



SECTION 94 CONTRIBUTIONS PLAN

URBAN STORMWATER DRAINAGE HEADWORKS CONTRIBUTIONS

Amended: October 1995

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ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979**SECTION 94 CONTRIBUTIONS PLAN
URBAN STORMWATER DRAINAGE****1.0. Introduction**

Section 94 of the Environmental Planning and Assessment Act 1979 (EPAA) permits a Council to require developers to pay monetary contributions (and/or land free of costs to Council) in order to help fund an increased demand for public works and facilities generated by the carrying out of their development.

Section 94(2A) of the EPAA permits a Council to require developers to pay monetary contributions towards existing works and facilities where it is considered that their development will benefit from those works and facilities.

This Plan contains the methodology by which Dubbo City Council (DCC) has established the cost of disposing of urban stormwater drainage within the City as a basis for determining contributions by developers to fulfil their obligations under Section 94 of the EPAA.

1.1. Aims, objectives etc

The principal aim of this Plan is to develop a strategy which ensures that stormwater drainage discharge is conveyed and disposed of in an effective manner which will not adversely affect existing developments or the environment whilst allowing for the anticipated growth and development within the City to continue in an orderly manner.

1.2. Citation

This Plan may be cited as 'Section 94 Contributions Plan – Urban Stormwater Drainage Headworks Contributions'.

1.3. Commencement

This Plan shall come into force on 7 November 1995 in accordance with clause 30(4) of the EPAA Regulation 1994 and pursuant to a resolution of the Council passed at its meeting of 23 October 1995.

1.4. Amendments

The Plan has been amended on 17 October, 1994 to incorporate a review of drainage headworks costs concurrent with the financial year. (Pursuant to a resolution of Council passed at its meeting on 27 June 1994 (Clause 94/53 of the Works and Services Committee Meeting of 2 June 1994).

This Plan has been further amended on 7 November 1995 to incorporate the amended 'Keswick' drainage scheme. (Pursuant to a resolution of Council passed at its meeting of 23 October 1995 (Clause 95-99 of the Works and Services Committee Meeting of 17 October 1995).

1.5. Land to which this Plan applies

This Plan shall apply to all land with the City of Dubbo which discharges into the urban stormwater drainage system as identified in this Plan and the attached appendices 1 to 8.

1.6. Relationship of this Plan to other Council documents

In the event of an inconsistency between this Plan and any other document or Council policy, made before the date on which this Plan comes into force, this Plan shall prevail to the extent of the inconsistency.

This Plan has been prepared making use of numerous Council documents, files, records, plans and reports. Some of this documentation includes:

- Council's Register of Completed Contracts;
- Keswick Stormwater Drainage Study prepared for Council by Willing and Partners Pty Ltd – January, 1982;
- Keswick Drainage Scheme (Council No D 1446) prepared by Willing and Partners Pty Ltd Drawing Nos 4579/300-336, dated 1986-1988;
- North Dubbo Drainage Scheme (Council No D 1445) prepared by Willing and Partners Pty Ltd Drawing Nos 4567/200-221, dated August, 1986;
- Troy Creek Drainage Scheme (Council No D 1444) prepared by Willing and Partners Pty Ltd Drawing Nos 4567/100-135, dated August, 1986; and
- Keswick Truck Drainage Feasibility Study prepared by Willing and Partners Pty Ltd, dated May, 1995.

2.0 Definitions

Commercial Development

For the purposes of this Plan means the subdivision of land zoned 3 Business under the Dubbo Local Environmental Plan (LEP) 1991 – Urban Lands or the permissible establishment and use of any office, shop or other commercial premises on any land regardless of zoning.

Development

Has the meaning ascribed to it in Section 4(1) of the EPAA.

Headworks

Are those existing major trunk drainage facilities and planned augmentation works used to collect and convey urban stormwater drainage from the developed urban areas of Dubbo to various discharge water courses in the area. For the purpose of this Plan these drainage facilities can include:

- The cost of preparing major trunk drainage studies;
- Acquisition of land for drainage purposes;
- Construction of drainage facilities, pipelines, culverts and the like; and
- Formation of detention and retention basins plus all ancillary works.

It is generally accepted that internal drainage in subdivisions and other developments is normally acknowledged as forming part of the works associated with the development and thus do not form part of the headwork's infrastructure.

Industrial Development

For the purpose of this Plan means the subdivision of land zoned 4 Industrial under the Dubbo LEP – Urban Lands or the establishment and use of any permissible factory, storage units or yards, or any other industrial use on any land regardless of zoning.

Other Development

For the purpose of this Plan means any subdivision or development not defined elsewhere in this Plan.

Plan

Means this Section 94 Contribution Plan – Urban Stormwater Drainage Headworks Contributions.

Residential Development

For the purpose of this Plan means the subdivision or development of land zoned:

- 2 Residential;
- 1(d) Rural Investigation; and
- 1(c2) Rural Residential

and includes any development for the purpose of a residential nature but does not include motels, boarding houses, caravan parks, tourist facilities or of like nature.

Site Area

In relation to the subdivision of land, means the entire 'en-globo' area of land being subdivided. That is to say the entire area of land being subdivided including:

- All land being used for roadways, public reserves, walkways and the like; or
- In relation to a development application for mixed density residential development, commercial development, industrial development or other development, means the area of land to which the development application for consent to carry out the development relates, excluding there from any part of the land used for road reserve, public reserve or walkways.

Subdivision

For the purpose of this Plan means subdivision of land creating a new allotment. Also includes a boundary adjustment or road closure which creates a previously unavailable development opportunity on the land.

3.0 An Overview of Dubbo's Urban Stormwater Drainage System

Unlike some urban utility services stormwater drainage is largely constrained by the natural topography of Dubbo. Numerous individual drainage systems convey storm flows from the Dubbo urban area to various discharge water courses in the area. For the purpose of this Plan this report classifies groups of individual catchments or drainage schemes into larger drainage divisions depending on the particular discharge water course involved. These drainage divisions are shown on attached Appendix 1 and are described as follows:

- (a) Macquarie River East Bank;
- (b) Macquarie River West Bank;
- (c) Keswick, draining to Eulomogo Creek;
- (d) Troy Creek;
- (e) Troy Junction, draining to both the Macquarie and Talbragar Rivers;
- (f) South West Dubbo, draining to Golf Links Creek; and
- (g) Airport West, draining to Sandy Creek.

Within these seven drainage divisions lie 55 individual catchments or drainage schemes containing over 97 kilometres of piped reticulation. The oldest schemes located in Central Dubbo date back to 1873. These drain to the Macquarie River. Troy Creek was first utilised for discharge of stormwater from about 1915 when some of the streets in North Dubbo were initially formed. The Myall Street drain was the first underground stormwater drain to discharge to Troy Creek in 1929. Construction of piped drainage discharging to the Macquarie River did not commence in West Dubbo until the 1950s with piped outfalls in existence at Victoria Street and Baird Street by 1960.

Urban drainage discharges to the Golf Links Creek commenced in 1965 with the Leavers Street Housing Commission subdivision. This was followed by outfalls from Delroy Gardens in the period 1966 to 1973, Churchill Gardens in 1983 and more recently Grangewood subdivision in 1991. Utilisation of Eulomogo Creek in the Keswick area did not commence until 1978 with the development of subdivisions at the northern end of the Keswick catchment. Development in north east Dubbo draining to Troy Creek commenced in 1972. The first major outfall to Troy Creek was the Housing Commission (Apollo) outfall constructed in 1973 and several others have been constructed since then upstream from Cobbora Road.

Not all 55 catchments within the City are suitable for the collection by Council of Section 94 contributions. In some catchments infrastructure is too old for costing records to have survived. In some catchments no further augmentation is envisaged in the foreseeable future. In some catchments development is foreseeable but not imminent. In some peripheral catchments future development is unlikely.

Following detailed scrutiny by Council's Technical Services Division, it is considered that 35 of the City's catchments are candidates for a Section 94 contribution assessment. These various schemes drain an area totalling approximately 21km² excluding the major rural catchments east of Dubbo of the Troy and Eulomogo Creeks.

