



**Urban Development Institute of Australia NSW
Hunter Chapter**

**A review submission of Hunter Water
Corporation's calculation of developer
charges and its compliance with the
Independent Pricing and Regulatory Tribunal
Determination number 9, 2000**

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Contents

1	INTRODUCTION	3
2	DETERMINATION NO.9, 2000.....	3
3	HSO REVIEW.....	5
3.1	Assets Included	6
3.2	Demand Profile	7
3.3	Categorisation And Inclusion Of Assets In DSP	8
3.4	Delivery of DSP Assets by the Development Industry	8
3.5	The Impact of BASIX	8
4	CONCLUSION	9

APPENDICES

APPENDIX A	FUTURE WORKS CAPITAL COST COMPARISON MAITLAND W1.03	10
APPENDIX B	FUTURE WORKS CAPITAL COST COMPARISON WANGI/MORISSET W1.24.....	11

1 INTRODUCTION

Harper Somers O'Sullivan Pty Ltd (HSO) has been engaged by Urban Development Institute of Australia NSW (UDIA NSW) to prepare a review submission of Hunter Water Corporation (HWC) calculation of Developer Charges and its compliance with the Independent Pricing and Regulatory Tribunal (IPART) Determination No.9, 2000

HWC has produced draft Development Servicing Plans (DSP) and placed them on exhibition prior to registration on 1 July 2006 with IPART.

DSP are documents containing the information used by agencies in the calculation of Developer Charges. There must be enough information included in the DSP to allow developers and other interested parties to conduct a thorough review of the plan.

2 DETERMINATION NO.9, 2000

The Independent Pricing and Regulatory Tribunal of New South Wales Determination No.9, 2000 was made to define a methodology for fixing maximum prices that Agencies can charge for Developer Charges. IPART has stressed that Developer Charges must be calculated by a consistent and transparent methodology, and recover efficient costs.

The basic principles underlying the methodology are that Developer Charges should:

- Involve full recovery of relevant costs;
- Reflect variations in the costs of servicing different development areas;
- Result in new development areas meeting the costs of the services provided through developer charges and/or annual charges; and
- Cover only infrastructure expenditures on water, sewerage and drainage assets that can be clearly linked to the development.

IPART has decided that certain assets must be excluded from the calculation of Developer Charges:

- Pre 1970 assets but the cost of amplifying a pre 1970 asset can be included;
- Assets where capacity was made available by changes in land use patterns;
- An asset was funded by developers and transferred free of charge to the agency;
- Part of an asset was provided for a reason other than to service growth, such as to accommodate amendments to environmental legislation; and
- Part of an asset was significantly and unreasonably oversized in respect of the system and capacity requirements.

Developer Charges are charges that water agencies levy developers for the provision, or upgrading, of water supply, sewerage and drainage facilities for new developments. Developer charges are upfront charges paid by developers and are

levied to recover part of the infrastructure costs incurred in servicing new developments.

Table 1 provides a comparison between the existing charges and the proposed charges including dollar and percentage changes.

