



Submission under the Review of Recycled Water Prices for the Metropolitan Water Agencies.

Copy presented to: The Independent Pricing and Regulatory Tribunal (IPART)
Services Sydney (SS)
Media interests & others

The Attack on Valencia and a summary of an "Alternative approach" to water reform

Defenders of the Metropolitan Water Plan, employees of the IPART, because of mismanagement and poor guidance by complacent officials you have been starved of funding, and now you are weak. But we do not wish to attack you because of your failings; WE ARE NOT YOUR ENEMY.

COMPLACENCY IS YOUR ENEMY. Complacencies philosophies will bring you death of our private sector businesses and continued destruction of our environment.

Defenders and Government employees rid yourself of complacent leaders. JOIN WITH US, seek innovation as your salvation and develop reforms and improved Government accountability strategies and concepts.

The current strategies designed to address our water crisis have thus far failed on more than three occasions. Its time for a new approach to water reform, its time to embrace our approach. Do this and you will have peace. Our economy will flourish and our environment will improve. You have the freedom to now pursue reforms to wastewater processing and stormwater harvesting, but do you have the will to do so?

The line in the sand has now been drawn and it is time for you to declare upon which side you stand upon. Are you a follower of Complacency or Innovation?

You asked for money and this you were offered in abundance. Money for the necessary infrastructure, money to buy environmental river flow, money to support businesses, money to support other water utilities and money for NSW State Treasury. So I say, Identify Complacencies Dark Guard who are so stifling innovation and we will strike them down with arrows of reform tipped with steel forged from accountability.

The Cid

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Why call myself "The Cid" and attempt to follow a strategy attributed to a movie script titled "EL Cid"?

For those who have ever watched the movie of "EL Cid" the underlining concepts attributed to faith or hope in a future, a desire to forge alliances against a common foe, a strong believe in good winning a battle against evil and an undying love for something, can be quite appealing. In my case I watched the film and perhaps found similarities and metaphors in current events and attitudes that seemed to apply to our present day political situation. This led to the development of an unusual strategy which I applied.

One major component attributed to "The Cid" strategy was to openly appeal to our State Politicians and Senior Government Officials to urgently consider pursuing "Innovative" ideologies as opposed to following the philosophies attributed to "Complacency". As for some of the symbolism attributed to the "EL Cid" movie, "Complacency" within Government bureaucracies quite often enhances the chances of making mistakes. Mistakes not rectified can create opportunities for greater evils to fester such as maladministration or even corruption. That is why I deemed "Complacency" to be represented by the "Dark Forces" found in the "EL Cid" movie. As for "Innovation", the symbolism attributed to the movie can be found in the role of El Cids' wife, with "Reform" and "Accountability" representing the two daughters.

If you are starting to get the picture then perhaps other similarities between the medieval ages as depicted in the movie script and our modern day politics can be now canvassed.

Firstly back in those days the person of utmost importance was known as a King, whereas in modern day State Politics we refer to such a person as Premier. So metaphorically speaking our old King of NSW was Robert Carr and his champion and "most loyal bureaucrat" was Dr Neil Shepherd the ex-Director-General of the NSW Environment Protection Authority (EPA).

The King had his Barons whereas our Premier has his Ministers. The Barons had their Commanders and Public Officials, whereas our Ministers have their Department Heads, Magistrates and other dignitaries. But the similarities don't end here, within the movie there where other leaders or Kings in their own right who where answerable to the main King and hence payed homage in a bid to keep the peace. The other Kings where depicted in the movie as "Moorish Kings". The modern day twist was to associate "The Green Movement" as depicting the Moorish Kings from the movie.

Notably the "Green Movement" is starting to awaken to the underlining consequences attributed to "do nothing strategies", that have been applied by an extremely complacent and out of control State Bureaucracies. Not only are we seeing fractures appearing with the Metropolitan Water Plan, but the same is applying in the transport portfolio which now raises major concerns regarding public health issues due to increased air pollution. As for the identification of Community Kings & Queens in our modern day society look no further then community environmental leaders such as Ian Kienan, Jeff Angel, Ms Cate Faehrmann and Don Henry.

