

FIGURE 9.3 – Widderson Mill Hill Water Supply Network

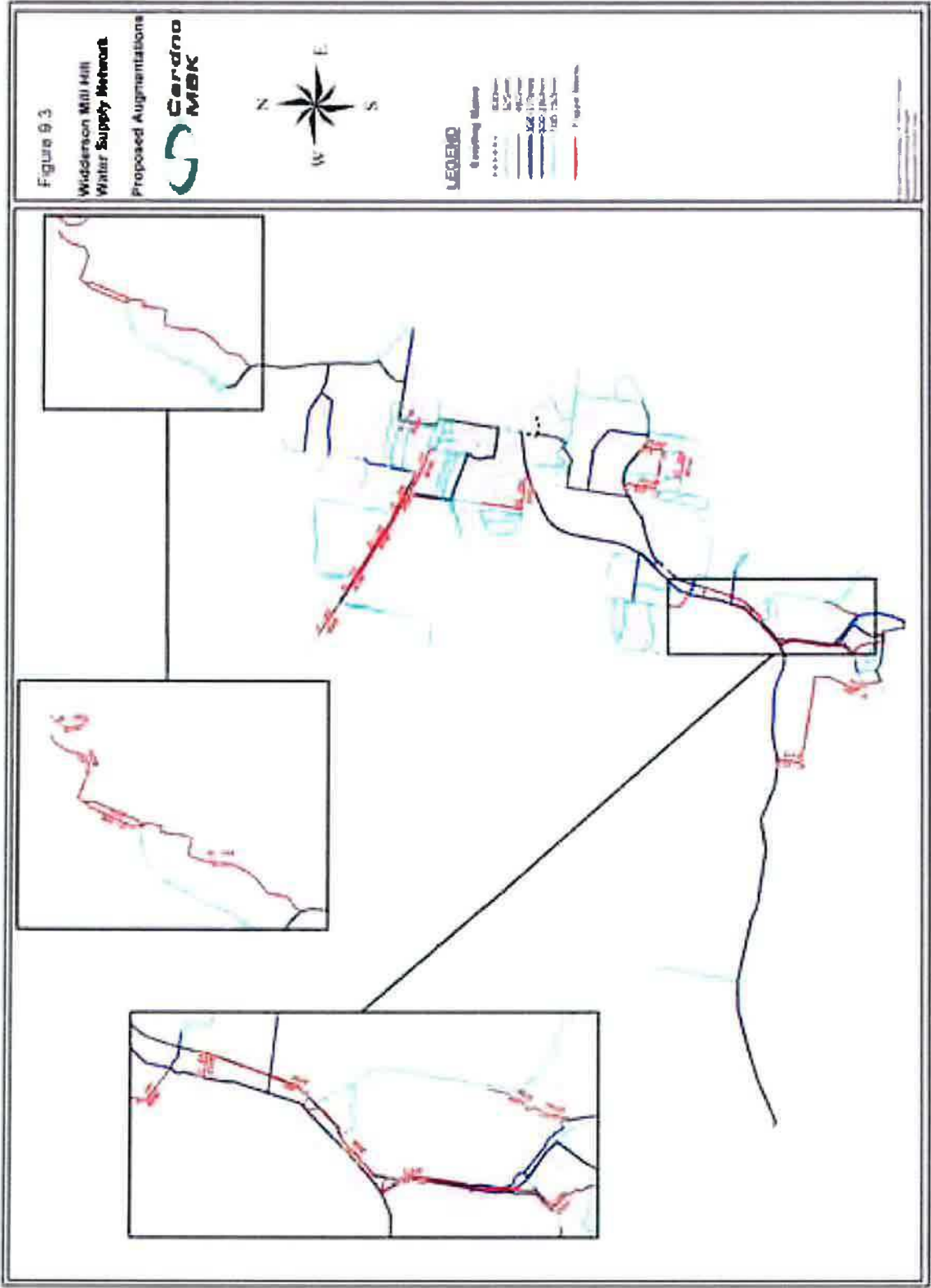


