

Submission to the Independent Pricing and Regulatory Tribunal

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

**By A. J. Green
May 2007**

Introduction

Thank you for the opportunity to comment upon the DEUS Developer Charges Guidelines for Water Supply, Sewerage and Stormwater. Port Macquarie Hastings Council (formerly Hastings Council) was one of the first regional Local Government bodies in NSW to apply the DEUS Guidelines to water and sewer DSP's. As such I believe all parties were on a "learning curve" regarding application of the guidelines and to some extent still are. As a former secretary of the Hastings Construction Industry Association (HCIA) I prepared submissions to Hastings Council on its behalf during the public consultation phase of the DSP process. The HCIA represents a diverse range of members involved with the development and construction industries in the Port Macquarie-Hastings Local Government Area. Members include property owners, professional consultants to the industry, civil engineering contractors, building contractors, real estate agents and the legal fraternity.

The development industry in the Port Macquarie-Hastings LGA has long been concerned with the methodology for calculating developer charges as outlined in the DEUS Guidelines and even more concerned with the application of those Guidelines by Port Macquarie - Hastings Council. Adoption of the current DSP's by Council has resulted in increases in contributions for water from approx \$2,300 per ET in 2001 to \$8,240 in 2007 and increases in sewer contributions from \$2,220 per ET in 2003 to \$3,430 in 2007. The current feeling within the industry is that the rapid increase in DSP contributions, along with other contributions under s94, have contributed to the downturn in activity which is having a significant flow on effect within the local community.

Specific Concerns

While initially concerned with the accounting methodology in the 2001 Hastings Water DSP, the calculations for determining the capital charge and the reduction amount proved to be too complex to be resolved and the contributions as determined by Council's consultant were reluctantly accepted with a five year phase-in period being applied. Subsequently, the 2004 Hastings Sewer DSP and 2005 Hastings Water DSP were adopted using the same methodology. I have limited expertise in this area and will rely on others to make comments to the Tribunal on those aspects. I have more expertise and concerns with the technical aspects of the DEUS Guidelines and make the following comments with specific reference to the Issues Paper and the Hastings Water and Sewer DSP's.

4.1 Which assets should be included in developer charges?

4.1.2 Future Assets

The DEUS guidelines recommend that "assets planned for commissioning within about the next 5 years should be included (in developer charges)". The DEUS guidelines also state, "Future assets beyond 5 years may be included if there is a clear nexus to the development"

The Hastings DSP's generally included assets planned to be commissioned in the next five years plus some major works proposed within the planning period of 30 years. However, there was little, if any, attempt to prove nexus for these works – they were simply included. I believe more direction is needed in determining which future assets may be included and nexus must be demonstrated, not assumed.

4.1.3 Definition of system assets

The DEUS guidelines specify that developer charges should include water and sewerage headworks and system assets and that reticulation mains should not be included because they are installed and paid for by developers. The DEUS guidelines specify that “reticulation” means “local pipe work providing services to individual properties”.

The 2005 Hastings Water DSP did not include any “reticulation” assets but the Hastings Sewer DSP did include some works that were fully funded by developers. Council’s consultant considered an objection to this and advised that they were “included in accordance with the guidelines” but that Council had resolved to consider this matter in the next review of the DSP. I believe that the current definition is appropriate, it just needs to be rigidly applied. Where a water or sewer main serves both individual properties and provides additional capacity for adjacent developments, the value of the additional capacity should be included in the DSP.

4.1.4 Assessing the capacity of assets

Developer charges should recover the costs of asset capacity taken up by a development over the planning period. The DEUS guidelines allow LWAs to recover the full cost of assets over the planning period, generally 30 years.

The 2005 Hastings Water DSP determined the capacity required for major assets using an average daily demand figure derived by one consultant which was then adopted by another consultant, purportedly to calculate the major system augmentation requirements. However, it was demonstrated at the end of the process that the original figure did not carry through and the annual demand calculation was overstated leading to recommendations for oversizing and/or premature construction of major storage and transfer works. Similarly, a peak day demand figure was adopted in the draft DSP with no scrutiny possible of its derivation. Subsequent explanation confirms that it was overstated leading to oversizing of reservoirs. More rigour needs to be applied to the determination of daily demand figures and ensuring that valid figures are used in the subsequent calculations.

