THE COUNCIL OF CAMDEN

CONTRIBUTIONS PLAN NO. 16

ELLIS LANE AND GRASMERE

This Plan was adopted by Council on October 27, 2003
And came into force on November 12, 2003.

Prepared by: Works & Services
File No. TC/3621/3

CONTENTS

INTRODUCTION

Section 94 of the Environmental Planning and Assessment Act, 1979 (EP&A Act) enables Council to levy contributions for public facilities and infrastructure requires as a consequence of development.

The power to levy a contribution relies on there being a link (nexus) between new development and the increased demand for facilities and infrastructure created by that development. This may be demonstrated through:

- Causal nexus (what);
- Spatial or physical nexus (where); and
- Temporal nexus (when).

Generally, contributions can be levied for:

- Capital costs (including land acquisition);
- Public facilities; and
- Public infrastructure.

Contributions can also be levied for:

- Road maintenance (excessive wear and tear caused by new development);
- Costs of planning studies that result in the adoption of a Contributions Plan (CP) and;
- Salary costs of s.94 staff where the costs are non-recurrent.

The contribution is imposed by way of a condition of development consent. The contribution may be a combination of some or all of the following:

- Land dedication;
- Monetary contribution; or
- Material public benefit (including works in kind).

Contributions can only be levied under a CP made in accordance with the Environmental, Planning and Assessment Regulation, 1994.

The preparation of a CP and the levying of contributions under that Plan are discretionary powers of Council.

PART A: SUMMARY TABLES

Figure 1: Summary of Works Schedules

ITEM OF WORKS	STAGE 1 COMPLETED 420 LOTS (JUN 97) ACTUAL COST	STAGE 2 PROPOSED 420-610 LOTS ESTIMATED COST	STAGE 3 PROPOSED 610-800 LOTS ESTIMATED COST	TOTAL 800 LOTS ESTIMATED COST
ROADWORKS	$ 180,168	$ 86,592	$ 1,253,507	$ 1,520,267
WATER QUALITY FACILITIES	$ -	$ 99,590	$ 408,910	$ 508,500
TOTAL	**$ 180,168**	**$ 186,182**	**$ 1,662,418**	**$ 2,028,767**

Figure 2: Summary of Apportionment of Costs

ITEM OF WORKS	PRECINCTS 1	2	3	4	5	6	7	8	TOTAL
ROADWORKS	$ 153,170	$ 292,219	$ 348,701	$ 122,459	$ 119,227	$ 6,720	$ 458,629	$ 19,141	$ 1,520,267
WATER QUALITY FACILITIES	$ 85,917	$ 39,590	$ 60,000	$ 60,000	$ 72,140	$ 94,949	$ 95,904	$ -	$ 508,500
TOTAL	**$ 239,087**	**$ 331,809**	**$ 408,701**	**$ 182,459**	**$ 191,368**	**$ 101,669**	**$ 554,533**	**$ 19,141**	**$ 2,028,767**

Figure 3: Summary of Contribution Rates, July 2003.

ITEM OF WORKS	PRECINCTS 1	2	3	4	5	6	7	8
ROADWORKS	$ 4,834	$ 4,834	$ 4,834	$ 1,488	$ 1,488	$ 149	$ 4,834	$ 149
WATER QUALITY FACILITIES	$ 2,685	$ 649	$ 822	$ 698	$ 829	$ 1,283	$ 1,010	$ -
TOTAL	**$ 7,519**	**$ 5,483**	**$ 5,656**	**$ 2,185**	**$ 2,317**	**$ 1,433**	**$ 5,844**	**$ 149**

PART B: ADMINISTRATION AND ACCOUNTING

NAME OF THE PLAN

This Plan has been prepared in accordance with the provisions of s.94 of the Environmental Planning and Assessment Act, 1979 and Part 4 of the Regulation and may be referred to as Contributions Plan No. 16: Ellis Lane and Grasmere.

This Plan takes effect on November 12, 2003.

A development application made before this Plan takes effect that is determined on or after that date is to be determined as if this Plan had not taken effect. In particular, such a development application is to be determined as if any contributions plan amended or repealed by this Plan had not been so amended or repealed.

1. PURPOSE OF THE PLAN

The Purpose of this Plan is to provide a funding strategy that enables Council to levy contributions on new subdivision in order to:

- Construct roadworks;
- Plant street trees;
- Install bus shelters;
- Construct water quality facilities;

2. OBJECTIVES OF THE PLAN

The objectives of this Plan are to:

- Meet Council's obligations under the EP&A Act and the Regulation;
- Complement the aims and objectives of relevant Local Environmental Plans and Development Control Plans;
- Demonstrate the nexus between new rural-residential development and increased demand for public facilities and infrastructure;
- Provide a schedule of works of the required facilities and infrastructure with an estimate of their cost and staging over a period of 5 years;
- Indicate the apportionment of costs;
- Provide formulas for the calculation of contribution rates; and
- Indicate the method of payment and timing of contributions.

3. AREA OF THE PLAN

This Plan applies to a contributing area shown on **Figures 4 and 5.** It comprises an area of 500 hectares bounded by Sickles Creek, the Camden Local Government Area (LGA) boundary, the Nepean River and the Old Oaks Road.

