Submission to

The Standing Committee on Finance and Public Administration

Who have invited written submissions from any person or organisation who wishes to express views on any aspect of the reference until Friday 19 December 2008

Inquiry into the Business Case for

Water Infrastructure

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PLUG THE PIPE

......and protect the future of country communities
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Introduction

Thank you for the opportunity to make a submission.

We passionately believe that the allocation of water is a major issue. Water is life – without water there is nothing. The more population or variability of the weather, the more we need to provide water to maintain our standard of living. That standard is our ease in obtaining water, power and food, which in some other countries consumes most of their waking time in a quest for food, water and power. Our standard, due to the infrastructure built by our descendents, enables us to do other things, because it is easy to buy food at the supermarket, turn on the tap or turn on the light. The infrastructure is dams, power stations, hydro power, hydro power storage and peaking power, irrigated farms and market infrastructure.

Water is not only needed for life, but larger quantities are mandatory for growing food (embodied water), and for cooling in the generation and storage of power. Water, power and food are inexplicably linked. Our food can only be grown in a properly functioning environment, with proper biodiversity, which needs large quantities of water. Any evaluation must take all of these factors into account when determining the benefits of the Food Bowl Modernisation Project or the North South Pipeline.

The cost benefits of the Food Bowl Modernisation Project and the North South Pipeline must acknowledge that these two projects are very large projects. I have been involved in many of the large projects in all States of Australia, so know the huge amount of effort which is undertaken by companies to justify their projects before their boards announce their projects. I am bound by confidentiality agreements to not give company details, but these evaluations are large amounts of investigation, full detailed design, and definitive estimates which includes full material takeoffs and quotations from every major material and labour supplier, full net present value analysis, evaluation of funding, interest rate changes, international currency changes, and a full sales study to prove the viability of their business case, before proceeding. Our company was requested repeatedly to carry out detailed evaluations of reserves, evaluate changes in new process technology and new plant designs, and current outlook for sales. In many instances, the above evaluation has taken a number of years, up to ten years or more, and has consumed large amounts of shareholders’ money.

We would expect no less from Governments and Government Authorities undertaking such large projects.

Our submission

We have previously made many submissions, but the ideas and issues contained in them have not made their way into the subsequent report. When the report is sanitised so our submissions are not in the report, it leads readers and politicians to conclude that there are no alternative views worth considering.

There appears to be a perception by politicians setting terms of reference, and committees receiving submissions that statements contained in submissions need to be proved correct before being considered. But both politicians and committees should realise that for the issues being canvassed, there is no proof possible. Large sums of money and considerable scientific activity is required to evaluate statements one way or the other. So it is fantasy to expect a group of concerned individuals to irrefutably prove their statements before making a submission. To avoid only the ideas of those calling for submissions to be the only ideas in the report, we would expect that at least our ideas be considered, and some level of funding and scientific endeavour be provided by the committee to evaluate them, and not reject them out of hand.
Benefits

Food Bowl Modernisation Project

Huge potential benefit to upgrade the food bowl

Much of our food is normally grown in the irrigation areas. Only now during the present drought, when much of the food now needs to be imported do we see the effect of reduced farm output due to reduced allocations of water to irrigators.

Much of the food supporting the world population comes from those areas. The reduction of our exports is partly responsible for the higher cost of food, and the rationing of certain foods, and the famine effects of some people throughout the world being unable to afford to buy food.

It takes almost a recession to show the benefits of the farm sector in adding to GDP. Even in a drought with very reduced output, farm sector is currently seen as propping up the economy and preventing a full recession.

Much water is lost in an antiquated irrigation distribution system … 7000 km of open channel allowing seepage and evaporation

The present long duration needed between an irrigator ordering an allocation and receiving it is very inefficient, and leads to large wastage. So the proposed computer controlled ordering system will make a huge improvement to the operation and will reduce wastage.

Much of the seepage is helping the environment, and aquifer recharge. The proposed new flume gates and meters will deliver water more quickly and cut it off more quickly, thus saving water on delivery time.

Unfortunately this will also cut off overflow or outfalls, which would normally recharge groundwater and flow back into the rivers as environmental water. Therefore the river systems will receive less water than previously.

But much of these benefits will not be achieved by the present plans

The upgrade is planned in four stages, but all stages are not guaranteed.

The first stage is to be funded by the Victorian Government by them allocating $1.2b which includes $600m from Finance, $300m from Melbourne Water. This amount has been allocated and will be used to upgrade the “Backbone” (the 50ML/d and greater channels)

The second stage funding of $1.2b, to complete the backbone, is dependent on obtaining funding from the Federal Government under the National Water Plan. When the Victorian Government removed the Goulburn River from the Murray Darling Basin (MDB), this funding was in doubt. With the recent agreement to handover control of the MDB to the Commonwealth, there is a glimmer of hope that this might secure this funding, but since the Goulburn is no longer in the MDB and the North South Pipeline is
taking water from that system, this funding is not secure. The backbone may not be completely upgraded.

