

FINAL REPORT

**MODEL FOR COMMUNITY SELF MANAGEMENT OF WATER
OPTIONS DEVELOPMENT
REVISION ONE**

FEBRUARY 2009

**FOR
SCOTT RIVER WAER USER GROUP**

syrinx environmental pl

restoration remediation research operations masterplanning landscape architecture design



SYRINX ENVIRONMENTAL PL

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ADDENDUM

This amendment to the report was prepared in response to comments and feedback from the Department of Water that the original report failed to meet some of the original requirements as outlined in a letter to Syrinx from the Scott River Growers Group in July 2007.

Syrinx acknowledges that the final report as submitted in September 2008 does not adequately address the proposal to form a local area water management group in the Scott River Area. While a review of the current models for water management in Australia was reasonably straight forward, as was the hosting and facilitation of two discussion workshops, gaining consensus from the represented water users was more difficult. Contributing to this lack of cohesion was the overwhelming suspicion surrounding the Department of Water, a factor which was compounded by the absence of Department Representatives at the two workshops held during the project.

The Department of Water chose to remain apart from the process so as to not influence the direction of the model development. This honourable intention however proved counterproductive to the process and in fact may have further contributed to the lack of trust and respect for the Department within the community.

The aim of this project was to work with the local community to determine a possible direction for local area water management. As such it is fitting that the final report represent the comments of the local community members and be a sensitive representation of the discussions and information gathering that took place during the process. It would be inappropriate and disrespectful now to make amendments to the report that contradict the intentions or preferences of the participating community.

However, some amendments and additions to the original report have been made where possible and specifically relating to the context and administrative considerations for the local area management model but not to the structure that any local area management group should take. Given the sentiment within the local community and the need to improve significantly the relationship between the regulatory agency and the local water users it is strongly recommended that progress toward local management for the Scott River be slow and in line with Community wishes and degree of comfort.

BACKGROUND

In April of 2007 the Lower Blackwood Land Conservation District Committee hosted a water management workshop at the Alexander Bridge Hall. This workshop was attended by fourteen people representing local agricultural water users and natural resource management groups. The purpose of the workshop was to discuss and document the issues and concerns with regard to water management in the Lower Blackwood and to determine a direction for future water management in the region. The full notes from this workshop are included at Appendix A.

In summary, the issues identified at this workshop included:

- Security of water supply
- Water shortages
- License conditions – inconsistencies and unsuitable targets for management
- Lack of coordination between and within government agencies
- Costs of managing the environment not currently factored into the production costs for agriculture
- Increased licensing requirements will lead to additional increases in production costs
- Lack of support and relationships with government agencies
- Lack of interpretation of available environmental data
- Lack of long term planning and management at a state level

A task list was drawn up from the discussions held at this workshop and prioritised into critical actions required to achieve a long term improvement in water management. The highest priority among the action items identified was the establishment of a working group to continue research into existing management models and to, once research complete, propose a management model for use in the Scott Coastal Plain / Lower Blackwood area.

In late 2007 the Scott River Growers Group was successful in obtaining funding from the Department of Water to appoint a consultant to conduct a review of existing local area management models within Australia and to work with the community to develop recommendations for a local area water management group for the area. Syrinx Environmental have undertaken this work and this report presents the outcomes of that process.

1.0 INTRODUCTION

An increasing potential for unacceptable local impacts from inappropriately managed groundwater abstraction is leading to a push for more detailed management of these resources. Government Agencies are painfully under-resourced and as a consequence tend to apply broad rules to the management of aquifers that may not adequately account for local conditions. For this reason, a move to local management can provide excellent outcomes in terms of both the environment and economics. Local water users, when provided with the right tools and assistance can provide a level of detailed management not easily achieved by government regulation alone.

The Scott River Growers recognise the advantages inherent in local management and recognise the opportunity to adopt this approach. This report represents a summary of a study of local area management models examined during the project as well as recommendations arising from a series of discussions with water users in the area. The first workshop stimulated significant interest in and questions about local area management and a list of critical questions developed at that workshop were circulated to landholders in an effort to gauge opinion and clarify the direction for water management in the Scott River area.

A second workshop held in June 2008 offered additional opportunities for landholders and water users to discuss their issues and gain consensus with regard to forward direction. The notes from this second workshop are presented at appendix B and discussed in Section 3.

In addition some comments are included here relating to the administrative arrangements for any local management group established.