Figure 4: Locality

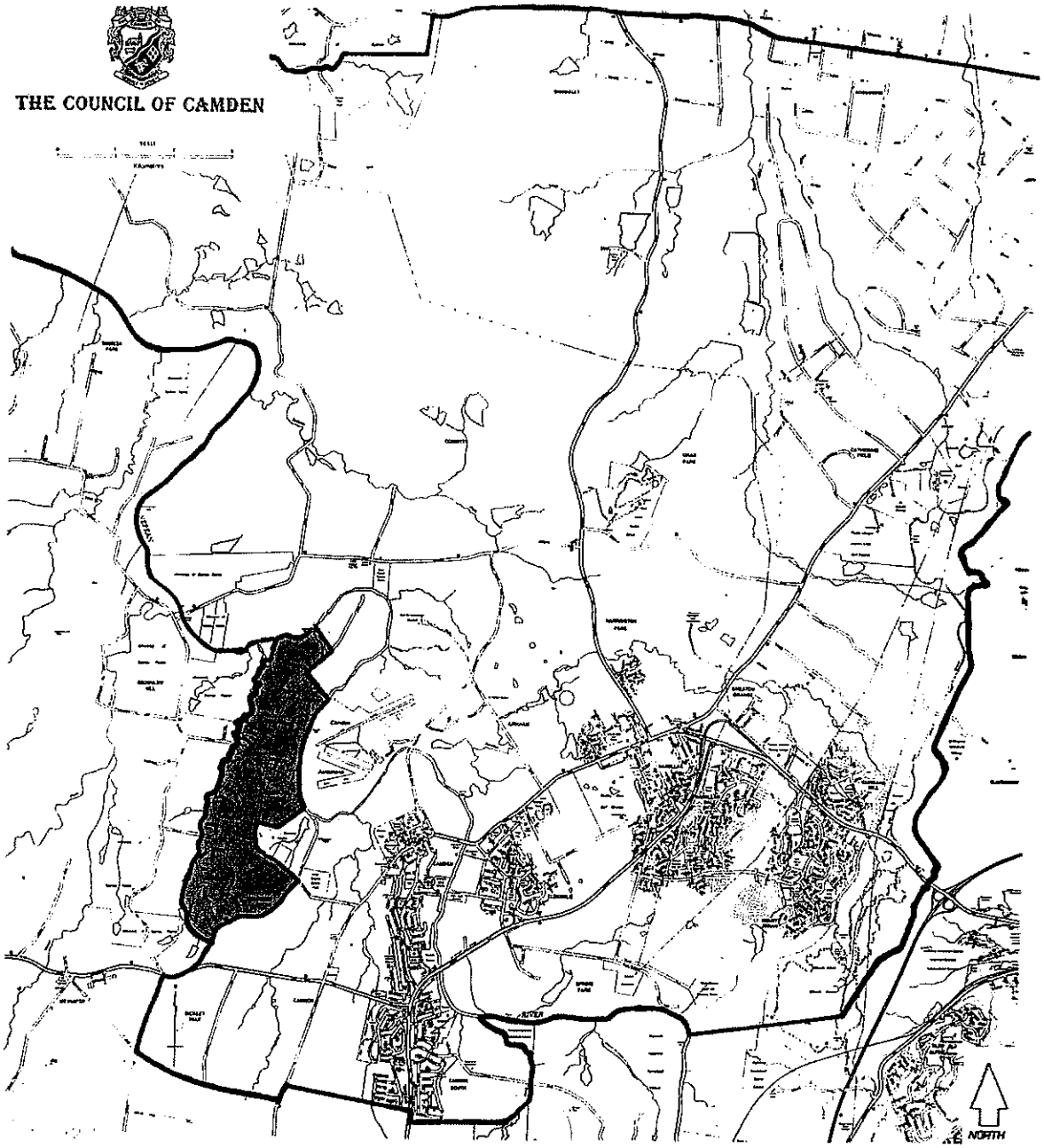

FIGURE 4: LOCALITY

AREA OF THE PLAN

LOCAL GOVERNMENT AREA BOUNDARY

Figure 5: Area of the Plan

FIGURE 5: AREA OF THE PLAN

PLAN BOUNDARY

In delineating the area, consideration has been given to the 1% Annual Exceedance Probability (AEP) flood level. The potential for rural-residential subdivision does not exist for land below this level and such land is therefore excluded from this Plan.

Land on which the Carrington Hospital and the West Camden Sewerage Treatment Plant are located is also excluded from this plan, as there is no potential for rural-residential subdivision.

Land zoned 1 (a) Rural A under Local Environmental Plan No: 48 in precinct 7 is included within the area of this Plan notwithstanding that the minimum lot size permitted under this zoning is 40 hectares. Vigorous environmental investigation will need to take place before any decision is made to rezone this land for rural-residential subdivision.

4. RELATIONSHIP TO OTHER PLANS

This Plan supersedes Contributions Plan No: 16 adopted by Council on 27 January 1998.

It is also compatible with the aims and objectives of the following Development Control Plans (DCP's) for the area.

- DCP No. 5 Small Road, Grasmere (1984);
- DCP No. 12 Werombi Road, Grasmere (1986);
- DCP No. 28 Smalls Road, Grasmere (1987);
- DCP No. 41 Sickles Road, Grasmere (1987);
- DCP No. 47 Grasmere (1992)
- DCP No. 79 Smalls Road, Grasmere (1994);
- DCP No. 90 Ellis Lane (1995); and
- DCP No. 91 Ellis Lane (1995)

Copies of these DCP's are available from Council's offices.

5. CALCULATION OF APPORTIONMENT AND CONTRIBUTION RATES

Apportionment of Costs

The cost of works is apportioned to a precinct(s) on the basis that such precinct(s) contribute to the demand for, and benefit from, such works.
The formula for each precinct is:

$$\text{Precinct apportionment} = \frac{\text{Cost of works}}{\text{Lots of all contributing precincts}} \times \text{Precinct lots}$$

Contribution Rates

The contribution rate per lot for each precinct is dependent upon the apportionment of cost.