The third stage is to be upgraded by irrigators. Channels outside the backbone, which is by far the greater length but smaller channel is presently the responsibility of the Water Authority, but will be privatised, making the irrigator responsible to either use the existing channels, or to install pipes at irrigators’ cost to transfer water from the backbone to the property boundary. The estimated cost of this stage is a further $2.2b. Because of both the drought where irrigators have received only small portions of their allocations for a number of years, and the latest down-turn of the economy, only few of the irrigators will be in a financial position to fund this upgrade.

The fourth stage is for the irrigator to upgrade his own on-farm irrigation system. Although much of this work has already been done, both drought and economy downturn make further upgrades less likely. A large number of farmers are leaving the area, selling their water. This could be good for the environment and for remaining farmers, but guarantees that farm output of food and fibre will be reduced, the irrigation communities significantly affected, and this stage upgrade will not be completed.

The present funding is conditional upon the funding achieving water savings which can be split 3 ways for irrigators, environment, and Melbourne.

The calculation of potential savings has been based on average losses, defined as the average of the difference between water released from storage and that paid for by irrigators;

There are many causes of these losses in the river, billabongs, wetlands and channels, so not all of the losses can ever be saved;

During extended droughts, which occur regularly every 20-30 years, the total losses are less than the expected potential savings, making those savings impossible to achieve in full. And during these times, irrigators are able to use only a small portion of their allocation. So the water available from savings during these times is far less than the average. During these times, a North South Pipeline when being depended upon to provide water to Melbourne and Geelong, cannot be guaranteed to provide sufficient water, and due to the small amount of water available, the water is likely to cost far more than it would during normal seasons. Melbourne does not need additional water during normal seasons, and without additional storage, is unable to store it to prepare for drought. There are far easier and cheaper sources of water for Melbourne – refer to our earlier submissions, and to many other submissions.

A very small percentage of existing water meters at irrigators’ properties were recently tested (43 out of more than 17,000 meters). When the executive summary of the report only is read, one can easily conclude that irrigators are receiving 10% more water than they pay for. It appears that this 10% has been used in calculating the savings that can be achieved by the upgrade. But when the details of the reports are studied, and the qualifications of the testing contractor are taken into account to take account of meters
not maintained or not properly installed, then the 10% should really be a maximum of 7% and more like an average of 5%. At the same time, the contractor tested the planned meter replacements which in all cases supplied less than the irrigator paid for by between 4 and 8%. When this anomaly is corrected, the water savings which can be obtained from the upgrade of meters is more like 1 or 2%.

The stated 1% piping of smaller channels and 5-10% lining of larger channels, will not save large amounts of water, when the total length of channels in irrigation area is considered-7,000KM,

It is possible that the upgrade will not last to be effective.

Whereas the Authority is expecting irrigators to connect their properties to the backbone with pipes rather than channels, the Authority is not installing pipes, but rather upgrading the channels with a plastic liner.

Piping prevents both evaporation and seepage and so is very efficient in distributing water, since the land is flat and pumping costs are relatively low.

The backbone channels are being lined with black plastic. This will increase the water temperature and cause more evaporation, but will definitely stop seepage. There appears to be no realisation that seepage recharges the aquifer and is beneficial to the environment.

However the expected life of the plastic liner is around 30 years at most. But it is highly possible that the current dry is not totally caused by climate change, and is one of the 7 extended droughts that we have experienced since 1813. If this is true, then the next drought will be in approximately 20-30 years time, and climate change will make it more severe. But by then, the plastic liner will not be able to continue to stop seepage, so, when Melbourne is really dependent on the North South Pipeline, there will be reduced savings. The water will then come from the Murray Darling Basin’s allocation for food and environment.

North South Pipeline

The North South Pipeline will be able to take water to Melbourne when Melbourne does not need it, and without further storages built in the Melbourne area, Melbourne will not be able to accept it. There is no benefit at all.

Apart from the single year 2010 when Melbourne has been guaranteed 75GL from previous upgrade savings, and from the environmental reserve, in all following years, Melbourne is simply another Goulburn-Murray Water (GMW) customer.

For a number of years now, GMW customers have received only a portion of their allocation. Melbourne will also receive only a portion of their allocation too. So to build
such a huge pipe to take such a small allocation leads most people who have taken the trouble to investigate, to conclude there will be virtually NO WATER available in drought years.

For the 2010 year, Melbourne Water is relying on receiving the water saved by previous irrigation upgrades. But that same water has been previously promised to the Living Murray Initiative, because money from that initiative was used in the upgrade. But the Food Bowl Steering Committee Report stated that this Living Murray water would not be needed immediately and that it could go to Melbourne. But considering the dire state of the Murray, nothing could be further from the truth.

In his decision under the EPBC Act, Mr Garrett ruled that the Living Murray water cannot be taken to Melbourne. It appears that Melbourne Water think they can circumvent this directive.

In submissions to the PIA, it was GMW’s responsibility to assess whether water is available for Melbourne. No such assessment or report has been yet published. It seems a huge leap of faith to spend so much of tax-payers money without such an assessment, and adds to the lack of probity that the Auditor General has raised.
It is quite obvious that proponents of the North South Pipeline have not read their water history. If they had, then no way would they consider taking water from inland rivers, back to the wet coastal areas.