The recent uproar over the proposed desalination plant for Sydney certainly highlighted the power attributed to the formation of an alliance between the green movement, business and other opposing forces against the State Government. For those who have followed the highly successful Weather Channels "Running on Empty" program the highlight was "The big debate". Not only was the actual debate interesting to watch but we as viewers witnessed the "Leader of the National Party" and a "member of the Greens", actually fighting for the same outcome.

So has the world gone mad or perhaps the other question to ask is have we reached a point in time when even opposing political sides can see that we need to fix our problems and stop putting off things into the too hard basket. Not surprisingly within days the desalination option was shelved, of added interest was that this action occurred prior to the commencement of the upper house inquiry into the desalination option.

Though this looked to be a major win for our environment, children and future, I on the other hand had a different theory as to why the State Government became so eager to put off the desalination plant. For those interested in my theory see attachment "a" at the end of this report.

As for Knights and Defenders well the modern day twist for a complacent Government side are policy officers and spin doctors, as for the "innovation" side it has brave Knights such as Dr Charles Essery, Greg Leslie, Ms Clare Richards and even politicians such as The Hon. Gary Nairn MP, Greg Hunt MP and Malcolm Turnbull MP who has on several occasions publicly called for innovative solutions to be both pursued and adopted.

As for town criers and people who keep us on our toes with the important issues of the moment, look no further then important high profile people who dedicate their time and effort to perform such difficult tasks such as, Alan Jones AO, Mike Carlton, Ms Anne Davies, John Laws, Ms Ticky Fullerton, Quentin Dempster, Chris Smith and even politicians such as Ms Lee Rhiannon MLC, who perhaps deserves far more credit then currently afforded.

At the lowest level of society back in the medieval ages could be found the peasants, the modern day twist was to apply to other public servants and the general public.

As for the Cities perhaps the bureaucratic equal is now Government Departments, each department considers themselves to be a separate entity similar to a city. The concept of a Castle or Strong Hold of power is probably best represented in this modern era by Government Agencies of Power such as the Independent Pricing and Regulatory Tribunal (IPART) and even the Independent Commission Against Corruption (ICAC). This interpretation is further enhanced when you consider the concept of "committees" and the participation by various Government Agencies. Does not each Government Agency follow the philosophy of providing a "Committee member" or diplomat, with the sole objective of firstly pursuing their own Departments interests prior to consideration of anything else?

As for loyalty, well many non executive public servants still employed would agree that it is loyalty to your departmental hierarchy first, Government of the day second, actual department third, Public fourth and accountability ideology or ethical principals last.

In relation to the weaponry that was used in the old day's this consisted of arrows, swords, shields and armour being the weapons of choice. The modern day similarity is letters and media attention, pens, clip boards for close combat and actual reports for distant battles, as for armour we now use educational achievements. Hence the greater the University qualification the stronger is your armour.

For a modern day example of how having no armour can make it difficult to be recognised for your innovative efforts, you need look no further then the water reform story attributed to Peter Andrews that can be found in the archives of the television program "Australian Story".

As for the white horse depicted as carrying "EL Cid", though we could consider the car as being the modern day equal, perhaps in reality the driving force that propels the white steed I am perceived to be riding is a force far greater then even I understand, but what I do know is that this force is crying out for urgent change in the way we as humans interact with this planet.

As for a flag, just like the movie I literally am carrying a white flag with a faded cross born upon it. However in my case if you where to look more closely upon my flag you would soon discover that it is a symbol attributed to an inverted "Excalibur" sword. Though the presentation of a sword in such a manor carries the same religious symbolism, the use of Excalibur is attributed to "Ethos and Codes of Conduct". Unfortunately the sad fact is that upholding the principals and standards found under the established "Ethos and Codes of Conduct" can no longer be affiliated with the State Bureaucracies.

