

ECONOMIC PLANNING ADVOCACY

LAND DEVELOPMENT INFRASTRUCTURE INVESTIGATIONS

PETER M PRICE DIRECTOR

3 October 2012

Discharge Factors Review
Independent Pricing and Regulatory Tribunal
PO Box Q290
QVB Post Office 1230

Attn Gerard O'Dea

Dear Sir

Discharge Factors for Non-Residential Customers.

INTRODUCTION - CASE HISTORIES

While I have long had an interest and have had wide experience dealing with water and sewerage matters, the question of sewerage discharges has been a difficult topic due to the lack of data. However I have researched and considered the question for nursing homes with the assistance of Daniel Marten a well known and respected expert on most matters water, sewerage and drainage

Further in 2009 I considered a claim by Sydney Water for a Compliance Certificate for two warehouses (90 employees) on a Preston property which was assessed at \$247,287 based upon their guess at the sewerage discharge. SWC reassessed the charge at \$156 following my submission based upon data obtained for a review undertaken in 2008.

The 2008 Ku-ring-gai matter relied upon a data assessment for four warehouses. Due to a delay in Sydney Water making the necessary infrastructure available, the client was obliged to pay for a pump out service. This data for 12 to 19 months for each warehouse enabled me to make a submission to Sydney Water for a reduction in the charge for the discharge.

The SWC DSP assessment if based upon the DSP was 167 ET

The assessment by a service provider/co-ordinator authorised by SWC was 10.9 ET (Charge \$1.2million)

Based upon the data the usage was 3 ET (Charge abt \$350,000)

INTRODUCTION - WHY?

As will be appreciated from the following there is little alternative option in the vast majority of cases to making a local assessment. The lazy method is to use the tables which are obviously excessive, thus unreasonable and should be abandoned.

I have the opinion of a member of the local council which uses the NOW tables, that SWC are the prime target in this instance and clearly my experience at Preston and Ku-ring-gai would suggest that such a review is necessary.

The NOW Performance reports however only provide some help for water usage but little about sewerage. A quick look at the tables shows that:

Residential Water supplied - 100KI to 1000KI

Non-residential sewer charges - less than 25c/KI to 325c/KI.

Given the issues and complexities identified the question of whether IPaRT should proceed with this proposed Determination.

TABLE A1 (IPaRT) AND APPENDIX G (NOW) - DISCHARGE FACTORS

The factors in Table A1 come directly from only part of Appendix G Table 1 in the NOW Liquid Trade Waste Regulation Guidelines.

In Appendix G the 'Sewer discharge factor' on page 303 is the sum of the domestic + trade waste discharge to the sewerage system. For a Bakery the total would be 120%. The residence attached to the bakery is rated at 88%. It is not clear why a residence would generate trade waste?

In Table A1 by IPaRT the factor for a Bakery is 95%, being sewer only.

In 1.4 of the NOW document, liquid trade waste is defined as *other than sewerage of a domestic nature*. However the Factor is a combination of each.

What does this all mean. It seems that there is some confusion.

The Guidelines discuss the fact that while the liquid waste is assessed separately, it all goes to the sewerage treatment plan in many (probably most) cases.

ARE THE APPENDIX G FACTORS IN THE NOW GUIDELINES RELIABLE?

It seems unlikely that the factors are reliable given the poor history of the NOW and its predecessors in making such demands upon the housing, commercial and industrial sector. There is no reason to believe that they are any better than Sydney Water at deriving such factors.

In this instance, in 350 pages, there is no good explanation of how the factors were determined.

If you look at Appendix G on page 304 it suggests as follows:

- That 100% of the water should be assumed to flow to the sewer. Where is the data for this claim.
- The broad range of qualifications that follow mitigate against the base assumption.
- That if the discharge is less than 5kl/day then the table should be used. That is 12 ET based upon the state average water usage in 2010-11. It will be noted in the example of the four warehouses above, that the demand was only 3 ET. Thus large developments are caught by the 'simplistic' system devised by NOW.
- In addition there are multiple qualifications in all of the Guideline advice.

If specific factors are examined it can be observed that:

- % factors for residential components or residential equivalents have factors of 70% to 75% (not including 'trade waste') are satisfactory and currently used by me.
- a bakery residence however has an extra 18% factor for trade waste?? Does the Baker take work home?
- Car detailing - 185% - where is the additional liquid coming from.
- Car was - 145% - ditto
- Dental Surgery - 175% - how can this be justified - this assumes a huge importation of fluids into the practice.
- For a residence attached to a dental surgery - 130% - this includes a 60% trade waste allowance?? Does the dentist take work home?? What are the extra fluids? Are Dentists heavy drinkers?

There are also some reasonable allowances, but wherever the discharge factor exceeds 100%, there is no explanation.

The preliminary conclusion here is that the preparation of a standardised set of discharge factors is a folly of the worst kind. The report does not seem to appreciate the flawed content of the NOW Guidelines nor the combination of uses to make the 'Discharge Factor'. It is expected that Councils/local LWAs will not care as price gouging is acceptable to them, as the flawed regional DSPs Guidelines have illustrated, .