2.0 MODELS FOR LOCAL WATER MANAGEMENT

Five existing local area management models operating within Australia were examined in order to provide some guidance to the Scott River Growers Group / Local area water users in the development of a suitable model for local area water management.

Table 1 provides a comparison of the six models in terms of their structure, board, trading, reporting requirements, and conservation considerations. As can be seen from the table the models are remarkably similar in that they are all basically cooperatives registered as companies and all hold bulk licenses that are managed on behalf of the water users.

Table 1 Summary of five Local Area Management Models Operating within Australia

	Ord Irrigation - WA	Harvey Water -WA	Gascoyne Water -WA	Murray Irrigation Ltd - NSW	Murrumbidgee Irrigation - NSW	Pioneer Valley Water - QLD
Structure	Cooperative structure, holding operating licence and 5C licence	Two separate companies with separate articles of association	Shares issued by class according to base allocations	Series of sub-committees established to assist in the achievement of various intentions	Shareholders issued one share per ML of allocation	Wholly owned by irrigators with no commercial aspect
	Water Management Reference Group established	SWIAC - asset based cooperative - no staff	Share transfers controlled by company	All irrigators are shareholders in proportion to their water	Share classes - determined by nature of uses - dictate voting	
	Collaboration between community, industry and government	SWIMCO - trading entity with staff who undertake all maintenance and monitoring	Maximum share allowances set by company			
Board		All but one director elected. Single special interest director by invitation (eg finance), no government representation	Board members elected at general meetings, one third replaced at a time	Board of directors elected by shareholders	Board members elected by shareholders	Five directors, three elected by ratepayers, one nominated by Mackay Sugar Cooperative and one invited as 'special interest',
		Three year terms, membership rotated to maintain continuity		4 year terms of office for directors, half changing every 2 years, Chairman elected by	Eight directors - comprised of two large area irrigators, two horticulturalists, one community	
Trading	Trading permitted within cooperative	Tradable water entitlements (TWE's) can be temporary or permanent. Harvey Water facilitates annual auction and maintains a voluntary sale	Allocations can be purchased by the company and held for future disposal.	MIL operates the largest water exchange in Australia	MIL set prices and facilitate water trading within and between basins	Trading is permitted but temporary only as entitlements remain tied to land, subdivision of current allocations must be approved by the board
			Water requirements nominated at the commencement of the irrigation season each year	Trading can be temporary or permanent, within or between basins		
			Surplus water is held by the company	Non-landholders can hold water entitlements - hence there is a substantial exit fee payable by		
			Temporary transfers allowed external to the basin at the			
			Subdivision of land is also subject to the boards approval			
Monitoring & Reporting		Monitoring and metering undertaken by staff of the	Monitoring and metering undertaken by staff of the			
Climate Considerations				Water entitlements for general irrigators are determined by winter and spring rainfall each		
Conservation	Have a developed Water Use Improvement Plan (WUIP) under			State a commitment to water use efficiencies	State a commitment to water use efficiency and long term water	
NRM Links	Responsible for implementation of NRM initiatives and the Regional Strategy			Responsible for implementation of NRM initiatives and Murray Land and Water Management Plans	Responsible for environmental stewardship and for implementation of the MIA EnviroWise Community developed plan to improve the	
				Also responsible for regional stormwater drainage		

3.0 STAKEHOLDER RESPONSES

Although pressure for the discussions on local area management for the Lower Blackwood Area originated in the local community it would seem that concern is not equally spread across all water users.

Initial surveys of critical questions mailed out to all water users showed very poor return rates (approximately 10%) and many of the comments received questioned the requirement for a local approach to water management and a lack of understanding or appreciation of the current issues affecting some users in the region.

Similarly discussions held at the workshops were very mixed with some understandable reluctance to move away from the known, if sometimes unsatisfactory, model of water management.

A presentation of the project to date and necessary decisions was made at the second workshop held in June 2008. A copy of this presentation is provided at Appendix C. The purpose of the presentation was to bring all workshop participants up to date with the project and to stimulate discussion.

A varied mixture of opinions were voiced by workshop attendees, from outright support to outright opposition to the creation of a local area water management group. These opinions seemed to vary with the license conditions currently being applied to water users in the area. With larger operators seeing direct economic and environmental benefits from a more locally focussed management system to those operators with smaller water concerns.

There was a general opinion that different license conditions did not necessarily represent the different local conditions but rather were a reflection of the individual officer assessing the license applications or renewals in a constantly changing bureaucratic system.