However, I do not believe a uniform demand figure can be applied to all LWA’s as climatic conditions, demography and other factors can lead to significant variations. It should however be possible to compare like areas (e.g adjoining LWA areas with similar characteristics) as a check that the figures adopted have some consistency in similar circumstances.

4.2 Valuation of Assets

The DEUS guidelines specify that assets must be valued using 'Modern Engineering Equivalent Replacement Asset' (MEERA) values. MEERA is defined as the value of the asset (or assets) calculated on the basis that the asset is constructed at the time of valuation in accordance with modern engineering practice and the most economically viable technology, which provides similar utility functions to the existing asset in service.

Valuation of existing assets in Hastings Water and Sewer DSP’s was simply presented as fact. The Sewer DSP in particular listed hundreds of existing assets with relatively small individual values and with common descriptors. It was impossible to determine by the descriptor precisely what every item was and if there was duplication or errors.

Similarly, some assets in the Water DSP's used descriptors that may have been identifiable to staff of Council (e.g. "Stage 3D") but which were meaningless to others. There is little choice but to accept the values adopted.

For future major assets, values were stated to be based on construction costs estimated by the NSW Department of Commerce for "similar works of like capacity". Many of the individual projects exceed \$10M in value and the totality of major works exceed \$100M thereby having a significant effect on the contribution calculation. I recognise the difficulty in valuing "one-off" major projects without the benefit of detailed design but believe that the transparency of this process would be well served if a table of costs of "similar works of like capacity" was included in the background information rather than just adopting a figure.

For valuation of future reservoirs and distribution mains, the 2005 Hastings Water DSP claimed to use "NSW Reference Rates". However, it was demonstrated that the reservoir rates adopted were up to 120% above the relevant Reference Rate and in some cases survey, investigation and design (SID) costs were itemised separately and included additionally when the Reference Rates Manual states that the Reference Rates include SID. For distribution mains the rates also appeared to be overstated by up to 40% above Reference Rates. When queried Council's response was to add an allowance from the Reference Rates Manual for the difficulty of construction in urban built up areas. Council then claimed the rates were understated, ignoring the fact that many of the mains in question were to be constructed in rural situations.

I submit that DSP's should not claim to use NSW Reference Rates (thus implying credibility to the values) when those rates have not been used. However, the Reference Rates would be best used as a guide only and reservoirs in particular should be valued on the basis of "similar recent works". Distribution main estimates should be derived by first principles.

4.3 Agglomeration of DSPs

The DEUS guidelines provide that if the capital charges of a number of DSPs are within 30 per cent of each other, they should be combined into a single DSP. This is to minimise the number of DSPs for the sake of administrative simplicity.

I agree that agglomeration of DSP's "removes the nexus between development areas and the assets that serve them, reduces the locational price signal to develop where it is most cost-effective and results in low-cost areas subsidising more expensive areas". I see no reason why an increased number of DSP's would add significantly to the administrative burden. A maximum 10% factor for agglomeration would seem reasonable and isolated new development areas should not be agglomerated at all.

4.6 Equivalent tenements

The development industry has argued that in some LWAs failure to use reliable growth projections to forecast equivalent tenements (ETs) has resulted in significant errors. A related criticism relates to determining non-residential demand in terms of ETs.

The 2005 Hastings Water DSP adopted growth projections that exceeded Council's own Hastings Urban Growth Strategy (HUGS) projections for calculation of annual demand. That strategy contained low, medium and high growth forecasts and the DSP

adopted a figure higher than the “high” forecast. The result was a significant overestimation of ET’s over the planning horizon (59,710 ET’s in 2033 against 54,170 ET’s under HUGS) and therefore an oversizing of major headworks projects resulted. In particular, one major storage augmentation would not have fallen within the planning period if even the HUGS “high” growth projection was adopted and it was arguably overstated anyway.