Table 1
DEVELOPER CHARGE
COMPARISON

AREA	DSP	05/06	NEW	\$ CHANGE	% CHANGE
SEWER					
Swansea	S1.01	\$2,061	\$3,200	\$1,139	55%
Blacksmiths	S1.03	\$3,108	\$3,821	\$713	23%
Belmont North	S1.04	\$1,203	\$1,921	\$718	60%
Warners Bay	S1.05	\$2,622	\$3,412	\$790	30%
Windale	S1.06	\$1,219	\$2,275	\$1,056	87%
Edgeworth East	S2.01	\$3,354	\$3,289	-\$65	-2%
Edgeworth West	S2.02	\$4,054	\$4,392	\$338	8%
Westlake North	S3.01	\$4,195	\$2,248	-\$1,947	-46%
Westlake Central	S3.02	\$2,567	\$1,099	-\$1,468	-57%
Westlake South	S3.03	\$5,536	\$4,585	-\$951	-17%
Dora Creek	S4.01	\$4,097	\$5,036	\$939	23%
Burwood	S5.01	\$140	\$0	-\$140	-100%
Dudley	S5.02	\$662	\$0	-\$662	-100%
Shortland	S6.01	\$2,703	\$2,989	\$286	11%
Stockton	S6.02	\$3,060	\$4,320	\$1,260	41%
Kooragang	S6.03	\$3,034	\$2,710	-\$324	-11%
Steel River	S6.04	\$1,958	\$1,585	-\$373	-19%
Morpeth	S7.01	\$1,221	\$1,538	\$317	26%
Maitland	S8.01	\$1,794	\$1,757	-\$37	-2%
Bolwarra	S8.02	\$5,098	\$6,453	\$1,355	27%
Gillieston Heights	S8.03	\$2,394	\$1,336	-\$1,058	-44%
Branxton	S9.01	\$4,084	\$4,085	\$1	0%
Paxton	S10.01	\$10,948	\$11,512	\$564	5%
Cessnock	S11.01	\$1,872	\$2,505	\$633	34%
Kearsley	S12.01	\$5,925	\$5,440	-\$485	-8%
Kurri Kurri	S13.01	\$2,789	\$2,670	-\$119	-4%
Raymond Terrace	S14.01	\$1,410	\$2,276	\$866	61%
Medowie	S14.02	\$6,515	\$6,181	-\$334	-5%
Tanilba Bay	S15.01	\$2,230	\$4,727	\$2,497	112%
Fingal Bay	S16.01	\$2,489	\$2,866	\$377	15%
Anna Bay	S16.02	\$1,879	\$3,325	\$1,446	77%
Karuah	S17.01	\$11,758	\$23,672	\$11,914	101%

WATER

Chichester	W1.01	\$584	\$407	-\$177	-30%
Tomago to Hunter River	W1.02	\$914	\$76	-\$838	-92%
Maitland	W1.03	\$885	\$989	\$104	12%
Branxton	W1.05	\$3,304	\$2,373	-\$931	-28%
Kurri Kurri	W1.06	\$2,220	\$866	-\$1,354	-61%
Cessnock	W1.07	\$1,781	\$1,208	-\$573	-32%
Pelton	W1.08	\$1,736	\$1,899	\$163	9%
Raymond Terrace	W1.09	\$691	\$652	-\$39	-6%
Medowie	W1.10	\$707	1024	\$317	45%
Newcastle	W1.12	\$479	\$385	-\$94	-20%
South Wallsend	W1.15	\$444	\$383	-\$61	-14%
Toronto	W1.18	\$444	\$497	\$53	12%
Mount Hutton	W1.21	\$878	\$22	-\$856	-97%
Lookout	W1.23	\$877	\$377	-\$500	-57%
Wangi	W1.24	\$1,286	\$835	-\$451	-35%
Tomaree	W2.01	\$580	\$162	-\$418	-72%
Lemon Tree Passage	W3.01	\$4,048	\$266	-\$3,782	-93%

NEW DEVELOPMENT SERVICING PLAN AREAS

Fern Bay	S6.05		\$7,193
Pokolbin	S11.02		\$1,355
Kitchener	S11.03		\$6,034
HEZ	S13.02		\$2,683
Heatherbrae	S14.03		\$1,596

The Table above illustrates the significant margin divergence in developer charges between previous and proposed calculations in a number of areas serviced by Hunter Water. This is of considerable concern given the obvious inconsistencies in methodology between the two periods. It is critical for the industry to have confidence in the DSP methodologies and this can be achieved by an audit against IPART guidelines.

It should be noted that HWC calculate Developer Charges in four (4) categories Single Residential, Multi Residential, Commercial/Industrial and Other. The above Table compares the Single Residential category of HWC developer charges only.

