NSW Government
Department of Water & Energy

Mr James Cox
Chairman
Independent Pricing and Regulatory Tribunal
P O Box Q290
QVB Post Office NSW 1230

Dear Mr Cox

Re: Submission to the Review of DEUS Developer Charges Guidelines for Water Supply, Sewerage and Stormwater

Please find attached the submission of the Department of Water and Energy (DWE) (formerly DEUS) to the above review.

The Department's submission has addressed the issues raised in the Tribunal's Issues Paper. In Summary, the Department makes the following key points:

- The guidelines are considered suitable for the purpose of calculating and setting developer charges by local water utilities (LWUs). While some refinement may be warranted, the guidelines have served LWUs since 2002 and have been the basis for over 100 LWU development servicing plans.
- An indication of the appropriateness of the guidelines is their acceptance by both utilities and the development industry. Whilst the development industry aims to reduce the cost of development, DWE is not aware of any cases of disputes that had been referred to the General Manager of an LWU, let alone to arbitration.
- Subsequent to the issue of the guidelines, the Department issued a checklist for the preparation of DSPs by LWUs. The checklist is now part of the *Best-Practice Management of Water Supply and Sewerage Guidelines*, 2004 and has been used by the utilities in the application of the developer charges guidelines.
- Where differences exist between the DWE guidelines and the IPART determination for the 4 major metropolitan water utilities, the differences are considered to be warranted. In particular, calculation of the reduction amount requires an iterative process for LWUs, as they do not have the benefit of an IPART determined future price path for their periodic charges.
- The guidelines provide a sound framework without being too prescriptive. They provide a degree of flexibility for LWUs, whilst ensuring LWUs provide appropriate locational pricing signals through over 200 DSPs and each LWU's periodic charges.

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As noted on page 3 of the DWE submission, **Appendices D, E, F, G and H are provided to IPART on a confidential basis** until the forthcoming release of the *2005/06 NSW Water Supply and Sewerage Benchmarking Report*.

The Department would be pleased to make a presentation and to respond to any questions at the Tribunal's public hearings on 1 and 18 June 2007.

Yours sincerely

Mark Duffy
Director-General

Department of Water and Energy

Submission in Response to the April 2007 IPART Issues Paper:

Review of DEUS Developer Charges Guidelines for Water Supply, Sewerage and Stormwater

May 2007

The following comments by the Department of Water and Energy (DWE) are provided in response to the referenced sections of the Tribunal's Issues Paper of April 2007.

It is noted that DWE now has the responsibilities previously undertaken by DEUS.

2.1 Objectives of developer charges – page 5

The 2nd para indicates "Most LWAs in NSW have adopted postage stamp periodic charges for water and sewerage services. This means that these periodic prices do not signal the diversity of costs of providing these services in different locations".

Comment:
It is important to note that the Developer Charges Guidelines provide guidance for 105 Local Water Utilities (LWUs) in non-metropolitan NSW, with each LWU serving an average of only 6,000 connected properties. The merits of imposing multiple tariffs for periodic charges by such LWUs are therefore questionable.

However, appropriate pricing signals are provided as each LWU is required to achieve full cost recovery for both its water supply and sewerage services and to disclose the resulting cross subsidies if it levies lower developer charges than the calculated maximum amounts. Accordingly, the combination of developer charges and periodic charges levied by each LWU does provide the requisite locational pricing signals in non-metropolitan NSW.

2.3 Overview of DEUS guidelines – page 7

The 3rd para indicates ".....The DEUS guidelines do not prescribe the way in which LWAs should quantify ETs".

Comment:
Although the above statement is accurate, it does not account for the guidance provided to LWUs in the Best-Practice Management of Water Supply and Sewerage Guidelines, 2004. Eg. Item 4H of the Developer Charges Check List on page 39 of the Best-Practice Management Guidelines indicates:

> *"LWUs must carefully estimate their future annual water demand per ET and peak day demand per ET on the basis of appropriate water supply pricing, demand management and recorded water consumption per connected residential property".*

It is considered that an appropriate improvement would be to incorporate the above Developer Charges Check List as an Attachment to the Developer Charges Guidelines.

2.3.2 Development Servicing Plans – page 7

The present text in the first para of page 7 of the Issues Paper is misleading. It should be corrected to indicate:

- A 'policy document' is required if an LWU with growth of ≥5ETs/a has elected not to levy developer charges.

Comment:
An LWU with a policy document does not comply with Best-Practice Management Guidelines, 2004, as LWUs with growth ≥5ETs/a are required to levy commercial developer charges.

- As noted in section 2.3.1 of the Issues Paper, an 'exemption document' is required if an LWU with growth of <5ETs/a has elected not to levy developer charges.

Comment:
For LWUs with very low growth, preparation of a DSP may not be cost-effective. Accordingly, an LWU with an exemption document complies with Best-Practice Management Guidelines.

2.4.2 How assets should be valued – page 10

The *Reference Rates Manual for Valuation of Water Supply, Sewerage and Stormwater Assets*, June 2003 has been provided to LWUs by the Minister for Water Utilities in order to assist in the valuation of assets. Attachment 1 of the Reference Rates Manual has been updated to June 2006 and it is proposed to annually update this attachment in order to assist LWUs in maintaining current asset valuations.

2.4.3 Capital charge calculation method – page 10

The 2nd para states 'while the DEUS guidelines indicate that both methods "give the same results, they state that the ROI approach is "simpler to use".'

Comment:
In fact, Example 4 on page 29 and Example 5 on page 31 of the Guidelines ***demonstrate*** *that both methods yield the same capital charge of $867/ET. These examples involve a uniform lot take-up.*

2.4.5 Agglomeration of DSPs – page 12

DEUS Circular LWU 5 was issued to LWUs in September 2004 (copy attached as Appendix A). In response to requests for additional flexibility by a number of LWUs, this Circular enables additional agglomeration by LWUs. In view of the average of 6,000 connected properties served by LWUs, providing the option for such additional agglomeration is considered reasonable.

A key consideration is that the total number of new lots considered in LWU DSPs is relatively small (well under 5,000 ETs for most LWUs). In such circumstances it is considered the LWU should be permitted to determine the appropriate number of DSPs for its area. The additional agglomeration permitted by Circular LWU 5 provides LWUs with the necessary flexibility.

The need to provide flexibility for additional agglomeration by LWUs is illustrated in Dubbo City Council's analysis (refer to the comment on section 3.3 of the Issues Paper and to Council's letter at Appendix B). Dubbo found that 2 DSPs (for each of water and sewerage) were warranted for its proposed growth of 5,000 ETs. Dubbo's initial analysis involving 23 sewerage sub-catchments resulted in sewerage developer charges ranging from $758 to $781,458 per block.

Appropriate pricing signals would nevertheless be provided with such agglomeration through the at least 200 DSPs required for the LWUs. This number of DSPs compares favourably with the approximately 80 DSPs prepared by Sydney Water which supplies about 3 times the population served by the LWUs.

2.5 Calculating the reduction amount – page 12

The 4th para of section 2.5 notes that the "under 2000 assessments method" assumes a reduction of 50% of the capital charge.

- This method is provided for simplicity of calculation for smaller LWUs and is likely to understate the maximum developer charge. It is only likely to be used by small LWUs with low growth. However, LWUs are not obliged to use this method and may calculate the reduction amount using the other methods.

