Briefing Document Prepared for the Public Works Committee Inquiry into the Burdekin Irrigation Project.

Prepared by

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Base Statements on which the submission is to be based.

Objectives of the scheme as set out in the 1980 Report to Parliament

The principle objective of the scheme is to provide adequate water supplies for the irrigation of sugar –cane and rice crops on new lands to be developed in the Lower Burdekin so as to ensure continued economic growth in the two major industries in the region.

Other objectives of the scheme are-

a) to provide additional water supplies for the irrigation of existing cane assignments along the Haughton River between 11 kilometres and 32 kilometres to stabilize and increase production on these holdings; and
b) to provide water supply for further agricultural development and for likely increases in urban and industrial development in major centres of the region to well beyond 2000.

The Terms of Reference of the Inquiry

To examine the Burdekin River Project and report to the Parliament on:

a) the purpose of the work;
b) the suitability of the work for it's purpose;
c) the necessity for, and the advisability of the work;
d) value for money achieved, or likely to be achieved, by the work;
e) the cost, revenue produced by and the recurrent cost of the work;
f) the public value of the work, including the impact of the work on the community, economy and environment;

g) procurement methods of the work;
h) the balance public and private sector involvement in the work; and
i) the performance of the constructing authority, the consultants and contractors for the work.

As of the date of this submission the Irrigators of the new lands developed by public works are in a substantial dispute with the Public Service irrigation water services provider as to the appropriate cost to both Government and themselves of the irrigation water as supplied by the State managed and developed scheme.

This dispute had its origins in the early 1990's and when the Federal Governments Industry Commission Inquiry into Water Resources and Waste Water Disposal independently assessed the scheme. It is suggested that the previous inquiry assessments are important in this committees deliberations.

There is little doubt that the Burdekin River Irrigation Scheme has fulfilled its stated primary objectives as stated on the opening pages of the 1980 report. The submissions as to this committees report will obviously reflect on the cost and benefit of all of the components that made up the Burdekin River Irrigation Project.

This submission will restrict itself to issues within our knowledge that relate directly to the establishment, design cost and management of the public development of the "new lands" as defined in the 1980 report to parliament.

Background to current issues pertaining to irrigation water in the Burdekin Irrigation Area

The following documents have been prepared as a background briefing papers to the current dispute between the Burdekin Irrigation Area, irrigators (consumers) and Sunwater (a monopoly service provider). These papers together with supporting documents is designed to familiarise the reader with the following;

1. Current status of the dispute.
2. History of the dispute.
3. Irrigators' reasons for their current actions.
4. Sunwater's stated reasons for refusal of submissions by the irrigators.
5. History of the Burdekin, Haughton Irrigation Area.
6. Water Resources / Sunwater management V's Existing locally managed and owned water harvesting and distribution systems.
7. Challenges to the Sugar Industry and other agricultural exporters.

A deputation comprising,

- Chairman of the Burdekin Irrigators Committee
  - [Mr Russell Mc Nee (Irrigation Sugarcane Farmer)]
- Vice-Chairman of the Burdekin Irrigators Committee
  - [Mr David Cox (Irrigation Sugarcane Farmer and principle owner Davco Farming)]
- President of the Ayr Chamber of Commerce
  - [Mrs Lindy Mc Cathie]

Held discussions with representatives of the Queensland Government as noted hereunder at the Country Cabinet Meeting held in Home Hill.

- The Premier, Mr Peter Beattie
- The Deputy Premier, Mr Terry Mc Enroth
- The Minister for Natural Resources and Mines, Mr Robinson
- The Chief Executive Officer of Sunwater, Mr Peter Noonan

The Deputation represented the interests of the irrigation farmers and the Burdekin area, and included elected representatives of the Ayr and Homehill business communittee.

The Deputation expressed the view that that the current costs of irrigation water supplied by the sole supplier Sunwater were unreasonable.

In summary it appeared as though the Government and Sunwater were of the opinion that Sunwater and it's owner (the State) were entitled to receive more than the total sustainable operating cost of the irrigation scheme and in fact entitled to receive a further return on capital invested by the State and also return on capital invested by the Commonwealth in the development of the water storage and distribution infrastructure.

The Burdekin Irrigators stated a contrary view of the premise. The irrigators submitted that they had made what they consider to be more than appropriate contributions to the capital cost of the infrastructure at the Water Resource Auctions and by purchasing water allocation. They therefore believe that water charges should be limited to the total sustainable operating costs of the irrigation system. They further believe that they had been mislead regarding the formulation of charges for irrigation water by the Government. Misleading or insufficient information relating to the methodology adopted by Sunwater had resulted in a situation whereby the irrigators had insufficient time to formulate a response or make alternative submissions.

> The irrigators have already paid for the capital cost of the storage and distribution infrastructure and that they are now being asked to pay for it twice.

The irrigators regarded that they had been further mislead by the State during 1999-2000 establishment of an "Interim Local Management Committee," chaired by Peter Gilby of State Water Projects. The irrigators in response to the "Interim Local Management Committee" had prepared a substantial report substantiating the cost, economic and management benefits of "Local Management". Despite incurring substantial cost and effort it is apparent that the submission had been rejected by the State without taking into account the valid submissions made by the irrigators.