The following tables identify the individual catchments or drainage schemes within each drainage division plus identify whether or not a Section 94 contribution is applicable:

Table 1: Macquarie River – East Bank

No	Drainage Division	Discharge Water Course	Individual Catchments or Drainage Schemes		Length of Reticulation Metres Ha		S94 Applicable Y/N
1	Macquarie River – East Bank	Macquarie River	1.1	East Dubbo Drainage (Erskine St Outfall)	408.37	22,470	Y
			1.2	Railway Drain	57.37	3,450	N
			1.3	Talbragar St Drain	7.87	600	N
			1.4	Church St Drain	15.38	1,320	Y
			1.5	Wingewarra St Drain	199.57	6,000	Y
			1.6	Bultje St Drain	31.82	2,600	Y
			1.7	Cobra St Drain	90.34	4,340	Y
			1.8	Tamworth St Outfall	117.29	4,860	Y
			1.9	Diane St Outfall	34.44	880	Y
			1.10	Filtration Plant Outfall	5.14	510	N
			1.11	Huckel St River Flats	420	30	N
			1.12	Margaret Crs Outfall	77.52	3,960	Y
			1.13	Miriam/Holmwood Future Scheme	109.17	-	N
Division Sub-Totals					1,158.47	51,030	9 – Yes 4 – No

Table 2: Macquarie River – West Bank

No	Drainage Division	Discharge Water Course	Individual Catchments or Drainage Schemes		Length of Reticulation Metres Ha		S94 Applicable Y/N
2	Macquarie River – West Bank	Macquarie River	2.1	Sir Roden Cutler Park	6.19	217	N
			2.2	East St Area	5.77	-	N
			2.3	Baird St Drain	8.10	300	N
			2.4	Victoria St Drain	12.46	760	Y
			2.5	Alfred St Drain	7.91	17	Y
			2.6	Caravan Park Drainage	6.90	50	N
			2.7	West Dubbo Main Drain	315.57	12,840	Y
			2.8	Spears Drive	64.15	3,360	Y
			2.9	Wiradjuri Park/ Sewerage Works Rural Catchment	234.77	-	N
			2.10	Airport – East Drain	777.39	-	N
			2.11	Airport – North Drain	930.93	-	N
Division Sub-Totals					2,370.14	17,744	4 – Yes 7 – No

Table 3: Keswick

No	Drainage Division	Discharge Water Course	Individual Catchments or Drainage Schemes		Length of Reticulation Metres Ha		S94 Applicable Y/N
3	Keswick	Eulomogo Creek	3.1	Keswick Trunk Drainage Feasibility Study	754.79	6,250	Y

Table 4: Troy Creek

No	Drainage Division	Discharge Water Course	Individual Catchments or Drainage Schemes		Length of Reticulation Metres Ha		S94 Applicable Y/N
4	Troy Creek	Troy Creek	4.1	Troy Creek Trunk Drainage Scheme	4,500	865	Y
			4.2	Myall Street Drain	141.17	1,860	N
			4.3	North Dubbo Drainage Scheme	85.50	570	Y
			4.4	Samuels Estate Drainage	92.61	-	4.4
			4.5	Moffat Estate Drainage	72.37	-	Y
			4.6	Purvis Lane Drainage Scheme	155.41	-	Y
			4.7	Yarrandale Future Scheme	3223.39	-	Y
			4.8	Merrilea Lane Drainage	60.62	-	Y
			4.9	Housing Commission (Apollo) Outfall	81.17	4,000	Y
			4.10	Racecourse Drainage Scheme	70.42	1,760	Y
			4.11	Ballimore Park Drainage Scheme	53.08	1,030	Y
			4.12	Boogadah West Drainage Scheme	15.38	30	Y
			4.13	St Georges Terrace Drainage Scheme	12.62	1,520	Y
			4.14	Pine Knoll Drainage	18.37	580	Y
			4.15	Stage 9 Outfall	61.73	5,280	Y
			4.16	Sheraton Meadows Trunk Drainage	183.34	465	Y
			4.17	Kentucky Court Outfall	80.76	470	Y
			4.18	Boogadah East Drainage Scheme	251.97	-	Y
			4.19	Pontil Outfall	8.24	-	Y
Division Sub-Totals (Excluding the catchment area of 4.1 beyond the extent of the Urban LEP)					1,908.67	18,430	18 – Yes 1 – No

Table 5: Troy Junction

No	Drainage Division	Discharge Water Course	Individual Catchments or Drainage Schemes		Length of Reticulation Metres Ha		S94 Applicable Y/N
5	Troy Junction	Macquarie River & Talbragar River	5.1	Saleyards Drainage System	13.69	360	N
			5.2	Boothenda Road	340.44	-	N
DIVISION SUB-TOTALS					680.68	3.323	3 – Yes 5 – No

Table 6: South West Dubbo

No	Drainage Division	Discharge Water Course	Individual Catchments or Drainage Schemes		Length of Reticulation		S94 Applicable Y/N
					Metres	Ha	
6	South West Dubbo	Golf Links Creek	6.1	Leavers Street Outfall	11.30	600	Y
			6.2	East Delroy Outfall	13.27	480	Y
			6.3	West Delroy Outfall	9.37	450	Y
			6.4	Churchill Gardens Scheme	9.06	520	N
			6.5	Country Club Trunk Drainage Scheme	73.23	163	N
			6.6	Grangewood Drainage Scheme	102.44	1,110	N
			6.7	Swanson/Foley Future Scheme	62.09	-	N
			6.8	West Joira Future Scheme	319.92	-	N
			DIVISION SUB-TOTALS		680.68	3,323	3 – Yes 5 – No

Table 7: Airport West

No	Drainage Division	Discharge Water Course	Individual Catchments or Drainage Schemes		Length of Reticulation		S94 Applicable Y/N
					Metres	Ha	
7	Airport West	Sandy Creek Tributary	7.1	Airport West	359.82	-	N

4.0 Catchment Area Headworks Contribution Assessments

As addressed in Section 3.0 of this Plan Dubbo's urban stormwater drainage system has been divided into seven (7) drainage divisions, which in turn have been subdivided into 55 individual catchment (or drainage scheme) areas. Of these 55 catchment areas, 35 have been assessed as being candidates for a section 94 contribution. Details of these 35 catchment areas, including current (1995) value of constructed drainage works plus estimated cost(s) for future augmentation works are identified in the following section 4.1 to 4.21 inclusive.

A contribution amount has been calculated for each catchment area being expressed in dollar value per hectare of site area or as in catchments 3.1 and 4.10 dollar value per allotment.

The current value of constructed drainage works shown in sections 4.1 to 4.21 have been calculated using past expenditures by Council dating back to 1960 having been updated into current (1995) dollar values. All Council expenditures prior to 1960 have been ignored for the purpose of calculating contributions for this Plan. Past expenditures have been obtained from various sources (ie Council's register of completed contracts, order forms, files and records).

To update these past expenditures by Council into current (1995) dollar values, previous expenditures on stormwater drainage construction works have been increased by Index Numbers supplied by the Australian Bureau of Statistics. The Index Numbers used for the purpose of this Plan are similar in nature to the Consumer Price Index Numbers available from the ABS, however, relate to "Public

Enterprises State and Local – Water Supply and Sewerage” – refer to attached Appendices No 9 and 10 for a list of the Index Numbers used.

Advice received from the ABS indicates that these Index Numbers are most appropriate to use for stormwater drainage construction as an analysis for the composition and weights used in deriving the Water Supply and Sewerage Deflator take into account such items as – average weekly wages and salaries (construction industry), ready-mixed concrete, concrete pipes, diesel auto distillate, plant hire, construction and earthmoving equipment and the like.

Referring to attached Appendices No 9 and 10, movements in indexes from one period to another can be expressed either as changes in index points or as percentage changes. The following example illustrates the method of calculating index point changes and percentage changes between any two periods.

	<u>Index Number</u>
March quarter 1992	1471 (equals current dollar value for the purpose of this Plan)
June quarter 1981	<u>725</u> (example of past expenditure date)
Change in index points	<u>746</u>
Percentage change =	$\frac{746}{725} \times 100 = 102.9\%$

An example using the above information in the application of this Plan is shown below:

In April 1981 Council spent \$29,430 on its contribution to stormwater pipes, outfall and pits from the Macquarie River to Bunglegumbie Road, West Dubbo.

THUS \$29,430 (April 1981) x inflation increase (as above percentage change)
 = \$29,430 x 102.9% increase
 = \$59,712.46 (1992 value of constructed drainage works in catchment 2.8 Spears Drive Outfall – see section 4.13 of this Plan)

Other catchment areas within the City have up to 20 different construction costs, (contracts, Council orders etc) mostly in different years making up the current value of constructed drainage works. For the sake of brevity of this document each contract/works have not been listed separately under the catchment area, however, all previous construction costs have been indexed as detailed above separately with Council holding all these calculations in a supporting documentation file and if required, such figures can be produced to prospective developers.

4.1 Catchment 1.1 - East Dubbo Drainage (Erskine Street Outfall)

1992 value of constructed drainage works	\$3,186,658.56
Cost of lands acquired for drainage purposes	<u>\$62,639.00</u>
TOTAL	\$3,249,297.56

No major augmentation of the East Dubbo drainage (Erskine Street outfall) is proposed at this time.

Catchment Area = 408.37 hectares

1992 Calculated Headworks Cost	= \$3,249,297.56
	408.37 ha
	= \$7,956.75/ha
1995 Calculated Headworks Cost	= \$8,144.23/ha

Note: Dubbo City Council as a developer within catchment 1.1 has contributed its full cost towards the existing drainage scheme within this catchment area thus all Council land to the east of Wheelers Lane is exempt from any further stormwater drainage headworks contributions within this catchment area.

4.2 Catchment 1.3 - Talbragar Street Drain

Drainage construction costings for this catchment are not readily available. The last major works were constructed during 1967 and prior to that date back to 1917. However, future augmentation works for this catchment are likely, in conjunction with the reconstruction/redevelopment of Macquarie Street between Talbragar and Church Streets and also in Talbragar Street itself, and have been estimated to cost \$70,000 in 1992 dollar values.

Future augmentation works	\$70,000.00
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Catchment Area = 7.87 hectares

1992 Calculated Headworks Cost	= \$70,000.00
	7.87 ha
	= \$8,894.54/ha
1995 Calculated Headworks Cost	= \$9,104.11/ha

4.3 Catchment 1.4 - Church Street Drain

Future augmentation works are needed in this catchment in association with likely redevelopments particularly in the Church Street block between Macquarie and Brisbane Streets. Augmentation works have been estimated to cost \$60,000 in 1992 dollar values.