There was also a high degree of suspicion around the creation of a bulk license managed by a locally established group based on the fear of loss of entitlements. These concerns generated a lengthy discussion on the use of policies to manage local conditions and to secure access to water for existing users as well as the potential for local rules for trading.

Great benefits were identified in terms of the local group being able to influence the allocation of water within the local area. Additional benefits were identified in a cooperative approach to monitoring across the region. There was strong support amongst workshop attendees for the creation of a strong and robust regional data set to add strength to license applications, trading / transfers of allocations and to provide a defence to allegations currently levelled at operators in the region. Economic benefits of a cooperative effort were also identified as were the use of tools to assist in local management such as the Hotspots software presented in Appendix D.

4.0 RECOMMENDATIONS

While it was not possible to define a preferred management model from this short project, and given the position of the project community, some concrete actions were defined by the representatives at the workshops. These actions are presented in the following paragraphs along with some additional recommendations.

4.1 BOUNDARIES FOR THE MODEL

As determined in consultation with the community of interest, the proposed area for a local area management group for the Scott River locality is Karridale to Donnelly River with Brockman Highway and Warner Glen Road as the northern boundary.

4.2 MEMBERS (AT PRESENT LICENSED GROUNDWATER IRRIGATORS)

It is proposed that the Scott River Growers Group should form a sub-group to be called the Scott River Water Users Group, to undertake the actions described here and to ensure that communication with other existing and potential water users within the proposed boundary is maintained.

4.3 OPTIONS FOR SELF MANAGEMENT (COMPANY, CO-OPERATIVE ETC)

Extensive discussions about potential models for management took place at the second workshop but there was a great deal of reluctance within the group to settle on any single model. The reluctance seemed to stem from fear of losing water entitlements and a general sense of uncertainty of water supply. As relationships within the group develop and trust for the regulators becomes firmly established these discussions should be held again to determine the appropriate business model for this circumstance.

4.4 VISION

Due to a lack of cohesion and, for the moment at least, consensus to form a local area management group no vision statement was developed for the Scott River Local Area Water Management Group. The paragraph below is presented as an example and starting point for a future vision statement.

To draw water from the Perth Basin aquifers to supply irrigators at an acceptable level of service, promote the efficient use of water, comply with the abstraction license requirements and to manage the environmental needs of the region while involving the community in all aspects of management.

4.5 MISSION

As for the vision statement, no mission statement was developed or discussed during this project. Again an example mission statement is provided here as a starting point.

To foster prosperous irrigated agricultural and horticultural industries in the Scott Coastal Plain Water User Area (Western Australia) through the delivery of water at

an acceptable level of service and price to shareholders and to provide effective communication with shareholders.

4.6 ADMINISTRATIVE/GOVERNANCE STRUCTURE

Any established group for the Scott River area will require administrative support in the early stages. It is to be anticipated that once fully established the local area water management group can, by the payment of membership fees / share purchase etc. be self sustaining. However, initially some external support will be required. It is suggested that in the short term this administrative support be provided by the Department of Water. As an investment in a local area management group can be considered an investment in better more efficient and equitable resource management this type of support should be seen as an opportunity to reduce longer term management investment within the agency.

4.7 FINANCING THE MODEL

Financing the establishment and operation of a local area water management group may provide some challenges. It would seem that at the present moment there are no external funding possibilities. Of course, dependent upon the business model finally selected for this area, finances for the longer term operation of the group can be factored into membership fees / license fees such that users are paying effectively for the responsible management of their resource. In the shorter term assistance will be required and it is suggested that this come from the regulating authority by way of administrative support.

One concept discussed at the workshops conducted in this process was the idea of combining and rationalising monitoring across the region to ensure more meaningful results and reduce duplication. It is assumed, that with assistance from the Department of Water and the Department of Agriculture, an appropriate monitoring program could be developed which, while meeting the requirements for data, could provide cost savings to license holders. In this way current license holders may be prepared to contribute, from their savings, toward the establishment of a local area water management group, provided that they can see the relevance and direct benefits of such a group. As with comments made earlier in this report, this will require significant discussion and relationship building both within the local community and between the community and the regulators.

4.8 LEGAL SETTING

Water resources in Western Australia are managed by the Department of Water under the Rights in Water and Irrigation Act 1914. Western Australia is also party to the 1994 COAG agreement on water reform, and follow-up 2004 National Water Initiative. Key elements of both inter-governmental agreements are the development of clearly defined, secure and tradeable water property rights separate from land, supported by a robust statutory water planning system, with specific allocations of water to the environment as well as to users.