> The irrigators believe that notwithstanding establishment of an "Interim Local Management Committee" the State is unwilling to consider permanent local management; on the basis this would reduce the States ability to continue to receive monopoly rents from captive end users namely the Burdekin Irrigators.

The Ayr business community expressed the view that management cost and expenditure should be retained where possible within the local communittee to reduce the continued leakage of expenditure and jobs to the State Capital 1,500 km distant.

The Premier and members of the Queensland Government responded by listening intently to the submission by the irrigators. After hearing the arguments and at the conclusion of the meeting the Premier stated that he was willing to accept and consider a more detailed and documented submission that was to be prepared by the irrigators.

As discussed at the meeting and enunciated during the afternoon the current Government policies governing water supply and capital cost recovery are intertwined with the requirement of the Government and State owned monopolies complying with principles enunciated by the National Competition Council and agreements reached between the State's and Commonwealth Governments, which began in 1995. The Burdekin irrigators believe that the State wholly owned Corporation (Sunwater) are acting in conflict with National Competition Policy and are extracting "monopoly rents" in regards to water charges in the Burdekin.

It is for this reason that the Burdekin irrigation farmers continue to build their arguments for price and management reform and rely on the principles contained in National Competition Policy. As such this paper will attempt to brief the reader on the principles on which the Burdekin irrigators rely in some detail.

The irrigators argue that they have gone through the "pain" of National Competition Policy and that they are entitled to "gain" where appropriate the benefits of National Competition Policy and the associated State and Federal Government Agreements.

The sugar industry has forgone their monopoly incomes from the previously "protected" Australian market due to National Competition Policy. It is therefore appropriate that the sugar farmers of the Burdekin receive the cost benefits of that the National Competition Policy imposes on State owned monopoly service providers for which the State has been compensated for by the Federal Government by the Tranche payments

It is believed that the State Government and in particular the Premier and his Ministers believe that the State has acted in accordance with National Competition Policy and that the current water charges reflect these policies.

Therefore it is believed that the issues that require resolution by the irrigators are;

1. What is the appropriate sustainable operating and management cost of providing the service (the lower bound charge)
2. What is the appropriate return in the States and Commonwealth Governments investment.(the upper bound charge)

"Lower Bound" water charge level

The States Water Reform Unit has determined an appropriate lower bound charge of $28 per megalitre for channel water and a charge of $xx for water extracted by the river.

The irrigators and the associated consultants Martin Jacob have determined that a charge of $24 per megalitre for water from the channel system is sufficient to sustainably manage and operate the system with local management.

"Upper bound" water charge level.

The State appears to have adopted a "Discounted Optimised Replacement Cost" (DORC) current value of the infrastructure on which the State should receive a return. As the State has not adopted a full upper bound charge structure it is difficult to know what the State assesses the appropriate "Weighted Average Cost of Capital" (WACC) (percentage return on capital invested) to be.

The irrigators do not accept the States methodology or value on which the upper bound charge could be levelled. They further concerned as to what the State considers is an appropriate percentage return (WACC) as this may be adopted by the State now or at a later date adding to the uncertainty as to the future costs of water and their future farm business viability.

The Main Issues in Point Form

1. Irrigators are entitled to rely on National Competition Principles and Agreements, in particular;
   i. The State [as a monopoly supplier] in determining the value of infrastructure assets such as dams and channels, should assess it on the basis's of either;
      I. The current cost of replacing the asset by the most economic means less depreciation taking into account any increases in maintenance costs due to design obsolescence or construction cost inefficiencies.
      II. The alternative cost of construction by third parties including the irrigators by the most efficient design and construction methods, taking into relevant account taxation benefits and disbenefits.
   ii. The State must account for the past contributions to capital by irrigators. i.e. headwork's charges and or profits derived from resale of land resumed by compulsory acquisition by the State.

> At the disposal of compulsory acquired land by the Water Resources Commission by Public Auction in the Burdekin Irrigation Area, purchasers bid for land on the basis of a land price that include a built in headworks charge or alternatively in addition to the land price bid purchasers had to pay a headworks charge of $2,000 per hectare or $250 per megalitre of water allocation as a capital charge.

2. The State should not require a return on previous Water Resource construction expenditure that is in excess of what was necessary to provide the service in an efficient manner.
3. The State should also reduce the capital value of the asset for which they charge a return, to compensate consumers for the increased ongoing operating and maintenance costs incurred due to poor design and construction.
4. Government should use appropriate rates of for the weighted average cost of capital taking into account:
   1) Economic life of the asset. (Dams and Channels to treated separately)
   2) Capacity to expand the asset, for example
      a. Ability to increase the income stream at a lower cost by extending the dam wall. (Estimated at $30 per mega litre)
      b. Opportunity to introduce hydroelectric electricity generation.
      c. Capacity to extend the distribution channel system to additional users.
   3) Security of the income stream of the asset given its lack of possible competition. (Market dominance)
   4) The expected life of the income stream. (A dam by its nature will give a lower rate of annual return then a channel system.)
   5) The ratio between operating costs and income.(Businesses with high incomes and low operating costs are valued at lower rates of return)
5. That the State should not levy some producers to cross subsidise others.
6. That the State should identify how and what value the "upper bound" of charges is currently determined and similarly into the future.