The formula for each precinct is

$$\text{Precinct contribution rate} = \frac{\text{Apportioned cost of works}}{\text{Precinct Lots}}$$

6. INDEXATION OF CONTRIBUTION RATES

Contribution rates will be indexed quarterly to the CPI (Sydney – All Groups) to ensure that contributions reflect the increases in costs associated with the provision of the facilities and services. Contributions will be indexed in accordance with the following formula:

$$C_R = C_C \times \frac{CPI_2}{CPI_1}$$

Where:

C_R is the revised contribution rate used at the time of development determination;

C_c is the contribution rate indicated in this plan at the time of the plan adoption;

CPI_2 is the Consumer Price Index at the time of consent; and

CPI_1 is the Consumer Price Index at the time of calculating C_c.

7. GOODS AND SERVICES TAX

In circumstances where the cost of providing the public amenities and services identified in this Plan is increased as a result of Council becoming obliged to pay Goods and Services Tax (GST) for the supply of those public amenities and services, the contribution rate payable under this Plan will be increased by an equivalent amount.

8. TIMING OF PAYMENT

Payment of monetary contributions will be made prior to the release of plan of subdivision.

9. DEFERRED OF PERIODIC PAYMENTS

Monetary contributions may be deferred or paid by periodic installments only if a bank guarantee is lodged and only for a fixed period of time. The guarantee will:

- Indicate the deferred period;
- Indicate the works to which it applies;
- Indicate the contribution amount plus the estimated amount of compound interest foregone by Council for the deferred period;
- Be called up if monetary payment has not been made by the end of the deferred period; and
- Be discharged when full monetary payment has been made.

A deferral is only acceptable where significant financial hardship can be demonstrated, and will be considered at Council's discretion.

10. TYPES OF CONTRIBUTIONS

Monetary Contributions

When Development Consent is issues for new subdivision, it will contain a condition indicating the monetary contribution payable, subject to indexation.

Land Contributions

Land contributions may be accepted instead of monetary contributions. The land must:

- Be identified in a master plan; and
- Be dedicated to Council as either Public Reserve or Drainage Reserve.
- Have an agreed value equivalent to the nominated land value under this plan at the time of transfer; and
- Be fit for the intended function of that land according to the parameters set out in Council's Open Space strategy, or with approval of the relevant Council officer with respect to drainage or community land.
- The agreed value will be offset against contributions required under this Plan. If no further land is to be developed and all contributions due by the developer have been paid, the agreed value will be reimbursed by Council.

Land contribution of this kind is effectively a "material public benefit" and may require a "Works in Kind" agreement. Where the proposed land dedication provides a material public benefit in dollar terms, greater than the total value of contributions required

by the specific development, a works in kind agreement must be entered into.

Where the total value of the land is less than the total S94 contribution required by the development, the actual works in kind credit against the contributions can be calculated and accounted for at the time of dedication.

Works in Kind Contributions

Works in kind contributions may also be accepted instead of monetary contributions. The works in kind must:

- Be set out in an agreement in writing between Council and the developer prior to commencement of works or the development.
- Be included in the works programs, or identified in a master plan;
- Have an agreed value with any variations approved by both parties;
- Be in accordance with agreed standards, specifications and programs for completion;
- Have an appropriate defects liability period; and
- Be subject to a bank guarantee.

The agreed value will be offset against contributions required under this Plan. If no further land is to be developed and all contributions due by the developer have been paid, the agreed value will be reimbursed by Council.

A works in kind agreement will form a contract between Council and the developer. The property owner must also be a party to the agreement. The agreement will specify the following;

- The works required.
- The value of those works.
- The relationship between those works and the contribution plan.
- The expected completion of those works with respect to the development timetable.

Variation to Contributions

Council retains the right to alter or vary a contribution applied under this plan. Any variation sought by a developer must be stated with the Development Application, and will be considered in conjunction with the assessment process. All relevant facts and justification for the variation must be supplied with the Development Application, this includes details of the development proposed which render the development significantly different to that anticipated by this plan. Any request for a agreement to be entered into for the provision of

material Public Benefit in lieu of contributions, will also need to be stated at that time.

11. ACCOUNTING AND FINANCIAL INFORMATION

Accounting Records

Council maintains separate accounting records for this plan which indicate:

- The items of works as listed in the schedule of works;
- Total contributions received under the plan; and
- The amounts spent in accordance with the plan.

Annual Statement

At the end of each financial year, Council prepares an annual Statement for this Plan. The Annual Statement may form part of Council's Annual Report and indicates:

- Opening and closing balances for the year;
- Total contributions received under the plan;
- Total expenditure in accordance with the plan; and
- Outstanding obligations under this plan.

Copies of the Statement and/or Report are available from Council's offices.

Contributions Register

Council maintains a Contributions Register, which indicates:

- Opening and closing balances for the year;
- Total contributions received under the plan;
- Total expenditure in accordance with the plan; and
- Outstanding obligations under this plan

PART C: DEMONSTRATION OF NEXUS

12. RELEVANT STUDIES

Nexus is demonstrated in this Plan and in the following studies:

- Rural Residential Local Environment Study (PPK Consultants, 1992);
- Recreation Study Report (Gutteridge, Haskins and Davey Pty Ltd, 1993);
- Guide to Traffic Generating Developments (Road and Traffic Authority, 1993); and
- Camden Community profile (1995).

Copy of these reports are available from Council's offices.

13. CAUSAL NEXUS ("WHAT")

The potential for further subdivision and the consequent increase in population will require the provision of new public facilities and infrastructure in Ellis Lane and Grasmere.