3 HSO REVIEW

Previous submissions have addressed the issues of the methodology set by IPART and used by HWC in calculation of Developer Charges. The methodology uses the net present value (NPV) approach that calculates the costs and revenues of infrastructure projects.

This review focuses on the inputs used in the general calculation framework.

Simply put Developer Charges are calculated as the cost of infrastructure provided for growth divided by the equivalent tenements (ET) served **less** an agency

contribution. The agency contribution is the NPV of the difference between the operating costs and the operating costs.

Inputs seen as having the potential to impact most significantly on the calculation of Developer Charges have been identified and are discussed below.

3.1 Assets Included

The Determination defines an asset as those works that provide, or will provide, the services to Developments within a DSP area for which a Developer Charge is payable.

HWC categorise assets as either augmentation, upgrade or replacement and then further either developer or HWC funded.

The general definition of augmentation works is that they are works that have been provided in addition to existing works and are usually to entirely to cater for growth.

Upgrade works are defined as those works that upsize or increase the capacity of existing facilities and are usually pro-rated between existing development and new development.

Replacement works are to replace existing assets without upgrade or augmentation. Generally no costs for these works are included in the DSP.

Only that proportion of costs contributed by HWC to service growth can be recovered through Developer Charges.

Assets constructed prior to 1975 have been excluded from the calculation of Developer Charges in the draft DSP.

The assets included in the draft DSP appear to have been inconsistently categorised. An example is listed below.

Maitland Water DSP (W1.03)

The construction of a watermain (2,000m x 1050mm) from Tarro to Beresfield Water Pump Station (WPS) has been included as augmentation works in 2011(full cost to be recovered). It appears that the proposed main will replace an existing 900mm main. Clearly if this is the case then these works should be categorised as upgrade works and only the proportion of the cost of the works provided to service growth should be included in the DSP. The work is an upgrade of a pre 1970 asset which, in accordance with the determination can be included in the DSP.

Excluding the total cost of the proposed watermain results in a decrease of the charge from \$253 to \$232 (\$21). A spreadsheet showing the comparative calculations is attached as **Appendix A**.

The construction of this watermain also benefits land in other DSP and therefore also effects the Developer Charges in the areas. The other DSP are Branxton Water W1.05, Kurri Kurri Water W1.06, Cessnock Water W1.07 & Pelton Water W1.08.

Each of the DSP also includes total recovery of costs for further upgrade of watermains from Beresfield WPS to Stoney Pinch Reservoir (3,500m x 1050mm).

It should be noted that it is difficult to determine whether works have been constructed entirely for growth or were developer funded etc without having an intimate knowledge of each and every watermain laid in HWC area of operations. An example of works that may be incorrectly included in DSP is shown below.

Wangi/Morisset Water (W1.24)

The Gosford Wyong Supply Project appears from the DSP that the full cost of works for this system being constructed in HWC area of operations is being recovered ie 20,100m x 600mm pipeline cost \$8.7M. The Determination states that only assets to provide for growth in the DSP can be included in the Developer Charge calculation.

Excluding the total cost of the proposed watermain results in a decrease of the charge from \$297 to \$132 (\$165). A spreadsheet showing the comparative calculations is attached as **Appendix B**.

Other examples of possible inappropriate inclusions in DSP are:

Kurri Waste Water Treatment Works (S13.00)

Recycled water transfer system for Kurri Kurri Tafe being partially recovered.

Tomaree Water System (W2.01)

Anna Bay No.1 Reservoir being fully recovered.

Edgeworth East Sewerage System (S2.01)

Cardiff No1 WWPS upgrade is categorised as augment and therefore being fully recovered.

3.2 Demand Profile

The demand profiles determine the anticipated growth in each area and the breakdown of equivalent tenements (ET) between the Developer Charge categories.

There seems to be a mathematical problem in the tables where the sum of the individual categories does not equal the annual increase in a given year .

The profiles included in the DSP appear to be in accordance with growth projections for the Hunter.

