Government to extend the deadline.

Association members have expressed concerns that the department are not properly engaging landholders and irrigators in the consultation process.

Ideally the Association would like to see greater community consultation in the Macro Water Sharing Plan process, however, due to

- the limited resources of the department and
- the deadline for completion of the plans

it appears that the best option may be to highlight the issues discussed in this briefing note and ensure that provisions are put in place so that they can be addressed in the future. (this is in line with the departments thinking)

Recommendations

The Association supports coastal irrigation industry and recognises that they are different to those in the west and require specific coastal policies. In saying this, the Association also recognises that all irrigators in NSW operate under the principles of the National Water Initiative. The Association also recognises that the snowy catchments system is not part of the scope of resolutions below given the joint interest of both western and coastal water flows.

Long term planning

- The Association lobby the Government to investigate and implement a long-term water strategy for coastal areas which addresses;
 - (a) Urban, industrial, and rural residential pressures on coastal water
 - (b) Saline and other water quality issues, and
 - (c) The need for greater water storage capacity to support growth.

Macro plans

Last updated: 6 March 2008
Contact: Luke Jerdan

Member Service Centre: 1300 794 000
File reference number: 059.07i

- That the Association seek :
 - (a) Inclusion of Urban water in the water sharing and planning process.
 - (b) That Government provides increased resources to the Macro Water Sharing Process so as to enable adequate local stakeholder input into Macro Water Sharing Plans, and that plans are completed as a priority.
 - (c) The Department of Water and Energy ensures that coastal issues identified by the Association are considered in the Macro planning process on a catchment by catchment basis.
 - (d) That high volume users (e.g Mines and Power Stations) are subject to the same water restrictions as Agriculture in times of water scarcity.
 - (e) Improved telemetry and information regarding water availability in NSW coastal rivers and water courses.
 - (f) a partnership program for introduction of standardised metering.

Harvestable rights

- That the Government revisit harvestable rights policy with reference to the special needs and attributes of coastal environments, taking into account local variation, so as to enable greater harvesting in suitable landscapes and do not undermine the integrity of existing water sharing plans;
- That special attention is given in this process to the unique needs and attributes of saline systems;
- That the Association lobby for improved data and analysis of topography and hydrology (land and streams), in order to support revision of limits to dam construction (e.g. third order streams).

Incentives for promotion of high-flow extraction

- That the Association seek incentives to extract high-flow water on the eastern fall by lobbying the State Government to:
 - (a) Increase the rate of exchange from low-flow water to high-flow from 1:2.5 to a higher ratio to reflect the capacity of regional supply systems.

Greater on-farm storages

- The Association lobby for greater capacity of on-farm water storages with the view of harvesting excess water in the system during high flow and high rainfall events.

Mining

- That the Association seek accounting for loss of water resulting from damage to aquifers caused by mining.