2.0 IPART DISCUSSION PAPER (page 3)

Figure 2.1 is new to me and I would think that this approach is NOT consistent with former practice, in my experience since 1995. IPaRT needs to understand that while the methods for determining rates, fees , usage charges and development charges income are somewhat different, there must be some common principles and overlap must be avoided. Little care has been demonstrated to avoid this problem.

In addition of course neither Sydney Water or Hunter Water have development charges. Those were withdrawn in 2008. This makes applying the NOW methodology impossible for metro LWAs.

For the first column of Figure 2.1 some explanation is required by IPaRT.

- .1 Which LWAs pay tax - not Shoalhaven for example.
- .2 Working capital is generally revenue carried forward from previous periods already collected from ratepayers - is it to be collected again?.
- .3 Depreciation of capital costs and residual (I presume) capital costs are ill-defined. Are these merely historical financial balance sheet numbers? Is there any cut off - 30 years for example? What is the rate of return? These factors are not I believe the basis of prices in regional NSW.

I would have thought that rather than a return on capital, the assessed 'Revenue' sum would include proposed capital expenditure at current cost to be made for existing ratepayers (in regional NSW where there are development charges) and all ratepayers in metro NSW (where there are no development charges).

Plus

Management and Operational Expenditure

The sum is quite complicated however because of a number of other factors:

These include: fees, subsidy, interest on deposits etc (check LGAs budgets).

The complication in regional NSW is that the DSP charges are excessive as the NOW Guidelines are substantially flawed. The charges are miscalculated because of a flawed NPV model. The charges are generally 4 times the median charges by SWC in 2006\$. Therefore applying an excessive discharge factor to an excessive charge is unreasonable.

2.1 SEWERAGE VOLUMES (2011 data)

Yes, measuring sewerage volumes is difficult. However adopting a 150 Kl/pa charge for sewerage is simple but unreasonable. The coastal NSW average water use (ex Sydney and Hunter) is 150 KL/pa.

The state average water use in the 2010-11 report was 159 KL/pa (a 52% reduction over 20 years). Therefore 75% rate for sewerage would be 119 Kl/pa. However for new dwellings subject to BASIX the average rates would be 95 Kl/pa for water and 72 Kl/pa for sewerage.

The further complication is that while water useage varies significantly and sewer useage may not vary as much, it will vary for a number of reasons in very different regions from the coast to the hinterlands.

Consequently, it will undoubtedly be the case that the proposals contained in this report will increase charges unreasonably because the report fails to understand the issues.

3.0 WHAT IS LEFT TO DO?

Well, principally - clean up the mess before proceeding to make unsustainable assumptions and not impose unreasonable charges based upon simplistic and uninformed thinking.

3.2 WHAT IS IPART CONSIDERING

The NOW table ought not be so willingly adopted. It will provide some

assistance but there is ample evidence that it is structurally flawed and unreasonable.

ANSWERS TO QUESTIONS (PAGE 11)

1. No, not as proposed by the Discussion Paper. It is ill-informed and proposes to perpetuate the unreasonable NOW factors.
2. In principle ok but the assumptions need to be modified.
3. NO it is not suitable. In particular that the Discussion Paper only quotes part of the NOW table. This must be resolved first. Then that would reveal the real size of the factors. For many of the factors a little common sense would suggest that it does not seem possible that such high factors can be justified (see above).

It needs something like a Water Industry Forum (public and private sector) and possibly some working parties to resolve the rates. Also a agreed process for review if challenged. It cannot be left to government alone as we can see the consequences already.

4. In the first place the Forum would refine the factors. It should also create a reference panel so that reviews could be ongoing.

The individuals will pay for challenges is due course but the government need to get their position resolved first.

5. Any % is of little use at this stage as clearly there are already discrepancies much larger than 10%.
6. The basic idea is ok in principle but the approach is flawed by having regard to the NOW Guidelines.

BASIX AND CURRENT CONSTRUCTION PRACTICE EFFECTS

If the IPaRT should not persist in underwriting the NOW factors, as a major qualification NOT MENTIONED by the NOW Guidelines is the application of BASIX to any residential components and similar practices for non-residential use.

For example for a major nursing home development in Port Macquarie, the innovations included:

- stormwater capture and reuse in toilets
- low flush toilet systems (waste water demand 30% of the usual at 48 l/day per bed) designed by Daniel Martens.
- efficient taps and shower heads (water saving)
- using recycled water for landscaping
- using off site laundries (the Catholic Church facilities examined and compared had a total of 500 beds). The new development proposed more than 177 beds.

If BASIX is ignored a fraud will have been visited upon the building and construction sector. Either BASIX is abandoned or the factors, fees and charges should be reduced in recognition of the reduced impact of the BASIX innovations.

CONCLUSION

There are significant issues with the Sydney Water and the NOW Discharge Factors, that much is obvious. How this is resolved is another matter. The IPaRT timeline cannot be met if this matter is to be resolved satisfactorily.

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4 October 2013