1992 value of constructed drainage works	\$40,225.76
Estimated cost of future augmentation works	<u>\$60,000.00</u>
TOTAL	\$100,255.76

Catchment Area = 15.38 hectares

1992 Calculated Headworks Cost	= \$100,225.76
	15.38 ha
	= \$6,516.63/ha
1995 Calculated Headworks Cost	= \$6,670.17/ha

4.4 Catchment 1.5 - Wingewarra Street Drain

1992 value of constructed drainage works	\$110,456.03
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No major augmentation of the Wingewarra Street drainage system is proposed at this time.

Catchment Area = 199.57 hectares

1992 Calculated Headworks Cost	= \$110,456.03
	199.57 ha
	= \$553.57/ha
1995 Calculated Headworks Cost	= \$546.03/ha

4.5 Catchment 1.6 - Bultje Street Drain

1992 value of constructed drainage works	\$528,591.27
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No major augmentation of the Bultje Street drainage system is proposed at this time.

Catchment Area = 31.82 hectares

1992 Calculated Headworks Cost	= \$528,591.27
	31.82 ha
	= \$16,611.92/ha
1995 Calculated Headworks Cost	= \$17,003.34/ha

4.6 Catchment 1.7 - Cobra Street Drain

Major augmentation works are proposed for the Cobra Street drainage system. During the later part of 1992 construction of a river outfall plus some 83 metres of pipeline were constructed replacing part of the existing open channel from Macquarie Street to the river. To complete the conversion of this open channel to a piped system, further works estimated at \$175,000 (in 1992 dollar values) will be required.

1992 value of constructed drainage works	\$204,729.27
Estimated costs for future augmentation works	<u>\$175,000.00</u>
TOTAL	\$379,729.27

Catchment Area = 90.34 hectares

1992 Calculated Headworks Cost	= \$279,729.27
	90.34 ha
	= \$4,203.33/ha
1995 Calculated Headworks Cost	= \$4,302.37/ha

4.7 Catchment 1.8 - Tamworth Street Outfall

1992 value of constructed drainage works	= \$1,330,638.95
	117.29 ha
	= \$11,344.86/ha
Calculated Headworks Cost	= \$11,612.17/ha

4.8 Catchment 1.9 - Diane Street Outfall

1992 value of constructed drainage works	\$353,016.12
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No major augmentation of the Diane Street drainage system is proposed at this time.

Catchment Area = 34.44 hectares

1992 Calculated Headworks Cost	= \$353,016.12
	34.44 ha
	= \$10,250.17/ha
1995 Calculated Headworks Cost	= \$10,491.70/ha

4.9 Catchment 1.12 - Margaret Crescent Outfall

1992 value of constructed drainage work	= \$641,528.44
	77.52 ha
	= \$8,275.65/ha
1995 Calculated Headworks Cost	= \$8,470.64/ha

4.10 Catchment 2.4 - Victoria Street Drain

Future augmentation is proposed in this catchment in the form of a pipe from the northern end of Shire Avenue to the river outfall. This 80 metre extension is estimated to cost \$7,000 in 1992 dollar values.

1992 value of constructed drainage works	\$91,602.10
Estimated cost for future augmentation works	<u>\$7,000.00</u>
TOTAL	\$98,602.10

Catchment Area = 12.46 hectares

1992 Calculated Headworks Cost	= \$98,602.10
	12.46 ha
	= \$7,913.47/ha
1995 Calculated Headworks Cost	= \$8,099.95/ha

4.11 Catchment 2.5 - Alfred Street Drain

No reliable costs of the existing system in this catchment are available, however, future augmentation works are proposed. Outfall works to the river in conjunction with future development of Biddybunge Park are proposed and estimated to cost \$20,000 in 1992 dollar values.

Estimated value of future augmentation works \$20,000.00

Catchment Area = 7.91 hectares

1992 Calculated Headworks Cost	= \$20,000.00
	7.91 ha
	= \$2,528.45/ha
1995 Calculated Headworks Cost	= \$2,588.02/ha

4.12 Catchment 2.7 - West Dubbo Main Drain

Augmentation works planned for this catchment involve the construction of approximately 500 metres of pipeline and an inlet pit at the south western edge of the Victoria Street railway crossing to alleviate flooding in Victoria Street between Depot Road and Bruce Avenue. An estimated cost of \$100,000 in 1992 dollar values is needed to carry out these works.

1992 value of constructed drainage works	\$1,324,109.45
Estimated cost for future augmentation works	<u>\$100,000.00</u>
TOTAL	\$1,424,209.45

Catchment Area is 315.57 hectares, however, only 263 hectares of the catchment area has been assessed by Council as being developable under the provisions of the 1991 Urban Lands Local Environmental Plan.

1992 Calculated Headworks Cost	= \$1,424,209.45
	263 ha
	= \$5,414.86/ha
1995 Calculated Headworks Cost	= \$5,542.44/ha

Note: Exception within this catchment. Exception to calculated stormwater drainage headworks contributions exist in this catchment area due to a separate deed of agreement between Council and Hughes Development Pty Ltd dated 6 November 1979. This deed specifies that developers of the area remaining (generally bounded by the extension of Meadowbank Drive and the Dubbo – Narromine railway line) will contribute the sum of \$76.00 per residential allotment towards the cost of constructing external stormwater drainage. This deed of agreement is valid up until 6 November 1997.

4.13 Catchment 2.8 - Spears Drive Outfall

1992 value of constructed drainage works	\$59,712.46
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No major augmentation of the Spears Drive drainage system is proposed at this time.

Catchment Area is 64.15 hectares, however only 36.25 hectares of the catchment area have been assessed by Council as being developable under the provisions of the 1991 Urban Lands Local Environmental Plan.

1992 Calculated Headworks Cost	= \$59,712.46
	36.25 ha
	= \$1,647.24/ha
1995 Calculated Headworks Cost	= \$1,686.05/ha

Note: The Housing Commission of New South Wales contribution in 1981 their full cost towards the existing drainage scheme within this catchment thus Site 7129, Stage 2 is exempt from any further stormwater drainage headworks contributions.

4.14 Catchment 3.1 - Keswick Trunk Drainage Scheme

Major construction works have been planned and adopted covering this area of south Dubbo staged to proceed in line with development of the area. Further, the proposed work incorporates the requirements of the Environment Protection Authority for stormwater management, integrating best management practices and total catchment management. Full details can be found in the "Keswick Trunk Drainage Feasibility Study" prepared by Willing and Partners Pty Ltd in May 1995.

1992 value of constructed drainage works	\$718,780.00
Cost of lands already acquired for drainage purposes	\$296,000.00
Survey, investigation and design fees already outlaid by Council	\$279,424.00
Estimated cost for future drainage works	<u>\$9,511,220.00</u>
TOTAL	\$10,805,424.00

Estimated residential allotments in catchment area = 4,800 lots

1995 Calculated Headworks Cost	= \$10,805,424.00
	4,800 lots
	= \$2,251.13/residential lot

4.15 Catchment 4.1 - Troy Creek Trunk Drainage Scheme

Troy Creek forms a major stormwater disposal corridor for the City of Dubbo. In 1985/1986 Council commissioned consulting engineers Willing and Partners Pty Ltd to design a formalised drainage scheme for the Troy Creek waterway which will eventually consist of a small diameter trickle pipe beneath a broad grassy channel profile. Construction of this project will be staged to proceed in line with development of the area's drainage into Troy Creek. Full details of works proposed can be found on Willing and Partners Pty Ltd Drawing Nos 4567/100 to 135, dated August 1986.

Survey, investigation and design fees already outlaid by Council	\$53,748.00
Estimated cost for future drainage works	<u>\$5,739,470.00</u>
TOTAL	\$5,793,218.00

Total area of catchment's drainage into the Troy Creek Drainage Scheme = 1,200 hectares

1992 Calculated Headworks Cost	= \$5,793,218.00
	1,200 ha
	= \$4,827.68/ha
1995 Calculated Headworks Cost	= \$4,941.43/ha

A majority of the catchment area's drainage into Troy Creek will only contribute towards this main drainage scheme (ie at a rate of \$4,914.43/ha) as internal drainage works either have been/or will be required to be carried out by developers at their own expense as part of the works associated with their developments.

The catchment areas required to contribute to the Troy Creek Drainage Scheme include:

- 4.4 Samuels Estate drainage;
- 4.5 Moffat Estate drainage;
- 4.6 Purvis Lane drainage scheme;
- 4.7 "Yarrandale" future scheme;
- 4.8 Merrilea Lane drainage;
- 4.11 Ballimore Park drainage scheme;
- 4.12 Boogadah West drainage scheme;
- 4.13 St Georges Terrace drainage;
- 4.14 Pine Knoll drainage;
- 4.15 Stage 9 Outfall;
- 4.16 Sheraton Meadows trunk drainage;
- 4.17 Kentucky Court outfall;
- 4.18 Boogadah East drainage scheme; and
- 4.19 Pontil outfall.