Therefore the only conclusion to be made is that metaphorically speaking the "Sword has been placed back into the Stone", only to be drawn by the true heir to the throne.

For those who want to look at a more interesting twist, why not visit "The Cid" web site.

<http://business.unisa.edu.au/cid>

The risk of following "The Cid" strategy.

The only major concern has always been that my enemies would use this strategy to spread rumours questioning my current "mental status", with comments such as "he's mentally unsound" or pursue even further vindictive strategies in an effort to undermine my work. Recent disturbing feedback attributed to such activities is certainly being monitored.

Just for the record it is true that back in the year 2000 I did suffer from the ailments attributed to a nervous breakdown. It is also true that I endured considerable workplace pressures prior to the breakdown and that since proceeding down the path to recovery that I created and presented many reports in an effort to address major concerns regarding State Government Accountability issues.

Hence it is no secret that in pursuing the water reform concepts, strategy and policy reforms as found in my prior submissions meant the sacrificing of completion of my own University qualifications. At the time resolving the water crisis was deemed more important, a choice now viewed as a senseless act.

So how has the Metropolitan Water Plan (Metro Plan) Failed?

In a game of base ball we follow the rule of three strikes and your out, too bad the same rule doesn't apply to bureaucratic bumbling.

Hence since March 2005 we have witnessed some of the greatest spin doctoring ever. For not only have the complacent bureaucrats deflected attention away from the failures of the Metro Plan but they have deflected attention away from being held accountable for their failed decisions and flawed policy making. By openly scrambling for urgent solutions to address our current water crisis, all the complacent bureaucrats have achieved is to undermine the "so called solutions" they inadequately defended at huge expense to the public purse.

The following six examples are now attributed to highlighting what has occurred.

1. The Policy defenders upon considering the media's lack of response to the IPART Tribunals Draft determination in relation to the "Review of Metropolitan Water Agency Prices from 1 July 2005" abandon their own original submissions and raced to lodge amended submissions in a grab for cash exercise.
2. So confident was the bureaucracy with the "Demand Management" strategies that they abandoned them almost faster then the ink could dry in pursuit of a Desalination option.

3. The huge investment in capital expenditure attributed to increasing the height of Tallowa Dam was abandoned. Unfortunately this huge expenditure played a major role in justifying the recent water price hikes for bulk water and the flow on effect it would have upon Sydney Water.
4. The bureaucracy announces plans to scrap the pensioner water rebate program, or at the very least reduce it. So what about all the Social Welfare concerns raised by several interest groups under the provisions of the "Review of Metropolitan Water Agency Prices from 1 July 2005"?
5. The bureaucracy magically comes up with subterranean water supplies that explain away why the desalination option has been put off for now. At least that's what the spin doctors told us.
6. Finally the desalination option being firstly dramatically reduced in size, was then seemingly abandoned, is now put off until a future date. There is even talk that water restrictions may soon be lessened and that somehow Warragamba Dams water content has been increased by a factor of 10% without increasing the real volume of water stored in the actual dam. Magic or more spin doctoring that maybe the foundation stones attributed to a far more damaging strategy.

In consideration of what has occurred perhaps it is now time to unravel the spin doctors' web and again refocus our attention back onto the issue of Government Accountability. Perhaps it is time to ask our NSW Minister for the Environment if he is still the right person to hold this particular portfolio.

As for the bureaucracy we know that they have been deemed to be starved of money and hence this was perhaps the real catalyst for their actions, however I prefer to believe that their antics were more in tune with their actual confidence in the existing Metro Plan and its ability to address our water crisis.

For any individual who has actually read all the submissions presented to the IPART in relation to the justification for increasing the cost of the variable tariff applicable to freshwater, you would have soon discovered that the desalination option was not scheduled to come on line until after 30th June 2009. Hence all our freshwater needs up until this date were to be met by "demand management strategies", designed to reduce the demand for the freshwater product to a level sufficient enough for the Sydney Catchment Authority to meet. Additional funding was requested to support new capital expenditure on a number of dams, pipelines and general maintenance but alas no new desalination plant.