Appendix A is an extract “Politics of Water” from Brad Collis’s book “The Making of Modern Australia”. This extract shows that even as far back as 1824 and 1837, when the Australian population was relatively small, there were serious water shortages in the inland areas, causing devastating effects to the economy, which was solved by the Snowy, Kiewa, Dartmouth and Eildon projects.

There is limited water available in the system during drought, and present customers obtain only a small percentage of their allocations, so during a future drought when Melbourne will depend on water from the pipeline, there will only be a small proportion of what is expected available.

Many experts, including the CSIRO have studied water availability in the Murray Darling Basin during droughts, and confirm there is a serious lack of water, and due to climate change, will become even more pronounced in the catchment area of Eildon.

It would appear that politicians are relying on there being water savings from the Food Bowl Modernisation Project which can be sent to Melbourne, but as we state above, these savings cannot be guaranteed in full when they are most needed, if ever.

The only benefit of constructing the North South Pipeline would be if water could be pumped north from Melbourne to the Goulburn River.

We understand from the Designer that the pipeline is sufficiently strong to enable water to be pumped from south to north, but due to the smaller diameter pipe on the southern side of the range, the quantity returned would be far less than 75GL unless there were multiple staged pump stations built on the south side. No stations on the south side are presently being considered.

The really outstanding thing about the pipeline design is that it is impossible to take 75GL per year through the pipeline during drought years. The present design will be able to take only about 50GL per year at most.

Melbourne Water has promised the PIA that they will only pump water through the pipe during the irrigation season. This promise has been made to ensure that the Goulburn River downstream of the river pump station will not be seriously affected environmentally. They are correct in saying that taking 300ML/d from the river when the river is running at 4,500ML/d during the irrigation season is a small proportion (7%) and so will not greatly affect downstream. Of course when
they take 300ML/d, the upstream river must be running at 4,800ML/d to deliver the correct amount to the irrigators.

The maximum amount now allowed to be pumped per day, as approved by Minister Peter Garrett in his approval decision is 360ML. This means that they will NOT be taking only 3-6% of stream flow when the river is running at 5,000-10,000ML per day as stated. As the river is currently running at about 2000ML/day, this means they would be taking 18% of stream flow. Official documents state they will now take 6-15% of stream flow, which contravenes the Minister’s directive.

It takes only a small bit of arithmetic to see that to get 75GLpa down the pipe at 300ML/d you need to pump for at least 250 days per year. But during the last 7 years of drought, the irrigation season has been significantly shorter than 250 days. GMW has been negotiating with their customers to reduce the spread of the season to save water. There has not been the water available to continue running the river at 4,500ML/d, and much of the time the level has been lower than 2,500 at the early and later parts of the season, and only 500 during the off-season. Last year the level was only 150 for several months. It seems incredible to us that an organisation spending so much of tax-payers money has not done these school-yard type sums.

Costs

Food Bowl Modernisation Project

The total cost of the Food Bowl Modernisation Project is estimated to be $4.4b

Victorian Government is funding $600m and Melbourne Water $300m to commence Stage 1 upgrade of the Backbone;

The $600m that the Victorian Government is putting in to Stage 1 is simply returning the $600m that the Irrigators paid to accrue for maintenance through their water charges, but which was placed in General Revenue by the Kirner Government. This payment is overdue to be returned to upgrade the system.

The $1.2b estimated to be Victoria’s part of the $10b National Water Plan is dependent on agreement between Victoria and the Commonwealth, and as mentioned above, is not secure.

The $2.2b estimate of the upgrade of the smaller channels between the backbone and the irrigator’s property, which now becomes the responsibility of the irrigator, while also paying additional water rates and upgrading on-farm infrastructure, as mentioned above, is unlikely to be achieved.
North South Pipeline

The cost of the North South Pipeline on a large number of landowners has been considerable. Instead of picking a pipe alignment which would minimise disruption to the community and to landowners, Melbourne Water picked a huge corridor, saying that if they found environmental problems they would dodge around them. But this meant that a huge number of landowners have been on tender hooks, with the flow-on effects on productivity and real estate prices since June 2007. When they eventually decided on a possible alignment, 170 families have been left wondering where this meandering pipeline will end up, and they were being left in limbo. The pipe may go through their sheds or just outside their house. It may cut off property access while being built. There has been no attempt at all to place the pipeline at the rear end of properties, but rather along the Melba Highway where there is the maximum disruption to landowners. Coupled with the effects of the current drought, this deceitful and arrogant ploy has had a serious cost effect on landowners.

When one takes into account the qualifications and restrictions to the amount of water available to the pipeline, see above, one must seriously question whether the huge construction cost and ongoing large operating cost is sustainable.

There also appears to be hidden costs, not made available to the public.

The huge cost of providing 18MW of power to pump 300,000 tonnes of water over the Great Dividing Range each day does not seem to be taken into account. Initially the estimated power required was 10MW, but after design started, the figure published became 17-19MW (nearly 20% of the output from one of the power stations in the Snowy Mountains, so is not a minor deal.) But after almost doubling the size of power lines, motors and pumps, there has been no effect on the published total cost of the project. It would appear as though the costs published by Melbourne Water are only for the mechanical items that Melbourne Water is responsible for. The cost of the power supply seems to be “by others”. There was no mention of the power lines that would be installed on landowners’ properties.