The nexus between potential development and the public facilities and infrastructure has been established having regard to:

- The type and extent of new development;
- The expected increase in population as a consequence of that development ;
- The characteristics of the population;
- The expected traffic generation as a consequence of that development;
- The expected impacts on environmental quality as a consequence of that development;
- The availability and capacity of the existing public facilities and infrastructure in the area; and
- The extent to which proposed works will meet the needs of the population.

This Plan includes a schedule of works which are requires as a consequence of future development. The works will be carries out or have already been carried out to meet the needs of the population in Ellis Lane and Grasmere.

14. PHYSICAL NEXUS ("WHERE")

This Plan identifies the location of public facilities and infrastructure and the precincts within the area of the Plan that contribute to such works.

The location of works has been determined having regard to:

- The location of increased demand;
- The accessibility to the identified works; and
- The manner in which need is best satisfied.

15. TEMPORAL NEXUS ("WHEN")

Only those public facilities and infrastructure which are required as a consequence of development up to the year 2012 are included in the works schedule. Timing for the provision of these works is bases on the potential lot yield and the consequent population growth.

The works schedule identifies:

- Works which have already been completed; and
- Works which are proposed to be carried out when lot yield reaches 610 lots and ultimate development of 800 lots.

Staging of the works allows time for design, tendering and construction to take place and for variations in the rate lot production.

16. LOT POTENTIAL

Lot production to the year 2012 is shown in **figure 6.**

As at June, 1997 there were 420 rural-residential lots within the area of this plan. Of these, 120 were never levied s.94 contributions and 300 were levied at rates lower than which are now required.

At the time of plan adoption a potential of around 380 new rural-residential lots existed which were subject to contributions under this Plan.

At this time there does not appear to be any significant changes to this projection, future contributions will continue to be based on an ultimate total of around 800 lots within the life of this plan.

Figure 6: Lot Production

PRECINCT	EXISTING JUNE 1997	POTENTIAL 1997-2012	TOTAL 2012
1	12	20	32
2	21	40	61
3	33	40	73
4	43	43	86
5	80	7	87
6	34	40	74
7	5	90	95
8	192	100	292
TOTAL	**420**	**380**	**800**

17. POPULATION

The occupancy rate for each dwelling determines the population. Occupancy rates have been declining over the past decade.

The 1996 Census indicated an occupancy rate of 3.6 persons per dwelling for Ellis Lane and 3.7 for Grasmere. Assuming that all 420 existing lots have occupied dwellings, the existing population is around 1530.

Residents generally comprise record and third homebuyers in a medium to high-income bracket. Future residents will likely be of a similar socioeconomic profile with a broad age range of children.

The occupancy rate is likely to remain around 3.5 persons per dwelling in the near future. The potential of 380 lots will therefore generate around 1330 new residents with an ultimate population of around 2860.

18. TRAFFIC GENERATION

The potential for rural-residential subdivision and the resulting population translate into the generation of vehicular traffic. This occasions the need for road works that would not otherwise be required.

Traffic generation is referred to as the number of trips generated; a trip being a one way vehicular movement form one point to another, excluding the return journey. Therefore, a trip to and from a point is counted as two trips.

The Guide to Traffic Generating Developments gives a standard of nine trips per day per dwelling for urban areas. However, for Ellis Lane and Grasmere, this standard is also adopted on the basis of:

- A higher than average occupancy rate than for the Camden LGA as a whole;
- The frequency of public transport and lack of local retail facilities which increase the need to use private transport;
- The socio-economic profile of the population that results in two or more vehicles per dwelling; and
- The close proximity of the Camden Town Centre which is easily accessed by car.

Given the ultimate total lot production of 800 lots, the standard translates into around 7200 vehicle trips per day within the area of this Plan.

19. ENVIRONMENTAL IMPACTS

The area of this Plan is within the drainage catchment of Sickles Creek which in turn, is a sub-catchment of the Nepean River. The water quality of both systems is under threat as land uses within the catchments change from rural to urban.

Urbanisation of drainage catchments by way subdivision and development has significant impact on the surface and subsurface natural water flow. Land becomes covered by impervious areas such as roads, driveways and buildings and disturbed by the clearing and construction.

Cleared and impervious areas increase the rate and volume of stormwater runoff with the potential for flooding, erosion, sediment transport and pollution, both within the catchment itself and in upstream and downstream catchments.

The adverse environmental impact of such disturbance can be minimised by water quality facilities such as wet basins and trash racks which filter course sediment, floating trash and debris, particularly after periods of heavy rainfall.

20. FACILITIES AND INFRASTRUCTURE REQUIRED

The above factors affecting demand have resulted in a range of public facilities and infrastructure that will be required to the year 2012.

Roadworks

Description and Location

The Location of roadworks is shown is **Figure 7.**

Upgrading of Smalls Road

Road widening are recondition of Smalls Road has been occasioned by subdivision occurring on both sides of the road.

Most of the works have already been completed but some further upgrading will be required at the Sickles Creek end.

Roundabout at Smalls Road and Werombi Road

A roundabout has been constructed in anticipation of the demand created by the full subdivision of land surrounding Smalls Road.

Given the existing and future traffic volumes for Werombi Road and the traffic generation by lots surrounding Smalls Road, a standard "T" junction would normally have been required. However, a roundabout was considered preferable for the following reasons.

- Access was improved to Smalls Road and to Carrington Hospital;
- Sight distances were improved from both Smalls Roads and Carrington Hospital;
- The alignment of Werombi Road was improved;
- The traffic speed on Werombi Road was reduced; and
- Safety at the intersection was greatly improved.