Yet within weeks of the draft IPART determination being handed down rumours commenced to surface in relation to the urgent need to pursue the desalination option. So worried was our Government about the situation that they attempted to fast track the construction of the plant. It is now highly rumoured that expenditure on the desalination option has topped \$90 million dollars, with a reported \$120 million dollars in funding still to be possibly allocated. But is desalination the correct way to now proceed?

The simple answer is no not at present. If we pursue large scale sewage recycling and stormwater harvesting the amount of freshwater produced would not only address Sydney's problems but could in the near future aid our farmers west of the mountains.

For those who viewed The Wether Channels 'Big Debate', you will recall that even the experts arguing on behalf of the desalination option all agreed that the future for Sydney was to harvest stormwater, pursue large scale recycling and send any excess stormwater back to Warragamba Dam.

With this in mind I now present you with my final appeal.

Acknowledgement of ones work.

Please note that the good will gesture in presenting the NSW IPART with the content attributed to my prior submissions references S6460, S6567 & S6524 (including the content attributed to the document "State Water Reform Blue Print Strategy for consideration") no longer applies. Though a regretful outcome considering the fact that the water crisis continues the following statement in relation to Copyright will now set precedent over this and my prior papers.

We hear talk in relation to climate change and yet we do very little about it, perhaps it is now time to draw the line in the sand and choose which side you are on, Complacency or Innovation. One will bring us peace the other only leads to destruction. That said this paper is provided to generate innovative thought and inspire those change agents of our society to take a stand against government complacency. Therefore with exception to the extent of uses permitted under the *Copyright Act 1968*, reproduction, transmission or generation of any components attributed to the *Edwardshannon* approach to wastewater reform (also referred to as "The Crown of Valencia"), should not be conducted without appropriate referencing and acknowledgement.

As for any claims of ownership by the NSW IPART and/or any other NSW Government Agency in relation to any of the contents attributed to my prior submissions S6460, S6567 & S6524 (including the content attributed to the document "State Water Reform Blue Print Strategy for consideration"), the antics displayed since March 2005 have clearly discredited any such ownership claim. In short if Senior Government Officials can not abide by the principals of Ethos, Accountability and honesty, then how can they expect to retain any form of credibility?

That said the only exemption to the new precedent over ownership rights is to apply to the following table which establishes a ten year sewage reduction program. As can be demonstrated without the establishment of a benchmark target to be reached within a period of time, complacencies stranglehold on our bureaucracies will make certain that reform of our wastewater industry will remain a slow and painful task. So for our IPART Tribunal I make this one plea, establish this target as the benchmark and set innovation free.

Water discharge reduction program						
Water reduction program	Total wastewater recycled (exception commencement year)				End Of Year Total (ML)	Total recycled (ML)
	Sydney - Illawarra	Newcastle	Gosford - Wyong	Other Urban Systems		
Estimated wastewater discharged at commencement of program	436,800	51,108	24,500	199,500	711,900	
Year 1 reductions 10% of total	43,680	5,110	2,450	19,950	71,190	71,190
Year 2 add 4% = 14% of total	61,152	7,154	3,430	27,930	99,666	99,666
Year 3 add 4% = 18% of total	78,624	9,198	4,410	35,910	128,142	128,142
Year 4 add 4% = 22% of total	96,096	11,242	5,390	43,890	156,618	156,618
Year 5 add 4% = 26% of total	113,568	13,286	6,370	51,870	185,094	185,094
Year 6 add 4% = 30% of total	131,040	15,330	7,350	59,850	213,570	213,570
Year 7 add 4% = 34% of total	148,512	17,374	8,330	67,830	242,046	242,046
Year 8 add 4% = 38% of total	165,984	19,418	9,310	75,810	270,522	270,522
Year 9 add 4% = 42% of total	183,456	21,462	10,290	83,790	298,998	298,998
Year 10 add 4% = 46% of total	200,928	23,506	11,270	91,770	327,474	327,474
Estimated wastewater recycled at end of program	200,928	23,506	11,270	91,770	327,474	
						1,993,320

What is the Alternative approach to water reform?

