



**G W Y D I R**  
SHIRE COUNCIL

**Section 94 Development Contribution  
Plan No. 1 - Traffic Generating  
Development**

April 2011

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## **Part A - Introduction**

Damage to bitumen and gravel road pavements due to heavy vehicles from traffic generating developments is a significant impact on the public roads and Council's budget. Where a development has proposed that heavy vehicles use the public roads in the Shire and the existing road infrastructure is inadequate to carry the additional load, a contribution will be sought from the proposed development towards the cost of maintenance, repair and rehabilitation of the road network.

The NSW Land and Environment Court has recognised the significant impact that road haulage vehicles associated with traffic generating developments and in particular extractive industries have on the public road system, beyond the normal usage by the general public, and accordingly has accepted that Section 94 of the Environmental Planning & Assessment Act, 1979 is an appropriate mechanism for the levy of contributions for the upgrading and rehabilitation of effected public roads.

## **Part B - Administration of the Plan**

### **B1. Basic Principles of developer contributions**

Section 94 of the Environmental Planning & Assessment Act, 1979 enables Council to levy contributions from developers for the provision of public amenities and services required as a consequence of development.

The three general principals in applying Section 94 contributions are:

1. A contribution must be for, or relate to, a planning purpose;
2. A contribution must fairly and reasonably relate to the subject development; and
3. The contribution must be such that a reasonable planning authority, duly appreciating its statutory duties, could have properly imposed.

Under the provisions of the Environmental Planning & Assessment Act, 1979 Council may either:

- Require land to be dedicated free of cost;
- Require money to be contributed for works or facilities to be provided in the future;
- Require money to be contributed towards the cost of works in kind, in satisfaction of Section 94 requirements; or
- Require or accept a combination of any of the above.

The ability to levy Traffic Generating Development for the cost of maintenance, repair and reconstruction of roads as a result of damage caused by trucks involved in the industry is of considerable importance to the Council and Communities in the Shire.

The "*user pays*" approach can significantly reduce the public financial burden of road improvements and the damage caused to the roads.

One of the fundamental responsibilities of any Council in imposing Section 94 contributions is to ensure that the contributions levied are reasonable. That is, the works and facilities to be provided must be a direct consequence of the development on which the contributions are levied. They must not unnecessarily inflate development costs.

In keeping with this responsibility, Section 94 contributions levied on development within the Shire are limited to essential or base-line works.

**B2. Name of the Plan**

This Plan is titled the Gwydir Development Contributions Plan No. 1 – Traffic Generating Development.

**B3. Commencement**

This development contributions plan has been prepared pursuant to the provisions of sections 94 of the *Environmental Planning and Assessment Act 1979* and Part 4 of the Environmental Planning and Assessment Regulation 2000 and takes effect from the date on which public notice was published, being ..... pursuant to clause 31(4) of the Environmental Planning and Assessment Regulation 2000.