There was no allowance in the project to recover power from the water falling down the south side of the mountain. A separate project, with additional cost, is a possible mini-hydro which is not planned to be operational until 2018 when Melbourne Water expect to have zero net greenhouse gas – that’s 8 years after start up.

There has been no announcement of the construction of the 40 off 70m towers seen in Australia or 18 of the huge 130m towers that would be required just to
power the pipeline. We know that the present renewable energy is not readily available, and are aware that during the last January heat wave, the Victorian electricity grid only just remained operating at some 9.7GW by buying power from other States.

So no additional power has been yet considered, and is probably not in the project costs. An advertisement in the Herald Sun on 3 December 08 requests expressions of interest for Renewable electricity which close on 14 January 09, so it is very possible that costs for establishment of these facilities are not in the project costs.

If an ETS is set up by the Federal Government, a high price of the carbon emissions will add to the huge cost of power to pump water over the mountain.

There are no apparent costs in the budget for the purchase of carbon credits for the first 8 years or thereafter. Carbon Gas emissions during construction and then in operation will probably contravene the Rudd Government's carbon Gas Emissions reduction scheme.

SP AusNet have offered to upgrade the existing weak 66kV system by installing an additional substation from the 132kV grid for not only this project, but because the existing 66kV grid needs updating. But SP AusNet have requested that the Alliance provide the 22kV feeders from the main 66kV substation to the pumping stations, independent from the 66kV grid as SP AusNet do not have the time or resources to do so. If a multinational power company is unable to purchase HV equipment or have sufficient Electrical Tradesmen to do the work in the time, one must seriously ask whether the Alliance can.

The local member of Parliament Ben Hardman and SP Ausnet announced they ARE NOT using renewable green energy, and will use what is available.

An SP Ausnet employee has confirmed that they have now decided not to upgrade the weak 66kV system either. They intend to switch off the pumps when the power demand rises in hot weather, etc. to avoid overloading the system. This means that the power available will also limit the amount of water that the pipeline can take to Melbourne. Of course if they forget to switch off the pumps, the grid will go down much more often than it does already.

The cost of the projects on the rural population have not been considered, and have been considerable.

There has NOT been any major Socio-Economic Analysis Study of the effects to rural population, which takes into account the fact that this Foodbowl Modernisation & North-South Pipeline are causing enormous and serious social
rationalisation. In the Shepparton area there have been 22 orchards abandoned; there were 7 last year and 15 this year. Its getting worse. SPC(Coca Cola Amatil) are already importing large amounts of fruit. The expected 800 farmers leaving the area, as stated in the FBMP Report is grossly underestimated.

The cost of time to residents north of Divide who regularly commute to Melbourne for work are forced to spend an additional 20 minutes extra in travel time each way due to the holdups on the Melba Highway. The signs say “Road Works” in an attempt to shift the blame, but the work is “Pipeline Works”. V/Line drivers are exasperated due to the holdups of the bus lines which takes an additional 25 minutes to travel from Yea to Southern Cross, even when they use the Tollway and Freeway at the Melbourne end in an attempt to catch up time to meet connections for their passengers. These holdups occur even at the late bus which travels at the time of the end of shift. Tourists traveling to Yea and beyond are similarly held up on Friday evenings when they are trying to reach their destinations. There seems to be an extremely arrogant attitude shown by the Alliance staff. Due to these holdups, there are many drivers taking risks.

The costs on locals in the Yea area due to large increases in home rental prices in Yea and surrounds for locals. Examples are a local, single mother of three now pays $300 per week for an old weatherboard home in Miller St. It’s hard to get anything cheaper as Pipeline employees are paying $450 per week, well above the normal rental rates.

Summary

The above shows a serious lack of planning by Government and Government Authorities for three huge projects, and shows they have not presented a proper business case, or provided tax-payers with a proper estimate of costs. It may be that plans have been done. But considering the current results, and the serious lack of information being provided to the public, and the outright dismissal or rude outbursts by politicians against any constructive criticism rather than a reasoned and informative reply, one must conclude that this work has not been done.

Members of Plug the Pipe (PTP) remain convinced that the food bowl must be upgraded and maintained in accordance with payments made by irrigators, to provide adequate and affordable food in drought years, without relying on imported food. They do not see that the return of their funds to carry out this work is dependent upon sending water to Melbourne. The amount of water feeding the Murray Darling Basin is expected by CSIRO to reduce due to climate change. PTP see that there is likely to be far fewer savings resulting
from the upgrade, as only less than a quarter of the required funding has been provided, and the method of upgrade is temporary, with a limited life. Water which is saved should remain in the Murray Darling Basin for the environment, and to grow an increased amount of food for the planned increased population.

Plug the Pipe members accept the submissions by experts that there are many other more affordable, less disruptive, and more reliable sources of water for Melbourne and Geelong. Those sources should be utilised, and, where necessary, RO treated in small special purpose plants.