Although the supply of water is being considered a major issue for the greater Sydney region, it should be remembered that the water crisis is affecting almost all of our entire State of NSW and many regions in other States of Australia. Hence the pursuit of a workable viable solution for the Sydney region should likewise consider how our Cities and Coastal towns could best aid our Country neighbours.

The Alternative approach to water reform is to turn our Coastal Cities and Towns into Catchment areas, harvest stormwater, recycle more than fifty percent of the sewage wastewater that presently flows into the ocean and find innovative ways to involve the private sector and our communities in achieving such outcomes.

The entire approach consists of several components that together form the foundation stones attributed to seeking a solution to this States water crisis. Though upon first glance the actual approach may seem simplistic, in reality it is quite complex and has been likened to a large jigsaw puzzle that continues to be expanded upon. The greater it grows the more its ability to seek solutions to other water related problems.

With the Federal Member of Parliament Malcolm Turnbull MP now calling for "Innovative" water reform strategies and concepts to be developed, perhaps there still remains some hope that our NSW Government may yet see the wisdom attributed to such reforms.

The components of the alternative approach.

The introduction of a State wide aggressive sewage reduction program

- The primary goal is to implement urgent water reform by introducing concepts that enhance large scale sewage recycling, infrastructure investment and the uptake of other water saving technologies. In addition the scheme recognises that Sydney Water should maintain control over their network of pipelines but supports the rights of Private Sector firms to establish connection to the existing network and/or establish new infrastructure networks of their own.
- The strategy and concepts presented are designed to complement and enhance existing pollution reduction programmes under the jurisdiction of the EPA with the new proposed sewage reduction program to be administered by a separate body. Hence avoiding the paradox of having the regulator administering control over the methodology used to raise the revenue to be obtained via an aggressive sewage reduction program.
- The proposed reforms are designed to rejuvenate and expand upon the State Governments water recycling ideology by providing a mechanism to reduce the actual volume of wastewater entering our Environment. Perhaps in this regard it should be remembered that even a "Load based Licensing" regime will fail if you don't reduce the total volume of water being used. To be more simplistic, if we start with a figure of 1 tonne of wastewater to be discharged into the environment, even if you dilute the wastewater by a factor of fifty percent, unless you reduce to total volume of water used the end result will be 1 tonne of wastewater entering our environment. The only advantages are that it will take longer to discharge the 1 tonne of wastewater as it needs to be diluted and naturally Government revenue would be enhanced through increased levies and water sales.

- The focus of attention is to be directed upon the actual volume of sewage wastewater recycled each year. With the pursuit and implementation of an aggressive large scale sewage wastewater program that will provide a mechanism to filter pollutants from the wastewater, thereby reducing the volume of wastes entering our environment.
- In relation to water pricing, the concept was to directly link a portion of the increases to the variable freshwater tariff to projected capital expenditure in future wastewater infrastructure. The primary goal being to enhance existing Government accountability and auditing principals. An objective sadly lacking in relation to the recent freshwater price hikes.
- Water Utilities throughout the State where to be provided with a new funding mechanism designed to enhance infrastructure investment and water reform strategies.
- The establishment of recyclable water targets that must be met by Water Treatment Utilities at the end of each financial year.
- The establishment of a "Unit Based Penalty" mechanism to be applied upon non compliance in meeting the newly established sewage reduction targets.
- The establishment of an aggressive sewage reduction program attributed to achieving greater than 43% sewage reduction within a ten (10) year time table.
- The involvement and participation of the private sector in order to achieve the overall objective of reducing the volume of sewage wastewater flowing into our Environment.
- Proposes that Sydney Water extract the wastewater solids and then pay a private sector firm to process the resulting wastewater to a graded drinkable quality. The private sector taking ownership over the recycled water would be then in a position to resell the product to Industry, Business, Local Councils or the General Public. Such a process would enhance the ability to further collect and process stormwater, thereby lessening the actual demand for water from the catchment dams.
- Proposes that Sydney Water build a pipeline to the mouth of the Georges, Hawkesbury and Nepean River systems for the purpose of environmental flow. It should be noted that there are several sewage processing plants close to these rivers hence a pipeline from the City to the mouth of the rivers is not what has been proposed.
- The creation of additional pipelines once complete could create windows of opportunity for the supply of recycled wastewater to established suburbs and local Government Municipalities within the Sydney basin.
- Creates a mechanism that enhances clean water for Environmental river flow outcomes.
- Establishes the adoption of entering into partnership arrangements between the State run authorities and Private Sector firms. Thereby enabling the Private Sector to focus attention upon improving areas of efficiencies attributed to the production and processing of the water commodity.