Exceptions to the above, for catchments 4.3, 4.9 and 4.10 are itemised below:

4.16 Catchment 4.3 – North Dubbo Drainage Scheme

Major construction works have been planned and adopted for this catchment area. Some drainage works have already taken place. Full details on works proposed for this catchment can be found on Willing and Partners Pty Ltd - Drawing Nos 4567/200 to 221, dated August 1986.

1992 value of constructed drainage works	\$262,862.79
Survey, investigation and design fees already outlaid by Council	\$27,604.25
Estimated cost for future drainage works	<u>\$1,003,067.22</u>
TOTAL	\$1,293,534.26

Catchment Area = 85.5 hectares

1992 Calculated Headworks Cost	= \$1,293,534.26
	85.5 ha
	= \$15,129.06/ha
1995 Calculated Headworks Cost	= \$15,485.53/ha

4.17 Catchment 4.9 – Housing Commission (Apollo) Outfall

1992 value of constructed drainage work \$292,435.71

Catchment Area is 81.17 hectares, however only 42 hectares of the catchment area have been assessed by Council as being developable as the remainder comprises the Dubbo racecourse with stormwater runoff assessed as having no increased effect downstream.

1992 Calculated Headworks Cost	= \$292,435.71
	42 ha
	= \$6,962.76/ha
1995 Calculated Headworks Cost	= \$7,126.80/ha

PLUS contribution to catchment 4.1 as detailed above (future augmentation works of Troy Creek)	= \$4,941.43/ha
TOTAL	= \$12,068.26/ha

Note: The Housing Commission of New South Wales contributed in 1973 their full cost towards the existing scheme within this catchment thus Site 3877 is exempt from any further stormwater drainage headworks contributions.

4.18 Catchment 4.10 – Racecourse Drainage Scheme

Stormwater augmentation works are planned for this catchment area with pipework extending from the Racecourse Dam to Cobborah Road.

Estimated 1992 cost for future augmentation works \$199,230.00

Estimated residential allotments in catchment area = 468 lots

1992 Calculated Headworks Cost	= \$199,230.00
	468 lots
	= \$425.70/lot
1995 Calculated Headworks Cost	= \$435.73/lot

PLUS contribution to catchment 4.1 as detailed above (future augmentation works of Troy Creek)	= \$4,941.43
--	--------------

\$435.73/residential lot PLUS \$4,941.43/ha

4.19 Catchment 6.1 – Leavers Street Outfall

Future stormwater augmentation works have been estimated for this catchment area to be \$25,000.00 in 1992 dollar values.

Estimated 1992 cost for future augmentation work \$25,000.00

Catchment Area = 11.30 hectares

1992 Calculated Headworks Cost	= \$25,000.00
	11.30 ha
	= \$2,212.39/ha
1995 Calculated Headworks Cost	= \$2,264.51/ha

4.20 Catchment 6.2 – East Delroy Outfall

Future stormwater augmentation works have been estimated for this catchment area to be \$25,000.00 in 1992 dollar values.

Estimated 1992 cost for future augmentation works \$25,000.00

Catchment Area = 13.27 hectares

1992 Calculated Headworks Cost	= \$25,000.00
	13.27 ha
	= \$1,883.95/ha
1995 Calculated Headworks Cost	= \$1,928.34

4.21 Catchment 6.3 – West Delroy Outfall

Future stormwater augmentation works have been estimated for this catchment area to be \$20,000.00 in 1992 dollar values.

Estimated 1992 cost for future augmentation works \$20,000.00

1992 Calculated Headworks Cost	= \$20,000.00
	9.37 ha
	= \$2,134.47/ha
1995 Calculated Headworks Cost	= \$2,184.76/ha

5.0 Summary of Stormwater Drainage Headworks Contributions

A summary of the stormwater drainage headworks contributions cost(s) as calculated in sections 4.1 to 4.21 of this Plan are as follows:

<u>Macquarie River East Bank Drainage Division</u>	<u>Amount</u>
1.1 East Dubbo Drainage (Erskine Street Outfall)	\$8,144.23/ha
Note: All land east of Wheelers Lane has no further contribution to Catchment 1.1)	
1.2 Railway Drain	N/A
1.3 Talbragar Street Drain	\$9,104.17/ha
1.4 Church Street Drain	\$6,670.17/ha
1.5 Wingewarra Street Drain	\$546.03/ha
1.6 Bultje Street Drain	\$17,003.34/ha
1.7 Cobra Street Drain	\$4,302.37/ha
1.8 Tamworth Street Drain	\$11,612.17/ha
1.9 Diane Street Outfall	\$10,491.70/ha
1.10 Filtration Plan Outfall	N/A
1.11 Huckel Street River Flats	N/A
1.12 Margaret Crescent Outfall	\$8,470.64/ha
1.13 Miriam/Holmwood Future Scheme	N/A

<u>Macquarie River West Bank Drainage Division</u>	<u>Amount</u>
2.1 Sir Roden Cutler Park	N/A
2.2 East Street Area	N/A
2.3 Baird Street Drain	N/A
2.4 Victoria Street Drain	\$8,099.95/ha
2.5 Alfred Street Drain	\$2,588.02/ha
2.6 Caravan Park Drain	N/A
2.7 West Dubbo Main Drain	\$5,542.44/ha
Note: That contribution for remaining lands covered by the separate deed of agreement between Council and Hughes Development Pty Ltd is \$76.00 per residential allotment.	
2.8 Spears Drive Outfall	\$1,686.05/ha
Note: That Housing Commission Site 7129 Stage 2 has no further contribution to Catchment 2.8)	
2.9 Wiradjuri Park/Sewerage Works Rural Catchment	N/A
2.10 Airport East Drainage	N/A
2.11 Airport North Drainage	N/A

<u>Keswick Drainage Division</u>	<u>Amount</u>
3.1 Keswick Trunk Drainage Scheme	\$2,251.13/lot

<u>Troy Creek Drainage Division</u>	<u>Amount</u>
4.1 Troy Creek Trunk Drainage Scheme	\$4,941.43/ha
4.2 Myall Street Drain	N/A
4.3 North Dubbo Drainage Scheme	\$15,485.43/ha
4.4 Samuels Estate Drainage Scheme	\$4,941.43/ha
4.6 Purvis Lane Drainage Scheme	\$4,941.43/ha
4.7 "Yarrandale" Future Scheme	\$4,941.43/ha
4.8 Merrilea Lane Drainage	\$4,941.43/ha
4.9 Housing Commission (Apollo Outfall)	\$12,068.25/ha
Note: Housing Commission Site 3877 has no further contribution to Catchment 4.9)	
4.10 Racecourse Drainage Scheme	\$4,941.43/ha
4.11 Ballimore Park Drainage Scheme	\$4,941.43/ha
4.12 Boogadah West Drainage Scheme	\$4,941.43/ha
4.13 St Georges Terrace Drainage Scheme	\$4,941.43/ha
4.14 Pine Knoll Drainage	\$4,941.43/ha
4.15 Stage 9 Outfall	\$4,941.43/ha
4.16 Sheraton Meadows Trunk Drainage	\$4,941.43/ha
4.17 Kentucky Court Outfall	\$4,941.43/ha
4.18 Boogadah East Drainage Scheme	\$4,941.43/ha
4.19 Pontil Outfall	\$4,941.43/ha

<u>Troy Junction Drainage Division</u>	<u>Amount</u>
5.1 Saleyards Drainage System	N/A
5.2 Boothenba Road	N/A

<u>South West Dubbo Drainage Division</u>	<u>Amount</u>
6.1 Leavers Street Outfall	\$2,264.51/ha
6.2 East Delroy Outfall	\$1,928.34/ha
6.3 West Delroy Outfall	\$2,184.75/ha
6.4 Churchill Gardens Scheme	N/A
6.5 Country Club Trunk Drainage Scheme	N/A
6.6 "Grangewood" Drainage Scheme	N/A
6.7 Swanson/Foley Future Scheme	N/A
6.8 West Joira Future Scheme	N/A

Airport West Drainage DivisionAmount

7.1 Airport West Drainage

N/A

6.0 Application and Payment

Stormwater Drainage Headworks contributions will take place at the following times:

- (a) The subdivision of land for residential, commercial, industrial or other purpose – headworks payments will be required prior to the release of the Subdivision Linen Plan except as provided in subclause 6(b) below.
- (b) Deferment of Payment – Council may agree to a deferment in the payment of stormwater drainage headworks contributions for the subdivision of land subject to the following conditions:
 - (i) Lodgement by the developer of an unconditional bank guarantee to cover the amounts of such stormwater drainage headworks contribution.
 - (ii) All monies due for such stormwater drainage headworks contributions will be deducted by Council from the unconditional bank guarantee as each allotment is sold, subject to all monies due being deducted by Council twelve (12) months after the uplifting of the Subdivision Linen Plan; and
 - (iii) This deferment of payment will only apply to subdivision releases of three blocks or more.
- (c) For construction of developments not covered by (a) or (b) above – calculation for payment of moneys owing will form part of the development consent conditions and payment will be required at lodgement of appropriate construction certificate application. (Note: If part payment per lot has already been paid at subdivision stage the appropriate credits will be calculated).

7.0 Review of Contributions

The stormwater drainage headworks costs detailed in this Plan have been calculated using the March 1992 ABS Index Numbers (Water Supply and Sewerage) – Refer to Section 4.0 of the Plan.