However, I have no issue with the concept of “Equivalent Tenements” provided realistic factors are applied to non-residential uses and appropriate factoring of residential development other than single dwellings is adopted. Adoption of long standing ET values is not considered valid since factors such as technology changes in the case of non-residential uses and occupancy rates in the case of residential uses may well have changed demand over time.

Other Concerns

Nexus

I submit that the Hastings DSP’s (and presumably others) do not always adequately demonstrate the required nexus for individual projects. For example, the Hastings Water and Sewer DSP’s both contain significant expenditure for wastewater reuse (approximately \$18M of capital works). At this stage the recycled water is intended for Council and commercial use, not domestic use. The Water DSP purports to create nexus by the fact that potable water demand will be reduced. However, in calculating the annual potable water demand, no reduction was allowed for such savings and hence the sizing and timing of major storage and transfer works were overstated. When queried, Council’s response was that the amount of savings were unknown. Developers are therefore not deriving any benefit from this project while contributing a significant amount to construction.

The 2005 Hastings Water DSP also included a number of projects of doubtful validity. Some were operational costs and some were outright invalid for inclusion in a Water DSP (the most infamous being a cycleway). While these projects were removed from the adopted DSP they should not have been included in the first place.

Water Demand Management

The background reports to the 2005 Hastings Water DSP explored different scenarios for demand management and the effect of basics and concluded that a 10% reduction in potable water demand on existing dwellings and 30% reduction on new dwellings was readily achievable. The report gave the impression that these reductions were factored in to the annual demand but the calculation that determined the sizing and timing of major works did not include these reductions. These major works are therefore overdesigned and will have excess capacity at the end of the planning period.

Failure to adopt recommendations from Investigation Reports

The 2005 Hastings Water DSP was based on background information provided by a number of consultants. The major system augmentation was purportedly based on a “safe yield analysis” of the Hastings River water source undertaken by NSW

Department of Commerce (DoC) to determine the size of future off-stream storage requirements. Despite the errors in overstating population growth and failure to include reduced demands resulting from wastewater reuse or demand management as outlined above, the DoC made recommendations on the staging of major storage system augmentation. The DSP then proceeded to adopt a completely different strategy for provision of major storage augmentation with no explanation or justification for doing so. This introduced additional storage facilities that were not described or explained anywhere in the investigation reports.

I strongly believe that there should be consistency and connection between the investigation reports and the DSP. Failure to do so is an obvious waste of resources in commissioning the reports in the first place.

I again thank you for the opportunity to comment and trust that the enquiry will lead to fairer guidelines and more transparent application of them in the preparation of DSP's

Anthony J. Green
Green Ingenuity
Engineering Consultant
P.O. Box 2357
Port Macquarie 2444

10th May 2007

Curriculum Vitae

Anthony James (Tony) Green

Green Ingenuity

Engineering Consultant

Qualifications:

- Bachelor of Engineering (NSW) 1975
- Grad. Diploma in Local Government Engineering (UTS) 1988
- Local Govt. Engineers Certificate (1992)

Specialisation:

Project Management (Roads, Structures, Water & Sewerage Works)

Contract Management (Documentation, Supervision and Administration)

Experience:

- 19 years experience in Local Government Engineering (1975-1994)

Survey, investigation and design of roadworks, water and sewerage projects. Maintenance of roads, drainage, buildings, bridges, recreation facilities, water supply and sewerage schemes.

Construction management of roadworks, drainage, buildings, bridges, recreation facilities, water supply and sewerage projects.

Contract management of construction of roadworks, buildings, bridges, water supply mains, reservoirs and sewerage schemes

Co-ordination of planning for annual works programmes

- 13 years experience as Engineering Consultant (1994-2007)

Preparation of tender documents for civil works

Contract management and construction supervision of civil works for numerous subdivisions and development projects

Co-ordination of survey, civil design and construction of Port Macquarie Town Centre rejuvenation works