7. The States as a monopoly service provider and its customers the irrigators should have access to an independent third party in the case of a dispute between the sole service provider and its customers.
8. The State should consider where it is a lower cost option in addition to a more responsive management, (to the "Public Benefit") alternative management. For example the proposed "Local Management". (Lower cost of production leads to increased international competitiveness and the retention of funds in regional communities.)
9. To enable consumers to prepare and submit independent alternative options in respect to service charges, State Government [Sunwater] must give consumers appropriate notice of the proposed charges.

Burdekin irrigation farmers argue that unnecessary Water Resource capital expenditure [due to poor design and construction management] has increased ongoing operating and management costs. Therefore the capital value of the increased operating and management costs due to poor design should be omitted from asset value utilised by the State to determine its projected return on capital.

Interim Local Management Phase

Since 1999 Burdekin Irrigators have made representations to various Government and State Authorities to voice their dissatisfaction with water pricing policies and Sunwater management practises. The lack of appropriate response from the various State agencies has resulted in the irrigators withholding that portion of the current water charge in excess of the sustainable operation and management cost of water from the State's water storage and distribution system. (Burdekin Dam and the Burdekin Irrigation Area channel system)

In October 2000 State Government gazetted the five-year price paths for the recently established "Sunwater" owned and managed irrigation systems throughout Queensland. Prior to gazettal the State Government had undertaken an information, dissemination and negotiation process via the Government appointed "Water Reform Unit" and other consultants. Mr Steve Edwell was the consultant in the Burdekin that reviewed the operation on behalf of the "Water Reform Unit".

In 1999 State Water Projects established an "Interim Local Management Committee", giving rise to the reasonable assumption by the irrigators that it was the State's intention to shift management of the water distribution system to "Local Management". This concept met with support from irrigators who believe that local management as a system that would lead a reduction in operating and management cost and would provide management more responsive in delivering water in line with the customer and the communities' needs. To facilitate this process the Burdekin Irrigators commissioned an $80,000 independent report from the respected Marsden Jacob Consultancy Group whom previously were commissioned to National Competition Council to review changes required in existing State and Federal legislation.

The report commissioned by the irrigators evaluated commercial viability and practicality establishing local Burdekin management for delivery of water services. Simultaneously, the irrigators were seeking an "in principle" approval from the State to proceed with the establishment of a Category 1 Water Board at that time contemplated under the Draft Water (Statutory Authorities) Bill.

The Martin Jacob Report set out the policy background to the request, the public benefits that accrue with local management, the proposed management structure, the cost savings and the commercial viability of the proposed new entity. The findings provided a sound foundation and framework for the continued development and implementation of local management in the Burdekin[1].

In summary the Martin Jacob Report concluded that there were considerable public cost benefits to be gained through dedicated local management. The report also concluded that efficient, sustainable cost of operating the irrigation system is approximately 37% below current Government charges [at $24.60 per mega litre of channel water supply] in the Burdekin Irrigation Area.

[1] See Marsden Jacob Report attached to Annex ure 1

The State Government's "Water Reform Unit" assessment of "efficient, sustainable cost" is estimated at $28 per mega litre.

Marsden Jacob Conclusion. Noted in 2000 that:
'access charge for water distributed in BRIA is estimated at around $14.65 plus a volumetric charge of around $8.37, ie., a total distribution price of $23.02 per ML and a total cost of water (bulk water plus distribution costs) of $24.57, [say, $24.60], per ML assuming 100% use of allocation. This compares with a current price of $39.10 per ML.
(Current State Water charges are $37 per mega litre)

Despite the fact that irrigators believe that there is capacity for further cost reform below the cost assessed by Marsden Jacob under Local Management, the irrigators have paid the sustainable operating costs of the system as identified by the State Governments own "Water Reform Unit".[2] The irrigators believe that this is an appropriate response while they progress to Local Management which they believe will produce further cost reductions and offer superior customer responsive management.

Further Misrepresentations by Sunwater and Government

Irrigators, in adopting this policy relied on representations made by the Queensland Government "Department of Natural Resources [3]. [Specifically the publication "New Water Prices and a New Service Provider" "bringing changes to Burdekin Haughton Water Supply Scheme"]. Relevant quotes in this publication include;

- "The new prices follow extensive cost evaluation and consultation with irrigators to **ensure that you (the irrigators and other customers) will pay only for the efficient running of the scheme."**
- "**So the prices agreed for your scheme are based on what it should cost for Sunwater to provide your services efficiently.** Until the new corporation improves it's efficiency, the Government will continue to cover the costs of the efficiency shortfall"

Current procedures by Sunwater and Irrigators concerning the outstanding Water Charges Issues

The current dispute has resulted in a number of submissions both privately and publicly to State Government Authorities and elected representatives of Government by the irrigators. A number of the media and private publications are attached in the Annexures to this paper.[4]

On the 23rd of July 2001 Sunwater issued notices to Burdekin irrigators concerning the recovery of outstanding disputed invoices for irrigation water notifying the irrigators of pending legal action.[5]

[2] See Irrigators recommended Payment Sheet Annexure 2
[3] See State Government Publication "New Water Prices and a New Service Provider " Annexure 4
[4] See various public and Private Statements Annexure 4
[5] See Letter Sunwater to SR Mc Nee & C J Mc Nee Annexure 5

A $250,000 fund has been established by the Burdekin Irrigators to enable appointment of consultants to prepare documentation designed to achieve the following objectives.