The wastewater discharge program

The following table has been included to present possible targets that could be achieved with the aid of involving the private sector and operating the scheme over a ten (10) year time frame. Notably the involvement of the private sector in large scale sewage recycling could achieve targets far greater than depicted within this table, however someone has to set the benchmark and that is the aim here.

Water discharge reduction program						
Water reduction program	Total discharge of water from sewage systems				Total Discharge (ML)	Total Revenue (\$)
	Sydney - Illawarra	Newcastle	Gosford - Wyong	Other Urban Systems		
Commencement of program	436,800	51,100	24,500	199,500	711,900	\$427,140,000
Year 1 reductions 10% of total	393,120	45,990	22,050	179,550	640,710	\$384,426,000
Year 2 add 4% = 14% of total	375,648	43,946	21,070	171,570	612,234	\$367,340,400
Year 3 add 4% = 18% of total	358,176	41,902	20,090	163,590	583,768	\$350,254,800
Year 4 add 4% = 22% of total	340,704	39,858	19,110	155,610	555,282	\$333,169,200
Year 5 add 4% = 26% of total	323,232	37,814	18,130	147,630	526,806	\$316,083,600
Year 6 add 4% = 30% of total	305,760	35,770	17,150	139,650	498,330	\$298,998,000
Year 7 add 4% = 34% of total	288,288	33,726	16,170	131,670	469,854	\$281,912,400
Year 8 add 4% = 38% of total	270,816	31,682	15,190	123,690	441,378	\$264,826,800
Year 9 add 4% = 42% of total	253,344	29,638	14,210	115,710	412,902	\$247,741,200
Year 10 add 4% = 46% of total	235,872	27,594	13,230	107,730	384,426	\$230,655,600
						\$3,502,548,000

Note:

- The figures used in the "Commencement of program" totals are as per my original example attributed to S6460 that was supplied prior to the NSW IPART.
- As the population of Sydney is anticipated to continually increase in the future, the target figures used should be focused upon the actual amount of recycled wastewater achieved each year. As such the percentage used should relate to the "commencement of program" figure adopted.
- The total revenue payable figure remains attributed to the calculation of total discharge in mega litres of wastewater discharged into the environment, multiplied by \$600 per mega litre of water. This amount subtracting any approved expenditure is then payable to State Treasury via the Water Utilities.
- It should be further noted that the concept applicable to recouping this expenditure via consumers, is attributed to alterations to the variable tariff applicable to a kilo litre of water.
- Revenue raised under this alternative pricing structure is to be directed towards infrastructure investment in the water industry, freshwater supply solutions and funding for environmental river flow schemes.
- The scheme presented supports funding activities applicable to pipeline breakage, new pipelines, augmenting the supply of freshwater, supporting recycling initiatives and incentive schemes designed to improve water usage efficiency and other such projects that aid adjoining Communities or help address problems arising from droughts.

In order for the scheme to be 100% successful the private sector must become involved. An example highlighting this is now presented.