The planning and local water management provisions of the Act and these agreements are most relevant to the Scott Growers Group project. In order to provide the basis to implement the 1994 COAG water reforms, amendments to the RIWI Act in 2000 provided for the establishment of local water management committees (Division 3C) Division 3D allowed for committees to draft statutory water plans outlining the criteria for water allocation decisions.

New water management legislation is currently being drafted to provide a more robust basis for implementing water reforms.

The National Water Initiative committed the state to drafting statutory plans for systems that are fully allocated, such as the South West Groundwater Areas, by end 2007, and for those that are not yet approaching full allocation by end 2009. However to date, no statutory committees have been formed or statutory plans drafted anywhere in the state.

In February 2008, the DoW released the *South West groundwater areas water management plan – allocation*, a strategic (non-statutory) plan covering all of the groundwater areas of the south west. The plan provides broad allocation principles that the DoW intends to follow but does not have any legal status. It was drafted within the DoW, mainly in response to the controversy over the Water Corporation's South West Yarragadee proposal, and effectively places a moratorium on all further abstraction from the Yarragadee, except for licence applications already in the system.

The plan includes an approach called 'local area management', whereby ten management zones are defined with particular local issues of concern including acid-sulphate soils, groundwater dependent ecosystems, lack of information, urban development, surface water interaction and water quality risks. Local area rules are then defined for each zone. These rules range from a higher standard of assessment for licence applications based on a points system to maximum volumes per licence or complete prohibition of new production bores. For all zones, water level triggers are to be defined for monitoring bores, beyond which all abstraction will be required to cease. Triggers have already been defined for ten bores, with the list to be expanded over coming years.

4.9 LEGAL/POLICY CONSTRAINTS/OPPORTUNITIES

The consultations highlighted a desire by growers to be able to make key water allocation decisions. While combining allocations into one bulk licence would allow the Group to harmonise monitoring programs and manage transfers within the Group without the need for DoW approval, there was strong opposition to such an approach expressed at the consultations, mainly because of the perception of loss of control over individual water allocation.

Local water resource management committees and statutory plans drafted by these committees provide a mechanism for local water decision making under the RIWI Act. However two key constraints are firstly, that the DoW has shown no commitment to this approach, preferring instead broad, strategic plans, drafted internally by the DoW, that leave decision making discretion within the Department. Secondly, the RIWI Act requires local committees to be representative beyond just water users, including heritage, government, and environmental interests. Becoming such a committee under the Act would therefore require the Growers Group to expand its membership to be more representative of the broad community.

The DoW has expressed a goal of drafting the first statutory plan for the South West by 2011, following the enacting of new water management legislation. Judging by similar legislation in

NSW and Victoria, the community representation requirements for the committee that drafts this plan will likely be more stringent. NSW, for example, requires at least 2 people from each of environmental protection groups, water user groups, local councils, catchment management authorities, aboriginal people, etc. There may be opportunity for members of the Growers Group to take part in this broader committee if it comes to pass, but it is unlikely the group itself could play a significant role in drafting a plan as it represents only one of the sectoral interests required.

Under the current legal and policy framework in Western Australia, therefore, the main opportunity for water user groups is to play an advocacy role, presenting their goals, suggestions and views to the DoW as input to the strategic planning process. One area where input might be helpful at the moment is in defining triggers for the 'local area management' under the South West groundwater plan. Had the DoW chosen to take part in the consultation process for this project, there would have been more opportunity to explore ways in which the Scott River Growers Group could have an advocacy role in the planning process. However as we were unable to canvas DoW views on the subject, we were unable to ascertain the best method for the Group to input to the process.

4.10 COMMUNICATIONS STRATEGY

Agreed at previous meetings and utilised during this project was the email list for the Scott River Growers Group. It would seem, from this experience, that communication within the local community can be well maintained utilising existing groups and relying upon members to carry the message beyond the membership. Email is a tool which works well in the rural setting as it allows the necessary flexibility and freedom to enable participants to access information and communicate at a time suitable to each individual.

There will of course be requirements for face to face meetings from time to time, but in the experience of Syrinx these are well attended provided suitable venues and timing are selected and sufficient notice is available to attendees.