From 1 July 1995 and in subsequent years the headworks cost will be adjusted annually based on the ABS Index Numbers (Water Supply and Sewerage) for the December quarter of the previous year.

The newly calculated headworks costs will then be considered by Council at its estimates session as the basis for determination of a contribution amount to be applicable for the following year.

Certified in accordance with the Environmental Planning and Assessment Act 1979 and Regulations 1994.

Dubbo City Council
 14/07/2003 12:16:22
 11/07/2003 To 11/07/2003
 Report Date: 14/07/2003 Page: 1

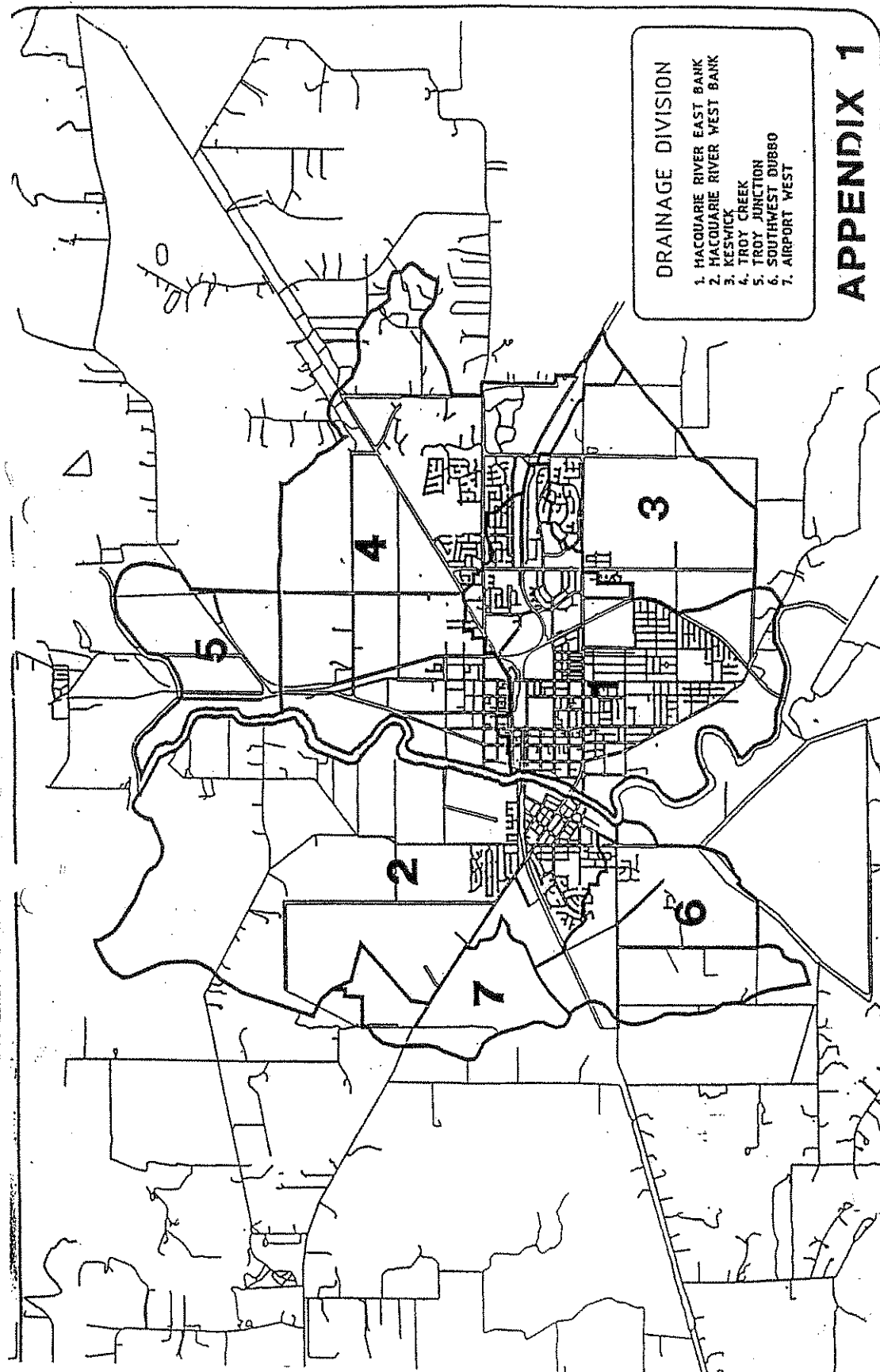
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	1 General User Charges & Fees			
	0304 Receipt	REC	-\$10982.16	
	2 Waste Management	REC	-\$510.54	
	0304 Receipt	REC	-\$4223.74	
	3 Saleyards	REC	-\$362.96	
	0304 Receipt	REC	-\$37405.75	
	11 General Revenue - Other			
	0304 Receipt			
	19 Macquarie Regional Library Other Revenue			
	0304 Receipt			
	Module Total:		-\$53485.15	
DD	Application & Registers			
	0 9907 Receipt	RCPT	-\$23227.50	
	Module Total:		-\$23227.50	
GL	General Ledger			
	1 General Fund			
	0240 GST	GST	-\$46.88	
	9907 Receipt	RCPT	-\$2058.92	
	2 Water Fund			
	9907 Receipt	RCPT	-\$1921.00	
	Module Total:		-\$4026.80	
RT	Rates			
	1 General Rate			
	1 Residential Urban			
	1710 Payment Received	RCPT	-\$6320.65	
	2 Residential Ordinary	RCPT	-\$533.00	
	1710 Payment Received	RCPT	-\$262.19	
	4 Residential Brocklehurst	RCPT	-\$117.74	
	1710 Payment Received	RCPT	-\$110.00	
	6 Residential Wongarbon	RCPT	-\$480.00	
	1710 Payment Received	RCPT	-\$80.00	
	7 Business - CBD	RCPT	-\$1015.10	
	1710 Payment Received	RCPT	-\$20.00	
	9 Business Ordinary	RCPT	-\$1369.83	
	1710 Payment Received	RCPT	-\$543.17	
	11 Residential Firgrove			
	1710 Payment Received			
	2 Water Availability 20MM			
	1 Water Availability 20MM			
	1710 Payment Received			
	3 Water Availability 25MM			
	1 Water Availability Charge 25MM			
	1710 Payment Received			
	10 Sewerage Rate			
	1 Sewerage Service Rate			
	1710 Payment Received			
	16 Domestic Waste Charge			
	1 Domestic Waste Charge			
	1710 Payment Received			

Dubbo City Council
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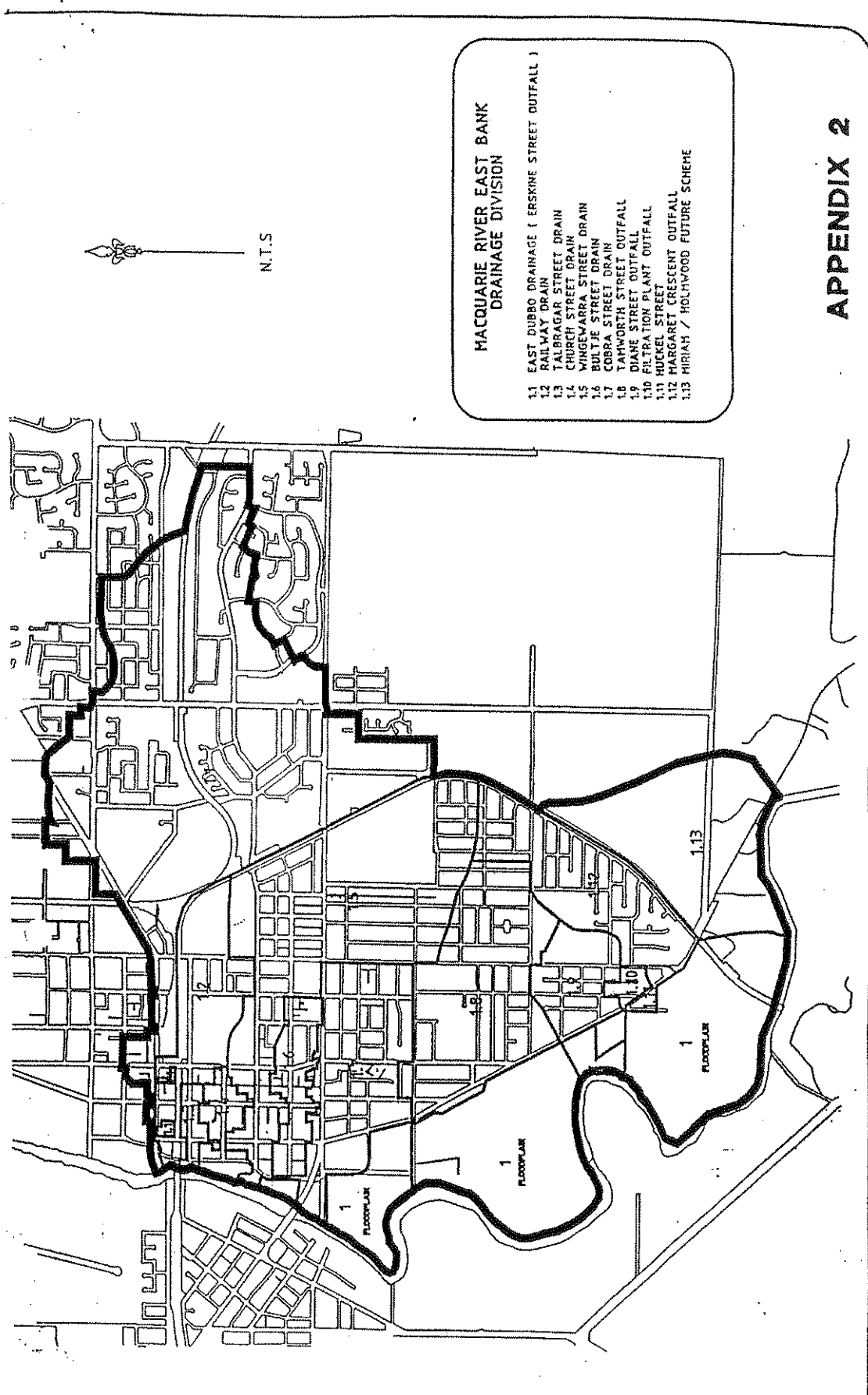
DAILY RECEIPT SUMMARY
 11/07/2003 To 11/07/2003