1. Determination of an interim charge for water reflecting the sustainable efficient management and operational cost of providing the water service as nominated by State Government's "Water Reform Unit.'

2. To progress to Local Management of the Burdekin Haughton Water Supply Scheme over a reasonable period (2-3 years) with the objective of achieving further operating cost reductions and a customer responsive management structure.

3. To properly ascertain an appropriate return on capital receivable by the State.

Burdekin Irrigators have clearly defined these interim objectives in an open letter to Sunwater [published in the Ayr Advocate on Friday the 22nd of June 2001].[6]

Summary of State Government and Sunwater Responses to Irrigators Concerns

State Government and Sunwater have submitted at various times responses to the irrigators submissions stating reasons and justification for current pricing and future procedures for the restructuring on management. With regard to Government and Sunwater pricing policy perhaps the most definitive of these responses is the "letter from Mr Peter Beattie, "the Premier of Queensland" to Mr R. K. Mc Nee [Chairman, The BRIA (Burdekin Area Irrigators Area) Committee]: Dated 3rd June 1999.[7]While the letter was written prior to completion of the final "Water Reform Unit Report" it would appear that the Premier is consistent in adopting the policies in accordance with National Competition policy objectives.

Other initiatives and responses received from Government and Sunwater include;

- The proposed establishment of a "Customer Council" to promote a more efficient customer response management process. [8]
- A positive approach to debt recovery and debt deferment in relation to instances of personal hardship.
- Deferment of late payment penalties for part payment by irrigators currently withheld by irrigators pending Government resolution of issues submitted by the irrigators.

There have been however been a number of other responses and statements made in the political arena and the public domain that have probably been misleading and unhelpful to the resolution of the irrigators concerns. These statements include;

- Unfortunate misrepresentations in the Government Publication "New Water Prices and a New Service Provider"[9]

[6] See full page open letter to Sunwater 22nd June 2001 Annexure 8
[7] See letter Premier of Queensland to Mr Mc Nee Annexure 6
[8] See letter The Hon. Terry McKenroth , The Hon Stephen Robinson to Mr R Mc Nee 12th June 2001 Annexure 7
[9] See Annexure 3

- A Statement from the Minister Mr Robinson to the Chairman of the Irrigators concerning the possible loss of "Public Service" jobs in Brisbane as a result of establishment of Local Management of Water Services.
- A statement made in public by Peter Noonan CEO of Sunwater to the Minister Mr Robinson saying "that where local management has been implemented in Victoria in the Murray Goulbourn Irrigation Area the irrigators are now going back to the Government to bail them out." (Ayr Country Cabinet 16th July 2001).
- A statement made in the press "saying high water charges to irrigators has no effect on the local Burdekin economy"' No effect" on (local) economy from water price policy".(Steven Rodgers new Labour Member for the Burdekin. Letter to the editor Ayr Advocate 20th June 2001).[10]
- Statement by Mr Peter Noonan to irrigators that the previous charges that were stated as "Headwork's Charges" were in fact only "Water Licence Fees" and that they did not have a connection to the capital cost of the infrastructure. (Ayr Homehill Country Cabinet 16th July 2001.[11]

These specific statements in their own context and linked with other statements have not only misled irrigators, but have also been unproductive to the debate concerning the appropriate level of water charges.

[10] See Annexure 9 Letter to the Editor Ayr Advocate Steve Rodgers 20th June 2001
[11] See Annexure 10

History Burdekin, Haughton Irrigation

During the late 1800's the region surrounding the towns of Ayr, Home Hill and Giru serviced by the Burdekin and Haughton river systems began to be established as a prime agricultural area. In the early 1900's farmers in the region began to tap the vast underground fresh water reserves retained in the sandy aquifers of the Haughton River and the Burdekin Delta.

These aquifers were created by the meandering Burdekin and Haughton river systems. The Burdekin River is fed by a huge catchment of supporting tributaries that receives annual monsoonal rainfall. As such the river is subject to massive flows during the wet season. However the river has restricted flows during the dryer months particularly June to December.

As the Burdekin River wandered over the vast valley and coastal plains it created deep sandy layers ideal for extracting groundwater. During almost annual floods the river deposited vast amounts of fine grain soils (fine clays) over what was previously a sandy riverbed. The suitable irrigated agricultural country evolved. Alluvial topsoil that retains moisture over a sandy sub-soil that not only stores water for extraction, but also provides for as sub-surface drainage for the heavy top soils.

Until the 1960's the irrigation farms were restricted to the sandy loams associated with the Delta area immediately surrounding Ayr, Home Hill and Giru. This in the main was due to the fact that the local soils, sandy loams in contrast to the heavy clays in the upper reaches, which now form part of the Burdekin Irrigation Area (BRIA) were easier to work with and did not require the large earthmoving machinery demanded by the heavier soils in the upper reaches.