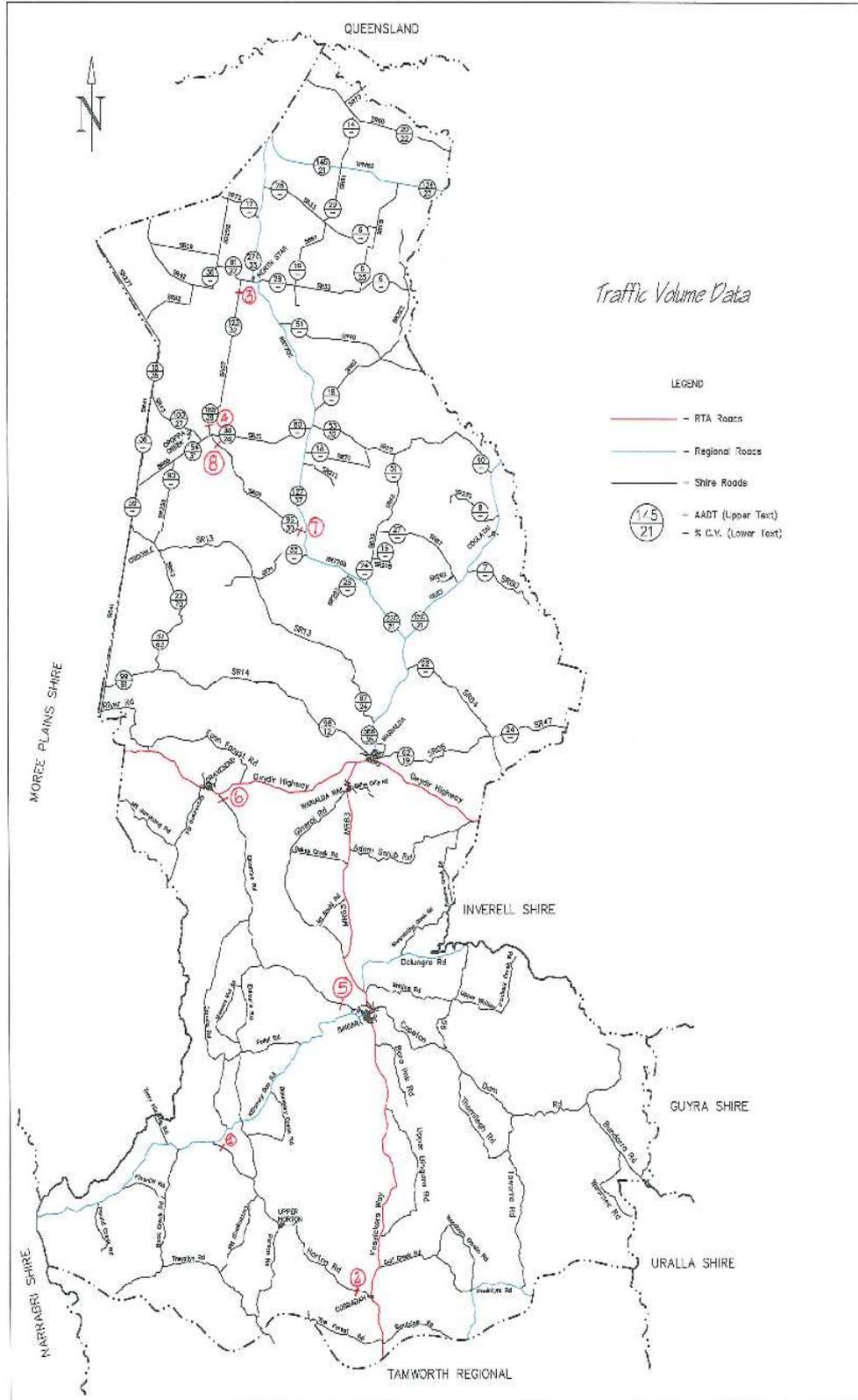
**B4. Relationship with Other Plans and Policies**

This Contributions Plan supplements the provisions of the following Local Environmental Plans and any amendment or Local Environmental Plan which it may supersede.

- Barraba Local Environmental Plan ; and
- Bingara Local Environmental Plan ; and
- Yallaroi Local Environmental Plan.

**B5. Area to Which the Plan Applies**

The Plan applies to all land within the Shire of Gwydir as shown in Map 1.



## B6. The Purpose of the Plan

The purpose of the Plan is to:

- a. Provide an administrative framework under which specific public facilities strategies may be implemented and coordinated;
- b. to ensure the operation of Traffic Generating Development does not adversely impact on local roads. Assess the demand for road maintenance, repair and reconstruction arising from Traffic Generating Development;
- c. to authorise the Council to impose conditions under section 94 of the *Environmental Planning and Assessment Act 1979* when granting consent to development on land to which this plan applies
- d. provide a comprehensive strategy for the assessment, collection, expenditure accounting and review of development contributions on an equitable basis
- e. To minimize any adverse environmental and social impacts in terms of noise and dust to residences, road uses and other development in the vicinity, and
- f. enable Council to be both publicly and financially accountable in its assessment and administration of this plan.
- g. To ensure that the existing community is not burdened by the costs of road works resulting from damage caused by heavy vehicles associated with the Traffic Generating Development.
- h. Demonstrate that the contributions have been set after due assessment of the likely needs and demands of the Traffic Generating Development in terms of access roads and their on-going maintenance.
- i. Justify the application of a levy for road works for each tonne of extracted/processed/produced material;

## B7. Definitions

“Applicant”	means a person, company or organisation submitting a development application or an application for a complying development certificate or a person, company or organisation authorised to act on a consent.
“Contribution”	means the dedication of land, the making of a monetary contribution or the provision of a material public benefit as referred to in Section 94 of the EP&A Act.
“Contributions Plan”	means a contributions plan referred to in Section 94B of the EP&A Act.
“Council” or “GSC”	means the Gwydir Shire Council.