There appear to be some individual anomalies (the Newcastle water area has been assigned negative growth of up to 900 ET/year) which should be investigated.

Existing ETs created prior to 1975 have been excluded from the calculation of the Developer Charges. It is the cost that is to be regarded as sunk, not the ETs. This further reinforces the premise that only that portion of an asset provided to service growth should be included in the calculation of Developer Charges.

3.3 Categorisation And Inclusion Of Assets In DSP

Only works determined as regional in nature, by HWC, are included in DSP. HWC has provided their criteria for classifying works and application of these criteria to assets in DSP reveals some inconsistency in application.

It appears that the costs to provide all lead-in works required to service the Thornton North development area have been included in the relevant DSP and are being funded through the levy of Developer Charges and constructed by HWC. In other areas works have been identified as regional but only upgrade costs have been included in the DSP. This is a clear inconsistency in the application of the IPART objectives given that in one case, the developer is required to fund all lead-in works, and yet in another, the develop is only required to fund the upgrade costs.

The Determination states that Developer Charges must be calculated in a consistent and transparent manner. One of the objectives IPART aim to achieve in setting prices is equity. To achieve equity it is contended that assets should be included in DSP in a consistent manner. This ensures that all developers contribute fairly and reasonably toward the cost of providing services to development areas.

3.4 Delivery of DSP Assets by the Development Industry

Once works have been included in a DSP it has been traditionally HWC role to fund and construct the works. In recent times, due to HWC expanding Capital Works Programme, it has become increasingly difficult for HWC to meet development timeframes.

It should be noted that works included in DSP are funded by Developer Charges.

It is certainly possible and most likely feasible for the development industry to design and construct regional works which would be funded by HWC. HWC have previously raised issues of probity and the ability of the development industry to deliver the assets any quicker. These are not insurmountable issues and certainly issues that have been successfully addressed by other local authorities.

If the Development Industry are allowed to deliver regional assets then their destiny would be controlled and certain.

3.5 The Impact of BASIX

BASIX (the Building Sustainability Index), is a web-based planning tool that measures the potential performance of new residential dwellings against sustainability indices.

BASIX ensures each dwelling design meets the NSW Government's targets of 40% reduction in water consumption and 25% reduction in greenhouse gas emissions, compared with the average home.

All new dwellings approved after 1 July 2005 have been required to comply with BASIX. Theoretically this means that there should be 40% additional capacity available in water and sewer infrastructure.

HWC has not yet addressed perceived reductions in loading in their Water & Sewer Design Manual and as such no changes have been made to DSP.

The introduction of BASIX will have little effect on household usage during peak periods and therefore have only a minimal impact on design standards. Water & sewer mains are designed to cater for diurnal peaks which will not be significantly affected by BASIX. There may be some impact on headworks as the overall loading on the system from new residential developments is reduced by 40%.

The impact of BASIX on Developer Charges is expected to be insignificant as the sizes and hence the costs of infrastructure will not reduce. The number of ET being serviced by the transportation assets will remain proportionally the same.

It is anticipated that BASIX will have the affect of increasing the capacity of water and sewer headworks. When the impact of BASIX on headworks has been determined it is expected that the ET serviced will be increased and consequently pro rata ET costs will decrease.

4 CONCLUSION

UDIA request HWC review the draft Development Servicing Plans with respect to the following:

1. Ensure that the assets included are only to service growth and further where an existing asset is upgraded that only that portion of the asset attributed to growth is included in the Developer Charge calculation.
2. That all assets required to service growth are included and further that costs are pro rated over the DSP rather than marginal upgrade costs be used.
3. DSP methodologies are audited against IPART guidelines to demonstrate to the industry that Hunter Water are fully committed to transparency and accountability.

In addition HWC investigate the possibility of the Development Industry delivering assets identified in the DSP and funded by HWC.