Due to the serious limitations imposed on the amount of water that can be taken to Melbourne through the North South Pipeline, they are convinced that it will be a very disruptive and costly white elephant - unable to be used in wet years due to inadequate storage capacity in Melbourne - unsustainable to be used in drought years because there is insufficient water and insufficient capacity to meet Melbourne’s needs.
APPENDICIES

Appendix A – History and Politics of Water

WATER POLITICS
Politics have long been a problem in the building of water infrastructure. As the North South Project was chosen in a secretive manner, without bipartisan agreement and without consulting the Shire through which the project will pass, and without contacting many of the affected organisations, then this seems to be a political exercise.

Quoting “The Making of Modern History” by Brad Collis, we find that even in the past, large projects have been subjected to political expedience and interstate bickering.

“Labour Available and much needed

“ Chapter 2 - POLITICS OF WATER
The devastation in Europe at the end of World War II was unprecedented in human history. Great cities had been turned to rubble. Millions of people were homeless, starving and facing a bleak future.

… But an even greater problem that faced both military and civil authorities were the tens of thousands of survivors of Nazi concentration and slave labour camps, as well as the several million displaced persons and refugees who were left in the wake of the Soviet takeover of Eastern Europe. The Allied authorities had to find homes for more than eight million displaced people. Eventually, about six million were repatriated to homelands in Europe and to the new state of Israel. But more than two million did not want to go back, or had no homeland to return to. Many came from countries which were in the process of being erased from the global map.

… On the other side of the world, a passionate plea was made to a young developing country beyond reach of the devastation, to offer a home for these people. Time was pressing. The United Nations Relief and Rehabilitation Administration went direct to the Australian Prime Minister, Ben Chifley, and asked him if he would accept 100,000 homeless Europeans. Chifley almost choked on his pipe when he heard the figure—it would be a big injection of ‘foreigners’ into a relatively small and homogeneous Anglo-Saxon population.

Need to broaden Australian Economy

“The request from the United Nations coincided with plans by the Chifley government to broaden the base of the Australian economy by hastening the development of secondary industry. It also came as the government was attempting to grapple, once and for all, with the continent’s critical and often crippling lack of water. It was thrashing out the final details of one of the boldest engineering projects ever conceived—the harnessing of melted snow on the Australian Alps through a vast irrigation/hydro-electric scheme. Such a scheme, as well as the postwar development projects that the states were clamouring for, meant the country was going to need a pool of labour far beyond the capacity of its existing population.
Lack of water

The Snowy Mountains Hydro-Electric Scheme, as it was christened, had been a long time coming. It is a tragic irony that it was made possible only by the devastation of war and the creation of an instant, and politically convenient, workforce.
Lack of water is a constant problem for Australia, the world’s driest land. Along the eastern side of the continent, most of the water run-off from the Great Dividing Range flows eastwards into the Pacific Ocean and Tasman Sea, leaving the vast tracts of land on the western side prone to lasting drought. Rivers that flow naturally westwards are generally meandering and slow.

Evaporation in the hinterland is high and in dry seasons many tributaries of the main inland rivers—the Murray, Murrumbidgee, Lachlan and Darling—become little more than chains of waterholes. The Snowy Mountains Scheme would dam east-flowing rivers to create huge man-made alpine lakes, from which water would be diverted westwards in massive tunnels cut through the mountains. The plan was for the water not only to irrigate the parched interior but to generate hydro-electricity for cities of the eastern and south-eastern seaboard.

As far back as the early 1800s men of vision had begun to see the potential of the Alps’ melting spring snow. … Yet despite its length, for most of the year the Murray’s wide bed carried just a trickle. Before the construction of the Scheme the bulk of the vast alpine run-off flowed eastwards into the Snowy River, turning it, after the spring thaw, into an unchecked torrent that raged along an erratic course to pour into the sea off south-eastern Victoria. In peak flow, the Snowy wasted into the Tasman Sea at the rate of two million litres a minute.

Dire consequences of Drought

“Time and again lack of water had almost put an end to the settlement of eastern Australia. Between 1813 and 1815 drought and the spectre of famine added urgency to efforts to find a way from the Sydney area over the Blue Mountains. Widespread drought struck again from 1824 to 1829, withering the newly discovered plains country. Crops burned, stock died and, despite their familiarity with the land’s natural resources, many Aborigines were also reported to have perished through starvation. For the settlers, the most severe impact was on the flocks of sheep they were trying to build up. By the 1830s the sheep industry was well established in every Australian settlement. Through drought and fluctuating world markets it rode a wild see-saw of booms and busts. Yet hundreds were just as quickly ruined by a single dry season. The familiar visitation of disaster occurred again from 1837 to 1840 and even the snow-fed Murrumbidgee was dry in places, allowing settlers in some districts to run horse races on its bed.

… In 1843 good sheep were selling for three pence a head. The list of bankruptcies grew longer daily. The Bank of Australia failed. By the end of 1844 more than 200 000 sheep had been boiled down and tallow prices began to fall. Drought struck again in the late forties and for more than a decade from 1861 to 1870. Some graziers built dams on creeks and guarded them with armed men against reprisals from aggrieved landowners further downstream. In a dry season in 1858 parties of men destroyed or damaged more than twenty-five dams on the Yanko Creek, which runs between the Murrumbidgee and Murray rivers.