Of more difficulty will be communication between the local community and representatives of the regulatory authority. It is strongly recommended that the Department of Water select a suitable liaison officer who can be relied upon to have commitment to the project, have longevity with the project and who is in possession of an outstanding ability to communicate to a wide range of people in a variety of formats. Fundamentally the success of any local area water management group in the Scott River area will be determined by the quality of the relationship with the Department of Water.

4.11 ESTIMATED COST FOR THE DEVELOPMENT OF THE MODEL

The preferred model, that is an advocacy group with a potentially harmonised monitoring system for the region, does not involve a substantial change in structure from the current group and therefore costs should not be significantly greater than at present. Skilled administrative and coordination support is the key requirement, with a landcare or environment science specialist likely most suited to the role. At a minimum the model could work with one day of support per fortnight, or about 10% of a full time employee, perhaps based in state or local government offices.

If the group proceeds with plans to harmonise monitoring requirements, it is anticipated that overall there should be cost savings for individual licence holders as there will be efficiencies in sampling and field work, and bulk discounts can be negotiated with laboratories. However, to provide a demonstration of an effective coordinated monitoring program, there may be benefit to the state in contributing some funding to this approach, perhaps another 10% of a full time employee.

4.12 MONITORING

The concept of a cooperative approach to monitoring will be pursued via close liaison with the Department of Agriculture – the first output from this being a ‘common sense’ approach to monitoring requirements. The overall intention of the monitoring should be to reduce duplication, ensure relevance to landholders, the Department of Water and the Department of Agriculture with an additional aim to achieve equity in monitoring requirements across all water users.

Key actions to reform the monitoring process include:

- Compiling a survey of all existing monitoring (private monitoring on bore licences and government monitoring), with a spatial illustration of monitoring sites colour coded by agency/individual and type of sample;
- Analysing the sampling regime, including frequency and analytes to ensure consistency and meaning and eliminate duplication;
- Meeting of all stakeholders to determine combined aims and objectives for monitoring;
- Design of suitable – rationalised monitoring program with the input of all stakeholders, including data management and reporting protocols;
- Negotiation of cost sharing arrangements and coordinated approach to monitoring, e.g. conducted by LCDC with funding from DoW/AgWA, NWI, etc.

Once a suitable program and approach has been defined this will be presented to the Department of Water for their input and consideration.

4.13 STATUTORY WATER PLANNING

The group should become involved in the statutory water planning process in WA. The potential exists for the group to influence the process and to push for the Scott River to become the test case for the process in WA.

The above actions will allow the group to build confidence and credibility in the short term enabling direct and productive action while the group continues discussions into the creation of a fully functioning local area water management group.

APPENDICES

Appendix A notes from the Water Management Workshop (April 2007)

Water Management Workshop Alexander Bridge Hall Monday 16th April 2007

Attendees:

Belinda Taylor
Preston Boley
C Davis
David Vines
Chris and Betty Avery
Jasper and Colleen Grugeon
Barbara Dunnet
Greg Hales
Jackie Hasler (Convenor)
Tim Crimp
George Wren
Peter Wren
Heather Schofield
Kathryn Hardcastle (Facilitator)

Introduction

The purpose of the workshop was identified as being:
to document the issues and concerns with regard to water management in the Lower Blackwood and
to determine a direction for future water management in the region (as opposed to having a management system imposed by regulators)

One output of this workshop will be a document which identifies the issues for water management in this area and which begins to document a preferred management model which recognises the unique challenges facing water users in this area and recognises the environmental and landscape differences which separates this area from other agricultural areas in the South West.

Presentation 1

Belinda Taylor – Dairy SAT Project

Dairy SAT is a project which

The DairySAT program identifies nine key areas of management:

- Effluent Management
- Irrigation Management
- Nutrient Management
- Soil Management
- Chemical Management
- Farm Waste Management
- Pest & Weed Management
- Biodiversity Management
- Air & Energy Management

The presentation focussed on the local perspective on water and land management specific to the dairy industry, which provides some valuable input to this process in terms of identifying issues which are common across water user groups. Several Key concerns coming out of the DairySAT project are: water licensing, security of supply, lack of meaningful targets for management, water monitoring.

Presentation 2

Barbara Dunnet – State and National Perspectives for Water Management

Barbara began by summarising the current issues facing licensees on the Scott Coastal Plain:

Licenses held in abeyance since the WC's application in 2004

Pressure to expand and grow production in the region

Small operators being managed well through the Government Licensing Process while large scale operators are not

The presentation highlighted the unique nature of the Lower Blackwood in terms of it's landscape, soils, biodiversity, scale of operations and the lack of coordination between and within government agencies in managing operators in the area.