Historically crops were typically more labour intensive (i.e. hand cut sugar cane) and therefore farm sizes were typically smaller. Due to the lands proximity to the ocean intensive irrigation was restricted as it risked inducing salt-water intrusion if ground water levels became lower than sea level.

To combat this, the North and South Burdekin Water Boards were formed in the 1960's with local management. State intervention was limited to one representative member in each board.

The Water Boards lifted water from the free flow of the Burdekin River (typically 5 months) and distributed it through the Delta's lagoons and distributaries (creeks that flow away from the main river). This system artificially increased the underground useable storage and provided some surface water to farms adjoining the creeks. This system was continually expanded up until the present as access to sugar production increased and land adjoining the existing area serviced. Adjoining areas were serviced by privately funded channel works to the new irrigation farms.

For many years the operating cost of the system was supported by a levy of 50 cents per tonne of cane, which is between $7-8 per mega litre equivalent. As such it was representative of what was a cost efficient system conducted by local management could achieve.

Until the 1970's land west of Kelly's Mountain in the Mona Park Area had been considered not suitable to grow sugar-cane as the fine grain clay soil types were considered too heavy and difficult to farm. The Haughton Sugar Company however had other ideas and purchased land for sugar-cane expansion. The water needs of the sugarcane were provided from the large underground aquifers, which exist between the Burdekin and the Haughton River. Despite the difficulty in managing these poorly structured soils the land in the Mona Park area proved very suitable for growing sugarcane.

These great sandy sub-ground aquifers were formed by the Burdekin River prior to an estimated 6,000 years ago when the river was diverted to its present ocean out fall to the east of Ayr and Homehill.

In the late 1970's the Federal Government announced its intention to construct the Burdekin Dam. Construction began in 1985 and was completed in 1988. The Federal Government provided funds for the construction of the Dam ($130,000,000). The cost of constructing the dam itself was $120,816,000.

Further expansion of the irrigable farming land was predominantly restricted by the control of sugar cane assignment. During the 1970's and 1980's alternate crops such vegetables, rice and tobacco proved increasingly, comparatively uneconomic, as markets were limited and distant.

By 1975 it became obvious that the artificial restriction of viable commercial crops such as sugar cane could not continue as Australia sort to expand export income and take advantage of it's under-utilised resources in labour, land and water.

In 1980 the State Government of Queensland announced its intention to compulsory resume vast amounts of freehold and leasehold land between the Burdekin and the Haughton River for the purposes of the "Burdekin Irrigation Scheme." Politically this proved popular as The Water Resources Commission indicated that this was a way in which the "cheap" land could be redistributed to local farmers whom had become land-locked and were limited in their ability to expand their existing sugar farms.

Private Irrigation System's

In addition to the privately funded and locally managed North and South Burdekin water boards other farmers were looking to establishing water storage and distribution systems for farming in the area as demand for agricultural production and in particular sugarcane increased.

In the late 1970's and early 1980's David Cox conducted extensive research into the "world's best practise" irrigation farming techniques both in Australia and the United States. Based on his research and personal knowledge of the Burdekin area David designed a new concept for irrigated sugar-cane farming. This design encapsulated the use of the latest developing technologies in regards to computerised land mapping, laser guided land levelling together with the use of larger machinery. This system together with substantial improvements with mechanical harvesting equipment offered major efficiency gains in water use, irrigation farming and in particular sugar cane farming.

In brief this integrated sustainable farming system involved;

- laser guided levelling to provide row lengths one kilometre long incorporating falls between: 1:800 and 1:2000
- square or rectangular individual farming lot's maximising the efficiency of irrigation labour and the use of multi-row implements.
- Tail water recycling eliminating wastewater with the added benefit of the containment of possible down-stream contaminants.
- In-ground channels minimising costs.
    - Surplus suitable soils were used to assist levelling of adjacent irrigable land provide fall in laser-levelled allotments.
    - Surplus non suitable farming soils were used to build raise headlands and roads
- An integrated system of surface water application and ground water harvesting to control ground water levels.
- Originally the David Cox designed system incorporated temporary storage of water in ring-tanks for periods of low or no free-flow in the Burdekin River and the periods when ground water harvesting could not be utilised sustainably without affecting other existing and potential users.
    - After the announcement of the Burdekin Dam David's need for temporary surface storage ring-tanks became redundant and he entered into discussions with Water Resources to buy an allocation of water from the Dam by fully paying his full share of the capital cost of the Dam. (Water Resources refused to have any negotiation or to allow any other further private distribution systems).

In 1980 David purchased the John Deer Tractor Dealership in Ayr and set up an agency for laser-guided technologies. Through the tractor dealership, the laser agency

and David's farm development David promoted his integrated farming system to all farmers many of whom adopted the irrigation technologies that David introduced.

David's system was also designed to optimise the productivity of modern machinery in an integrated irrigation farm. At that point in time efficient management and machinery technology indicated an optimum efficiency at approximately 1,500 hectares incorporating 6 permanent staff plus or 250 hectares farmed per labour unit.