Page 33 of the Guidelines notes that the Direct NPV Method has been provided to enable calculation of developer charges by LWUs who had not yet developed a sound strategic business plan and long-term financial plan. This page also notes that by the second round of DSPs (2007-2009), LWUs with over 2000 assessments will be required to use the NPV of Annual Charges Method.

As 82% of the LWUs have now prepared such a strategic business plan and financial plan, it is considered appropriate to not permit use of the Direct NPV Method after June 2008.

However, the "under 2000 assessments method" should remain an option for use by small utilities or utilities with a number of annual water supply or sewerage tariffs for their service areas.

2.5.1 NPV of annual charges method – page 13

The 4th para on page 14 refers to the Tribunal setting periodic charges based on "efficient capital and operating costs". The process for achieving such efficient costs by LWUs outlined below.

The Department has in place a 'light handed' regulatory framework for LWUs based on 2 decades of annual performance monitoring and a suite of tools and software provided to LWUs. In particular, LWUs are expected to move to comply with the *Best-Practice Management of Water Supply and Sewerage Guidelines, 2004*. Refer to Appendix C, which is published in the *Urban Water Charging Stocktake – Water Storage and Delivery Charges in the Urban Water Sector in Australia, February 2007*.

In addition, each LWU is tasked with achieving efficient costs for its water supply and sewerage services, including annually reviewing its performance (Appendix D*) and preparing an Action Plan (Appendix E) to rectify any areas of under-performance.

* **NOTE:** Appendices D, E, F, G and H are provided to IPART on a confidential basis until the forthcoming public release of the *2005/06 NSW Water Supply and Sewerage Benchmarking Report*.

Table 2.3 Comparison between DEUS guidelines and IPART methodology – page 16

The present text in Table 2.3 of the Issues Paper does not fully cover the issues of "Agglomeration of DSPs" and "Equivalent Tenements". Suggested clarification of these issues is provided below.

For "Agglomeration of DSPs", insert a new para in the 2nd column:

> "DEUS Circular LWU 5 issued in October 2004 allows a utility to carry out further agglomeration, including agglomerating all its DSP areas into 1 utility wide DSP".

For "Equivalent Tenements", insert a new paragraph in the 2nd column:

> "LWUs must carefully estimate their future annual water demand per ET and peak day demand per ET on the basis of appropriate water supply pricing, demand management and recorded water consumption per connected residential property".

3.1 Simplicity – page 17

DWE considers that the guidelines provide an appropriate balance between simplicity to enable implementation by LWUs and flexibility to enable the LWU to determine the appropriate number of DSPs for its area. The need to provide such simplicity and flexibility is highlighted by Dubbo City Council's experience in preparing its DSPs (refer to the comment below on section 3.3 of the Issues Paper and Appendix B).

3.2 Transparency – page 18

DWE supports inclusion of a new requirement for LWUs to provide developers with an electronic copy of their developer charges calculations in order to provide greater transparency.

3.3 Consistency of charging across NSW – page 18

The Department considers there is a need for a degree of flexibility if developer charges guidelines are to be suitable for use by 105 LWUs.

The experience of Dubbo City Council which spent 2 years in attempting to implement the Tribunal's 1995 Determination on developer charges is noteworthy. Dubbo found that the Determination was extremely data-hungry and required year by year predictions of growth in each sub-catchment. Council considered such detailed predictions were not warranted, and in any case, were certain to be found to be inaccurate in the future. Council concluded the methodology in the Determination was unsuitable for use by LWUs as the required calculations were unnecessarily complex and there was a huge range in the resulting developer charges for the various areas in Dubbo as noted in the comment on section 2.4.5 of the Issues Paper. As also noted above, a copy of Dubbo Council's findings is attached as Appendix B.

Accordingly, it is considered the guidelines provide an appropriate balance between simplicity and flexibility for LWUs.

As demonstrated in the example provided in the comment on section 4.3 of the Issues Paper, large variations in capital charges (and developer charges) arise from the characteristics of the infrastructure required to serve a development area, rather than as a result of how an LWU has applied the *Developer Charges Guidelines*.

3.4 Cost reflectivity – page 19

Whilst the Developer Charges Guidelines enable LWUs to levy developer charges lower than the calculated maximum amounts, the *Best-Practice Management Guidelines* require LWUs to implement DSPs with "commercial developer charges". Such charges would involve at most, a relatively low level of cross subsidy. Refer also to the comment below on section 3.5.1 of the Issues Paper.

It is noteworthy that as LWUs have been completing new DSPs, there has been a significant increase in the level of LWU developer charges. Developer charges over the last 5 years are shown in the attached Appendices F, G and H. The Statewide median developer charge for water supply and sewerage is now $7,600/ET (2006/07 financial year), involving an increase of 65% over the last 4 years.

3.5 Treatment of subsidies – page 19

The 4th line refers to "cross subsidies or over recovery of costs".

Comment:
It is considered that the maximum developer charges calculated in accordance with the Developer Charges Guidelines cannot result in the over recovery of cost as the developer charge is calculated as the capital charge per ET for the assets serving the DSP less the NPV of the operating surplus from periodic charges.

3.5.1 Cost reflectivity – page 19

Review of recent LWU DSPs indicates that most LWUs are now adopting the full calculated developer charges, with no cross subsidy from existing residents.

3.5.2 Backlog Service Areas – page 19

The 3rd para on page 20 of the Issues Paper refers to a 'double subsidy' if an LWU has received government funding towards the capital cost of servicing backlog sewerage areas and has also levied developer charges for new development.

'Double funding' does not arise as Government grants to LWUs are now a maximum of 50% of the capital cost of servicing the existing development as at 1996. The capital cost for servicing any growth or new development after 1996 must be funded fully by the LWU.

3.5.3 Inclusion of subsidies in developer charges calculation – page 20

The word 'not' should be deleted in the 3rd line of section 3.5.3 of the Issues Paper.

As noted in the comment above on section 3.5.2 of the Issues Paper, any Government grants for backlog sewerage are provided towards the capital cost for serving the existing development as at 1996. The LWU is responsible for meeting the full capital cost for serving any growth or new development after 1996. It is therefore appropriate for the LWU to levy developer charges which recover the development's share of the capital cost per ET for providing the service, less the present value of the operating surplus from periodic charges. Accordingly, such developer charges involve no "double dipping" by the LWU.

In each instance, the developer is required to pay a capital charge which reflects the **assets** used for serving the DSP. There is therefore no overcharging of developers.

3.6 Regulatory oversight – page 20

Section 2.9 on page 13 of the Guidelines sets out the dispute resolution process.

DWE has had no requests for additional information or guidance from the development industry in regard to dispute resolution or arbitration.

3.7 Developer charges for non-residential development – page 21

The residential water demand to be used by LWUs in determining ETs should be on the basis indicated in the comment on section 2.3 of the Issues Paper.

DWE notes that the NSW Local Government Water Directorate has developed some guidance material for LWUs in this matter. It is understood that the Directorate is in the process of collecting additional information to refine its guidance material and will be consulting with DWE before releasing its updated guidance material for non-residential development.

It is also noted that DWE has provided comprehensive guidance for LWUs on sewer discharge factors and trade waste discharge factors in the *Liquid Trade Waste Management Guidelines*, 2005.

4.1 Which assets should be included in developer charges? – page 23

4.1.1 Pre-1970 assets – page 23

(1) Should any pre-1970 assets be included in developer charges calculations?