Figure 7: Location of Road works

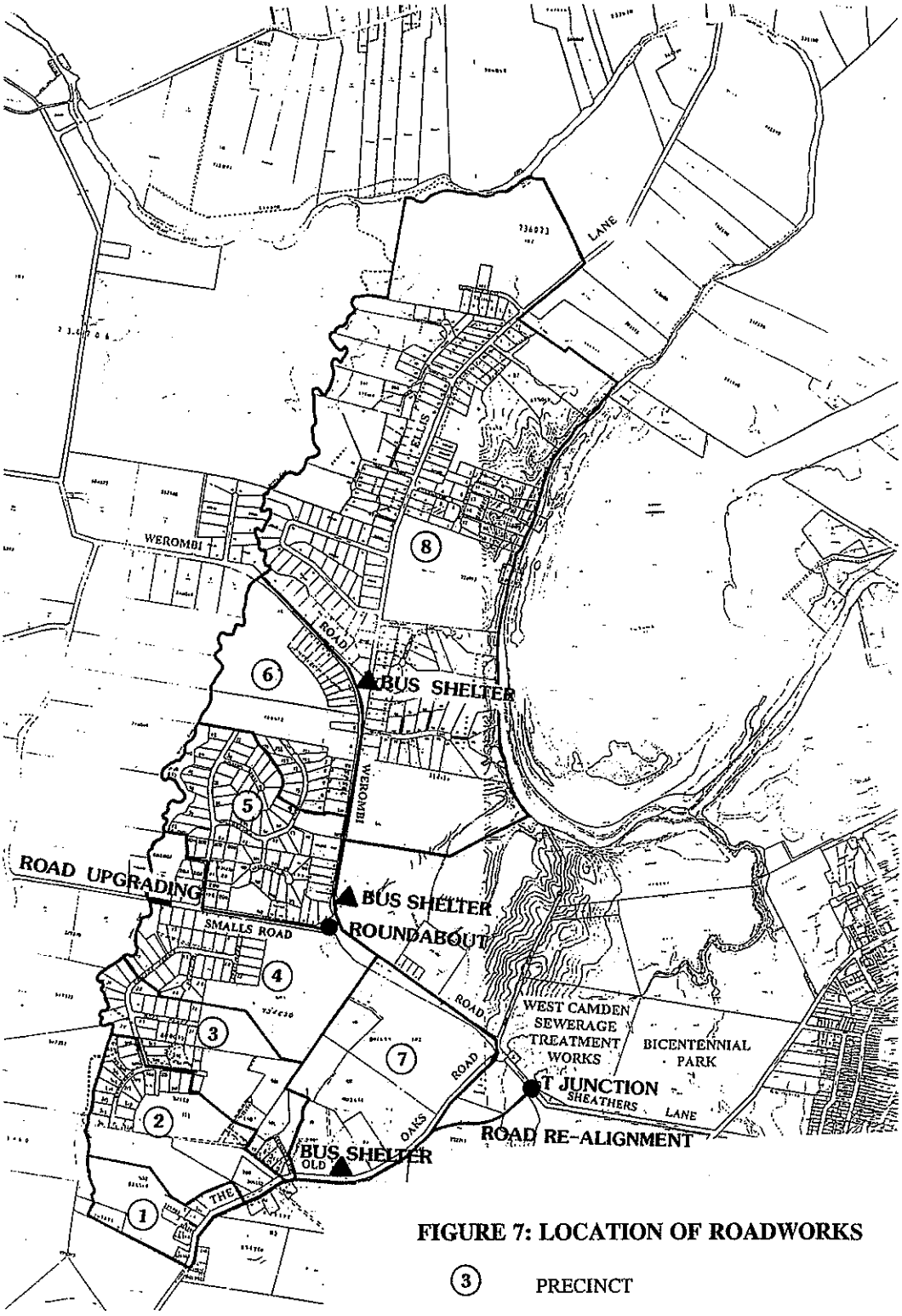

FIGURE 7: LOCATION OF ROADWORKS

(3) PRECINCT

T Junction and Re-alignment of the Old Oaks Road and Sheathers Lane

The current four-way intersection of the Old Oaks Road, Werombi Road and Ferguson Lane is dangerous, being at the crest of a hill and on a bend of Werombi Road. Sight distances for traffic exiting the Old Oaks Road are inadequate and are compounded by the 80 kph speed limit on Werombi Road.

Additional traffic from future subdivision will only make this intersection more unsafe.

A number of alternative solutions have been investigated including:

- A roundabout at the current intersection;
- Making Sheathers Lane – The Old Oaks Road the priority route; and
- The lowering of Werombi Road.

However, the safest and most cost effective solution is the re-alignment of the Old Oaks Road south to a new "T" junction with Sheathers Lane.

Street Trees

Council's standard of provision in rural-residential areas is three trees per lot, planted within the footpath area of the road reserve.

Street trees have been provided to date via a fee charged to developers under the Local Government Act. They are therefore a non s.94 cost and are not a cost to this Plan.

However, for future subdivision the provision of street trees is included in the schedule of works to be funded from s.94 contributions instead of a separate fee.

Bus Shelters

Bases on the consultation with the local bus operator and Council's standards of provision, three bus shelters will be required.

Two bus shelters have been installed on Werombi Road within the road reserve. The third shelter will be provided in the Old Oaks Road in a location to be determined with the local bus operator.

Component Costs

The component costs of roadworks are shown in **Figure 8.**

The estimated costs are bases on Council's experience in constructing similar roadworks elsewhere. These costs have been adopted from the existing plan and adjusted in accordance with the Road Cost index of that plan.

For the major roadworks, a consulting and supervision fee has been allowed for as well as a contingency provision of 10%.

The bus shelters have a standard cost, which includes design, materials, construction and installation.