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<i>“CPI”</i>	means the Consumer Price Index (All Groups Sydney) as published from time to time by the Australian Bureau of Statistics.
<i>“Designated travel route”</i>	means the route identified in the development consent as being the travel route for heavy vehicles generated by the development from the development to Regional Road or Highway.
<i>“DoP”</i>	means the NSW Department of Planning.
<i>“EP&amp;A Act”</i>	means the Environmental Planning and Assessment Act 1979 as amended.
<i>“EP&amp;A Regulation”</i>	means the Environmental Planning and Assessment Regulation 2000 as amended.
<i>“Extractive industry”</i>	means: a) the winning of extractive material; or b) an undertaking, not being a mine, which depends for its operation on the winning of extractive material from the land on which it is carried on, and includes any stockpiling, washing, crushing, grinding, milling or separating into sizes of that extractive material on that land.
<i>“Extractive material”</i>	means sand, sandstone, gravel, clay, turf, soil, rock, stone or similar substances that are not minerals under the Minerals Act.
<i>“Industry”</i>	means (a) any manufacturing process within the meaning of the Factories, Shops and Industries Act 1962; or (b) the breaking up or dismantling of any goods or any article for trade or sale or gain or as ancillary to any business,
<i>“LEP”</i>	means a Local Environmental Plan made by the Minister under Section 70 of the EP&A Act.
<i>“Operator”</i>	means the registered owner or company operating the mine or extractive industry from time to time.
<i>“The Plan”</i>	means the Gwydir Section 94 Contributions Plan.
<i>“Public Facilities”</i>	means public amenities or public services as referred to in Section 94 of the EP&A Act, including road works, the need for which is generated or increased by development.
<i>“Road works”</i>	means any works carried out within a road reserve including pavement and surface reconstruction and rehabilitation, drainage, bridgeworks, benching and dust mitigation.
<i>“Rural Industry”</i>	means Handling, treating, process or packing of primary products and includes the servicing in a workshop of plant or equipment used for rural purposes in the locality.

“s.94”	means Section 94 of the EP&A Act.
“Works In Kind”	has the same meaning as a material public benefit as referred to in Section 94(5)(b) of the EP&A Act and means the undertaking of any work associated with the provision of a public facility.
“Works Schedule”	means the schedule of the specific public facilities for which contributions may be required and the likely timing of provision of those public facilities based on projected rates of development, the collection of development contributions and the availability of funds from supplementary sources.

## **B8. Development to which the Plan Applies**

This Plan applies to all Traffic Generating Development and related operations as detailed in current and future Development Applications. No other development is covered by the provision of this Plan.

For the purpose of this plan, traffic generating developments are those developments that:-

- Require the use of road haulage vehicles to support the operation of the enterprise;
- Generate additional traffic movements above levels of traditional agricultural activities;
- Developments which include the following enterprises:-
  - Wool Scouring Plants
  - Abattoirs
  - Rendering Plants
  - Saleyards
  - Wood or timber milling or processing works including wood preservation works
  - Wineries or associated works
  - Warehouses
  - Light industry
  - Intensive Agricultural Enterprises
    - feedlots
    - poultry farms
    - piggeries
    - dairies
  - Composting Works
  - Transport Terminals
  - Grain Storage Complex
  - Feedmills
  - Extractive Industries
  - Mine
  - Rural Industry

### **B9. Types of Public Service covered by this Plan**

The following public benefit and services may be covered by this Plan:

- Upgrading and /or construction of roads,
- Intersection upgrading and construction,
- On-going maintenance and repair of roads
- Drainage works
- Traffic management measures, and
- Bitumen sealing

Council will levy contributions for these items only under the provisions of this Plan

### **B10. When is the Contribution Payable?**

A contribution must be paid to Council at the time specified in the condition that imposes the contribution. Unless otherwise agreed to by Council, the contributions must be paid prior to the issue of a development consent, construction certificate or complying development certificate.

Council will accept developer contributions payments by way of a monetary contribution.

The Section 94 contribution is calculated from true certified copies of weighbridge dockets, log books, diary entries and/or other returns or records that show the true quantities of extracted and/or processed material transported from an extraction site.

The applicant/operator or consenting assignee is to supply to Council on or before the fourteenth day of each month for the duration of the development consent for the development's operation, the records of the transported material.