Report Date: 14/07/2003 Page:

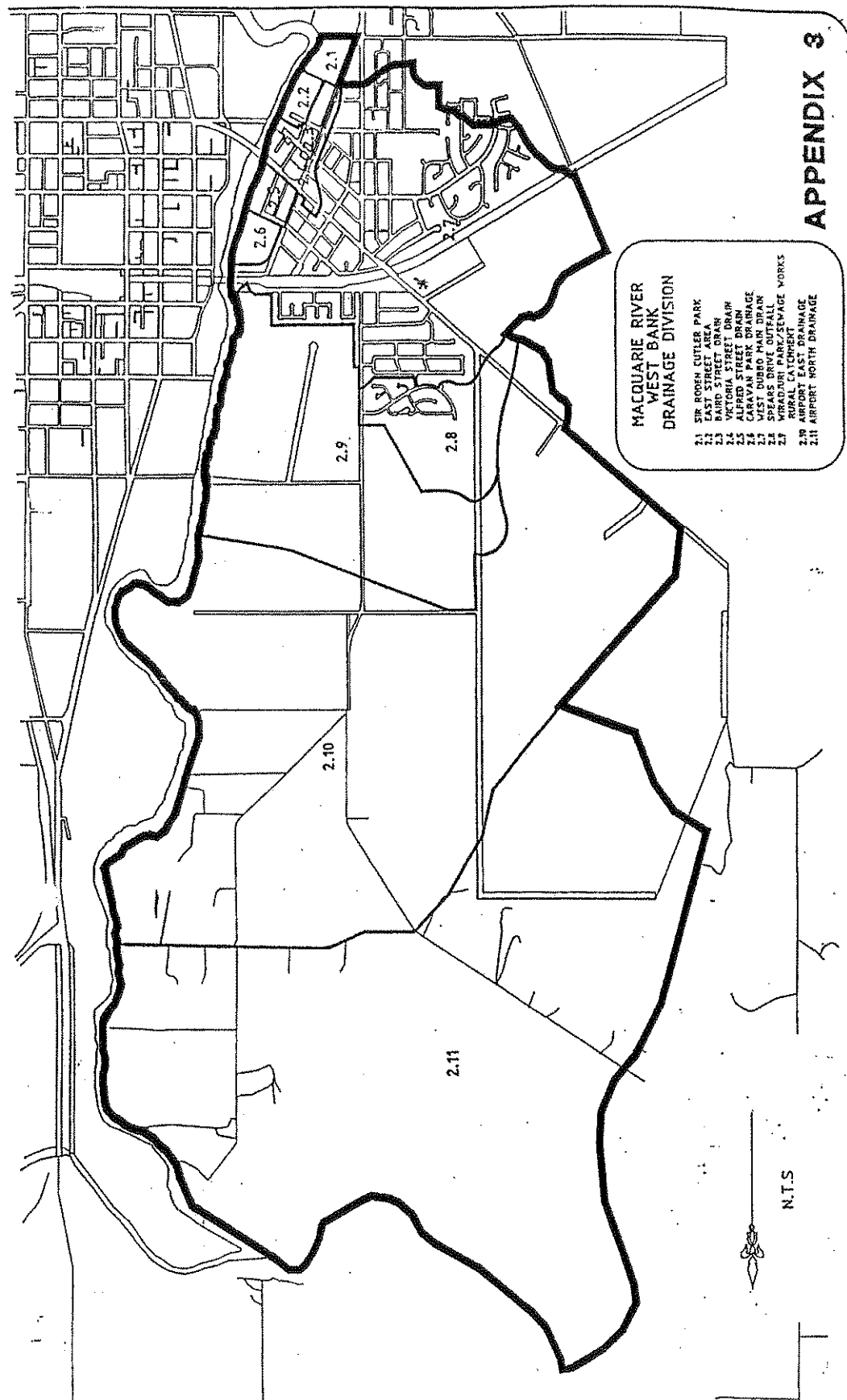
18 Waste Management Charge - Commercial		
1 Waste Management Charge - Commercial		
1710 Payment Received	RCPT	-\$18.60
19 Drainage Service Charge		
1 Drainage Service Charge		
1710 Payment Received	RCPT	-\$283.31
20 Sewerage Apportionment		
1 Sewerage Apportionment		
1710 Payment Received	RCPT	-\$148.93
21 Water consumption charge		
1 Water Consumption Charge		
1710 Payment Received	RCPT	-\$3036.81
77 Balances brought forward		
1 Interest Brought forward		
1710 Payment Received	RCPT	-\$50.00
99 Legal Costs		
38 Legal Costs		
1710 Payment Received	RCPT	-\$5.57
Module Total:		=====
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Report Total:		=====
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APPENDIX 1 – Plan of Drainage Divisions

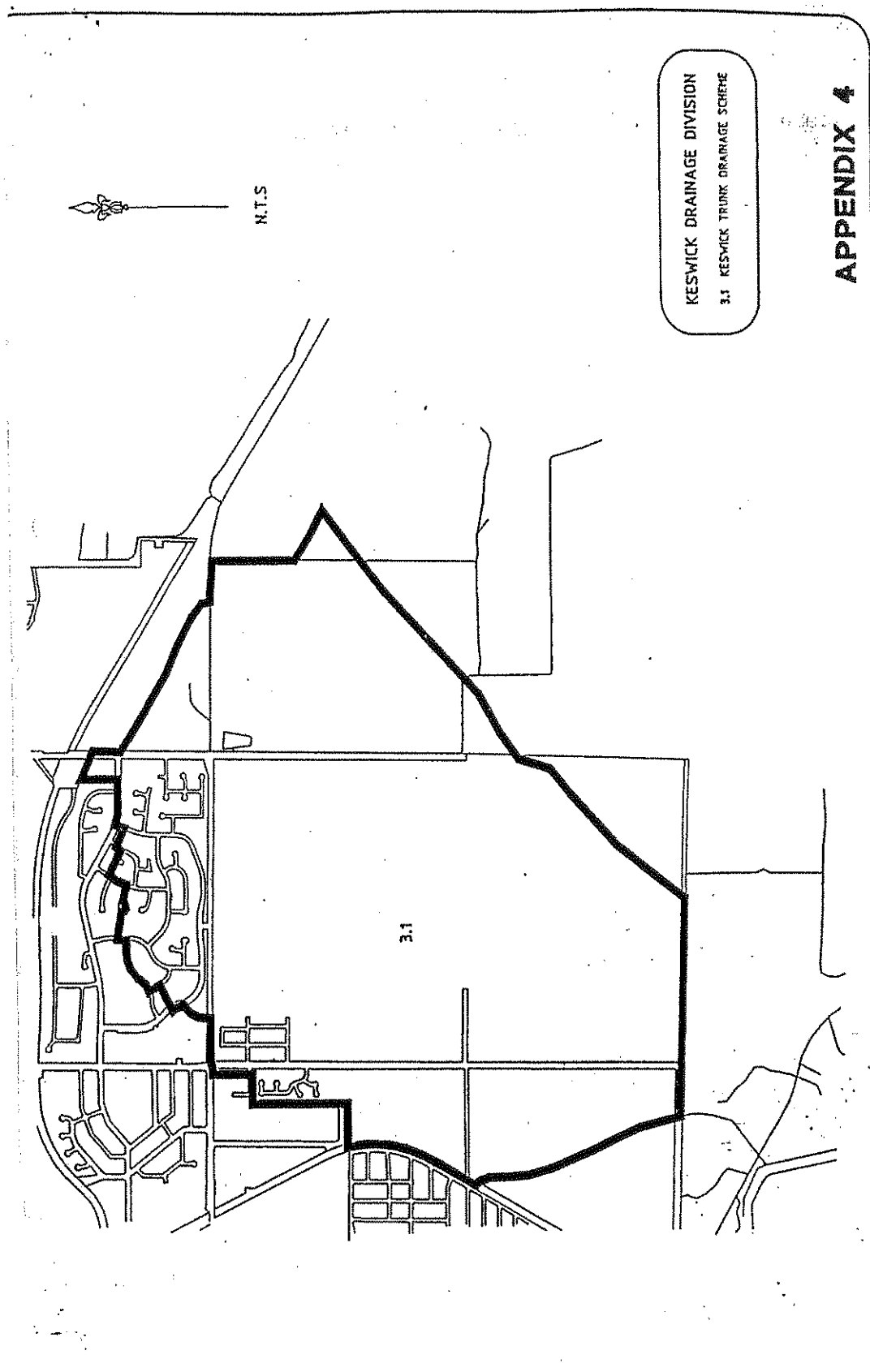
Appendix 2 – Plan of Macquarie River East Bank Drainage Division