One harvester together with three haulouts could service this farm. In 1993 David's harvesting team claimed a world record 103,000 tons of sugarcane harvested by a single harvester when the Queensland industry average was little less than 30,000 tons of sugarcane in a single season. It is interesting to note that in Brazil the average through put per harvester exceeds 150,000 tons per season. During the last three years David has introduced a larger double row harvester that can service 2000 hectares of sugarcane in a single season using one harvester driver with 3 haulout units.

This farm design has reduce labour costs to one-fifth the industry average while at the same time reduced the capital cost of machinery per unit of production to one-fifth the industry average.

Queensland Water Resources Commission Water Distributions System. (QWRC)

Queensland Water Recourses alternatively adopted a different design system based on their own design of above ground channels as against in ground channels.

Compulsory Resumption

The first stage of QWRC procedures was to issue a "Notice of Intention to Resume". This was given to existing landholders in 1980. In some cases usage of this farm land did not occur until 1998. This effectively halted alternate land usage and therefore interim agricultural productivity improvements for many years. Alternate use of capital was denied as some settlement claims were not finalised until the year 2000. The displacement of existing landowners was traumatic as in many cases their lifelong attachment to their land together with their personal ambitions were destroyed, suddenly taken by force by the State.

The Parliamentary Report and the resolution approved by the Legislative Assembly on 18th March 1980 both stated that the QWRC could proceed in the BRIA with "resumption of land in the proposed extensions of the Irrigation Area ***currently used for cattle grazing*** for the creation of new irrigation farms". However in October 1981 QWRC Report was referring to the resumption of all lands regardless of their current or intended use or stage of farm development in the extended irrigation area. Private farmland with privately funded water pumping and distribution systems under development were not to be allowed. The reasons given for this by the QWRC were;

- resubdivision by the QWRC ensures the most efficient layout of new farms;
- it ensured the maximum number of useable farms;
- it allowed for the greatest number of new farms;
- it ensured that existing landholders did not gain windfall profits as a result of State investment; and
- it ensured that land prices were kept under State control.

With respect to the latter two reasons, the Cabinet Submission accompanying the October QWRC Report refers to, “large windfall profits to a few large landholders” and “a land market able to be manipulated by a few speculators”

The Water Recourses Commission in their desire to maximize monopoly profits argued vehemently that the displaced farmers and graziers land was unsuitable for uses other than cattle grazing and denied them access to river and ground water. This was despite the fact that adjacent sugarcane farmers were utilising up to 8 megalitres per hectare of the existing underground supplies. Farmers whom argued that they had alternate sources of water such as through David’s channels were told that the State would never allow it. Lands that were adjacent to land that had previously sold for $2,000 per hectare and later resold by the Water Resources in excess of $8,000 per hectare were acquired by the State in the range of $400 per hectare.

The QWRC/Sunwater now wants to get a “return on funds” for money it wasted trying to stop the existing landowners and farmers from making “windfall profits.”

That is, we now have to pay money to the State for the money the State spent on stopping us from making money.

The Queensland Water Resources Commission adopted a concept of a “family farm living area”, of 70 Hectares per landowner. This was later extended to 100 hectares. Existing landowners were allowed to retain a “retention area” of 100 hectares. This however was not universally applied as “Rice Farmers” were allowed 300 Hectares and some larger landowners were allowed to retain additional land subject to the payment of “Headworks” charges recognising the cost of the State paid infrastructure. ($2,000 per hectare for land serviced by the channel and $800 per hectare for land that could be serviced privately directly from the river or private channel systems).

This concept of living areas and retention farms was retained up until the completion of the Scheme in 1998. Any concept of developing farm sizes to optimise farm efficiency and reduce the unit cost of production was totally ignored by the Water Resources.

The farm sizes as defined by the Water Resources was based on historical farm income levels. Increasing international competition and resulting reduced prices for sugar proved that this concept was totally flawed. In many cases farms are limited to uneconomic sizes and as a consequence have become dependent on Government assistance at a later date. This was evident even before the completion of the Burdekin Irrigation Scheme in 2000.

Legal concept of no alternate use other than grazing land

In 1993 David’s father Mr Vivian Cox challenged the valuation for compensation purposes that the QWRC had placed on his lands resumed for resale. The QWRC argued that the lands were only suitable for grazing land and as such held no value above that of grazing land. Mr V Cox argued that in the absence of the Burdekin Irrigation Scheme an alternative irrigation system would have been established and was in effect already started prior to the Burdekin Irrigation Scheme based on David’s

designs and with construction underway. This case involved a large amount of technical evidence and costing of the alternate private scheme.

The Case in the Land Court was the longest in Queenslands history and its findings were appealed against by the QWRC. The appeal was lost by the QWRC.

The QWRC case was based on the following points;

- The QWRC stated that they controlled the use of river water and underground water and he QWRC as the sole supplier and regulator would not have allowed additional free-flow harvesting from the Burdekin River.
    - This point was rejected.
- That it was not possible or economic to supply irrigation water from a private channel system.
    - The Land Court Member held that there was an expectation of irrigable land use that had been reflected in what he deemed to be comparable sales which he used to derive a value some 2.5 times in excess of the QWRC assessed value.
- The Land Court Member did not say that David's channel and storage system would have been implemented but did say that their was a reasonable expectation by farmers that was reflected in the comparable sales that the land would have been serviced by an alternative irrigation system in the absence of the Burdekin Dam and the QWRC channel distribution system and that was reflected in the comparable sales.