DWE supports inclusion of pre-1970 assets in developer charges on the basis indicated in the Guidelines. This involves:

(1) Pre-1970 water supply headworks system assets (eg. a dam, water treatment works, headworks pipeline, tunnel or pumping station). It is necessary to include the water supply headworks system in order to avoid anomalies where the capital cost per ET would be haphazardly large (eg. a transfer system to a new distant water source) or small (eg. installing gates for an existing dam). Including the whole water supply headworks system ensures new development pays an

appropriate share of the capital cost of the headworks assets providing the water supply service.

(2) Pre-1970 sewerage major works where the utility can demonstrate it is necessary to do so in order to obtain appropriate developer charges. Eg. a town that has had little augmentation of trunk sewers or major pumping stations since the 1960s. Such utilities are required to document the case for including such assets and obtain DWE concurrence before including them in their DSPs.

(2) Where it is suggested that there is still capacity available in these assets (pre-1970) to serve new development, how should this capacity be assessed and the cost incorporated in developer charges – Page 23

The capacity should be assessed on the basis of the number of equivalent tenements (ETs) that can be served by the assets. Development should pay towards the capital cost of for the assets utilised on the basis of the number of ETs to be served.

(3) Is MEERA appropriate for valuing pre-1970s assets?

Yes.

The reasons for MEERA being the correct method of valuation are:

- MEERA provides a fair valuation of the service provided and sends the correct price signals to new development.
- MEERA provides consistency across utilities, with a similar cost for a similar service, such as sewage treatment.

4.1.2 Future assets – page 24

(1) Is five years an appropriate planning horizon for future assets?

Yes, as the DSP aims to recover costs for development over the next 5 years.

However, as noted on page 17 of the Guidelines, where there is a clear nexus between assets to be constructed in the future (ie. in more than 5 years) with the development, they should be included. Refer also to (3) below.

(2) What are the issues associated with forecasting investment in assets into the future?

Any forecasting has inherent problems of future variability. The issues for developer charges are:

- Future costs should be discounted to today's values.
- Costs should be based on MEERA values.
- The timing of future capital investment needs to be based on the best demand projections.
- The capital cost of future projects is more likely to be under-estimated rather than over-estimated. Traditionally the final capital costs of projects have been higher than the estimates at the planning stages.

(3) Is it appropriate to include assets beyond five years in the developer charge?

Yes, in the following cases.

A clear nexus between the asset and the development

This typically would include a significant change to the level of service.

Example: a town with an unfiltered water supply plans to construct a new water treatment works in 10 years. It is clear that any new development will be serviced by this treatment works.

Projects with staged development

Assets such as sewage treatment works are often constructed in stages. The marginal cost of future stages is lower than their marginal capacity, and therefore including all stages has the impact of reducing the capital charge to the development.

Example: A sewage treatment works is planned with ultimate (30 year) capacity of 6,000 ET. The current loadings are 3,000 EP and growth is at the rate of 100 ET pa. The utility would construct the treatment works in two stages: Stage 1 (now) for 4,000 ET, and Stage 2 in 10 years, increasing the capacity to 6,000 ET. The capital cost of Stage 1 is $8 million and the capital cost of Stage 2 is $2 million. This is typical for sewage treatment works where some components of Stage 1 (eg. land, control building) are sized for the ultimate capacity.

If the five year rule is applied, the capital cost per ET would be ($2,000 per ET; ie. $8 million/4000). Treating this as a staged development would reduce the capital cost to ($1,670 per ET; ie. $10 million/6000).

4.1.3 Definition of system assets – page 24

(1) Issues associated with the way system assets are defined

- To date, many LWUs have used pipe diameter to group the pipes into system assets and reticulation (reticulation has generally been considered to involve 100mm diameter mains, other than trunk mains for water supply and 150mm diameter mains, other than trunk mains for sewerage).

(2) How can system assets and reticulation mains be better defined?

A suggested improved basis for determining the capital cost of reticulation is provided below.

Water Supply

1. Measure the length of all mains within the boundaries of the DSP, excluding rising mains (rising mains are pipes that connect pumping stations directly to reservoirs).
2. All these pipes are deemed to be 100 mm diameter.
3. Calculate the capital cost of these pipes using an appropriate rate from the *NSW Reference Rates Manual.*

Sewerage

1. Measure the length of all gravity mains within the boundaries of the DSP.
2. All these pipes are deemed to be 150 mm diameter.
3. Calculate the capital cost of these pipes using an appropriate rate from the *NSW Reference Rates Manual*.

The above capital costs for reticulation should therefore be excluded from the capital cost of system assets.

4.1.4 **Assessing the capacity of assets** – page 24

(1) Different design standards

It is appropriate to have different deign standards.

As noted in the comment on section 2.5 of the Issues paper, local water utilities in NSW prepare strategic business plans and financial plans for water supply and sewerage. These plans are subject to community consultation and document the proposed levels of service that are the design standards for these utilities.

LWUs need to determine their water demand per ET in accordance with the comment on section 2.3 of the Issues Paper.

The following points are made regarding the variability of design standards.

- It is desirable to change the design standard over time to improve asset utilisation
- It is likely and appropriate that the standards vary across utilities to reflect their business, the condition of assets and the environment. For example, the peak wet weather flow in the sewers in the inland cities is significantly less than it is in the coastal areas, and the design standards should reflect this. Also, the design standard for water demand per ET in dry inland areas (where evaporative coolers are used) should be higher than for coastal LWUs.
- However, all LWUs are required to meet regulatory requirements eg. DECC licence conditions for sewage treatment works. In addition, LWUs need to meet Department of Health, Dam Safety Committee, Workcover and DWE requirements.

(2) Vacant lots and unoccupied dwellings

The current calculation is considered to be a practical method.

Attempting to account for the time of receipt of developer charges and the time of the lots being occupied would unnecessarily complicate an already complex calculation.

Firstly, the elapsed time from DA submission to occupation can vary from a few months to a few years. The utility would need to make an assessment which may be disputed by the developer.

Secondly, for a long term calculation (say 30 years), the complexity of accounting for the timing of each development would make the calculation impractical (refer also to the comment on section 3.3 of the Issues Paper).

DWE considers that trying to account of vacant lots and unoccupied dwellings would be too complex for practical analysis. Any projection of dwelling take up for a particular development is likely to be little more than a guess and is likely to be a subject for disagreement with developers.

(3) The treatment of spare system capacity and excess unused capacity beyond the 30 year planning period

DWE does not see this as a significant issue, as any spare capacity does not affect the resulting capital cost per ET.

The method used to calculate the capital cost per ET is:

Capital Cost per ET = Capital cost of assets (MEERA) / capacity (in ET).

Example: The capital cost of an asset is $8 million and it has capacity of 4000 ET. The Capital cost is thus $2,000 per ET.

This calculation is independent of the current loading, the spare capacity or the excess capacity beyond the planning period.

The above method is considered simple and robust. Recognising the statement in Section 3.1 of the Issues Paper regarding the need for simplicity, DWE does not consider that complicating this calculation is warranted.

However in order to avoid excessive capital charges for assets with a very long take-up period (eg. 50 years for a dam), it is considered that capital charges should be determined on the basis that the period for full take-up of asset capacity be capped to a maximum of 30 years, which is the typical planning horizon (page 21 of the *Developer Charges Guidelines*).