Assuming that the uptake of wastewater on an adult size playing field is achieving results of half a mega litre of wastewater uptake per week, it can be calculated that over a 50 week time frame that this would entail 26 mega litres of wastewater usage.

Under the *Edwardshannon* strategy the initial target for Sydney would be a recycling total of around 43,680 mega litres of wastewater being recycled. To achieve this outcome without using the recycled wastewater for environmental river flow, domestic use or Industry would require the watering of some 1,680 adult size playing fields or areas of park land of a similar size. In addition this would require huge amounts of additional funding to fund the network of pipelines required.

Now consider the fact that the Private Sector can contribute much needed Capital investment, resources, innovative ideas and new technologies. On the one hand we have a State run monopoly in urgent need of additional resources to address areas of old infrastructure, while on the other we have Private Sector organisations eager to enter the market and assist. Perhaps the best way forward is to now give serious consideration to a compromise in the form of Partnership arrangements.

The following table represents the discharge targets that must be met at the end of each financial year under our alternative proposed scheme.

Water discharge reduction program						
Water reduction program	Total wastewater recycled (exception commencement year)				End Of Year Total (ML)	Total recycled (ML)
	Sydney - Illawarra	Newcastle	Gosford - Wyong	Other Urban Systems		
Estimated wastewater discharged at commencement of program	436,000	51,100	24,500	199,500	711,900	
Year 1 reductions 10% of total	43,600	5,110	2,450	19,950	71,190	71,190
Year 2 add 4% = 14% of total	61,152	7,154	3,430	27,930	99,666	99,666
Year 3 add 4% = 18% of total	78,624	9,198	4,410	35,910	128,142	128,142
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Year 5 add 4% = 26% of total	113,568	13,286	6,370	51,870	185,094	185,094
Year 6 add 4% = 30% of total	131,040	15,330	7,350	59,850	213,570	213,570
Year 7 add 4% = 34% of total	148,512	17,374	8,330	67,830	242,046	242,046
Year 8 add 4% = 38% of total	165,984	19,418	9,310	75,810	270,522	270,522
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Year 10 add 4% = 46% of total	200,928	23,506	11,270	91,770	327,474	327,474
Estimated wastewater recycled at end of program	200,928	23,506	11,270	91,770	327,474	
						1,993,320

The introduction of penalty unit pricing and a new water credit scheme.

- Our Alternative strategy introduces a unit based penalty scheme attributed to a figure of \$600 per unit with each unit being attributed to the measurement of one mega litre of water (wastewater).
- The strategy proposes the introduction of a penalty for non compliance with meeting an end of year target attributed to wastewater recycling. The penalty is attributed to a payment of four (4) penalty points or 4 x \$600 for each mega litre of targeted recycled water not met by the Water Utility.
- The NSW Government taking on the role of overseeing the enforcement and payment of such penalties. Having such incentive should enhance the uptake of using recycled wastewater for ovals, farming, environmental river flow, industry and other recycling activities.

- Establishes a water credit scheme attributed to a similar calculation used by the unit based penalty scheme. The difference being that Water Utilities who more than achieve their end of year recycling targets, would be able redeem additional funding or credits from the State Government that could be then utilised for other projects.
- Establishes a mechanism where Water Utilities could sell any water credits gained to other water utilities within the State or use credits gained in one financial year to offset the inability to meet a future years recycling target. Hence a market driven water crediting system.
- Establishes a mechanism that would enhance the uptake of infrastructure projects and aid our Western Communities.
- Encourages the implementation of large scale infrastructure projects and may enhance partnership arrangements being formed between Local/State/Federal Governments and Private Sector organisations to achieve similar outcomes.

Our vision attributed to the alternative approach.

Development of a vision for water reform designed to reduce the effects of droughts. Hence lesson the impact of job and business losses in Rural NSW and at the same time secure a more permanent supply of freshwater for both our cities and inland communities.

This involved the development of a number of concepts, strategy and new policy formulation. Although a large number of my ideas have since been adopted by the NSW State Government, the recognition for this work has not yet been forthcoming.