FIGURE 9.4 – Camden Haven Water Supply Network

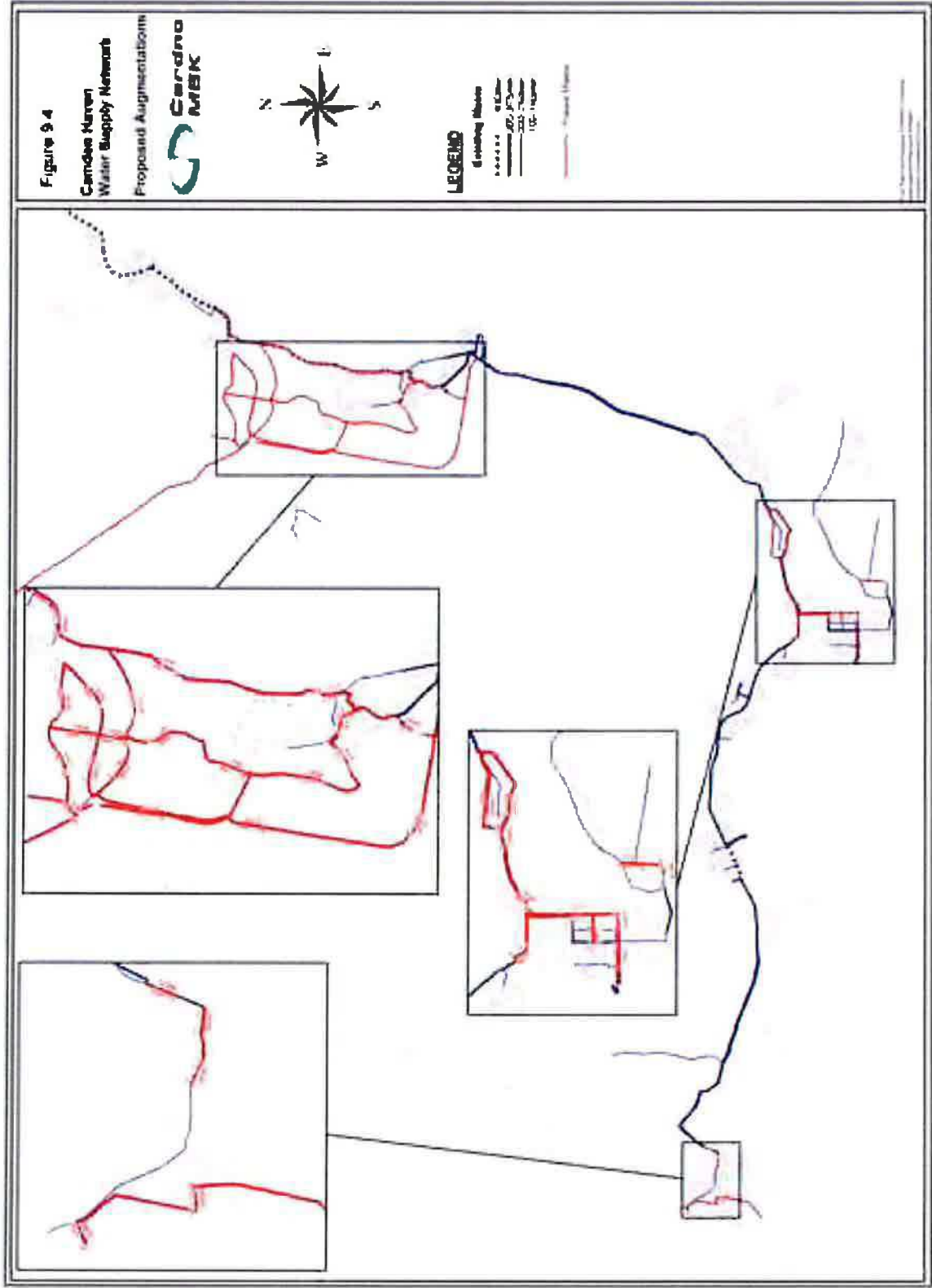
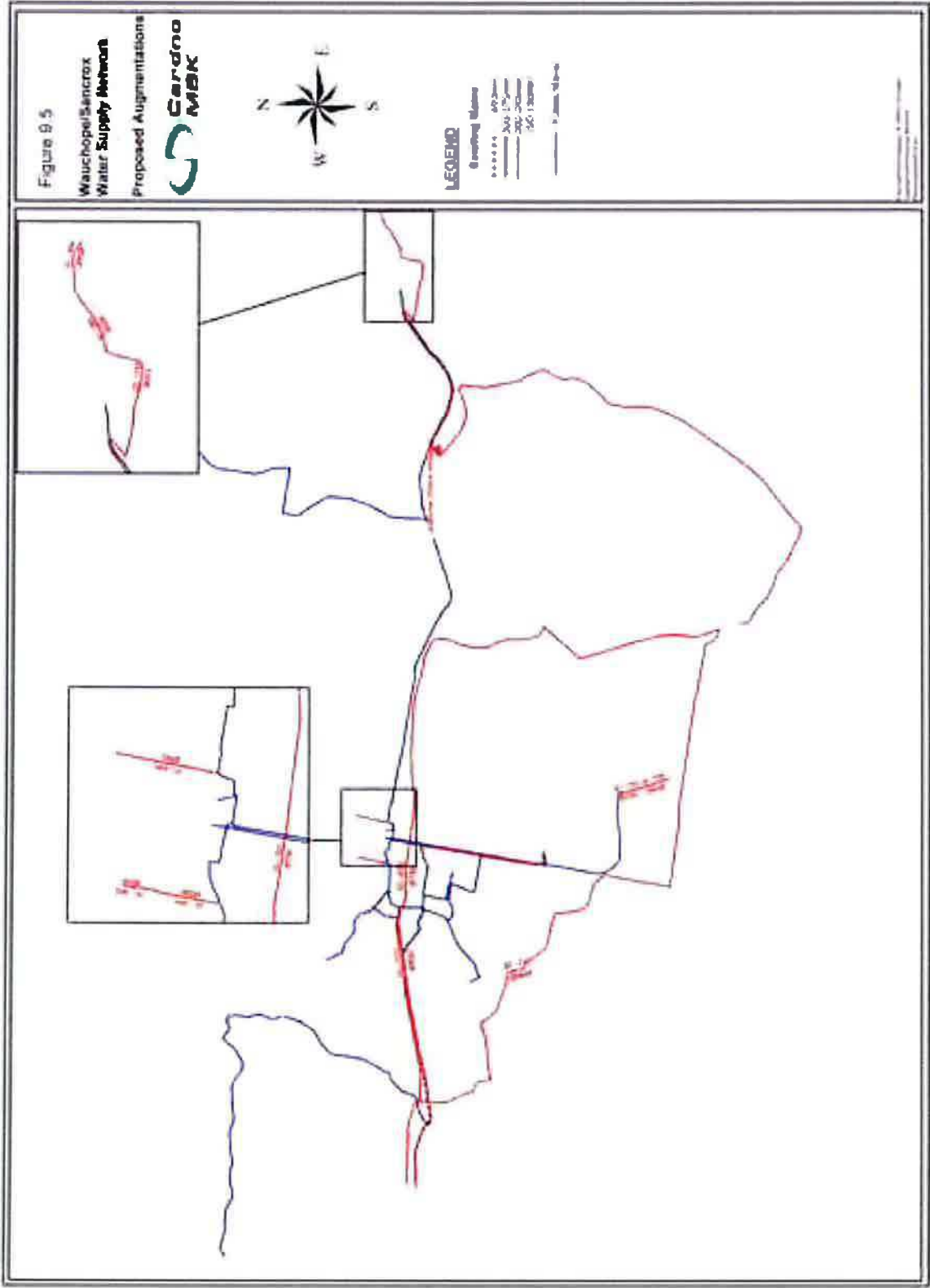