4.2 Valuation of assets – page 25

(1) Contingency allowance – general comment

As stated in the Issues Paper, MEERA is the value of the asset, calculated on the basis that the asset is constructed at the time of valuation.

In line with this definition, assets should be valued as if they were a new project. The final cost of most engineering projects is often significantly more than estimates prepared at the planning phase due to issues which are identified as the project is developed in greater detail eg. presence of rock or groundwater or congestion from existing services. In many cases, even after a construction contract has been awarded, the final cost exceeds the contract amount due to variations during construction.

Prudent managers will ensure that estimates and budgets for capital works include a suitable contingency amount to cover the above considerations.

Developer charges should recover the full capital cost of the relevant infrastructure, and the best estimate of that cost includes a contingency allowance. The contingency allowance should therefore be included in the cost estimates of both future and existing assets. Further discussion of the contingency allowance is provided in the *Reference Rates Manual*.

(2) Are utilities including unreasonable contingency allowance?

Utilities are mostly using 10%, which is considered satisfactory.

(3) What is a reasonable amount for contingency allowance?

As noted in the comment on section 2.4.2 of the Issues Paper, the *Reference Rates Manual* provides guidance for LWUs on valuation of assets. The manual recommends a 10% contingency allowance. This is a relatively low allowance, which reflects the fact that the Manual has been prepared mainly for valuing existing assets.

For new works, a contingency allowance in the range of 15 to 20% is considered reasonable providing there has been an adequate level of investigation for the project. This would depend on the stage of development of the project (higher contingency at early stages of a project) and on the level of risk of the project.

(4) Should the risk associated with contingencies be captured in the rate of return?

No.

The rate of return (7% pa) is a reasonable return for a risk-free, or a low risk investment. As discussed above, the capital cost of engineering projects is high risk and a separate allowance is appropriate to cover this.

(5) Are amendments to the DEUS guidelines needed to better specify the method for valuing assets?

No.

Engineering projects for water supply and sewerage are unique. Resources are available to assist LWUs (eg. Reference Rates Manual), but it is the managers, planners and engineers, with their professional judgment, who are responsible for planning, designing and constructing assets. Valuation is part of this process.

4.3 Agglomeration of DSPs – page 26

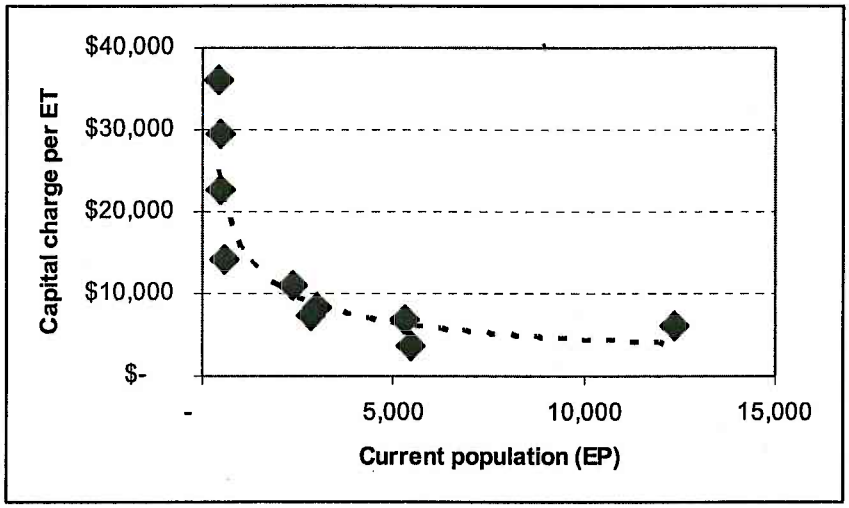
(1) Agglomeration – general comment

A typical local water utility may have one or two large towns, surrounded by a number of smaller villages. In most cases, the calculated developer charges for the villages are significantly higher than those in the major towns due to the lack of economy of scale and remoteness of the villages.

Example: Bega Valley Shire Council, DSP for sewerage. The table below shows the calculated capital charge for each of the 10 service areas of Bega Council.

Town / village	Population (current) EP	Capital charges $/ET
Eden	5,469	3,767
Merimbula/Pambula	12,390	6,105
Bega	5,292	6,806
Tathra	2,855	7,391
Tura	2,970	8,305
Bermagui	2,346	10,916
Kalaru	591	14,202
Wolumla	456	22,691
Cobargo	492	29,567
Candelo	430	36,017

The chart below plots the calculated capital charge against the size of the town. The dashed line is the trend line, which clearly demonstrates the inverse relationship between the capital charge and the size of town.



Typically the population in the villages does not enjoy the levels of service available to residents of the large towns (all services, not specifically water and sewerage). Development is usually attracted to the larger towns where better services are available. Levying sewerage developer charges in excess of $30,000 for such small towns would be socially unacceptable to these communities, as it would effectively eliminate any potential development from these villages.

It is important to note that agglomeration by an LWU reduces neither the nexus nor the pricing signal as the resulting developer charges provide an accurate pricing signal for the larger development area. Refer also to the comment on section 2.4.5 of the Issues paper.

On balance, it is considered appropriate for the LWU to have the option of agglomerating DSP areas. In view of the relatively small size of LWUs (average 6,000 connected properties) and the requirement for each LWU to achieve full cost recovery for both its water supply and sewerage businesses, the 105 LWUs would nevertheless provide appropriate pricing signals to the

development industry through each LWU's developer charges and periodic charges.

(2) Administrative burden if agglomeration rules were altered

The experience of Dubbo City Council is a good reference in regard to the difficulties associated with a large number of DSPs and the resulting inappropriate developer charges for small areas. Refer also to Appendix B and the comment on section 3.3 of the Issues Paper.

4.4 Calculation of the capital charge where lot take up is non-uniform – page 27

(1) ROI versus NPV approach

Where uniform lot take up is expected, the ROI and NPV methods give the same results as indicated in the comment on section 2.4.3 of the Issues Paper. As the ROI method is simpler, it is preferred by most LWUs.

Most utilities assume uniform lot take-up, as they consider that reliable prediction of year-by-year lot take up in each development area for 30 years is not possible. However, utilities can be reasonably confident in forecasting growth of say 1% pa, or 100 lots pa over the next few years. Refer to the comment on section 3.3 of the Issues Paper in regard to Dubbo City Council's concerns in regard to determining year by year growth in each of 23 development areas in Dubbo.

(2) What are the impediments of to utilities using the NPV approach for non-uniform take up?

There are no impediments.

(3) Should the guidelines be modified to require use of the NPV approach?

DWE does not support this suggestion, as it would unnecessarily complicate the calculation of the capital charge for most water utilities.

Dubbo City Council's experience with the NPV approach (pages 3 and 4 of Appendix B) provides a persuasive argument as to why use of the NPV approach should not be mandated for LWUs.

4.5 Calculation of the reduction amount – page 27

(1) Reduction amount – general comment

The preferred method in the *Developer Charges Guidelines* is the NPV of annual charges, which is based on the same principles as used by IPART for the metropolitan water utilities. Both methods calculate developer charges as the capital charge associated with serving the DSP less any operating surplus from the NPV of the difference of periodic charges and the operating cost.

The difference between the DWE and IPART methods is in the setting of the future price path. While IPART regulates the price path for the metropolitan water utilities, local water utilities need to determine both the future annual charges and the developer charges. Since the two are interrelated, the process requires a small number of iterations.