Staging

Staging of the road works is shown in **Figure 9.**

Staging 1 represents works completed as at June 1997. This includes the construction of a roundabout at Smalls Road and Werombi Road, some of the upgrading of Smalls Road and the installation of two bus shelters in Werombi Road. Street trees in Stage1 are non s.94 cost.

Stages 2 and 3 represents proposed works based on lot yields expected to the year 2012.

Apportionment

The apportionment of costs for roadworks between precincts is shown in **Figure 10.**

For the major roadworks, their costs are apportioned to the specific precincts which contribute to their demand and which benefit from the works.

For street trees and bus shelters, their cost is apportioned to all precincts which contribute to their demand and which benefit from the works.

The formula used to calculate apportionment is explained earlier in clause 6.

Figure 8: Road works – Component Costs

ITEM OF WORKS	COMPLETED (JUNE 2003)	PROPOSED	TOTAL
Upgrading Smalls Road			
Survey and design.		4,724	$ 4,724
Earthworks, construction, drainage.	$ 90,955	$ 47,240	$ 138,195
Consultancy and supervision @ 10%.		$ 5,196	$ 5,196
Contingency @ 10%		$ 5,196	$ 5,196
Sub Total	**$ 90,955**	**$ 62,357**	**$ 153,312**
Roundabout : Smalls / Werombi Roads			
Earthworks, construction, drainage, landscaping.	$ 78,213		$ 78,213
Sub Total	**$ 78,213**	**$ -**	**$ 78,213**
T Junction & Re-alignment : Old Oaks Rd / Sheathers Ln			
Land acquisition - 1 ha. @ $500,000/ha.	$ 7,424	$ 500,000	$ 507,424
Survey and design		$ 11,810	$ 11,810
Earthworks, construction, drainage		$ 590,504	$ 590,504
Consultancy, supervision @ 10% (excluding land acquisition)		$ 60,231	$ 60,231
Contingency @ 10% (excludes land acquisition)		$ 60,231	$ 60,231
Sub Total	**$ 7,424**	**$ 1,222,777**	**$ 1,230,201**
Street Trees			
420 trees. Non s.94 cost.	$ -		$ -
380 lots @ 3 trees/lot		$ 48,469	$ 48,469
Sub Total	**$ -**	**$ 48,469**	**$ 48,469**
Bus Shelters			
3 @ $5,500 each. Design, construction, installation.	$ 11,000	$ 6,496	$ 17,496
Sub Total	**$ 11,000**	**$ 6,496**	**$ 17,496**
TOTAL	**$ 187,592**	**$ 1,340,099**	**$ 1,527,691**

Figure 9: Road works – Staging

ITEM OF WORKS	STAGE 1 COMPLETED 420 LOTS (JUN 97)		STAGE 2 PROPOSED 420-610 LOTS		STAGE 3 PROPOSED 610-800 LOTS		TOTAL 800 LOTS	
	NO.	ACTUAL COST	NO.	ESTIM. COST	NO.	ESTIM. COST	NO.	ESTIM. COST
UPGRADING : SMALLS RD	-	$ 90,955	-	$ 62,357			-	$ 153,312
ROUNDABOUT : SMALLS RD / WEROMBI RD	-	$ 78,213					-	$ 78,213
T JUNCTION & RE-ALIGNMENT : OLD OAKS RD / SHEATHERS LN					-	$ 1,222,777	-	$ 1,222,777
STREET TREES	420	$ -	570	$ 24,234	570	$ 24,234	1560	$ 48,469
BUS SHELTERS	2	$ 11,000			1	$ 6,496	3	$ 17,496
TOTAL	**-**	**$ 180,168**	**-**	**$ 86,592**	**-**	**$ 1,253,507**	**-**	**$ 1,520,267**

Figure 10: Road works – Staging

ITEM OF WORKS	APPORTIONED COST BETWEEN PRECINCTS								TOTAL
	1	2	3	4	5	6	7	8	
UPGRADING : SMALLS ROAD				$ 76,213	$ 77,099				$ 153,312
ROUNDABOUT : SMALLS ROAD / WEROMBI ROAD				$ 38,880	$ 39,333				$ 78,213
T JUNCTION & RE-ALIGNMENT : OAKS RD / SHEATHERS LN	$ 149,919	$ 285,783	$ 342,008				$ 445,072		$ 1,222,777
STREET TREES	$ 2,551	$ 5,102	$ 5,102	$ 5,485	$ 893	$ 5,102	$ 11,479	$ 12,755	$ 48,469
BUS SHELTERS	$ 700	$ 1,334	$ 1,596	$ 1,881	$ 1,903	$ 1,618	$ 2,078	$ 6,386	$ 17,496
TOTAL	**$ 153,170**	**$ 292,219**	**$ 348,701**	**$ 122,459**	**$ 119,227**	**$ 6,720**	**$ 458,629**	**$ 19,141**	**$ 1,520,267**

Contribution Rates

Contribution rates per lot for roadworks are shown in **Figure 11.**

The formula used to calculate contribution rates is explained earlier in clause 6.

Figure 11: Road works – Contribution Rates, July 2003.

ITEM OF WORKS	CONTRIBUTION RATE PER LOT BETWEEN PRECINCTS							
	1	2	3	4	5	6	7	8
UPGRADING: SMALLS ROAD				$ 886	$ 886			
ROUNDABOUT: SMALLS ROAD/ WEROMBI ROAD				$ 452	$ 452			
T JUNCTION & RE-ALIGNMENT: OAKS RD/ SHEATHERS LN	$ 4,685	$ 4,685	$ 4,685				$ 4,685	
STREET TREES	$ 128	$ 128	$ 128	$ 128	$ 128	$ 128	$ 128	$ 128
BUS SHELTERS	$ 22	$ 22	$ 22	$ 22	$ 22	$ 22	$ 22	$ 22
TOTAL	$ 4,834	$ 4,834	$ 4,834	$ 1,488	$ 1,488	$ 149	$ 4,834	$ 149

Water Quality Facilities

Description

There are seven (7) proposed water quality facilities each with their own catchment. Essentially they are a constructed wetland basin bounded at the basin entry by a headwall with a trash rack. The entry water will then flow into a pond set close to the water level of Sickles Creek. The size of the pond will depend on the catchment size. All basins will have a gabion wall on the exit side of the pond and specific access to enable maintenance to be carried out.