… Adams proposed that water be diverted from the Snowy River at a point about eight kilometres above the junction of the Snowy and Eucumbene rivers (near today’s Island Bend Dam). He
concluded that by constructing a canal across a gap in the Great Dividing Range the water could be channelled into the Murrumbidgee and used to irrigate vast inland areas. Adams made this report more than a century ago, long before the tools and techniques were available to construct roads, tunnels and dams in mountains. But he was the first to hold aloft the key which a future generation would use to unlock the area’s potential.

In 1888 New South Wales recorded its driest year ever. An estimated one million sheep passed through the town of Wagga Wagga in search of grass and water. Stock routes along the north bank of the Murrumbidgee were closed. By 1903, settlers in New South Wales, Victoria and South Australia had been battling the effects of drought for more than half a century. It is a wonder any still had the spirit to keep going. During the drought period from 1895 to 1903 Australia’s sheep population halved, from about 106 million to about fifty-three million. It took thirty years to make good this loss.

Inter-State bickering
The realisation that it was necessary to make better use of water resources was an early driving force behind the push to weld the colonies into a nation. But even after federation a half-century of argument and wrangling was to elapse before the states with the strongest claim to water from the Alps could agree to a plan. New South Wales wanted to divert the upper reaches of the Snowy River into the Murrumbidgee, solely for irrigation. Victoria wanted the water concentrated into the Murray River—initially to allow reliable river transport and irrigation, and later for hydro-electricity and irrigation.

One of the main sources of inter-colony and, later, inter-state bickering was the fact that the Murray River forms the border between New South Wales and Victoria. South Australia, as the final recipient of the river, also had a vested interest in any moves to exploit its resources.

The debate raged through a string of inquiries and royal commissions, perpetually divided on whether the water should be used for irrigation in a Snowy—Murrumbidgee scheme, or, as time went on, for hydro-electric development in the Snowy—Murray scheme. The balance began to tilt towards hydro-electricity during World War II, when the commonwealth government became concerned about the vulnerability of its coastal thermal power stations.

The Commonwealth’s involvement injected both an urgency and a degree of objectivity into the long-running saga. In 1944, for the first time, a dual-purpose scheme was proposed. A Commonwealth and States Snowy River Committee was set up to investigate the proposal in detail. It was pushed vigorously by the Prime Minister, Ben Chifley, and his Minister for Works, Nelson Lemmon, a wheat farmer who represented the Western Australian electorate of Forrest. Lemmon’s enthusiasm for the scheme reflected the enhanced sense of nationhood that had been forged by Australia’s participation in two world wars. Lemmon came from Ongerup, a small farming community on the other side of the continent. He represented a state and locality that would gain no direct benefit from the scheme.

The New South Wales government, however, continued to push irrigation as the main object of the scheme. It also argued that electricity generated by the Snowy would be no cheaper than that produced by its coal-fired thermal stations. An important factor behind the state’s stance was that the New South Wales Electricity Commission saw the Snowy scheme as a rival. It had big expansion plans for its coal-fired thermal power stations and saw the Commonwealth’s proposal as a threat to these ambitions. Another reason the state fought so stubbornly for the irrigation priority was the seriousness with which it viewed the effect of drought on sheep and wool production. This was, in some way, explained a decade later by Dr M.C. Franklin, a distinguished drought expert. He
calculated that the drop in wool production and sheep numbers between 1944 and 1946 cost the Australian economy more than one billion dollars over the succeeding decade.

But the Commonwealth was equally determined and, in a political move to try to blunt the New South Wales attack, went so far as to say it doubted the value of irrigation in preventing drought losses—at least among sheep flocks. It pointed out that sheep numbers in the Riverina district had declined from 3.1 million in 1940 to 1.6 million in 1946, yet this area contained Australia’s largest single irrigation project. It deduced that if losses of this magnitude could occur during drought in a region surrounding an irrigation area, then irrigation had little effect on pastoral drought. Rather, it argued the highest returns from irrigation were obtained when farmers used the water to produce rice, dairy or horticultural products—and markets for those commodities at the time were saturated. The Commonwealth insisted, therefore, that power should be the basis of any scheme to utilise the Snowy waters, and that irrigation should be a by-product which would expand agriculture away from its focus on grazing. It argued that the economics of the scheme should be based solely on its power-producing potential, but that water discharged from the power stations should be supplied free for irrigation.

Another plank in the Commonwealth’s platform was that the scheme would lie geographically midway between Sydney and Melbourne and thus serve both cities—which had rapidly increasing demands for electricity—equally. It also noted that hydroelectric power would conserve the equivalent of one and a quarter million tonnes of coal a year. As a final measure, the Commonwealth used national defence as its trump card against the New South Wales demand for ‘irrigation-only’: it was essential to provide power generation in areas secure from enemy attack. The Commonwealth’s dual-purpose proposal was based on finding a means of storing great quantities of water at an altitude that would permit a controlled release into the Tumut River, and thence to the Murrumbidgee and Murray rivers. It also depended on being able to use the water for electricity generation as it fell to the lower levels before passing to the irrigation areas.