The Issues Paper states that the *revenue and cost attributable to new development* are not separated from the total cost of operations. This is incorrect as the reduction amount calculation spreadsheet calculates those figures for 30 years (refer to Table 11 on page 102 of the *Developer Charges Guidelines*).

(2) What are the practical considerations of utilities adopting the IPART approach?

For local water utilities to adopt the IPART approach, a future price path would need to be set by a regulator such as IPART for each utility. Given that there are over 100 utilities, this would involve considerable effort to analyse the future capital works programs and financial plans for each utility, and is not considered to be warranted.

4.6 Equivalent tenements – Page 28

(1) Equivalent tenements – general comments

The issues paper notes that the guidelines have different methods of calculating ETs for the capital charge and for the reduction amount. It further questions the expression of ETs in monetary terms.

This is correct. For calculating the capital charge, one ET represents the **demand** of a 'standard' residential lot. For calculating the reduction amount, one ET represents the annual **income** from a 'standard' residential lot.

Because annual charges are not proportional to the ET loadings, the demand and the income from a development may be different in ET terms. For example, a single residential house occupied by a pensioner has demand of 1 ET, yet generates income of less than 1 ET due to the $87.50/a pensioner rebate.

(2) Should DEUS guidelines be more explicit about determination of equivalent tenements?

No. It is considered that sufficient guidance has been provided on this matter. Refer also to the comment on section 2.3 of the Issues Paper.

(3) What is the most appropriate demographic data to use for forecasting new development?

DWE considers that it is a matter for each utility to use the best available demographic data. Some utilities have prepared detailed settlement strategies or population projections that are likely to be better than regional Department of Planning projections.

(4) How should an equivalent tenement be defined?

Refer to item (2) above.

(5) Is it relevant to discount ETs based on monetary factors?

Yes. Refer to item (1) above.

Department of Water and Energy

Submission in Response to the April 2007 IPART Issues Paper:

Sections of the IPART Issues Paper that Require Amendment

May 2007

The following comments by the Department of Water and Energy (DWE) are provided on the two sections of the IPART Issues Paper that require amendment.

2.3.2 Development Servicing Plans – page 7

The present text in the first para of page 7 of the Issues Paper is misleading. It should be corrected to indicate:

- A 'policy document' is required if an LWU with growth of ≥5ETs/a has elected not to levy developer charges.

Comment:
An LWU with a policy document does not comply with Best-Practice Management Guidelines, 2004, as LWUs with growth ≥5ETs/a are required to levy commercial developer charges.

- As noted in section 2.3.1 of the Issues Paper, an 'exemption document' is required if an LWU with growth of <5ETs/a has elected not to levy developer charges.

Comment:
For LWUs with very low growth, preparation of a DSP may not be cost-effective. Accordingly, an LWU with an exemption document complies with Best-Practice Management Guidelines.

Table 2.3 Comparison between DEUS guidelines and IPART methodology – page 16

The present text in Table 2.3 of the Issues Paper does not fully cover the issues of "Agglomeration of DSPs" and "Equivalent Tenements". Suggested clarification of these issues is provided below.

For "Agglomeration of DSPs", insert a new para in the 2nd column:

> "DEUS Circular LWU 5 issued in October 2004 allows a utility to carry out further agglomeration, including agglomerating all its DSP areas into 1 utility wide DSP".

For "Equivalent Tenements", insert a new paragraph in the 2nd column:
"LWUs must carefully estimate their future annual water demand per ET and peak day demand per ET on the basis of appropriate water supply pricing, demand management and recorded water consumption per connected residential property".

DEPARTMENT OF ENERGY, UTILITIES AND SUSTAINABILITY
NEW SOUTH WALES GOVERNMENT

APPENDIX A

Leadership in energy and water sustainability for New South Wales

Circular No. LWU 5
Date 28 September 2004
Contact Scott Chapman
Phone 02 8281 7335
Fax 02 8281 7451
e-mail scott.chapman@deus.nsw.gov.au

Additional Agglomeration Options for Section 64 Development Servicing Plans (DSPs) for Water Supply and Sewerage

Background

In January 2003, the then Minister for Land and Water Conservation issued *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater* pursuant to Section 306 (3) of the *Water Management Act 2000.* These Guidelines set out the methodology and requirements for calculating and levying commercial developer charges including the process of agglomerating capital charges to minimise the number of Development Servicing Plans (DSPs).

The Minister for Energy and Utilities has now approved insertion of the following at the end of Section 3.3.2 on page 19 of the guidelines. The modification provides Local Water Utilities (LWUs) with more flexibility in selection of the number of DSP areas and developer charges to be adopted.

Additional Agglomeration

LWUs may carry out additional agglomeration of DSP areas if this is warranted to suit their local circumstances. The process will be as follows:

1. Subject to note 4 below, any DSP area can be agglomerated with the next highest or the next lowest DSP area on the basis of the weighted average developer charge for their areas.
2. Alternatively, the LWU may agglomerate all its DSP areas to calculate a weighted average developer charge for all new development.
3. The developer charges resulting from the additional agglomeration will be the maximum charges which the LWU can levy in each of the new agglomerated DSP areas.
4. However, in order to provide appropriate signals regarding the cost of urban development, additional agglomeration is not recommended for new development areas with high calculated developer charges (over about $20,000 per ET), where these areas involve a significant proportion of the LWU's new development.

The process is demonstrated in the attached example.

David Nemtzow
Director-General

Example – Additional Agglomeration of Developer Charges

An LWU calculates capital charges agglomerated into 3 DSP Areas in accordance with the *Developer Charges Guidelines for Water Supply, Sewerage and Stormwater*, December 2002.

DSP Area	Capital Charge	Share of Growth	Reduction Amount	Developer Charge	Option 1 Developer Charge (agglomerate A and B)	Option 2 Developer Charge (agglomerate B and C)	Option 3 Developer Charge (agglomerate A, B and C)
(1)	(2)	(3)	(4)	(5) = (2) – (4)	(6)	(7)	(8)
A	$11,500	55%	$1,100	$10,400	$9,470	$10,400	$7,800
B	$8,000	20%	$1,100	$6,900		$4,610	
C	$3,880	25%	$1,100	$2,780	$2,780		

In addition to developer charge column(5) above for the 3 DSP areas calculated in accordance with the Guidelines, Circular LWU 5 provides LWUs with the flexibility of carrying out additional agglomeration to suit their local circumstances.

For this example, the LWU could elect to:

1. Adopt the calculated developer charges, shown in column (5) above.
2. Agglomerate DSP Areas A and B into one area, resulting in the developer charges in column (6) above.
3. Agglomerate DSP Areas B and C into one area, resulting in the developer charges in column (7) above.
4. Agglomerate all 3 DSP areas, resulting in the developer charge in column (8) above.

Sean,

IPART letter as discussed.