Capital Charges were paid at the time of land purchase

In an article published in the Courier Mail on the 11th of April 1990 headed "Policy changes bring new irrigation lots to auction" states;

"BILLIONS of litres of water will be released for new irrigation across the State as a result of Government moves to recall unused allocations and charge a capital cost for water rights.

The Water Resources commissioner, Mr Tom Fenwick, said the policy would make much better use of existing water supplies. A charge on new allocations would also encourage Governments to fund new capital works.

Mr Fenwick said a charge of about $250 a megalitre was already built into the reserve price of new farms being opened up in the Burdekin Irrigation Area"[12]

Above ground channels verses an in-ground channel system

The QWRC opted to construct the irrigation channels above the ground as an alternative to in-ground channels at a substantial increase in construction cost and subsequent increased on going maintenance costs. The QWRC stated rationale was that the water supply was supposed to provide "head' or pressure so that the adjacent serviced land could be irrigated without the the requirement for repumping. This concept did not perform as designed. [Approximately 80% of serviced farms in the Burdekin Irrigation Area supplement the "head" pressure from the above ground channels with pumps in order to distribute the irrigation water to the sugar-cane crop

[12] See Annexure 15 for a copy of Newspaper Article

though plastic fluming that places the water in the individual furrows.] This design resulted in design and control structure cost several times greater than a simple in ground system.

A number of other the adverse effects of the above ground channel system can be summarised as follows;

- The cost of channel construction is increased substantially as .
    - Due to extremely variable soil types suitable soils have to be sourced from alternate locations, excavated, transported placed compacted. Alternatively the cost excavating in-ground channels is almost zero as excavated suitable farming soils are used to aid levelling of adjacent farm land. Soils that are unsuitable for farming are used for building adjacent roads and headlands.
    - Areas used to source suitable soils for QWRC channels are known as "borrow pits" and as such are no longer suitable for farming. Thus eliminating further potential economic use of the land and creating a long-term maintenance cost.
    - Soils in above ground channel banks have to be compacted in 100mm layers to ensure the retention of water and reduce potential bank failure and subsequent local flooding and water waste. [This is very expensive.]
    - QWRC constructed steel control structures that have been put in place to control water levels, especially at all road crossings increased initial capital costs and ongoing maintenance costs. In ground channels require less control structures and tolerant of wide fluctuations of water levels before detrimentally effecting water delivery to the farmers.
    - QWRC opted to service farms and meter water usage by means of a water wheel as they believed the farms would not require to pump from the above ground channel. However farmers attempting to get enough "head" pressure from the QWRC channel system tend to flood the water wheel and it is believed that the water meters do not correctly meter the water used. Water meters attached to pumps alternatively are accurate measurers of water. As a consequence QWRC water sales from the channel system have only achieved a 75% efficiency rate (percentage of water pumped from the river and metered supply to channel farmers) where as in the alternative delivered efficiency is estimated at in excess of 90%.
- The cost of ongoing maintenance has been increased
    - Incidence of QWRC channel bank failure thereby reducing the reliability of water supply and increasing channel maintenance costs compensation claims when farmland is flooded before planting or during harvesting.
    - Weed and grass control increased as the cost of maintaining steep slopes is more time consuming and requires specialist equipment
    - High cost of labour involved in checking so called automated systems that have not performed as designed.[13]

[13] Annexed copy of Page 27 Ernst & Young Report 20/3/200 Individual Irrigation Scheme Distribution Benchmarks.

- As irrigation channels usually run beside roads driver vision at intersection is reduced creating dangerous road crossings where the drivers sight lines are restricted by above ground channels.

Ernst & Young Report for State Government 20/3/00 (Draft Page 27)
An Ernst and Young Report independently commissioned by the State as part of the Water Reform Process states that maintenance benchmarks for the Burdekin (Etc) are higher than Goulbourn Murray Water and Southern Rural Water as well as the State Water Projects average. The reason for this they explain is due to the complex nature of down stream electronic control systems used for "automated" water delivery systems. It further explains that this has resulted in "higher labour" costs to check the "automated" systems.

The report also explains that there are other factors that affected the cost such as weed control, turbidity and the pump lift required. While these issues area a factor in increasing maintenances and operating costs, they are also common to the other non - State run systems in the area that have achieved comparatively low costs for operation and maintenance of the delivery system with similar problems.

QWRC farm layout where they are not square or rectangular has increased cost of production.

A large number of QWRC farm blocks were designed with variation to layouts other than rectangles or squares or slight parallelograms. These farm designs ignored integrated efficient irrigated sugar-cane farming systems.

Application of irrigation water to variable row lengths means that amount of irrigated water applied is different in each row of a different length. This leads to a combination of two adverse effects.

1. It greatly increases farm labour and supervision time
2. and it promotes the wastage of water as short rows will need less water than long rows.