The final plan, presented in November 1948, consisted of two physically separate projects. The northern project would divert water from the Eucumbene, upper Murrumbidgee and upper Tooma rivers into the Tumut River. These waters would be used to generate electricity in the Tumut Valley during their swift fall to the plains. They would then flow, via the Tumut River, into the Murrumbidgee for irrigation. The main storage for this system would be a reservoir formed by damming the Eucumbene River near Adaminaby. In the southern project, water would be drawn from the valley of the Snowy River, diverted into the Murray and used to generate power in the course of its fall. The storage for this would be a reservoir created by damming the Snowy River at the bottom end of the Jindabyne Valley. New South Wales, however, still held out for its own scheme, forcing the Commonwealth to invoke its defence powers and put through legislation giving it total control of the alpine headwaters and the development of the Scheme. The Snowy Mountains Hydro-Electric Power Act, operative from 7 July 1949, also encompassed the establishment of a Snowy Mountains Hydro-Electric Authority to construct and operate the Scheme.

Earlier, in a broadcast ‘Report to the Nation’ in May 1949, the Prime Minister, Mr Chifley, declared:  

_The Snowy Mountains plan is the greatest single project in our history. It is a plan for the whole nation, belonging to no one State nor to any group or section. It is a two-sided plan, because it provides not only for the provision of vast supplies of new power but also for an immense decentralisation of industry and population. This is a plan for the nation and it needs the nation to back it. I trust that you will all keep yourselves informed of its progress. I recommend that you listen to the discussions on it when they take place in Parliament._

It was believed that the Scheme, particularly the irrigation, would lead to the creation of two large
inland cities in the Murray Valley and Murrumbidgee Valley, each with a population of about a million people.

But there was strong resistance from the opposition—a Liberal Party—National Party coalition led by Robert Gordon (later Sir Robert) Menzies. Menzies attacked the Chifley government for brushing aside the states and for assuming a power which he claimed it did not possess: and for enacting legislation therefore tainted with serious constitutional illegalities. That aside, he admitted that the proposed scheme was ‘bold, comprehensive and well designed’.

This question of constitutional validity was to trouble the Snowy Mountains HydroElectric Authority for almost a decade until the New South Wales, Victorian and South Australian governments finally agreed to validate the scheme in their state parliaments.

Until then the legal floorboards of the Scheme were described as ‘creaking ominously’. Three Germans who had been recruited for the Scheme sought to leave before their two-year contract had expired. The Authority started legal action against them to recover the outstanding balance of the fare to Australia. Their solicitor threatened to apply to the High Court for a determination on the validity of the Act under which the Authority was constituted. The Authority immediately received instructions from Canberra ordering it to drop its action and thus avoid the court challenge. The Australian Workers Union also used the threat of a High Court challenge to the Authority’s legal standing to force it to allow the workforce to operate under state industrial awards, which were far more favourable to workers than federal awards.

The construction of the Snowy Mountains Scheme required an unprecedented engineering feat and a workforce that Australia could not possibly provide. As well, the commonwealth government had promised the states it would not draw off labour they needed for postwar redevelopment. Thus was precipitated one of the greatest experiments ever attempted in mass migration. It reshaped a young Anglo-Saxon/Celtic country into a nation of diverse nationalities. It sowed the seeds of a free, multicultural society based on ethnic tolerance.

The war and its atrocities were still sharply etched into the minds of the young men who flocked to join the Snowy workforce. But in the primitive workcamps high in the Australian Alps Englishmen, Germans, Italians, Austrians, Poles, Greeks, Dutchmen, Portuguese, Spaniards, Hungarians, Swiss, Swedes, Finns, Czechs, Lebanese, Latvians, Russians, Danes, Cypriots, Ukrainians, Americans, Turks, Frenchmen and Norwegians—more than thirty-three nationalities in all—shared hard work and laughter, ate from the same cooking pots, drank at the same bars and vowed to keep ethnic hatreds out of this young country which promised them all a new life.

The one exception was the antagonism between Serbs and Croatians. These were the only ethnic groups to bring their hatred to Australia. When the Cooma Shire Council erected poles for the national flags of the people who built the Scheme, it was forced to retrieve the Yugoslav flag each night. It had learned from experience that it would otherwise be gone by morning. On one occasion a group of children watched as a Yugoslav royalist, whom they mistook for a council worker, sawed through the entire flagpole.

But for others the mountains provided a release, a chance to smash into something, carve out a new future and wash themselves in sweat to cleanse the nightmare. For many it provided their first sense of peace:

Appendix B – Saving water key to reducing energy use

A new report by CSIRO and the Water Services Association of Australia (WSAA) gives a clearer picture of water and energy use in Australia and New Zealand and highlights areas offering potentially significant water and energy savings.

The report: Energy Use in the provision and consumption of urban water in Australia and New Zealand, shows a strong nexus between water and energy.

