Section 94 Contribution Plan

Jordan Creek Stormwater Drainage Management

Adopted
August 1993

BATHURST
REGIONAL COUNCIL

SECTION 94 CONTRIBUTIONS PLAN

JORDON CREEK STORMWATER DRAINAGE MANAGEMENT

Adopted
August 1993

TABLE OF CONTENTS

PLAN JORDON CREEK STORMWATER MANAGEMENT

1.0 Aims of this Plan

The aims of this plan are to:

a) Contain runoff from storms up to the 1% AEP event within the existing or, where necessary, upgraded drainage system through the development area of Bathurst.

b) Maintain quality of stormwater runoff entering the Macquarie River by the removal of pollutants such as silt, rubbish, oil and chemicals.

2.0 Purpose of this Plan

The purpose of this plan is:

a) To ensure that Council has adequate funding to properly manage stormwater runoff from developments within the catchments identified in this plan.

b) To ensure that the funding of stormwater management is provided in an equitable manner.

3.0 Land to which this plan applies

This plan applies to land bounded by the heavy black line on the map marked "Section 94 Contribution Plan – Jordan Creek Stormwater Drainage" and deposited in the Office of Bathurst Regional Council.

3.1 Developable Land within the Study Area

The lands deemed to be available for development within the catchment are:

- Areas zoned other than rural on the Bathurst Local Environment Plan 1997 (as amended)
- Area controlled by the Robin Hill Development Control Plan

3.2 Nature of Development

The predominant types of development within the catchment are Residential, Rural Residential, Commercial, Special Uses (schools, carparks, churches etc) and Industrial. The impact on stormwater runoff is due to the creation of impervious areas such as roofs and paving. The assumptions use din this study are that industrial, commercial and medium to high density residential development will produce 80% impervious area and low density residential development will produce 40% impervious area.

Existing residential developments within the catchment have produced a yield of approximately 7.5 lots per hectare and this figure has been used for the purpose of estimating anticipated yields. Industrial and Commercial development shave been assumed to yield an equivalent of 15 residential lots per hectare for the purpose of cost sharing. Rural residential lots are considered equivalent to 1.5 residential lots because they tend to attract larger houses, shed and paved areas. Special use area have been estimated to contribute a total of 20ha impervious area.

4.0 Nexus

Developments within the catchment have and continue to increase the frequency and volume of stormwater runoff and adversely affect the quality of this water. It is Council's objective to ensure that all properties within the catchment are afforded 100 year flood protection by; reducing peak flows using retarding basins, utilising the existing drainage network where possible, upgrading this system where necessary and removing pollutants prior to discharge into the Macquarie River.

The Scheme is only necessary due to development s within the catchments and it is therefore fair and reasonable that it be funded by Section 94 Contributions commensurate with the relative impact of individual developments within the catchment.

4.1 Low Density Residential Development

There are approximately 876 existing low density residential lots within the catchment area and the potential for further development of this type is limited to approximately 15 new lots on Boundary Road opposite the Bathurst Golf Course giving a total of 891 equivalent residential lots or 47.52ha impervious.

4.2 Rural Residential Development

The Robin Hill Development Control Plan allows Rural Residential Development west of Boundary Road. There are 38 existing rural residential lots within the catchment in the Robin Hill area with a potential 21 lots yet to be developed giving a total of 89 equivalent lots or 4.75ha impervious area.

4.3 High to Medium Density Residential Development

A large portion of the catchment is zoned "Residential 2a" which allows medium to high density residential units and non-residential uses such as motels, clubs, and child care centres etc. Much of this area has already been developed with the remainder being available for "infill" development.

Medium to high density residential development is assumed to have the same impact on stormwater runoff as commercial and industrial development and this type of development is considered in conjunction with Commercial and Industrial Development below.

4.4 Commercial and Industrial Development

There is approximately 119 ha within the catchment area which is zoned either Residential 2c (now Residential 2a), Commercial (now General Business 3a), or Industrial (now Industry 4a). This type of development is the most common within the catchment and contributes most to increased stormwater runoff volumes. On the basis of converting these area to equivalent lots as describe din Section 3.2 there is a capacity for 1785 equivalent residential lots or 95.2ha impervious area.