Some potential models for management are being examined by Barbara and David Wren with the intention of finding a model which may be applicable to this area. Barbara also highlighted the fact that a local area management model for this area has the potential to provide a more coordinated approach to water management which would allow for scales of management at farm, sub-catchment and catchment scale.

Facilitated Workshop

Task One – Identify Issues

- Security of supply (no current assessments of new license applications in the Scott Coastal Plain)
- Lack of resource (water shortages)
- License conditions – unsuitable targets for management and inappropriate monitoring requirements
- Lack of coordination within and between government agencies
- Costs of managing the environment not currently factored into the production costs or reflected in market price for goods
- Carbon situation not properly quantified and should be part of the accounting for production in the Lower Blackwood. For example, consideration of the carbon costs of importing produce should be part of the decision making process when determining access to water for production in the region
- Increased licensing requirements means increased production costs, which leads to increasing environmental pressures from increased production requirements – a balance needs to be established
- Lack of support and / or relationship with government regulators
- Government applying management models and BMP's that don't work in this environment
- Lack of real data or the real interpretation of available data
- Lack of long term planning and management at a state level
- Lack of suitable models for effluent or nutrient management on dairy farms
- Lack of control over where current monitoring data goes and for what purpose it is used and by whom (some of the data collected should remain on the farm)

Task Two – Actions Arising from Issues Identification

- Testing of water quality at entry to farm / operation – not done currently but required for proper assessment of impacts.
- Quantify the economic value of agriculture in this area – these figures need to be generated so they can be used in the defence of water supplies to the region. Water Corporation uses the value of the nursery industry in Perth to justify water supply to the metro area.
- Must take a longer term view to water management than that currently applied by government.
- Promote good examples within the area.
- Develop meaningful water quality targets for this area for application as license conditions rather than the current targets which are drinking water target levels.
- Develop mechanisms for utilising resources, i.e. nutrient rich effluent for feeding other industries such as beef or agro-forestry – a diversity of water sources will contribute to the security of supply in the future.
- Produce a list of assets for the region including; a fully vegetated Scott River, lower evaporation rates, high rainfall – this will illustrate the unique nature of the area and support the argument for an area specific water management model.
- Source all existing data from the department of Water and Agriculture.
- Map and ground truth all subcatchments especially water flows.

- Source license information from DoW, number of licenses, from which aquifer, amount of allocation etc.
- Produce / Source accurate maps of the Lower Blackwood for use in planning.
- Install a local weather station (may need to source funding for this).
- Source the services of a hydrologist to carryout data interpretation (may need to source funding for this).
- Research the possibility of funding a management driven monitoring program through the NWI/NWC program.

Task Three – How Can We Move Forward

- develop an e-mail forum to enable ongoing communication of ideas and to develop a model for water management in the Lower Blackwood – Jackie to coordinate once ratified by the LCDC.
- Gain consensus within the broader community that there is a need for a local water management model and that landholders will support and subscribe to this model once established.
- Establish a working group to continue research into existing management models and to, once research complete, propose a management model for use here.
- Determine, through discussions on e-mail forum, a boundary for this management model. The current LCDC boundary was suggested at the workshop.

Task Four – Notes for Model Development

- In the short term there must be large scale information sharing and discussions within the community to be achieved by the e-mail forum.
- In the long term there will need to be a formal structure developed.
- Must consider in the model design who will be determining the appropriateness of the model proposed and what are their requirements both legally and socially – need to ensure these needs are met to ensure approval of the proposed model.
- The model should include a coordinated monitoring approach across the entire catchment / subregion to ensure consistency in data collection and to enable negotiation of competitive rates for collection, analysis and interpretation costs. This monitoring should be tiered such that there are layers of information; that data which is for property management only, that data that is for reporting to regulators and that data which is used for making management decisions at the sub-regional scale.
- Suggest that the model implementation be staged over time. This could be based on geographical areas or issues based.

Task Five – Recommendations for Immediate Actions

- DoW, BBG, LCDC to meet and finalise the monitoring program for implementation this winter in the Scott Coastal Plain under the current NRM project. This process should include, mapping of existing monitoring sites in the SCP, selection of new sites with license holders in the first instance and other landholders in the longer term, and the determination of the parameters for measurement. One of the outputs of this monitoring program should be an assessment of this as a model for monitoring across the broader LCDC area and the costs required to implement and conduct which can be used as a basis for sourcing funding for monitoring across the broader region in the future.
- Ground truth flow paths across all irrigation properties (short term) and whole SCP (long term), – this is an output of the project referred to above.
- Email all water users a summary of this meeting and requesting their involvement in the development of a model.
- Type up and issue the notes from this workshop and send to all attendees for dissemination through their networks with a request for input and comment.
- Issue ongoing updates through this same e-mail network.
- Promote this process and key contacts on a website – suggested but not ratified by this workshop.