With the Compliments

of

The Dubbo City Council

Stewart McLeod 4/2/98

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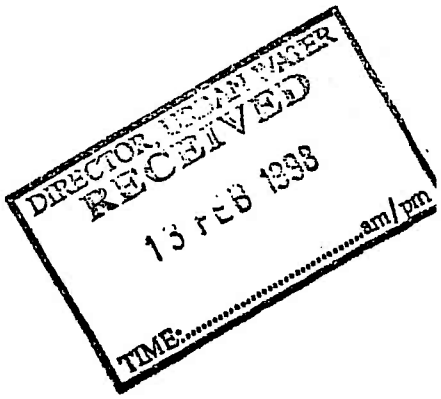
Contact: Mr Stewart McLeod

10 February 1998



The Chief Manager
Independent Pricing and Regulatory Tribunal
Level 2, 44 Market Street
SYDNEY 2000

ATTENTION: MR COLIN REID

Dear Colin

DUBBO CITY COUNCIL SECTION 64 WATER & SEWERAGE CONTRIBUTION POLICY

As discussed with you in December I am happy to enclose for your information a copy of Council's newly adopted "Combined Water and Sewerage Contributions Policy - February 1998". This contributions policy was prepared on the basis of your Tribunal's preferred model for calculation of development charges. Many lessons were learned and I would like to share some of them with you.

Let me say at the outset that Council was very disappointed with the difficulties encountered in reaching the successful outcome which was eventually achieved. I would not recommend to other Councils that they launch into such a project until a number of the problems highlighted in the Dubbo example can be overcome. This is not a letter of complaint to IPART as myself and other Council staff were aware that we were embarking on a relatively untried process when we commenced preparation of the Contributions Policy in the new format. This letter is simply designed to share the experience gained by us with others so that the shortcomings identified can be avoided elsewhere.

There are several attachments with this letter which I list below:

- The Contributions Policy document itself which came into force on 1 February 1998.
- A report to Dubbo City Council dated 24 November 1997 which was adopted by Council in open session at its Council meeting held 15 December 1997.
- A report to Dubbo City Council dated 9 September 1997 which determined the form in which the draft Contribution Policy would be publicly exhibited - this report was adopted by Council in open session at its meeting held 22 September 1997.

- Copies of Council's separate Water Supply and Sewerage Contributions Policies from 1994 and 1995 (which are now superseded).

How was the Contribution Plan Arrived At?

During 1995 Council determined that its existing Section 64 Contribution Plans for Water Supply and Sewerage were already several years old and did not include many of the "desirable" features highlighted by the Government Pricing Tribunal report into Sydney Water Corporation developer charges. Council's Development Control Planners in particular were concerned that the older style Contribution Plan could be susceptible to legal challenge following the Allsands Pty Ltd success against Shoalhaven City Council in 1993.

It was determined in late 1995 to update Dubbo's Contribution Plans for Water Supply and Sewerage in line with the methodology known to be favoured by your Tribunal. Whilst the Tribunal's methodology had not been mandated for Local Government at that time (or even up until the present) the commercial decision was taken to proceed in that direction. It seemed to Council that the approach adopted by Sydney Water Corporation and Hunter Water Corporation along similar lines was likely to eventually become the standard so a similar approach was adopted.

In January 1996 Council appointed Scott Carver Pty Ltd in association with economics consultant John Hall and Associates to prepare a combined Section 64 Contributions Policy for Water and Sewerage Contributions. Unfortunately it is a direct measure of the difficulties encountered that the development process took a full two years to completion with the final plan only taking effect a few days ago.

Scott Carver Pty Ltd were requested to consider both single, City wide catchments for water supply and sewerage as well as multiple sub catchments within the City for both services. The multiple sub catchment policy had been in place with the existing contribution plans for water supply and sewerage and had caused no particular problems. Council was happy to consider variable developer contributions across the City which might highlight the cost differences associated with the provision of services between individual sub catchments. Such a policy would have been seen to be quite reasonable, equitable and transparent. In the event, Council eventually opted for two only sub catchments for both water supply and sewerage, and that on the basis of a policy decision rather than any logical outcome of having utilised an IPART type model for the plan's development.

What Went Wrong with the IPART Methodology?

1. The area served by the Dubbo City water supply and sewerage systems houses approximately 34,000 people in 12,000 tenements. The Contribution Plan is based on a proposed population increase over the next 20 years of 15,000 additional people housed in 5,000 additional equivalent tenements.

   As the analysis proceeded it became clear that 5,000 ET's was a relatively small number of tenements to subdivide into servicing sub catchments. The resulting contribution rates proved very sensitive whenever small allotment numbers were divided into what were quite reasonable servicing costs in the overall context. Early modelling results were extremely disappointing when they gave outlandishly high contribution rates.

The initial iteration based on (apparently) sensible sub catchments produced contribution rates varying between $3,330 per block to $143,892 per block for water supply (7 sub catchments); and $758.00 per block to $781,458 per block for sewerage (23 sub catchments).

Iteration number two based on an (apparently) sensible amalgamation of a number of sub catchments (water supply went from 7 sub catchments down to 5, sewerage went from 23 sub catchments down to 15) produced only marginly better results:

- Water supply $3,200 to $37;900 per block
- Sewerage $2,366 to $78,000 per block.

Iteration number 3 was based on further rationalisation of catchments (sewerage went from 15 sub catchments down to 13 sub catchments). In addition, proposed works which were designed to service both backlog and growth areas were quite aggressively redefined as pure backlog works in order to generate reasonably "sensible" contribution rates which could be used for policy determinations. It was this iteration and the slightly more accurately fourth iteration which produced the "final" set of contribution rates considered by Council at its September 1997 meeting:

- Water supply $3,092 to $8,374 per allotment
- Sewerage $1,647 to $7,701 per allotment

The sensitivity of the arithmetic calculations involved in the method appear to be quite extreme. Unfortunately there is no intuitive indication at the commencement of the process where the sensitivities are likely to arise. It would appear from Dubbo's experience that sub catchments should be progressively amalgamated until they contain at least several hundred equivalent tenements of projected growth, and even then there is no guarantee that the amalgamated sub catchment will produce any more "reasonable" contribution rates than an adjacent sub catchment with only 50 ET's of growth.

At the end of the two year process this Council was considerably disillusioned with the sub catchment approach and ended up adopting one flat contribution rate for each service across the majority of its area, and one lower rate in a relatively small pocket of West Dubbo where a particular form of commercial tourist development is being encouraged as a strategic policy initiative of Council.

2. The IPART Model is extremely "data hungry" compared to simpler methods. It is estimated that this Council generated at least 10,000 times more data to complete the IPART model than was the case five years ago when the previous plans were prepared. The classes of data required in the model and the problems generated for Council were as indicated below:

i) The model requires extensive data on future revenue streams which are not easily derived from Council's current rating system. This occurs because the sub catchment boundaries based on physical servicing are in no way related to the zoning boundaries on which Local Government rating is based. Therefore quite massive manual manipulation of data is required to obtain the input into the economic model.

ii) Existing sewerage assets in each sub catchment had to be separately identified and a modern equivalent asset value calculated for those assets. This also required massive manual manipulation of data from Council's sewerage assets register.

iii) The model required the numbers of existing equivalent tenements in each sub catchment for five different classes of development (detached housing, semi detached housing, residential flat buildings, commercial, and industrial/ educational). This was a massive exercise involving the counting of allotments on plans of the City, conversion of numerous commercial developments into equivalent tenements, and cross-referencing of these numbers against the number of recorded sewerage junctions on Council's sewerage asset management system by semi automatic (but still laborious) interrogation of City-wide data bases.

iv) The model required overt insertion of the numbers of allotments in future years in each sub catchment for those developments already approved by Council for which headworks had already been set but which had not yet been created so as to "trigger" the payment of those headworks. This was by no means a trivial exercise, requiring as it did the researching of numerous development control files and headworks legal agreements dating back to the 1970's in some instances.

v) Operational expenses, even on a City-wide basis, were by no means trivial data items to derive. In water supply 37 individual line items needed to be considered, some of which were not permissible to be used in the methodology. Therefore these had to be removed manually before entry into the model.