4.5 Special Uses

Special uses such as Carparks, Schools, Churches, Bathurst Gaol, Public Buildings etc are permissible within this zoning. Developments within these areas need to be considered individually with regard to the creation of impervious areas affecting stormwater runoff volumes. Of the total of 160ha which is currently zoned Special Uses 5a, 20ha has been assumed to be potentially impervious, equivalent to 375 equivalent residential lots.

5. Costs and Funding

In the past Council has funded trunk drainage works by several means including:

- Levying of contributions under Section 94 of the Environmental Protection Act

- Requiring Developers to construct various works in conjunction with Development approval.

- Constructing trunk drainage works using borrowed funds which are repaid from general rate revenue.

This method of funding has led to inequities in funding of such works in that some development have contributed more or less than their "fair share" and some works have been paid for by rate payers from established areas, not necessarily in the vicinity of the work.

5.1 Estimated Costs

The cost of providing the required works has been estimated using the latest available data from several sources such as; recently completed works, Council's "Cost and Resources Estimating" software and "Rawlinsons Australian Construction Handbook".

5.2 Proposed Method of Funding

It is proposed that future stormwater management within the catchment will be funded by development contributions levied under Section 94 of the Environmental Planning and Assessment Act. These contributions will be levied at variable rates according to the effects on stormwater runoff caused by the creation of impervious areas.

Low density residential and rural residential developments will be assessed on a per lot basis with contributions being levied at the time of subdivision.

Commercial, Industrial, Special Uses and Residential Flat developments will be assessed on an impervious area basis with contributions levied at the time of development.

6. SUMMARY OF CONTRIBUTION RATES

The following contribution rates will be applied to developments within the Jordon Creek Catchment. Low density residential and rural residential subdivisions will be required to contribute the appropriate rate per lot. Medium to high density Residential, Commercial, Industrial and Special Uses developments such as Schools, Churches, etc. will be required to contribute at Rate 1 per square metre of impervious are created.

Total cost of Management Works: $5,523,000
Total equivalent residential lots: 3140
Total impervious area: 167.47ha

2004/2005 Contribution Rates:
Contribution per Residential Lot: $2,453
Contribution per Rural Residential Lot: $3,750
Contribution per ha Rate 1: $7.00 (per sq.m impervious area)

7. CURENT AND FUTURE FUNDING

To date funds have been derived from a variety of sources mentioned previously. It is envisaged that future contributions towards Jordan Creek stormwater management will allow for the completion of the schedule of works.

8. SCHEDULE OF WORKS

8.1 DRAINAGE CHANNELS AND PIPELINES

8.1.1 Open grass lined channel with 600mm dia flow pipe between Stanley and Morrisset Streets. Total length 150m 0% complete.

8.1.2 Culvert augmentation at Morrisset Street – Add 3600X1500RCBC over existing Culvert. 0% complete.

8.1.3 Open grass lined channel with 600mm dia low flow pipe between Morrisset and Durham Street. Total length 230m. 0% complete.

8.1.4 Open concrete lined channel 3.65m x 2.7m between Durham and Howick Streets. Total length 230m. 95% complete.

8.1.5 Open concrete lined channel 3.65m x 2.7m between Howick and Russell Streets. Total length 230m. 95% complete.

8.1.6 Open concrete lined channel 3.65m x 2.7m between Russell and Keppel Streets. Total length 230m. 85% complete.

8.1.7 Open concrete lined channel 3.65m x 2.5m between Keppel and Piper Streets. Total length 230m. 85% complete.

8.1.8 Open concrete lined channel 3.05m x 2.5m between Piper and Lambert Streets. Total length 230m. 85% complete.

8.1.9 Twin 1.35m plus 1.50m diameter concrete pipeline between Lambert Street and confluence at Rankin Street. Total length 80m. 100% complete.

8.1.10 Twin 1.5m diameter concrete pipeline between confluence at Rankin Street and Atlas Motel. Total length 155m. 0% complete.

8.1.11 Twin 1.35m diameter concrete pipeline through Atlas Motel and Stewart Street. Total length 110m. 100% complete.

8.1.12 Twin 1.5m diameter concrete pipeline between Stewart Street and Rocket Streets through Mobil Service Station. Total length 1100m. 0% complete.

8.1.13 Triple 1.2m diameter concrete pipeline across Rocket Street near Gladstone Street. Total length 20m. 100% complete.