Appendix B notes from the Water Management Workshop (June 2008)

Scott River Local Water Management Group Workshop Notes

Date: 5.06.08

In Attendance: John Dunnett, Jo + Faith, Tim + Les, Keith + Lynn, Barbara Dunnett, Colin Bostustow, Jasper + Colleen

Apologies: Chris Avery, David Wren, Andrew Dunnett, Ross Woodhouse

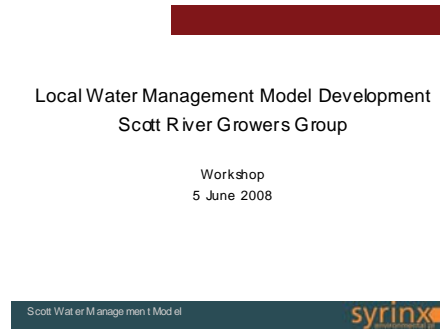
Workshop Notes

- Different requirements on a licence – not necessarily a reflection of different property conditions,
- A general feeling that variations across the catchment are being reflected in water licence conditions – not necessarily the case as often license conditions are simply a function of who, within the DoW, handles that particular application.
- Some generally disfavour the formation of the group – some strong reluctance to progress with the discussions.
- Keith, Jasper et al. feel that the local conditions are adequately reflected and managed and can see no benefit based in the creation of a local area management group or any of the management options being presented.
- Concern about implications of bulk licenses particularly as it may lead to a loss of individual rights to access water or determine own way of operating.
- Large amount of discussion around the use of policies to manage local conditions and any role that an established group may play in determining what these local policies may be.
- Can the local group define local rules for water trading? There exists a range of options from providing advice to DOW to becoming signatures to the local water management model – much discussion around this point and the range of involvement / control that any group may request.
- Much concern within the local community that local assets stay local (i.e. no transfer of water entitlements out of the local area – discussion around any influence a local area management group may have on that aspect of local water management.
- There are, according to Colin Bostustow, 3 layers in water management:
 - allocation,
 - measurement and monitoring
 - trading
- Likely scenario is that the broad sustainable yields will be determined by DoW but that local water users can have influence on how water is allocated within those figures via an operating and recognised local area management group – discussions around this point.
- At the moment DoW has absolute discretion – perhaps a local group could influence this point and provide some strength and consistency in the way that allocations are managed and issued.
- Discussions around the requirements for monitoring led to some clearly observable benefits in consistency and efficiencies and could, if done well, lead to a robust regional data set which can add strength to license applications, trading / transfers, and potentially provide a defence against allegations of misuse that are levelled at operations presently.
- Discussion around trading and the type of rules that would be applied to those situations, i.e. no trading out of local area. Temporary transfers within the district – queries about the timing on this – no investment on infrastructure if no certainty of supply – so in terms of groundwater supplies this is difficult unless transferring to an operator with existing infrastructure.