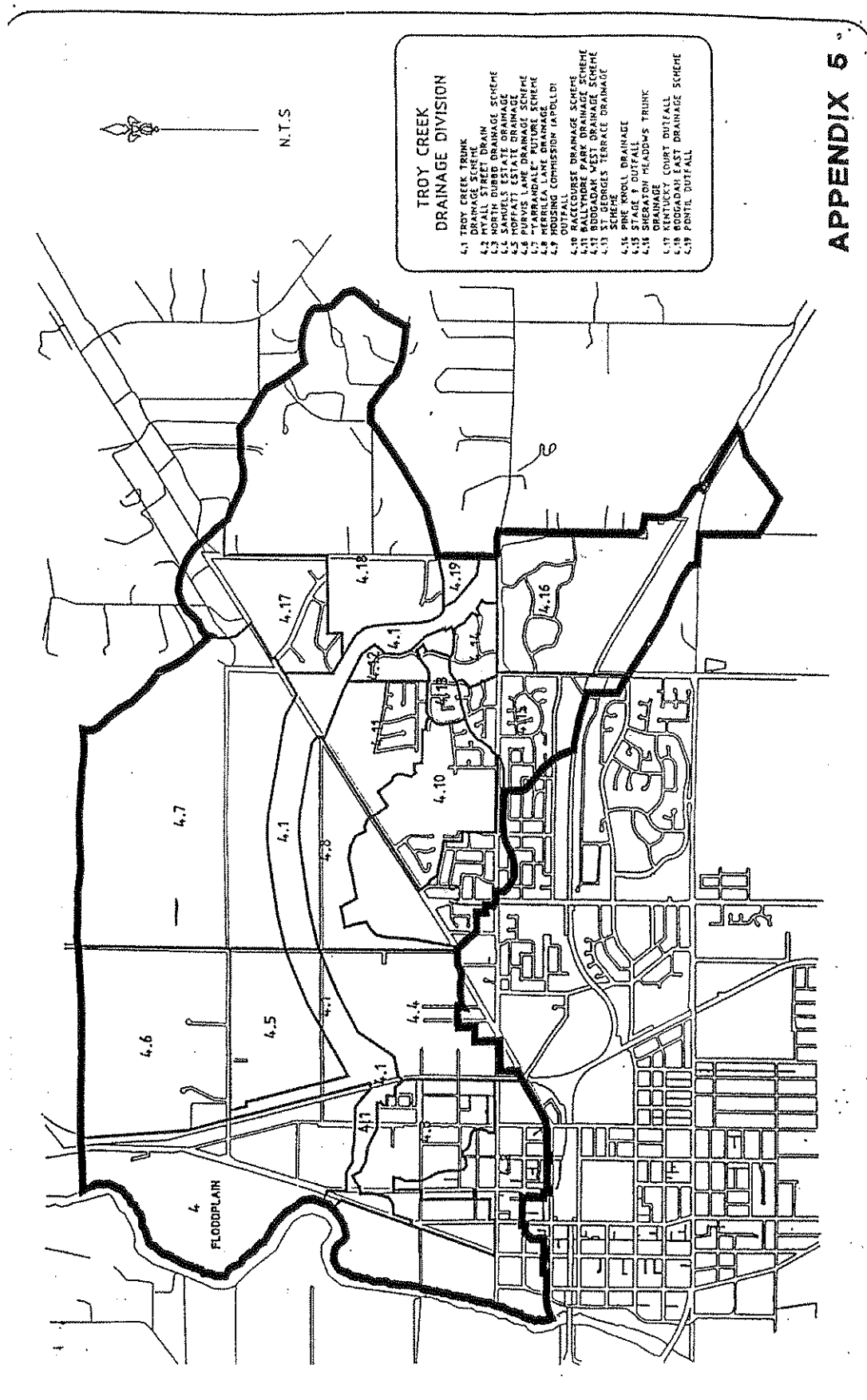
Appendix 3 – Plan of Macquarie River West Bank Drainage Division