8.1.14 Twin 1.35m diameter concrete pipeline between confluence at Rankin Street and Rocket Street. Total length 130m. 5% complete.

8.1.15 Twin 1.35m diameter concrete pipeline between Rocket Street and Brilliant Streets. Total length 235m. 100% complete.

8.1.16 1.35m diameter concrete pipeline between Brilliant and Browning Streets. Total length 270m. 100% complete.

8.1.17 0.9m diameter concrete pipeline augmentation between Brilliant and Browning Streets. Total length 270m. 0% complete

8.1.18 1.35m diameter concrete pipeline between Browning Street and Ennis Way. Total length 140m. 100% complete.

8.1.19 Earth embankment to direct flows into existing pipelines at Ennis Way. 0% complete.

8.1.20 1.2m diameter concrete pipeline between Rankin Street and Browning Street near Wilkins Street. Total length 342m. 70% complete.

8.1.21 0.9m diameter concrete pipeline across Browning Street near Wilkins Street Total length 55m. 100% complete. 0% complete.

8.2 Retarding Basins

8.2.1 Basin J1: Retarding Basin – Hector Park.
Storage: 15,000 cu.m
Outlet: 3 x 1.50mm dia
0% complete

8.2.2 Basin J2: Retarding Basin – Brooke-Moore Oval
Storage: 10,000 cu.m
Outlet: 375mm dia
100% complete

8.2.3 Basin J3: Retarding Basin – Boundary Road, Golf Course Estate
Storage: 4,000 cu.m
Outlet: 3 x 750mm dia
100% complete.

8.2.4 Basin J4: Retarding Basin – Boundary Road, McDiarmid Street
Storage: 4,000 cu.m
Outlet: 2 x 900mm dia
0% complete

8.2.5 Basin J5: Retarding Basin – Boundary Road, Delaware Crescent
Storage: 2500 cu.m
Outlet: 2 x 600mm dia
0% complete

8.2.6 Basin M1: Retarding Basin – Middle Brach, Dog Training Track
Storage: 2000 cu.m
Outlet: 2 x 600mm dia
0% complete

8.2.7 Basin M2: Retarding Basin – Middle Branch, near Reservoir
Storage: 2000 cu.m
Outlet: 2 x 525mm dia

0% complete

8.2.8 Basin C1: Retarding Basin – College Branch, near Ennis Way
Storage: 12,000 cu.m
Outlet: 3 x 525mm dia
0% complete

8.2.9 Basin C2: Retarding Basin - College Branch, Playing Field
Storage: 10,000 cu.m
Outlet: 3 x 525mm diameter pipe
0% complete

0% complete

8.3 Water Quality Control Structures.

Gross Pollutant Trap between Durham and Morrisset Streets. 0% complete.

8.5 Drainage Strategy Plan S1

Hydrologic and hydraulic analysis, identification of required works and preparation of Section 94 Contributions Plans for Raglan Creek catchment. 100% complete.

9. WORKS PROGRAM

The nature, extent and location of future developments within the study area are difficult to predict and hence it is impractical to produce a precise works program. The highest priority within the works schedule will be the construction of Retarding Basins and the Gross Pollutant Trap in order to increase the serviceability of existing assets. Council intends, however, to expend all money levied for drainage works within three to ive years of it's receipt and to carry out these works in areas which maximize the benefit of the relevant developments where practicable.

10. MATERIAL PUBLIC BENEFITS

Where a developer wishes, or is required by a condition of development consent, to carry out trunk drainage works, as contained in the Schedule of Works in this plan, in conjunction with a development Council may accept

the value of these works and any land contribution in lieu of monetary payment. Where the value of such works differs from the contribution value the difference will be made up be monetary contribution or reimbursement from available Section 94 Contribution Funds held by Council.

11. ADJUSTMENT OF CONTRIBUTIONS

The contribution rates applying to this plan will be adjusted annually in the following manner:

a) Cost of construction in accordance with current estimating rates.

b) Land values in line with current market rates.