FIGURE 9.5 – Wauchope/Sancrox Water Supply Network



Port Macquarie-Hastings Council  
PO Box 84  
Port Macquarie NSW 2444  
DX 7415  
Email: council@pmhc.nsw.gov.au  
Website: www.pmhc.nsw.gov.au  
Fax: 02 6581 8053

ABN: 11 236 901 601

22 June 2006

RECEIVED  
26 JUN 2006

BY: .....



PORT MACQUARIE  
HASTINGS

Tony Green  
Luke & Co  
PO Box 669  
PORT MACQUARIE NSW 2444

Dear Tony

**Re: Hastings Development Servicing Plans for Water Supply**

On Monday, 19 June 2006 Port Macquarie-Hastings Council considered a report on submissions to the exhibited draft Development Servicing Plans (DSP's) for the Hastings District, Comboyne, Telegraph Point and Long Flat Water Supply Schemes.

Council resolved at the meeting: -

- "1. That Council adopt the revised Hastings Water Supply Development Servicing Plans.*
- 2. That Council apply the new developer charges in the DSP's from 1 July 2006.*
- 3. That Council reduce the Development Servicing Plan administration levy to 1.6% from 1 July 2006.*
- 4. Council advertise the amended Administration Levy Development Servicing Plan for 30 working days."*

Charges under the new DSP's will increase from the current \$7160 to \$8035 per Equivalent Tenement (ET) from 1 July 2006. At the same time the Water Administration Levy will decrease from 5% to 1.6% (\$358 to \$132). Council also revoked various local water supply charges including Kings Creek.

The attached copy of the Council report details Council's consideration of the submissions.

I would like to thank you for the time taken to make the submission. If you require further information or copies of the DSP's please contact me on 6581 8686 or email tim.molloy@pmhc.nsw.gov.au.

Yours faithfully

**Tim Molloy**  
Manager Development Contributions

*A sustainable high quality of life for all*

## Environment

Action Created

Meeting Date: 19/06/2006 - Environment

---

Item 33	HASTINGS WATER SUPPLY DSP
TM/MT	

---

*This report proposes adoption of new Development Servicing Plans and Developer Charges for Water Supply following publication exhibition and review by Council's consultants.*

### RECOMMENDATION

- 1. That Council adopt the revised Hastings Water Supply Development Servicing Plans.**
- 2. That Council apply the new developer charges in the DSP's from 1 July 2006.**
- 3. That Council reduce the Development Servicing Plan administration levy to 1.6% from 1 July 2006.**
- 4. Council advertise the amended Administration Levy Development Servicing Plan for 30 working days.**

### Discussion

On 14 February 2005, Council resolved to place on public exhibition draft Development Servicing Plans (DSP's) for Hastings District, Comboyne, Long Flat and Telegraph Point Water Supply Schemes. The DSP's were prepared on Councils behalf by Cardno (Qld) Pty Ltd in accordance with State Government Guidelines.

A copy of the previous report to Council is attached:

 (Item 30 - ORD 14/02/05)



Item30\_ORD\_14Feb05.pdf

Three (3) submissions were received as a result of the exhibition. Details of the submissions and comments are detailed in the consultation section of this report.

As a result of the submissions Council's consultant was requested to update the DSP and works program with a number of amendments and deletion of some works. This has resulted in a reduction of the developer charge from \$8153 to \$8035.

A copy of the revised DSP's are attached.



Hastings Water Supply DSP 2006.pdf

The exhibited draft proposed three (3) options for the implementation of the revised charge being: -

1. Introduction of the recommended charge as at July 2005,
2. Introduction of the recommended charge phased-in over a three [3] year period, or
3. Continuation of the existing developer charge, plus the originally proposed pricing path, which includes a further increase of \$1,000 over a two year period, plus CPI adjustments.

Due to the delay in finalizing the Draft DSP Council introduced the additional \$1000 increase in the current DSP from 1 July 2005.

Adoption of option 3 is not considered appropriate, as it would result in significant cross subsidy form ratepayers to developers amounting to \$39 per assessment.