These features will provide trash, sediment control, some nutrient uptake by macrophytes and will ensure that development in Ellis Lane and Grasmere does not impact significantly on water quality.

Location

The location of water quality facilities is shown on **Figure 12.**

Facilities will be provided in precinct 8 by developers as a s.90 requirement. They will therefore be a non s.94 cost and will not be a cost to this Plan.

Component Costs

The component costs of water quality facilities are shown on **Figure 13.**

The estimated costs are based on Council's experience in constructing similar facilities elsewhere. Where a facility has been completed the actual costs have been included. Where a facility is under construction the contract price has been used. For facilities yet to be commenced the original cost estimates have been used and indexed according to the original plan.

A design and supervision fee has been allowed for as well as a contingency provision of 20%.

Figure 12: Location of Water Quality Facilities

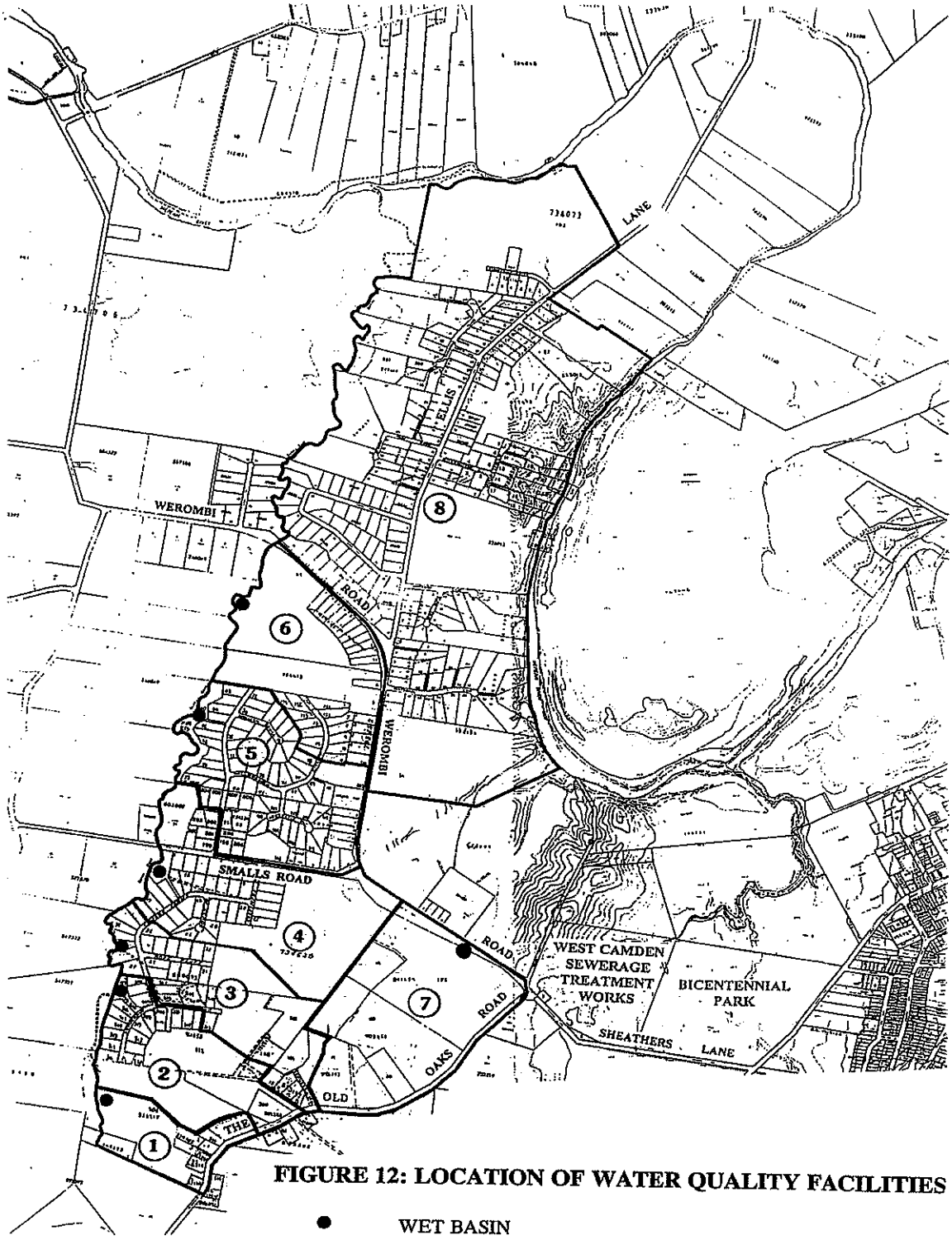

FIGURE 12: LOCATION OF WATER QUALITY FACILITIES

● WET BASIN

③ PRECINCT

Figure 13: Water Quality Facilities – Component Costs

ITEM OF WORKS		COMPLETED (JUNE 2003)	PROPOSED	TOTAL
Wet Basin 1 :	Excavation			
	Service access			
	Gabion wall			
	Macropytes			
	Trash rack			
	Design, supervision @ 7%			
	Contingency @ 20%			
	Sub Total	**$ 85,917**	**$ -**	**$ 85,917**
Wet Basin 2 :	Excavation			
	Service access			
	Gabion wall			
	Macropytes			
	Trash rack			
	Design, supervision @ 7%			
	Contingency @ 20%			
	Sub Total	**$ 39,590**		**$ 39,590**
Wet Basin 3 :	Excavation			
	Service access			
	Gabion wall			
	Macropytes			
	Trash rack			
	Design, supervision @ 7%			
	Contingency @ 20%			
	Sub Total	**$ 9,200**	**$ 50,800**	**$ 60,000**
Wet Basin 4 :	Excavation			
	Service access			
	Gabion wall			
	Macropytes			
	Trash rack			
	Design, supervision @ 7%			
	Contingency @ 20%			
	Sub Total	**$ 39,630**	**$ 20,370**	**$ 60,000**
Wet Basin 5 :	Excavation		$ 27,943	$ 27,943
	Service access		$ 14,172	$ 14,172
	Gabion wall		$ 6,373	$ 6,373
	Macropytes		$ 1,792	$ 1,792
	Trash rack		$ 5,905	$ 5,905
	Design, supervision @ 7%		$ 3,933	$ 3,933
	Contingency @ 20%		$ 12,023	$ 12,023
	Sub Total	**$ -**	**$ 72,140**	**$ 72,140**
Wet Basin 6 :	Excavation		$ 43,180	$ 43,180
	Service access		$ 14,172	$ 14,172
	Gabion wall		$ 7,922	$ 7,922
	Macropytes		$ 2,768	$ 2,768
	Trash rack		$ 5,905	$ 5,905
	Design, supervision @ 7%		$ 5,176	$ 5,176
	Contingency @ 20%		$ 15,825	$ 15,825
	Sub Total	**$ -**	**$ 94,949**	**$ 94,949**
Wet Basin 7 :	Excavation		$ 43,825	$ 43,825