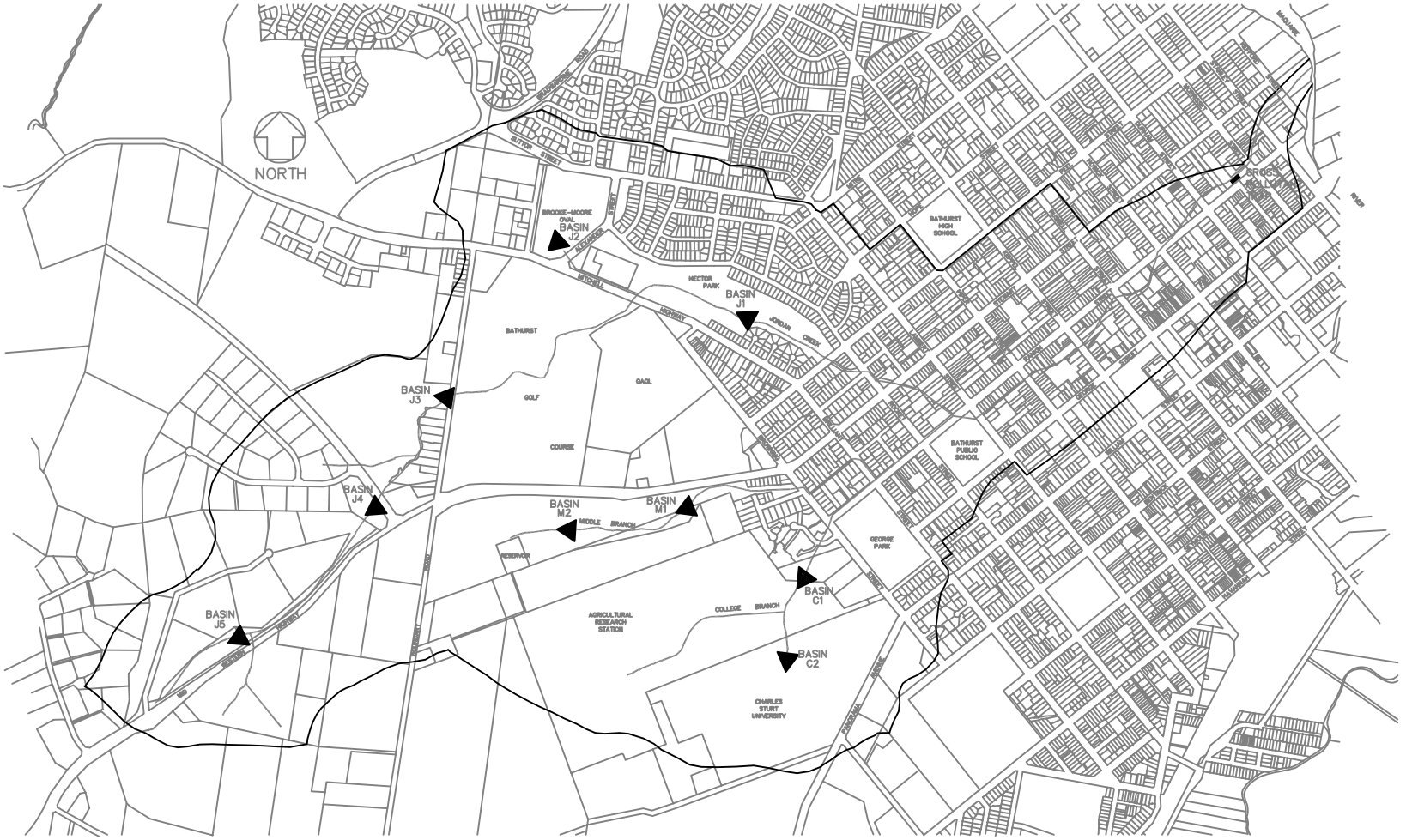
12. CONCLUSION

The contribution rates set out in Section 6 Summary of Contribution Rates are considered reasonable and therefore can be imposed as a monetary condition pursuant to Section 94 of the Environmental Planning and Assessment Act, 1979.

AMENDMENTS

Nil

ANNEXURE 4.



DRAWN: W.J.JORDAN DATE:26 JUN 96	BATHURST CITY COUNCIL
PLANNING OFFICER: J.BINGHAM	SECTION 94 CONTRIBUTION PLAN STORMWATER DRAINAGE MANAGEMENT.
MANAGER TOWN PLANNING: D.R.SHAW	JORDAN CREEK CATCHMENT.
	LOCALITY: BATHURST.

NORTH.