The reforms included the following:

- 1) The pursuit of a uniform state wide price for freshwater.
- 2) An increase in the variable water tariff of approximately 25 cents. That is increase the price of water from \$1.01 per 1,000 litres to \$1.26. The State Governments proposal was to increase the water tariff by seven cents that is from \$1.01 to \$1.08. This altered as a direct result of our submission. The new price is now \$1.20 per 1,000 litres of water, but we still await the reforms proposed.
- 3) The secondary proposal was for the introduction of a levy to cater for the much needed infrastructure such as new pipelines and pumping stations. Our proposal was for a levy price up to 17 cents per 1,000 litres of water. This would have pushed the price of freshwater to \$1.43 per 1,000 litres of freshwater. The current price under the two tier pricing method is \$1.20 for up to 100 x 1,000 litres of water and \$1.48 if you use above this amount of water. The State Government has now mooted the concept of implementing a levy that would raise \$1.3 billion towards a desalination plant. Our calculations put this new levy and existing water pricing to \$1.41 for 1,000 litres of water.
- 4) The opening up of the sewage processing market to the private sector. This has been partially won, but needs to be expanded. Dropping the desalination option would be a big sign, this is now anticipated.
- 5) The ability to offset freshwater revenues earned by Water Utilities against much needed infrastructure especially in the sewage recycling industry. Changes to the existing accounting system are reportedly underway which will enhance the adoption and implementation of this concept.

The benefits of pursuing the alternative approach to wastewater reform.

1. The volume of pollutants entering our environment would be drastically reduced.
2. Businesses and Industry would gain the supply of a more secure water supply.
3. Having varying grades of the water product available would help educate our population as to the importance of the freshwater product.
4. Our fishing industry would reap the benefits of fewer pollutants entering our waterways.
5. Our rivers would be able to receive genuine environmental flows.
6. Our playing fields, ovals and gardening industries would be revitalised.
7. The risk factor associated with flash flooding would be reduced.
8. Industry and Environmental groups would gain a greater input into Environmental licensing outcomes. Thereby enhancing actual accountability in relation to the activities of our Environmental watch dog the EPA.

The lack of a survival clause.

Perhaps the IPART Tribunal needs to reconsider the need for a survival clause. By this I mean that people on low incomes or with large families would be entitled to "x" amount of litres of freshwater per month for free (a survival clause). Naturally this would equate to a reduction in the overall bill payable to the water utilities.

Hopefully the inclusion of this concept will aid the cause put forward by the Pricing Ombudsman, Local Shires Association and that of the Public Interest Advocacy Centre.

Conclusion

Our political system is made up of five main political parties, these being Labor being renown for representing the interests of the workers; Liberals for representing business; Nationals for representing the Farming Communities; The Greens for representing the Environment and the Democrats for upholding the principals attributed to our system of Government. So if the Leader of the Nationals and a representative of the Greens can stand seemingly united against a proposed desalination plant, is it not time to end Complacencies rule and embrace "Innovative Reforms and Accountability solutions" to address all our Communities problems?

Perhaps the time has come this maybe true, but until you all stand united against such a foe, complacency will continue to rule. As for the rhythm of its marching beat, the only music I now hear is that of cruel intensions ringing in my ear.

BIBLIOGRAPHY:

- 1) Booth J. (2005) *DEC SUBMISSION TO IPART'S REVIEW OF METROPOLITAN WATER AGENCY PRICES*, Department of Environment and Conservation (NSW).
- 2) *The Metropolitan Water Plan, Meeting the challenges; Securing Sydney's water future*, is available on the NSW Department of Infrastructure and Natural Resources website at <http://www.dipnr.nsw.gov.au/waterplan/index.shtml>
- 3) CSIRO (2000) *Managing Externalities; Opportunities to Improve Urban Water Use*.
- 4) CSIRO (1999) *Valuing Externalities; A Methodology for Urban Water*.