The difference between the current DSP charge of \$7160 and the draft DSP charge of \$8035 is \$875. With the recommended reduction in the Administration levy component (as detailed below) the effective increase is \$648 on DA's approved since 11 February 2002. In order to minimize any further cross subsidy it is proposed that the full developer charge of \$8035 apply from 1 July 2006.

Council's S64 Administration Levy DSP (NB only applies to DA's approved since 11 February 2005) currently applies a 5% levy on water development contributions to fund Councils S64 Development Contributions operations. The levy amount was due to increase to 6% however Council deferred the increase pending a review of the water and sewer DSP's. In reviewing the Sewer DSP Council included the sewer levy in the base Sewer charge. This was possible, as Council was not proposing to levy the full extent of the Sewer Developer charge that was permissible.

If Council adopts the full developer charge proposed in the draft DSP Council will need to separately maintain a Water Administration Levy. Based on the proposed charge of \$8035, a levy of \$132 per Equivalent Tenement (ET) is required to fund the water component of the Administration Levy. This represents a levy of 1.6%. Under the current levy of 5%, the levy amount is \$358 per ET. Adopting a levy of 1.6% will reduce the levy by \$226.

An amended S64 Administration Levy DSP for Water Supply is attached. Council does not need to formally exhibit and adopt a new Administration Levy DSP in order to reduce the levy amount. However for consistency the amended DSP should be exhibited.



Draft Administration Levy Development Servicing Plan v 2.pdf

## Consultation

The Draft DSP's were placed on public exhibition for a period of 30 working days and were referred to the development industry including The Hastings Construction Industry Association, Urban Development Institute of Australia, and the Housing Industry Association. The draft DSP's were also referred to the Department of Energy Utilities and Sustainability (DEUS).

Copies of the 3 submissions received to the exhibition are attached.



Submission Water DSP Luke and Co.pdf Submission Water DSP HCIA.pdf Submission Water DSP Jetz.pdf

Details of the submissions and comments on the issues raised are provided below.

### **Jetz Laundry**

*We think it is so wrong for a one fee fits all approach, which in reality is the Port Macquarie developments greatly subsidising the smaller villages to provide them with water systems. Fees should be scheme based, and we know these little schemes could never happen without subsidy, But why a 80 % + one? Why doesn't Council tell the full story re the various Schemes costs etc?*

*Council should look at introducing local Loan rates for these areas rather than just slug ALL. It's these residents choice to live there and they should pay.*

*Our preference is if they are to be commenced then Option 3 is the preferred price policy. A 30 % increase is wrong.*

### **Comment:**

The cross subsidy to smaller village schemes is only from ratepayers not developers. Options for the introduction of the new charges are discussed above.

### **Tony Green – Luke & Company**

*We believe the plan's primary objective should be to provide the necessary augmentation of works to facilitate developments which are timed to meet growth and market demands. We believe the Works Program does not entirely meet this objective and in other cases significant expenditure is proposed to service developments which cannot proceed for other reasons. (Various examples of works program are listed in the submission).*

### **Comment**

It is recognized that market forces and changing priorities will necessitate a constant review of the priorities for the works program, which can be done independently of the DSP process. The works program in the draft DSP was based on Council's best estimates at the time. It is not practicable or necessary under the state guidelines to constantly update the works program timing in the DSP. The guidelines envisage a formal review of the DSP works program every 5 years.

### **Hastings Construction Industry Association**

#### ***Annual Demand***

*1. The Annual Demand figure is purported to be 310kL/a/dwelling as determined by Hunter Water Australia (HWA). However, this figure is not used anywhere in sizing the works which use Annual Demand as the design criteria. The "Target Demand" for such works was derived by Department of Commerce (DoC) and allows for "dry year" with allowance for leakage but not for demand management through efficiency or for reduced demand due to waste water reuse.*

### **Comment**

The annual demand of 310 kL/a/connection is based on the average over the period from 1994 to 2002 of 263 kL/a/connection factored for a dry year, leakage and demand management.

As a check on this figure the DoC also carried out an independent demand review, building up demand estimates from an analysis of components rather than a manipulation of gross consumption data. The projected average annual demand showed good correlation to demands projected by HWA.

Reduction in demand resulting from the water reuse schemes is unknown at this stage. Significant reductions are projected in the DoC yield study from different sources of demand management (Water Saving 2 scenario – 10% in existing dwellings and 30% in new dwellings)

*2. The major headworks solutions appear aimed at meeting this "Target Demand" of 17,778 ML/a (S4.7 "Ultimate Demand Analysis") rather than the reduced demand of 13,707 ML/a if demand management allowances were applied as identified as achievable by DoC (but still with no allowance for waste water reuse).*

**Comment**

The DoC secure yield study concluded it reasonable to undertake analysis on the assumption of an annual average demand reduction of 15% during restriction periods in critical droughts.

Council must give consideration to ensuring that the water supply strategy remains sufficiently flexible to cope with issues such as demand variability, demand hardening and associated climatic changes with global warming.

*3. The DoC Report also appears to cater for a population of 130,192 or 59,710 ETs in 2033 whereas the HUGS High (extrapolated) projection is for a population of 124,590 or 54,170 ETs. Therefore an excess capacity is being provided. It is also questionable whether it is valid to use the "HUGS High" projection for a 30 year planning horizon.*

**Comment**

The high projections were adopted because there is a strong potential for high growth and long lead times are needed for the investigation, design, environmental approval and construction of major water supply capital works. Growth will be monitored and a review of these projections will be undertaken in 5 years in conjunction with the next review of the DSP.