Likewise the sewerage operational expenses in Council's budget ran to 22 individual line items, some of which had to be manually deleted.

vi) Subdividing operational expenses for both water supply and sewerage into sub catchments was a major headache. Some facilities served the whole City and a simple pro rata solution was acceptable. On the other hand the cost of some facilities were attributable to only some of the sub catchments within the City - a great deal of thought and effort then had to be expended in determining the correct ratios to use and carefully attributing the costs to only those sub catchments and not to others. Facilities that fell into this category were such things as water supply pumping stations, serving East Dubbo and not the rest of Dubbo, and major sewerage pumping stations which served a series of sewerage sub catchments defined by major incoming gravity lines radiating in different directions from the pump station.

vii) The model overtly required a very exact, year by year prediction of City growth in terms of ET's per sub catchment which is absolutely certain to not be accurate over even 2 or 3 years let alone 20 years. The real world is not as predictable as the model would "wish" it to be. Unfortunately, the thought of going through this process every year or two to adjust for actual growth versus predicted growth is frightening to all involved.

viii) The calculation of depreciation of existing and new assets in sub catchments was a difficult manual task. The asset management software in use was only written to sum the depreciation figures over the entire City or over particular classes of asset (eg pipes or pump stations in aggregate) so it was a difficult and laborious task to separate out the relevant depreciation figures for particular geographical areas of the City.

ix) Rate revenue could not simply be used without considerable manipulation. At some effort it was necessary to delete from the total revenue figures available such line items as pensioner rebates, trade waste charges, postponed rates, and foregone rates on Council properties. It was seldom possible to be able to use any "simple" figure from Council's accounting ledgers without manual manipulation to remove line items unacceptable to the model.

In general terms Council's existing asset and accounting data sources are <u>not</u> structured to make the data necessary for running the IPART model readily accessible. They have been set up with other purposes in mind and consequently much of the data needed must be manipulated manually before it can be used in the model.

3. The theory of the modelling is extremely complex. It requires economic expertise and mathematical modelling expertise which is beyond the professional capability of most, if not all Councils. The model is so complicated, in fact, that 99% of developers and 99% of Council's staff simply cannot understand it. There are <u>too many</u> variables in the model (eg discount rate, rate of return, inflation rate, interest rates, nominal equity premium etc, etc) which add to its complexity and probably reduce its stability. The range of permissible values of the variables should be reduced or fixed or eliminated altogether from the model.

4. The results produced on a sub catchment basis are often counter intuitive. The model produced results where infill lots in existing developed areas were being charged more than peripheral greenfield lots, one remote catchment came out cheaper than two other catchments closer into existing services, and as previously stated the early results were extremely sensitive to lot numbers in sub catchments. This counter intuitiveness mitigates against Council's staff being able to explain the results to Councillors and developers and invariably leads to a mistrust of the results produced.

5. In adopting the final Contributions Plan Council determined to charge only 55% to 65% of the developer contribution rate that it would be justified in charging for full cost recovery. In this event the model predicts that at the end of 20 years Dubbo City Council water supply and sewerage should be insolvent.

In the "real world" the simplest of spreadsheet financial planning tools at a broad budgetary level showed that Dubbo City Council would <u>not</u> go broke over the next 20 years because of its policy decision. This disparity between the complex model derived from the IPART principles and the simplest of spreadsheet planning tools was never satisfactorily resolved either by Council's staff or the consultants. It is most certainly an artifact of the economic model employed. This again reduces the confidence that Council felt in the results obtained.

6. The amalgamation of sub catchments was a trial and error process aimed at producing realistic contribution rates. Councils have to operate in a real, commercial environment and not a theoretical economics laboratory. Some of the resulting amalgamated catchments were more difficult to justify on logical servicing grounds than previous catchments but were retained on pragmatic grounds when reasonable results were obtained. This again was one reason that Council eventually abandoned the sub catchment option and opted for (basically) a single City wide contribution rate.

7. The process is quite expensive. Council ended up spending in excess of $40,000 on the consultancy to produce the contribution plan. At the end of the day Council was satisfied with the resulting document to the extent that it clearly justifies the quantum of contribution rates for water and sewerage that Council now charges. By contrast, however, a simpler net present value approach as adopted five years previously would have been an in-house exercise by two or three staff members and would have been achieved at probably one-fifth of the cost of the external consultant.

8. The methodology is so arcane and so complex that it is essentially inaccessible to most developers. Although I have no doubt that IPART is attempting to create a transparent method of calculating developer contributions, the methodology which was applied in the Dubbo City Council policy development was nothing more than a mysterious "black box". It would take a highly paid economist working closely with a highly paid and experienced engineer to make sense of either the calculations or the data, and yet this is the exact opposite to the result that IPART was hoping to achieve.

9. The fact that the process took two years is a major failing. This was not due to lack of application by the staff or the consultants involved. It was simply a much bigger task than anyone had imagined, with the economist in particular complaining bitterly since its completion that he had spent many more hours on the project than had been charged to Dubbo City Council. Certainly, my Manager Water Supply and Sewerage, Mr Geoff Bellingham, spent many, many hours outside of normal work time to derive the huge amounts of data required by the model.

A Question for You on Nexus?

One issue I would value your opinion on is the wide spread practice of relying on Department of Land and Water Conservation engineering design criteria as the means of calculating the number of equivalent tenements that a particular development imposes on a water supply or sewerage system. Thus, for example, the sewage load that a motel imposes on a town sewerage system is deemed to be calculated on the basis of one bed = 1/8th of an ET and therefore an 80 bed motel can be equated to 10 equivalent tenements for the purposes of the sewerage contribution plan; likewise a caravan park is deemed to contribute sewage to the town system at the rate of one van lot = ½ an ET so that a fifty lot caravan park would be the equivalent of 25 equivalent tenements contributing to the sewage system; or the water supply to a school would be equated on the basis of 100 pupils per equivalent tenement so that a new school with 500 pupils would be equated to 5 equivalent tenements for the calculation of a headworks contribution.

As far as Council is aware most, if not all, contribution plans in New South Wales call up the Department of Land Conservation design guidelines as part of the nexus between developments

and demand on water and sewerage headworks. Nevertheless, one local developer has repeatedly questioned the legal ability of Dubbo City Council to rely on DLWC design rules for the purpose of headworks calculations. I would appreciate, therefore, your opinion on, and hopefully concurrence with, the approach which has been used in Council's previous contribution plans and which, you will notice, is an integral part of the new contributions policy just adopted. A written reply in this matter would be highly valued.

Conclusions

As you can see from the above, Dubbo City Council is not enamoured of the IPART methodology for calculation of headworks. It was a painful experience for Council to produce a new policy document based on the methodology. Nevertheless it was a risk that Council took with its eyes open so there is certainly no "hard feelings" on the part of Council or its staff in relation to your Tribunal.

The problems for implementation of such a methodology throughout Local Government would appear to be significant. It is difficult to imagine that a small Council would have the resources or even the need to be so rigorous in the adoption of a contributions policy. The major water corporations employ significant staff resources, and have employed significant staff resources in the past, to apply your methodology to their operations and for them the investment in resources is reasonable. Can I suggest to you, however, that comparable resources are not freely available in the 130 or so Local Government water and sewerage authorities throughout New South Wales and that something more akin to the "old fashioned" net present value methods of previous times would be more appropriate.