APPENDIX A FUTURE WORKS CAPITAL COST COMPARISON MAITLAND W1.03

FUTURE ASSETS (HWC Draft)			FUTURE ASSETS (Amended)		
Year	Recoupable Capital Expenditure	Annual ET Take up	Year	Recoupable Capital Expenditure	Annual ET Take up
1996	\$0	25367	1996	\$0	25367
1997	\$0	763	1997	\$0	763
1998	\$0	775	1998	\$0	775
1999	\$0	787	1999	\$0	787
2000	\$0	800	2000	\$0	800
2001	\$0	812	2001	\$0	812
2002	\$0	967	2002	\$0	967
2003	\$0	984	2003	\$0	984
2004	\$0	1002	2004	\$0	1002
2005	\$0	1021	2005	\$0	1021
2006	\$500,000	1039	2006	\$500,000	1039
2007	\$584,111	923	2007	\$584,111	923
2008	\$2,908,000	938	2008	\$2,908,000	938
2009	\$3,015,904	953	2009	\$3,015,904	953
2010	\$1,142,794	968	2010	\$1,142,794	968
2011	\$2,180,000	984	2011	\$100,000	984
2012	\$5,110,000	850	2012	\$5,110,000	850
2013	\$1,448,280	862	2013	\$1,448,280	862
2014	\$6,012,000	873	2014	\$6,012,000	873
2015	\$839,138	885	2015	\$839,138	885
2016	\$0	897	2016	\$0	897
2017	\$0	869	2017	\$0	869
2018	\$3,047,837	880	2018	\$3,047,837	880
2019		892	2019		892
2020		903	2020		903
2021		915	2021		915
2022		772	2022		772
2023		780	2023		780
2024		789	2024		789
2025		797	2025		797
2026		797	2026		797
2027			2027		
2028			2028		
2029			2029		
2030			2030		
2031			2031		
NPV CHARGE (\$/ET)		\$253	NPV CHARGE (\$/ET)		\$232

APPENDIX B FUTURE WORKS CAPITAL COST COMPARISON WANGI/MORISSET W1.24

FUTURE ASSETS (HWC Draft)			FUTURE ASSETS (Amended)			
Year	Recoupable Capital Expenditure	Annual ET Take up	Year	Recoupable Capital Expenditure	Annual ET Take up	
1996	\$0	18143	1996	\$0	18143	
1997	\$0	231	1997	\$0	231	
1998	\$0	234	1998	\$0	234	
1999	\$0	237	1999	\$0	237	
2000	\$0	240	2000	\$0	240	
2001	\$0	242	2001	\$0	242	
2002	\$0	492	2002	\$0	492	
2003	\$0	504	2003	\$0	504	
2004	\$0	516	2004	\$0	516	
2005	\$0	528	2005	\$0	528	
2006	\$216,320	540	2006	\$216,320	540	
2007	\$0	549	2007	\$0	549	
2008	\$9,337,000	562	2008	\$637,000	562	
2009	\$0	575	2009	\$0	575	
2010	\$1,999,760	588	2010	\$1,999,760	588	
2011	\$830,000	602	2011	\$830,000	602	
2012	\$0	499	2012	\$0	499	
2013	\$1,559,000	508	2013	\$1,559,000	508	
2014	\$29,261	518	2014	\$29,261	518	
2015	\$0	528	2015	\$0	528	
2016	\$0	538	2016	\$0	538	
2017	\$0	428	2017	\$0	428	
2018	\$23,509	434	2018	\$23,509	434	
2019	\$5,235,104	441	2019	\$5,235,104	441	
2020		447	2020		447	
2021		454	2021		454	
2022		369	2022		369	
2023		374	2023		374	
2024		378	2024		378	
2025		383	2025		383	
2026		1033	2026		1033	
2027			2027			
2028			2028			
2029			2029			
2030			2030			
2031			2031			
NPV CHARGE (\$/ET)			\$297	NPV CHARGE (\$/ET)		\$132