The adoption of allowances for higher growth does not significantly impact on the level of charges as the charge is based on ET capacity and any excess system capacity is not taken into account.

*4. It is unclear how the proposed major headworks Works Program addresses this "Target Demand". Figure S1 in the DoC Summary clearly shows a strategy for meeting only the Ultimate Demand by raising both Port Macquarie and Cowarra Dams but the works program does not appear to match this strategy. No explanation is given for departures from the strategy identified by DoC.*



**Comment**

The DoC yield study has identified additional storage as options to meet future demand with timing for the first stage of Cowarra and Port Macquarie as sometime after 2013 and the second stage of Cowarra as sometime after 2021.

The inclusion of additional storage at Rosewood Road should enable the raising of the Cowarra Dam to be deferred to 2030.

This is currently considered to represent a more prudent investment in capital infrastructure and will provide additional flexibility in the harvesting of river flows from the Hastings River at Koree Island, subject to future DEUS & DNR approvals. The programme adopted for additional storage required includes:

2013/2014	Additional 4,000 ML Port Macquarie Dam	\$15,000,000
2020/2021	Additional Storage Rosewood Rd.	\$5,000,000
2028/2029	Additional 8,000 ML Cowarra Dam	\$30,000,000

*5. Reference to Figure C6 (Appendix C in DoC Report) shows that if the "Water Savings 2" scenario is considered then no augmentation of dams is required until 2018 and further augmentation can be delayed until 2033 (i.e. beyond the horizon of the DSP). And this still does not consider additional savings through wastewater reuse.*

**Comment**

The yield study identified various possibilities for water savings and also looked into the effects of demand hardening and climatic change. It concluded, "On current data it would appear reasonable to undertake secure yield analyses on an assumption of an average demand reduction of 15% during restriction periods in critical droughts."

*6. The nexus for these major works has therefore not been established and the works program as proposed will provide excess capacity.*

**Comment**

The works programme has been based on the best available information taken from Stage 1 of a 2-part study on a review of water demands and secure yield analysis.

**Peak Day Demand**

*7. A maximum "Peak Day Demand" figure of 1819 L/day/connection is used by HWA reportedly being the highest daily demand ever recorded. No data is given to determine if this is an abnormal figure. It is also questionable how accurate a daily usage figure is.*

**Comment**

The peak day demand figure of 1819 L/day/connection occurred in 1999 and is the recorded maximum day consumption for the Hastings Scheme as a whole taken from records in the period between 1996 and 2002. The maximum in each year is shown in the following table.

Year	1996	1997	1998	1999	2000	2001	2002
------	------	------	------	------	------	------	------

Peak Day L/d/connection	1733	1540	1472	1819	1399	1649	1349
----------------------------	------	------	------	------	------	------	------

*8. The bulk meters used to determine leakage allowance appear to show discrepancies when compared to individual metering. It is understood that these meters were used to determine the Peak Day Demand.*

**Comment**

It is unsure what discrepancy is being referred to. Bulk meters record all water from a reservoir supply zone including unaccounted for water. These meters were used to establish the recorded peak day demand of 1819 L/day/connection.

*9. It is not known how adoption of this figure flows through to affect reservoir, pump station and trunk main sizing. There does not appear to be any indication of design criteria for these elements. Nexus for major transfer systems and reservoirs has therefore not been established.*

**Comment**

This part of the analysis formed part of the work undertaken by Hunter Water Australia (HWA). The methodology adopted uses standard design criteria and is included in section 4.2 of the September 2003 report titled "Investigation Report and System Amplification requirements"

**Costing of Major Works**

*10. .... there is no justification provided for selection of Raise PM Dam (2014), additional off creek storage at Rosewood Road (2021) and Raise Cowarra Dam (2029) as the best solution to meet the projected demands. In fact the Summary in the DoC Report says the staging of headworks shown "is just one of many permutations and combinations to meet the future demand" and "Further work beyond the scope of this study would be needed to assess which option would be the most effective."*

**Comment**

Major infrastructure listed in the works programme was taken from a review of water demands and secure yield analysis undertaken by the NSW Department of Commerce (DoC) in March 2004.

The secure yield analysis identified the major works and also pointed out that other combinations were possible to meet future demand. These works have been included because they have been taken from the best information currently available. The study undertaken by DoC is Stage 1 of a two-part study. Stage 2 will further develop options based on a stochastic system behaviour analysis and any changes to major works required will be included in future reviews of the DSP.

*11. There are also anomalies in the proposed capacity of the raised Cowarra Dam (variously increase to 14GL, 18GL or 26GL). These works are costed at \$50M*

**Comment**

There is an error with the description for raising Cowarra Dam. This has now been changed to an additional 8 GL. The secure yield analysis identified the following works:

Raise Cowarra to 14GL,

Raise Port Dam to 4 GL

Further raising Cowarra to 18GL.

The initial raising of Cowarra has been deferred by the provision of additional storage at Rosewood Road.

*12. No details at all are given for some major projects totalling \$37M.*

**Comment**

Missing descriptions relating to following have now been included as follows.