	Service access		$ 14,172	$ 14,172
	Gabion wall		$ 7,981	$ 7,981
	Macropytes		$ 2,808	$ 2,808
	Trash rack		$ 5,905	$ 5,905
	Design, supervision @ 7%		$ 5,228	$ 5,228
	Contingency @ 20%		$ 15,984	$ 15,984
	Sub Total	**$ -**	**$ 95,904**	**$ 95,904**
	TOTAL	**$ 174,337**	**$ 334,163**	**$ 508,500**

Staging

Staging of the water quality facilities is shown in **Figure 14.**

Construction of all water quality facilities will therefore be carried out in stages 2 and 3.

Apportionment

The Apportionment of costs for water quality facilities between precincts is shown in **Figure 15.**

The cost of each facility is apportioned fully to that precinct which forms its catchment, as each precinct contributes to the demand for only one facility and benefits from the works accordingly.

The formulas used to calculate apportionment is explained earlier in clause 6.

Contribution Rates

Contribution rates per lot for water quality facilities are shown in **Figure 16.**

The formula used to calculate contribution rates is explains earlier in clause 6.

Figure 14: Water Quality Facilities – Staging

ITEM OF WORKS	STAGE 1 COMPLETED 420 LOTS (JUN 07)		STAGE 2 PROPOSED 420-610 LOTS		STAGE 3 PROPOSED 610-800 LOTS		TOTAL 800 LOTS	
	NO.	ACTUAL COST	NO.	ESTIM. COST	NO.	ESTIM. COST	NO.	ESTIM. COST
WETLAND BASIN 1					1	$ 85,917	1	$ 85,917
WETLAND BASIN 2			1	$ 39,590			1	$ 39,590
WETLAND BASIN 3			1	$ 60,000			1	$ 60,000
WETLAND BASIN 4					1	$ 60,000	1	$ 60,000
WETLAND BASIN 5					1	$ 72,140	1	$ 72,140
WETLAND BASIN 6					1	$ 94,949	1	$ 94,949
WETLAND BASIN 7					1	$ 95,904	1	$ 95,904
TOTAL	**-**	**$ -**	**2**	**$ 99,590**	**5**	**$ 408,910**	**7**	**$ 508,500**

Figure 15: Water Quality Facilities – Apportionment of Costs

ITEM OF WORKS	APPORTIONED COST BETWEEN PRECINCTS								TOTAL
	1	2	3	4	5	6	7	8	
WETLAND BASIN 1	$ 85,917								$ 85,917
WETLAND BASIN 2		$ 39,590							$ 39,590
WETLAND BASIN 3			$ 60,000						$ 60,000
WETLAND BASIN 4				$ 60,000					$ 60,000
WETLAND BASIN 5					$ 72,140				$ 72,140
WETLAND BASIN 6						$ 94,949			$ 94,949
WETLAND BASIN 7							$ 95,904		$ 95,904
TOTAL	**$ 85,917**	**$ 39,590**	**$ 60,000**	**$ 60,000**	**$ 72,140**	**$ 94,949**	**$ 95,904**	**$ -**	**$ 508,500**

Figure 16: Water Quality Facilities – Contribution Rates

ITEM OF WORKS	CONTRIBUTION RATE PER LOT BETWEEN PRECINCTS							
	1	2	3	4	5	6	7	8
WETLAND BASIN 1	$ 2,685							
WETLAND BASIN 2		$ 649						
WETLAND BASIN 3			$ 822					
WETLAND BASIN 4				$ 698				
WETLAND BASIN 5					$ 829			
WETLAND BASIN 6						$ 1,283		
WETLAND BASIN 7							$ 1,010	
TOTAL	**$ 2,685**	**$ 649**	**$ 822**	**$ 698**	**$ 829**	**$ 1,283**	**$ 1,010**	**$ -**