Typically on square or rectangle one-kilometre multi-row water application irrigation water will take a predictable 20 hours plus or minus 10%. This means that irrigated multi row changeovers can be made at a predictable time. This results in minimum wastage of tail water together with minimum farm labour and reduced supervision. The duration of each irrigation each row is dependent on row length, fall and soil type therefore with varying row or furrow lengths irrigation in each furrow has to be individually monitored or excess tail water is wasted to drains and adds to the cost of labour or water. In addition to this tapering headlands associated with variable length rows simply do not suit multi-row implements used for cultivation.

Taxation Disadvantages for State Constructed System

Under taxation law an irrigation farmer constructed irrigation improvement costs are tax depreciable over three years. This depreciation is deducted against the income of the individual farm businesses. This effectively reduces the after tax costs by 50% as they become fully deductible the in the first and the following two years after initial expenditure.

In the alternate State constructed scheme costs are recharged as Headworks or have been built into the land purchase price. “Headworks Charges” are deemed to be a capital expense as such they are not deductible against farm income and have to paid for with after tax income.

The Economic Arguments supporting a reduction of the Cost of Water in the Burdekin River Irrigation Area.

Traditionally the Queensland tropical climate together with its comparative wealth, educated work force and stable government had given it's agricultural producers a substantial competitive advantage over competing nations that enjoyed similar climates and therefore competed in the international market place with similar agricultural products such as sugar.

This competitive advantage continually decreased in the 1970's, 1980's and 1990,s as countries with similar climates and under-utilised land, labour and capital resources continue to expand at rapid rates (ie Thailand and Brazil to name two of many). This loss of competitive advantage and the efficiency advances made by our competitors has resulted in a declining real income for many of our primary producers.

Queenslands sugar cane farmers are going to continue to see a decline in real incomes as their competitors increase their production efficiency and continue to expand export production.

The economic sustainability of many of the smaller cane farm businesses has been put at substantial risk as sugar prices continue to decline in not only real terms (that is after inflation) but also in nominal terms (before inflation) as our international sugar producing competitors continue to expand production.

It is increasingly evident if Queensland farm businesses are to be sustainable in competitive export markets those businesses will have to continue to strive to maximise farming efficiency and continue to reduce where possible production input costs.

Many of these businesses have already had the inefficient past extra costs built into their current cost of production. For example;

- Headwork charges and high land prices have increased borrowings and or reduced potential farm expansion. The extra costs are therefore already being paid annually either in interest to the bank or alternatively loss of income.
- Artificial restrictions on farm sizes have reduced the farm businesses ability to take full advantage of efficiency gains in machinery and other technologies.
- Profits derived from the resumption and resale of land have been lost to the local community and have increased the cost of production of those producers whom had to purchase their own land back at prices higher than the reasonable capital costs for headworks.
- Previous past payments that were effective cross subsidies have further eroded current farm equity and therefore threaten the sustainability of the current businesses.

Future Threats from our International Competitors

Queensland Sugar Limited already produces a product with a higher impurity count (lower -pol) than our major competitor Brazil. It is anticipated that high-pol sugars from Brazil and other modern overseas competitors will continue to make inroads into Queenslands traditional markets as our current overseas refinery customers take advantage of high-pol sugars that cost less to refine.

Many of Queenslands mills are over 80 years old and in need of substantial capital expenditure on upgrading of milling technology and replacement of used parts.

The individual largest stakeholders in Queensland Sugar, CSR and Tate and Lyle have either abandoned or are attempting sell their current assets as alternative investments and in these cases foreign investment proves to be more attractive.

Modern farm machinery has become increasingly capital intensive, as farm machines get larger and more technical. (Harvester costs alone have increased 70% in 7 years.)

Summary

The Burdekin Irrigators and the local community are not looking for Government handouts. However many can not afford to continue to support either inefficient management or repay the past inefficient expenditure of Water Resources and Sunwater that were created in a different political and economic environment.

Governments and State owned monopoly service providers cannot sustain arguments to increase the monopoly based input costs at the Australian rate of inflation when the Queensland farmer is competing in international markets and where their returns have nothing to do with the Australian rate of inflation. (Australian markets now buy sugar at export parity and account for less than 20% of total production).

State owned monopoly service providers where their service is a major part of the input costs of production have to use modern technology and superior competitive management to justify their continued management of the supply of water. Where the State owned service provider cannot compete on cost it should withdraw and open those sections of service provision to competitors or alternative cost effective management structures.

Government service providers should submit them to independent scrutiny and justify all charges fully, including those charges that are based on the Governments returns for cost of capital, to maintain a monopoly supply status.

Burdekin irrigators have lost income due to the elimination of tariffs and the obligations imposed by National Competition Policy to sell sugar to our Australian customers at an export parity price. The economic rational for this is that our Australian customers for sugar now have a greater ability to compete against imports of manufactured products containing sugar.

Irrigation Water is a significant part of the irrigator's cost of sugarcane production. It is an obligation of the Government to work to achieve cost reductions where possible in the supply of the water services. Irrigators are happy to be part of the process of achieving input cost reductions where possible. The same National Competition Policy places obligations to provide efficient prices for their down stream clients.

State Governments have been paid for the loss of their monopoly profits and the cost of their past inefficiency's by the Federal Government's Tranche payments it is now time those benefits where appropriate are passed to consumer of the water services.