2009/10	Water Treatment Plant – Port Macquarie Dam	\$10,000,000
2010/11	Water Treatment Plant – Cowarra Dam	\$10,000,000
2014/15	Water Treatment Plant – Koree Island St1	\$3,000,000
2023/24	911 Dia Trunk Main Rosewood Rd to Cowarra	\$11,000,000
2025/26	Water Treatment Plant – Koree Island St 2	\$3,000,000

*13. There is no indication of derivation of costing for these and other major works.*

**Comment**

Preliminary cost estimates were sought from the DoC and derived from estimates for similar works of like capacity.

It is considered that the adopted costs are now significantly lower than the anticipated actual costs. A similar sized water treatment plant currently being implemented at Mid Coast Water has a cost estimate of approximately \$60M. The updated cost estimate for the 911mm dia trunk main would be in order of \$15M to \$18M.

*14. In addition to those works listed above, the additional storage at Rosewood Road does not have a nominated capacity.*

**Comment**

This item has been included, as it is believed to be a far more economical by deferring the second raising of Cowarra Dam to 18GL until 2028/29. The additional storage capacity is unknown at this stage but considered substantial enough to defer the additional raising of Cowarra for some years.

*15. The future WTP's (presumably the items for \$10M each in 2010 and 2011) are not described anywhere and no capacity is given.*

**Comment**

Descriptions for these items have been included. The proposed water treatment Plants at Port

Macquarie and Cowarra dams will be required to ensure water quality will meet *Australia Drinking Water Guidelines* criteria.

The final sizing of these WTPs will be dependent upon the ability to stage these facilities and also the transfer needs of the headworks system. However, it is anticipated that the capacity of each WTP will be in the order of 60 to 70ML/day.

*16. The Southern Arm Trunk Main does not appear in the HWA estimates as it was outside their brief - no detail of the costing is given (\$10.52M)*

#### **Comment**

Survey and design of this trunkmain has been undertaken by DoC and some minor adjustments are now required along the proposed route to suit the newly created National Park along Houston Mitchell Drive and also in the vicinity of the proposed Bonny Hills bypass roadway.

The latest preliminary cost estimate from DoC is \$15.5M. This includes additional capacity to service Area 13, with a connection to this trunkmain which will eventually be extended to the new 20ML Sancrox reservoir.

Following further financial modelling it has been decided to now service Area 14 directly from the Bonny Hills reservoir, with a separate outlet main system and defer this trunkmain project for completion in 2009/10.

*17. No details are given of the water reclamation projects. A total of \$18.5M is allocated to the various reclamation schemes. There is no indication of how costs were derived. Nexus for water reclamation projects to be included in a water DSP has not been established and cannot be if there is no allowance for reduced demand.*

#### **Comment**

Total of proposed water reclamation projects is \$18.55M and are shown in the following table.

Costs of works have been based on preliminary estimates for the Port Macquarie Scheme provided by HWA and DoC which have since increased to \$13.5M.

Water Reclamation projects are not included in any other DSP. It is likely that joint funding for these projects will be provided from Water Supply and Sewerage as there is nexus with both funds i.e. water conservation and effluent disposal.

<b>Year</b>	<b>Description</b>	<b>Amount</b>
2005/2006	Bonny Hills water reclamation treatment facility and reticulation network	\$1,500,000
2007/2008	Laurieton water reclamation treatment facility and reticulation network	\$1,500,000
2003/2004	Feasibility study to investigate possibility of developing an effluent re-use scheme for the irrigation of Council's playing fields & non-potable water supply to approved businesses in Wauchope,	\$50,000

	Laurieton and Bonny Hills.	
2003/2004	Feasibility study to investigate possibility of developing an effluent re-use scheme for the irrigation of Council's playing fields along HRD with disinfected effluent via a reticulation system fed from the Morton St reservoir.	\$500,000
2004/2005	Port Macquarie water reclamation treatment facility and reticulation network	\$2,500,000
2004/2005	Construction of WTP & an effluent re-use scheme for the irrigation of Council's playing fields with highly treated & disinfected effluent via a reticulation system fed from the Morton St reservoir to service other commercial activities with reclaimed water.	\$6,000,000
2005/2006	Port Macquarie water reclamation treatment facility and reticulation network	\$250,000
2005/2006	Construction of WTP & an effluent re-use scheme for the irrigation of Council's playing fields with highly treated & disinfected effluent via a reticulation system fed from the Morton St reservoir to service other commercial activities with reclaimed water.	\$2,000,000
2006/2007	Port Macquarie water reclamation treatment facility and reticulation network	\$250,000
2006/2007	Construction of WTP & an effluent re-use scheme for the irrigation of Council's playing fields with highly treated & disinfected effluent via a reticulation system fed from the Morton St reservoir to service other commercial activities with reclaimed water.	\$1,000,000
2004/2005	Wauchope water reclamation treatment facility and reticulation network	\$1,500,000
2006/2007	Sancroix water reclamation treatment facility and reticulation network	\$1,500,000

The ability to meet the demand management targets adopted in the future water demands scenarios will be dependent upon the successful implementation of these schemes to assist in further reducing demands upon the existing potable supply system. The amount of demand reduction will be closely monitored and the factored into future demand predictions and supply models.

### ***Duplication/ Anomalies***

*18. Completion of 375mm trunk main to Bains Dairy (\$239,370) is listed twice and based on the unit rates and the HWA Report appears to be a duplication.*

### **Comment**

The duplicate item has been removed from the programme.