Thank you for your interest in Council's project. It was always my intention to provide you with a copy of the policy once it was completed. As you can see however it was a long, two year grind to get to the point we are today and that is the only reason that I have not forwarded the document to you before this.

Yours faithfully

Stewart McLeod

S J McLeod
DIRECTOR TECHNICAL SERVICES

Appendix C: Water Supply and Sewerage Pricing in Non-Metropolitan New South Wales

1. IPART Pricing Principles

In its *Pricing Principles for Local Water Authorities* 1996, the New South Wales Independent and Regulatory Tribunal (IPART) sets out the overall framework for pricing and cost-recovery for water supply and sewerage services by the non-metropolitan Local Water Utilities (LWUs) in New South Wales. The IPART principles address the requirements of the Council of Australian Governments' Strategic Framework for Water Reform.

The *IPART Pricing Principles* strongly endorse the following New South Wales Government initiatives for LWUs:

- annual performance reporting of water supply and sewerage, which has been in place since 1986. IPART also requested that the Department of Energy, Utilities and Sustainability (DEUS) provide it with an annual performance summary for each LWU (for an example LWU Report, refer to page 49 of the 2004/05 New South Wales Performance Monitoring Report).
- strategic business planning and financial planning by LWUs in accordance with guidelines and software[34] issued by DEUS in 1993. These guidelines require each LWU to consult its community on the levels of service to be provided for water supply and sewerage services. LWU services need to comply with regulatory requirements (e.g. environment, health, occupational health and safety, dam safety etc.) and provide the levels of service the community wants and is willing to pay for. The strategic business plan and its associated financial plan, document the LWU's proposed asset management, including a capital works plan, operation plan and maintenance plan. The Business Plan determines the annual revenue required to achieve full cost-recovery over the next 30 years.

The *IPART Pricing Principles* note that the New South Wales Government's *Policy Statement on Application of National Competition Policy to Local Government* (1996) subjects business activities of local government having a turnover of over $2M/a, to the corporatisation principles of the COAG *Competition Principles Agreement*, including adopting a corporatisation model for business activities, an appropriate return on capital invested, debt guarantee fees and federal, state and local government taxes and charges.

The Department of Local Government's *Pricing and Costing Guideline, 1997* facilitates council compliance with the *Competition Principles Agreement*. The *Local Government Asset Accounting Manual* provides guidance on asset

[34] The financial planning software and guidelines were enhanced and updated in October 2000.

accounting and the separation of maintenance and capital expenditures. The *Reference Rates Manual*, 1994 provides guidance on valuation of water supply and sewerage assets and was updated and extended in 2003.

2. Water Supply and Sewerage Pricing

To facilitate early implementation of best-practice water supply, sewerage and trade waste pricing and full cost-recovery by LWUs, DEUS released *Water Supply, Sewerage and Trade Waste Pricing Guidelines* and the *Developer Charges Guidelines for Water Supply, Sewerage and Trade Waste* in December 2002. These Guidelines provide detailed guidance on:

- designing and implementing water supply and sewerage tariffs based on long run marginal cost; and
- determining appropriate water supply and sewerage developer charges.

Page 7 of the *Pricing Guidelines* states:

> "To determine the appropriate level of annual income from water supply, sewerage and liquid trade waste charges, each LWU needs to prepare a strategic business plan with a 30-year financial plan. The *New South Wales Financial Planning Model* (FINMOD) enables each LWU to readily prepare such a financial plan. After inputting proposed developer charges and liquid trade waste charges, FINMOD enables the LWU to determine the lowest level of typical residential bills (in current year's $) to ensure the long-term financial sustainability of the business. This would involve providing the levels of service negotiated with the community and meeting projected recurrent costs (OMA – operation, maintenance and administration), the projected capital cost of new and replacement infrastructure and any dividend and tax-equivalent payments."

DEUS has conducted a series of regional workshops for LWUs on water and sewerage pricing and developer charges. It has provided water supply pricing software, and sewerage and trade waste pricing software, as well as a pricing coordinator to assist the LWUs to implement best-practice pricing. As a result, all LWUs have now abolished their water allowance. Seventy-seven per cent of LWUs have completed a sound strategic business plan and a financial plan; demonstrating the long-term financial sustainability of their water supply and sewerage businesses. DEUS is now working with the 19 LWUs, with over 1,000 connected properties that are not yet achieving full cost-recovery. All these LWUs have agreed to phase in full cost-recovery within the next 3 years. DEUS is continuing to monitor and follow up with each LWU.

3. Best-Practice Management Guidelines

In 2004, the Government issued the *Best-Practice Management of Water Supply and Sewerage Guidelines*. These guidelines consolidate earlier initiatives to promote best-practice planning and management practices by

LWUs. It sets out 6 key criteria, which LWUs should meet to achieve best-practice:

- Strategic Business Planning and Financial Planning;
- Water Supply, Sewerage and Trade Waste Pricing, Developer Charges and Liquid Trade Waste Management;
- Demand Management;
- Drought Management;
- Performance Reporting; and
- Integrated Water Cycle Management (IWCM).

LWUs complying with the *Best-Practice Guidelines* will have demonstrated effective, affordable and sustainable water supply and sewerage services and full compliance with National Competition Policy and the NWI.

For water supply, compliance as at June 2005 was 58% for business and financial planning, 58% for pricing, 92% for performance reporting, 49% for demand management and 51% for drought management. 27% of LWUs have complied with all the required criteria. In addition, around 28% of LWUs have at least commenced preparation of an IWCM strategy

4. Publications

The documents and tools referenced above, provide the necessary guidance for LWUs on pricing, planning and managing their water supply and sewerage businesses.

The following Government publications have been provided to LWUs to facilitate best-practice water supply and sewerage pricing, planning and management.

1. Strategic Business Planning Guidelines for Water Supply and Sewerage, 1993 (DEUS)
2. Pricing Principles for Local Water Authorities, 1996 (IPART)
3. Policy Statement on Application of National Competition Policy to Local Government, 1996 (New South Wales Government)
4. Pricing and Costing Guideline, 1997 (DLG)
5. Local Government Asset Accounting Manual, 1999 (DLG)
6. Planning Community Involvement in Water and Sewerage Projects, 1995 (DEUS)
7. New South Wales Financial Planning Model (FINMOD), Overview of Financial Planning and User Manual, 2000 (DEUS)
8. Best-Practice Water Supply, Sewerage and Trade Waste Pricing Guidelines, 2002 (DEUS)
9. Best-Practice Developer Charges for Water Supply, Sewerage and Stormwater, 2002 (DEUS)

10. New South Wales Reference Rates Manual for Valuation of Water Supply, Sewerage and Stormwater Assets, 2003 (DLWC)
11. Best-Practice Management of Water Supply and Sewerage Guidelines, 2004 (DEUS)
12. Integrated Water Cycle Management, 2004 (DEUS)
13. Liquid Trade Waste Management Guidelines, 2005 (DEUS)
14. 2004/05 New South Wales Water Supply and Sewerage Performance Monitoring Report (DEUS)
15. 2004/05 New South Wales Water Supply and Sewerage Benchmarking Report (DEUS)