Remember, it was through the Snowy Mountains Hydro Electric Authority that built the Snowy Scheme, for POWER not for water – water was a by-product. But the resulting water from that scheme made the food bowl possible, which we now rely on for much of our food. But that was planning more than 60 years ago. Power must be the key to new water infrastructure for the next 50 years.
Appendix C -- Lack of Probity & Financial Planning for the North South Pipeline

Mr Des Pearson
Victorian Auditor General
Level 24
35 Collins Street
MELBOURNE VIC 3000

Dear Mr Pearson

CALL TO STOP FURTHER PUBLIC EXPENDITURE ON UNAPPROVED NORTH-SOUTH PIPELINE PROJECT

I write to bring to your attention the Victorian Government’s arrogant and blatant disregard of matters of financial probity in relation to continued expenditure of substantial public monies on the proposed north-south pipeline.

As you would be aware, this project has not received Federal approval from the Minister for the Environment, Heritage and the Arts, The Hon Peter Garrett. In fact, the approvals process for the project is currently on hold as the Minister considers new information about the impacts of climate change on the Murray Darling Basin. This may require the Federal and Victorian Government to complete environmental studies of Ramsar listed wetlands which the Minister has a legal obligation to protect.

This review has resulted from critical new information being provided by Plug the Pipe and a number of other environmental groups and independent environmental experts who have evidence confirming that the previous decision to not require a study of the downstream environmental impact of the diversion of a 75 billion litres of water from the Murray Darling Basin was a serious error.

At this stage, it is possible that significant additional environmental studies or a full Environmental Effects Statement will be required. This would delay the project for many months, or even years if detailed studies of some of the threatened and endangered species are to be accurately completed.

In addition to these processes, significant legal issues associated with the alleged erroneous description of the project (ie. it has been referred to the Federal Government as a project separate to the Food Bowl Modernisation Project whereas all other references to the two projects have referred to their integral dependency on each other) are yet to be determined. A

There are also significant Constitutional issues which are yet to be clarified, including the allegation that the Victorian Government has no Constitutional authority to make decisions which will have an adverse impact on other member states in the Murray Darling Basin. This has resulted from the Goulburn River being excluded from the July 2008 COAG Water Agreement and thus remaining under the Victorian Government’s control.
A further Constitutional issue will arise if Minister Garrett gives approval under the EPBC Act as he may be in contravention of Section 99 and Section 100 of the Australian Constitution as it would clearly give preference to Victoria over other States reliant on Murray Darling Basin water.

It is clear that regardless of any decision requiring a full and proper environmental approvals process, there are significant questions of law to be tested which may result in further lengthy delays for this project.

Our urgent request to you and your Office Mr Pearson is that you use any powers that you have to enforce an immediate cessation of the spending of any further taxpayer funds on this unapproved project which is now far from being the “fait accompli” that the Victorian Government has been regarding and promoting it as.

So far we have seen substantial amounts of money spent and substantial commitments of public monies to:

1. The award of a design and construct contract to an alliance consisting of Melbourne Water, John Holland, GHD and SKM. The details of the tender process or contents are not available to the public.

2. The purchase and stockpiling of a substantial number of pipes at Yan Yean Reservoir.

3. The purchase of a property in excess of $1 million in Yea for the purpose of constructing a high lift pumping station.

4. The award of a contract for the removal of vegetation in the Toolangi State Forest. This is just one contract we have been made aware of.

5. The excessive number of police, security guards, government employees and private contractors associated with drilling works on the proposed extraction point on the banks of the heritage listed Goulburn River at Killingworth. This is in addition to the hire of a $5 million drilling rig and other associated equipment.

6. The lease of commercial office premises at Chirnside Park and the engagement of large numbers of professional staff and other contractors.

These commitments alone represent a substantial investment of public monies with no evidence of due and proper process or fiscal accountability. There would undoubtedly be many others.

This is a scandalous state of affairs and one that must not be allowed to continue while approval for the project remains in doubt. What is not in doubt is the continuing independent climatic, environmental, social and economic data which clearly proves that this project is fatally flawed.

Despite this evidence and the huge and growing opposition to the project, the Victorian Government continues to ignore these warnings and continues to waste millions of dollars of taxpayers money in a desperate attempt to justify a project which lacks any environmental, social and economic credibility.
Recommendations

We make the following requests and recommendations to your Office:

1. That you request details of all expenditure to date and all contractual commitments that have been made in respect to the proposed north-south pipeline.

2. That you make representations to the Victorian Government seeking the cessation of any further spending or further contractual commitments until such time as final Federal approval is granted and/or until any subsequent legal action is finalised.

3. That you provide Plug the Pipe with an update on any further enquiries you are making in respect to this project and the scope and timing of such enquiries.

4. That you seek an answer from COAG in respect to the due diligence process for Part 2 of Food Bowl Modernisation Project as outlined in the Plug the Pipe Submission to COAG (a copy of this submission was forwarded to your office on 23 July 2008).

We would be happy to provide any further information you may require in regard to any further enquiries into the matters we have raised.

Yours sincerely,

Jo Knorr
On behalf of Plug the Pipe