*19. There is no mention in the HWA Report of an additional reservoir at Widderson Street (\$2.5M) but it is included in the Works Program for 2034 (with full uptake in 2032 – two years before it is built).*

**Comment**

This item has been removed from the programme.

*20. Port Macquarie water reclamation projects (two items in 2005 for \$2.5M and \$6M plus \$2.25M in 2006 and \$1.25M in 2007). If there was some detail of this program it may be possible to determine if there is duplication.*

**Comment**

There is no duplication. The project will be constructed over a number of years as detailed in the following table:

Year	Description	Amount
2003/2004	Feasibility Study	\$500,000
2004/2005	Water Reclamation Reticulation Network	\$2,500,000
2004/2005	Construction of Treatment Plant	\$6,000,000
2005/2006	Water Reclamation Reticulation Network	\$250,000
2005/2006	Construction of Treatment Plant	\$2,000,000
2006/2007	Water Reclamation Reticulation Network	\$250,000
2006/2007	Construction of Treatment Plant	\$1,000,000

*21. Ocean Drive Cycleway (\$150,000)*

**Comment**

There is some limited nexus associated with development occurring adjacent to the Port Macquarie Dam catchment area however this item has been removed from the calculations.

*22. Aquatic biota and water quality monitoring (\$486,820 over 6 years). Is this not an operational cost?*

**Comment**

This project is part of a long-term on-going investigation studies and environmental monitoring at Koree Island and will be included in the work on investigations for the secure yield analysis.

These investigations will also form the basis of future applications by Council to increase water abstraction from the Hastings River and any associated EIS, environmental approval process and water licensing applications.

The operational costs associated with water quality and river flow monitoring is budgeted separately in Council's water supply operations.

*23. Additional telemetry (\$725,000 over 30 years including \$150,000 in 2016 when no major works are planned). Telemetry should be included in the budget for each facility. Upgrades/replacement are an operational cost.*

**Comment**

These items have been removed from the programme. These items will be reviewed and included in the next DSP review where appropriate.

*24. Temporary workshop (\$3M). It is understood this project will no longer proceed as described.*

**Comment**

Temporary workshops are now provided at Jindalee Road and the description of this item has been changed.

*25. Water Fund contribution to new works depot (\$2.5M). Is this the full contribution from Water Fund? If so we would certainly question the nexus.*

**Comment**

The cost of this project has been reviewed and amended to a growth component figure of \$1.28m.

**Reference Rates**

*26. The reservoirs and major mains estimates are required by the Guidelines and are claimed to be based on the NSW Reference Rates but the rates used are up to 100% higher for reservoirs and generally 20-30% higher for mains. ....*

**Comment**

The reservoirs listed with the reference rate and the estimate included in the capital works programme and listed in the following table:

Reservoir	Rate Used	Reference Rate
Kendall 5 ML	\$2,000,000	\$990,000
Wauchope WTP 5 ML	\$2,000,000	\$990,000
Sancrox 15 ML	\$3,500,000	\$2,000,000
Area 13 2 ML	\$1,500,000	\$575,000
Innes Peninsula 1 ML	\$660,000	\$395,000
North Shore 1.5ML	\$1,250,000	< \$575,000
Granite St 19ML	\$3,000,000	< \$2,380,000

Reference rates are a general guide and need to be applied with due allowance for local and site-specific conditions.

These reference rates were prepared in June 2003 and recent tendered prices indicate there is a significant difference between the reference rate and actual tenders being received, e.g. the contract price for the 5 ML Reservoir at Wauchope WTP was \$2.8M on a prepared site. There have been significant cost increases associated with material [eg. increased steel prices] and construction costs for major civil projects. Included in the above are additional allowances for SID to cover uncertain ground conditions and land acquisition costs.

The rates used for trunk mains have been amended to include additional costs for construction difficulty. As an indication the reference rate for moderate construction difficulty is given in Table 3.14 of the reference rates manual and included in the table below. The trunk mains listed together with the rates used in the calculation is also shown in this table, which are less than the calculated reference rates.

Trunk Main	Rate Used \$/m	Reference Rate \$/m
Mill Hill to West Lindfield 450mm DICL	\$353	\$445
Ocean Drive Bonny Hills (Bonnyview to Seawind) 300mm DICL	\$238	\$273
Rainbow Beach Estate Bonny Hills 300mm DICL	\$238	\$355
Rising Main to Laurieton Reservoir 375mm DICL	\$303	\$355
Bago Rd. Reservoir to Cameron St. 375mm DICL	\$303	\$355
Sancrox Reservoir to Area 13 375mm DICL	\$303	\$355
King Creek Road 200mm uPVC	\$151	\$190

27. A breakdown of the cost of the Rosewood Road/Wauchope WTP's is not given (\$5.4M total cost). It is understood, but not defined, that there are two WTP's – one to provide treated water for Wauchope and one to chemically treat the water flowing to Port Macquarie. However, further items for upgrade of the Wauchope WTP to 15ML/day are given totalling \$9.3M plus \$2M for a clearwater reservoir. Appears to be at least \$12.8M for the WTP excluding the Clearwater reservoir. The Reference Rate for a 15ML/day WTP is \$7.7M (includes minimal clearwater storage).