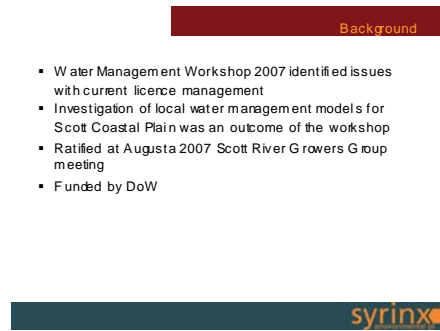
- Discussion about the tools available to assist in water management at a local scale, such as water level response management, and
- Discussion about the unique nature of a groundwater based local management group.
- If decision is made to pursue monitoring through the formation of a group – should work closely with the Department of Agriculture and develop a commonsense approach to monitoring requirements for licensing in negotiation with DoW – DoA could provide the scientific level liaison between the group and the DoW thus enabling a more meaningful discussion and potentially a better outcome for all.
- Statutory water plans, as required by the NWI, and a group required to implement prepared plans. The potential exists for any group formed here to take on that role – influencing the plans development and implementation. Also the group could lobby for the Scott River to become the test case for this within WA – securing support and funding for this to occur.
- Query regarding the potential to increase the allocation to the Scott Coastal Plain – some potential to do this if existing information supplemented by more detailed modelling and proofing.
- Matt Benson (upper house member) – may have a role to play in these discussions and should be kept informed of developments.
- LCDC project related to monitoring - ? potential for shared costs and co-ordinated approach. Perhaps the LCDC could take on the monitoring role on behalf of licensed water users thus supplementing their income and leveraging additional federal funding for monitoring activities within the local area.
- Certainly strong support for monitoring co-ordination in order to ensure no duplication and reduce overlap and increase relevance to DoW, Farmers Agriculture etc.
- Groups immediate focus is on water quality and quantity – conditions on the licenses, a co-ordinated approach and potentially a reduction on monitoring requirements for some of the licenses or at least a consistency in the requirements.
- Scott River Growers Group → Scott River Water Users Group (Administered by the DoW) – Suggested that the Scott River Growers Group pursue these discussions in the short term to avoid involvement of the DoW until a clear direction forward has been identified.
- Karridale to Donnelly River - Brockman Highway / Warner Glen as northern boundary
- Include in our report recommendations for a process for rationalising the monitoring for the region.

Appendix C presentation from Water Management Workshop (June 2008)

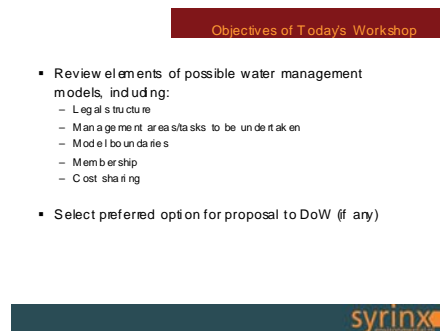
Slide 1



Slide 2



Slide 3



Slide 7

Local Management Elements: Structure

- Main legal structures are Cooperative or Corporation (if holding licence) or Association (if not)

Key considerations:

- Membership – who, voting rights, joining, leaving
- Cost sharing – proportional to entitlement?
- Decision making rules - elected members, office holders, board of directors, etc., voting, quora



Slide 8

Local Management Elements: Role of Group

- Licence holding
- Transfers
- Assessment of trades or new allocations
- Monitoring
- Conservation and NRM coordination (funding decisions, NWI grants, influence DEC/DoW policy)
- Advice to DoW, development of strategic plans.



Slide 9

Example: Harvey Water


- 58 members
- Two separate companies with separate articles of association
 - SWIAC - asset based cooperative - no staff, holds water licence
 - SWIMCO - trading entity with staff who undertake all maintenance and monitoring under contract to SWIAC
 - Shareholdings are proportional to water allocations
- All but one director elected. Single special interest director by invitation (eg. finance), no government representation. Three year terms, membership rotated to maintain continuity.
- Tradeable water entitlements (TWEs) can be temporary or permanent. Harvey Water facilitates annual auction and maintain a voluntary sale register but does not set prices or participate in any other way.
- Monitoring and metering undertaken by staff of the company



Slide 10

Example: Gascoyne Water


- Cooperative structure
 - Shares issued by class according to base allocations
 - Share transfers controlled by company
 - Maximum share allowances set by company



Slide 11

Questions for Today

- Are you interested in a local water management group of some form?
- What roles should the group fulfill?
 - Licensing



Appendix D notes on water level response management tool

Water Level Response Management

(Department of Environment, Water, Heritage and the Arts, Issue Paper 4)

Water level response management refers to the management of groundwater at a local scale based on the response of the aquifer to pumping. The objective is to manage an aquifer within a locally agreed band-width of water levels that has been negotiated with the local community and other stakeholders. The upper band is the recovery level that must be achieved at the end of the pumping season and lower band is the maximum drawdown that must not be exceeded during the pumping season.

Software tools have been developed to assist local water level response management. One such tool is the 'Hotspots' software that links a groundwater flow model to an optimisation routine. This software can assist in finding allocation solutions that maximise productivity while meeting specified groundwater level constraints at critical locations. Constraints can be determined, by agreement, to protect groundwater dependant ecosystems, ensuring that equitable access is retained for critical users etc.

Possible management responses at this scale of management include:

- Water trading from hot spots to cool spots
- Local area restriction on groundwater access where necessary
- Increased security of access to groundwater through annual allocation announcements at the beginning of each water year

Note: the 'hotspots' software is freely available from the National Groundwater Committee.