Appendix 4 – Plan of Keswick Drainage Division

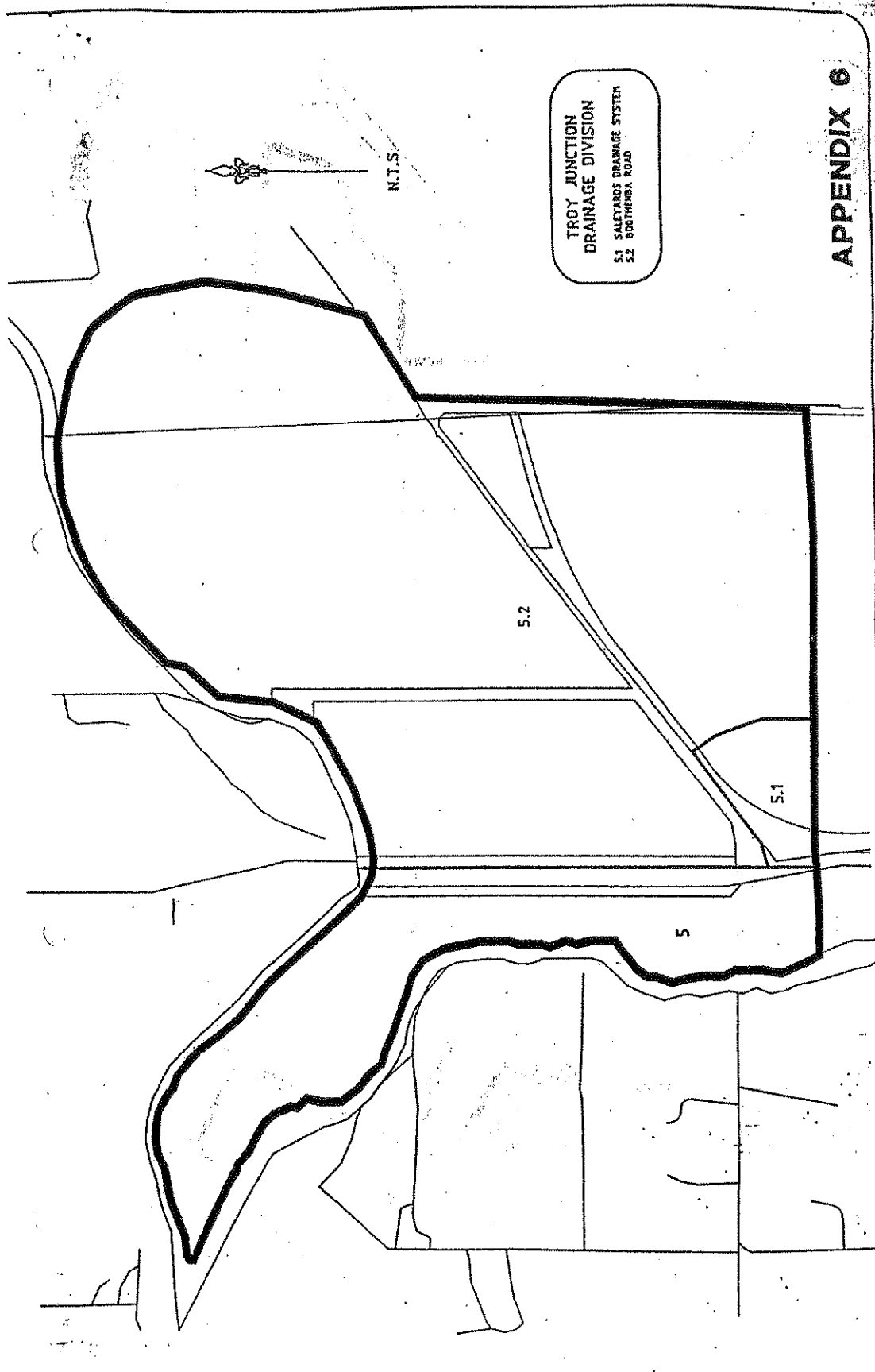


Appendix 5 – Plan of Troy Creek Drainage Division

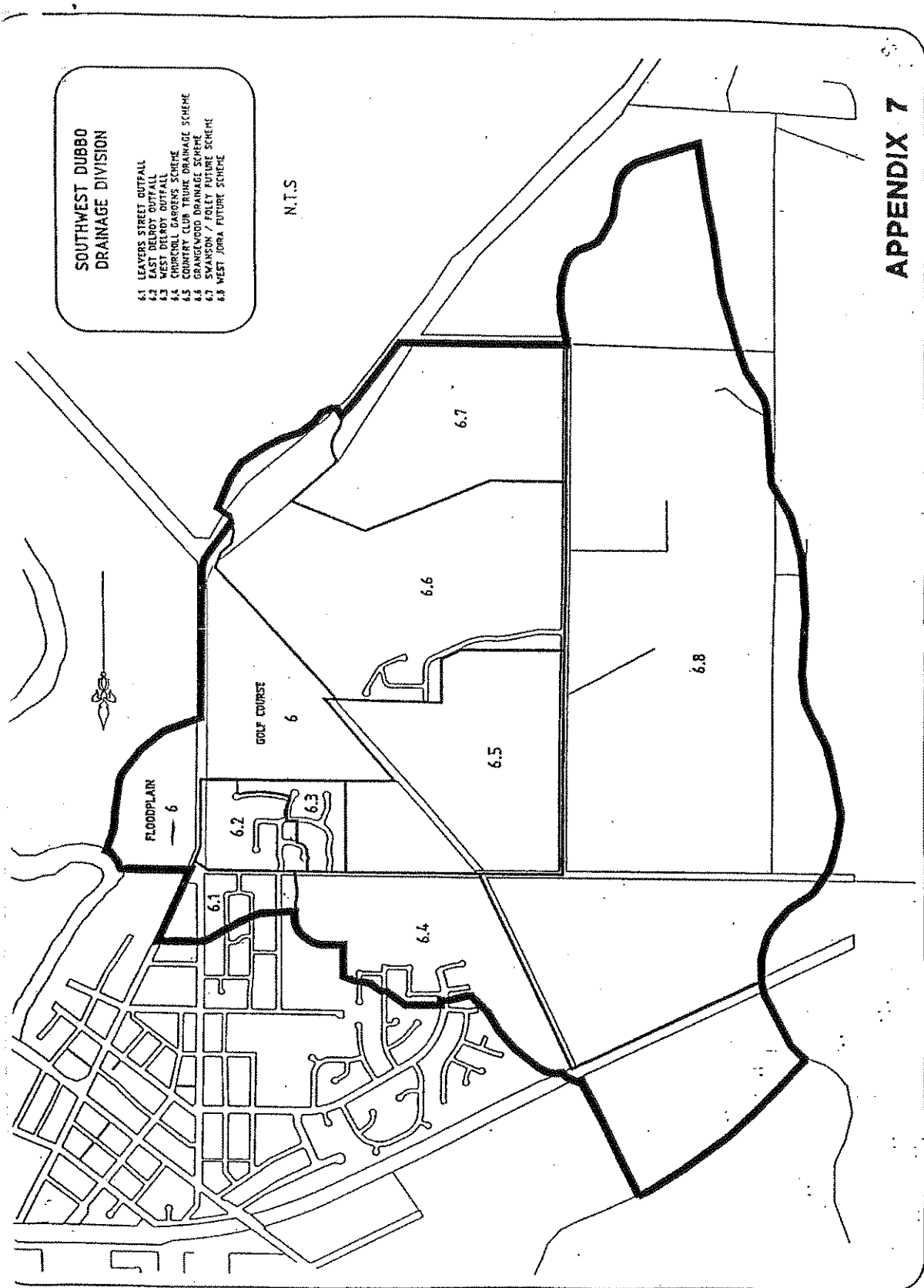


APPENDIX 5

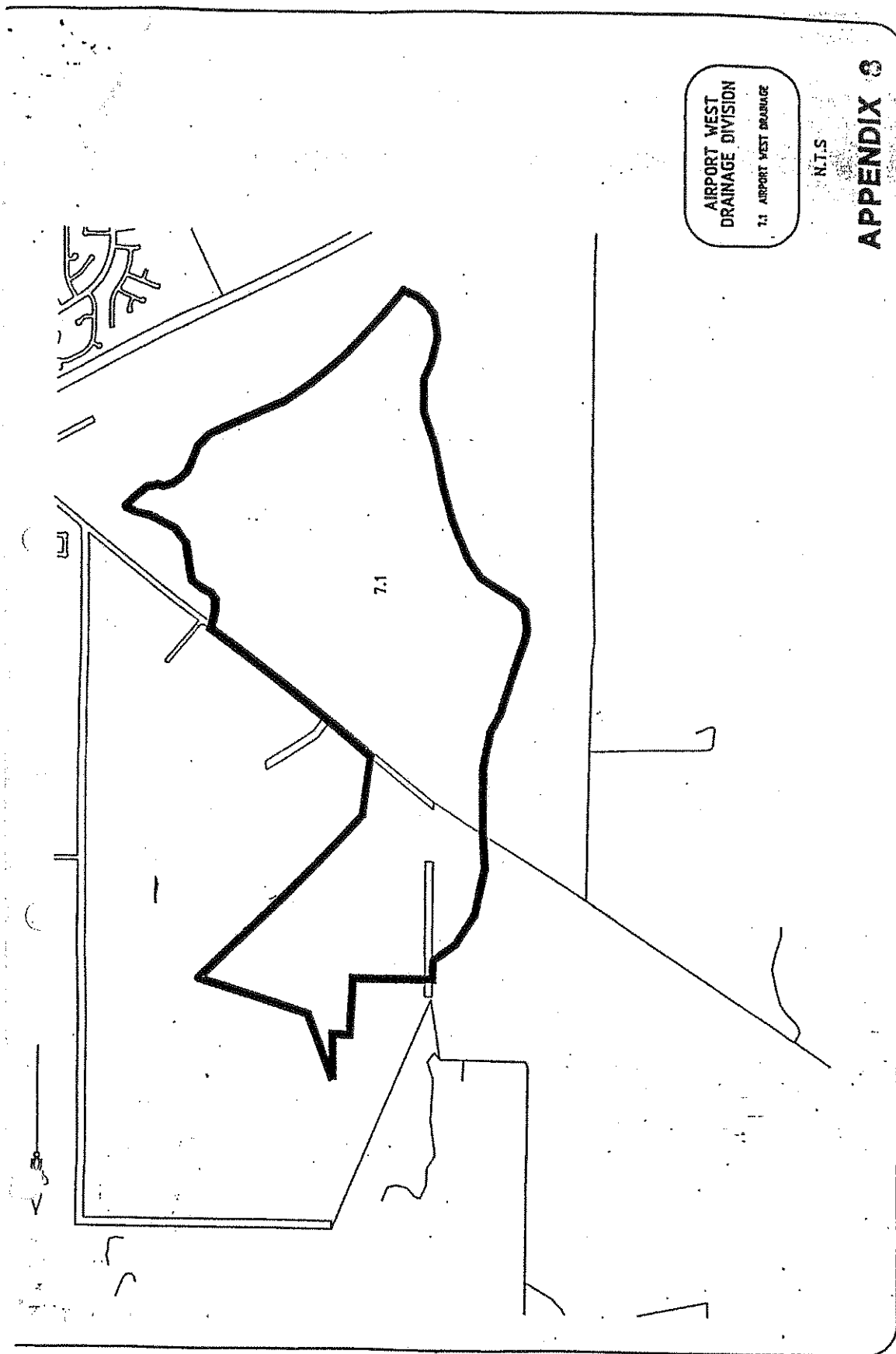
Appendix 6 – Plan of Troy Junction Drainage Division



Appendix 7 – Plan of South West Dubbo Drainage Division



Appendix 8 – Plan of Airport West Drainage Division



Appendix 9 – Australian Bureau of Statistics – Index Numbers Water Supply and Sewerage – Former

SERIES IS – N4QQ.UI85PESL_WDDU

NATIONAL ACCOUNTS

PUBLIC GROSS FIXED CAPITAL EXPENDITURE

PUBLIC ENTERPRISES STATE AND LOCAL WATER SUPPLY AND SEWERAGE AT AVERAGE 1984/85 PRICES

UNIT = INDEX, MAGNITUDE = UNITS, STORAGE MONTH = MAR

	MARCH	JUNE	SEPTEMBER	DECEMBER
1969			183	187
1970	191	192	196	200
1971	211	212	216	221
1972	223	227	232	236
1973	203	251	260	266
1974	271	310	330	353
1975	369	388	401	413
1976	431	449	460	468
1977	480	496	507	516
1978	526	532	539	546
1979	562	576	597	607
1980	363	651	674	683
1981	703	725	749	772
1982	805	836	875	889
1983	903	914	919	939
1984	949	970	982	989
1985	998	1030	1050	1071
1986	1096	1104	1130	1149
1987	1166	1188	1199	1216
1988	1244	1261	1271	1300
1989	1318	1346	1361	1385
1990	1403	1425	1447	1466
1991	1460	1458	1464	1472
1992	1471			

Appendix 10 – Australian Bureau of Statistics – Index Numbers Water Supply and Sewerage – Former

SERIES IS – WSS UI90PESL_WDDU

NATIONAL ACCOUNTS

PUBLIC GROSS FIXED CAPITAL EXPENDITURE

**PUBLIC ENTERPRISES STATE AND LOCAL WATER SUPPLY AND SEWERAGE AT
AVERAGE 1989/90 PRICES**

UNIT = INDEX, MAGNITUDE = UNITS, STORAGE MONTH – MAR

	MARCH	JUNE	SEPTEMBER	DECEMBER
1984			72.2	72.5
1985	73.1	75.1	76.3	77.7
1986	79.5	79.8	81.5	82.7
1987	83.7	85.5	86.0	87.4
1988	89.2	90.5	91.3	93.4
1989	94.6	96.6	97.5	99.4
1990	100.8	102.4	104.0	105.5
1991	105.1	105.0	105.6	106.1
1992	106.1	106.1	106.6	106.8
1993	106.8	106.7	107.0	107.0
1994	107.4	108.0	108.5	108.6