#### Comment

The Wauchope Water Treatment Plant includes; a 6ML/day mirco-filtration plant with expansion capacity to 18ML/day, a 120ML/day Lime and Carbon Dioxide water conditioning plant, 5ML clear water reservoir, with provision for an additional 5ML reservoir and a Clear Water Pumping Station.

The following table provides current contract costs for these facilities which will be completed and become operational by the end of 2006;

Item	Description	Costs
1	Investigation, design & project management	\$1.5M
2	Water conditioning plant [120ML/day]	\$2.5M
3	Wauchope filtration plant [6ML/day]	\$3.5M
4	Wauchope WTP building & civil works	\$10.5M
5	Clearwater pumping station & pipework	\$1.5M
6	Sewerage pumping station & rising main	\$0.25M
7	Clearwater Reservoir [5ML]	\$2.8M
8	Landscaping	\$0.3M
9	Land matters & legal costs	\$0.25M
10	Electricity supply	\$0.15M
11	Contingencies	\$1.75M



Again as outlined earlier reference rates are a general guide and need to be applied with due allowance for local and site-specific conditions. It is considered inappropriate to simply apply reference rates to such complex facilities as water treatment plants. These facilities include a huge variety of technologies, plant and equipment, which is dependent upon both raw water and treated water quality parameters.

*28. It is understood that items of expenditure of \$10M in each of 2010 and 2011 relate to WTP's at Port Dam and Cowarra Dam. These are not described and nor are their respective capacities known. Each apparently has an adjacent clearwater reservoir worth \$3.5M. In addition \$2.75M is nominated for a temporary workshop at Port Dam to be utilised in the future as part of the WTP (now advised that this will not proceed).*

**Comment**

Missing descriptions on WTP at Port Dam and Cowarra have been included.

15ML Reservoirs adjacent to WTP's at Cowarra and Wauchope included at \$3.5M

The proposed office and workshop accommodation at Port Dam has now been provided at Jindalee Road Port Macquarie. The description of this item has been changed.

A temporary water operations centre is currently being established at the Port Dam site until the new Thrumster depot is ready for occupation. The works completed at the Port Dam site have been designed to facilitate the proposed WTP facilities.

The final sizing of these WTPs will be dependent upon the ability to stage these facilities and also the transfer needs of the associated headworks and transfer systems. However, it is anticipated that the capacity of each WTP will be in the order of 60 to 70ML/day.

It is considered that the adopted costs are currently significantly lower than the anticipated actual costs. A similar sized water treatment plant currently being implemented at Mid Coast Water has a cost estimate of approximately \$60M. However, Council has adopted a conservative approach to cater for anticipated technological advances in the provision of future water treatment facilities.

*29. The Reference Rates are deemed to include SID. Some reservoirs have a separate allocation for SID (up to \$500,000) on top of the construction item and there is a separate allocation of \$15,000/year to Network Analysis and \$10,000/year for SID. The SID allocations should be excluded from the calculation .*

**Comment**

The SID costs for reservoirs include allowances to cover uncertain ground conditions and land acquisition costs. Other amounts for SID and network analysis have been excluded from the calculation.

### ***Works Programme Scheduling***

*30. The works schedule was prepared with little if any consultation with the industry. We suggest that more consultation would be beneficial to both parties in meeting the expected timing for development of land.*

### **Comment**

There is a certain amount of flexibility within the works programme and where possible works are programmed to accommodate development proposals. The timing of works is set to follow a logical or expected sequence at a development rate predicted in HUGS.

Consideration has also been given to Council's capacity to meet the total works programme being limited by results from the financial planning undertaken in FINMOD.

### **Alignment With Strategic Direction**

The proposal seeks to create sustainable living for current and future residents by providing for an equitable distribution of infrastructure funding.

### **Planning and Policy Impact**

The new DSP's will replace Council's existing Water Supply DSP's including the main DSP's adopted on 2 October 2001.

### **Financial & Economic Implications**

Adopting the DSP's from 1 July 2006 will result in a small cross subsidy of \$9 per assessment from rates and charges to the Developer Charge. Phasing in the charge would result in an increase in the cross subsidy of approximately \$2 per assessment. Under the Guidelines for Council to be able to take a dividend from the Water fund, the charges must be considered commercial. There is little guidance as to what constitutes commercial rates. Council's consultant has advised that the proposed developer charges may be considered by DEUS to be non-commercial due to the level of cross-subsidy. In arriving at the level of the developer charge, Council took into consideration the relatively high water developer charges and financial, social and environmental considerations. No response was received from DEUS in relation to the draft DSP.

Due to significant capital works in the Water Supply area over the next few years it will be necessary for a large component of borrowing to undertake these works. Any delay in introducing the new developer charge will have serious consequences for Council's ability to fund the loan repayments.

### **Options**

Options for the introduction of the revised Developer Charge are discussed in the body of the report.

**COUNCIL RESOLUTION:**  
**Mr T Green addressed Council.**

**Resolved: (Price/Prussing)**

- 1. That Council adopt the revised Hastings Water Supply Development Servicing Plans.**
- 2. That Council apply the new developer charges in the DSP's from 1 July 2006.**
- 3. That Council reduce the Development Servicing Plan administration levy to 1.6% from 1 July 2006.**
- 4. Council advertise the amended Administration Levy Development Servicing Plan for 30 working days.**