Council, upon receipt of such records will, as soon as it can conveniently do so, issue to the applicant (or assignee) an invoice for the Section 94 contribution amount to be paid to Council within fourteen days of the date of invoice. Audit of records Council has by condition of consent the right to inspect the original records relating to the transport of imported material to and export of extracted or processed material from a development.

Original records that may be requested for inspection include:

- a) The extraction site/zone from which material was extracted and/or processed;
- b) Date and time of import/export/transport of material to/from a development;
- c) Monthly quantity & nature of material imported/exported/ transported to/from a development;
- d) Daily number & type (including registration number) of laden trucks and/or trailers;
- e) Monthly payment date & amount of Section 94 contributions made to Council.

All Traffic Generating Development operators will be expected to keep all necessary information to verify the above matters. Council's inspection of original records will be requested by way of prior written notice.

### **B11. Deferred/periodic payments**

Deferred or periodic payments may be permitted in the following circumstances:

- a. compliance with the provisions of this Plan is unreasonable or unnecessary in the circumstances of the case,
- b. deferred or periodic payment of the contribution will not prejudice the timing or the manner of the provision of public facilities included in the works program,
- c. where the applicant intends to make a contribution by way of a planning agreement, works-in-kind or land dedication in lieu of a cash contribution and council and the applicant have a legally binding agreement for the provision of the works or land dedication,
- d. there are circumstances justifying the deferred or periodic payment of the contribution.

If Council does decide to accept deferred or periodic payment, Council may require the applicant to provide a bank guarantee by a bank approved by Council for the full amount of the contribution or the outstanding balance on condition that:

- a. the bank guarantee for the amount of the total contribution, or the amount of the outstanding contribution, plus an amount equal to thirteen (13) months interest plus any charges associated with establishing or operating the bank security
- b. the bank unconditionally pays the guaranteed sum to the council if the council so demands in writing not earlier than 12 months from the provision of the guarantee or completion of the work
- c. the bank must pay the guaranteed sum without reference to the applicant or landowner or other person who provided the guarantee, and without regard to any dispute, controversy, issue or other matter relating to the development consent or the carrying out of development
- d. the bank's obligations are discharged when payment to the Council is made in accordance with this guarantee or when council notifies the bank in writing that the guarantee is no longer required.
- e. where banks guarantee has been deposited with Council; the guarantee shall not be cancelled until such time as the original contribution and accrued interest are paid.

### **B12. Contributions 'in-kind' and material public benefits**

The Council may accept an offer by the applicant to provide an 'in-kind' contribution (i.e. the applicant completes part or all of work(s) identified in this plan) or through provision of another material public benefit in-lieu of the applicant satisfying its obligations under this plan.

Council may accept such alternatives in the following circumstances:

- a. the value of the works to be undertaken is at least equal to the value of the contribution that would otherwise be required under this plan
- b. the standard of the works is to Council's full satisfaction and nominated standard,
- c. the provision of the material public benefit will not prejudice the timing or the manner of the provision of public facilities included in the works program.

The value of the works to be substituted must be provided by the applicant at the time of the request and must be independently certified by a Quantity Surveyor who is registered with the Australian Institute of Quantity Surveyors or a person who can demonstrate equivalent qualifications.

Council will require the applicant to enter into a written agreement for the provision of the works.

Acceptance of any such alternative is at the sole discretion of the council. Council may review the valuation of works or land to be dedicated, and may seek the services of an independent person to verify their value. In these cases, all costs and expenses borne by the Council in determining the value of the works or land will be paid for by the applicant.

### **B13. Review of contribution rates**

To ensure that the value of contributions are not eroded over time by movements in the Consumer Price Index (CPI), land value increases, the capital costs of administration of this plan or through changes in the costs of studies used to support this plan; Council will periodically review the contribution rates.

The contribution rates will be reviewed by reference to the following specific indices:

- construction costs as published by BITRE road construction and maintenance input price index
- land acquisition costs by reference to average land valuation figures published in Council's Management Plan
- specific valuations for particular parcels of land that are identified in this plan as published in Council's Management Plan
- changes in the capital costs associated with provision of administration and salary costs for staff involved in implementing this plan by reference to increases in salary rates under the Local Government State Award Plan as published in Council's Management Plan
- changes in the capital costs of various studies and activities required to support the strategies in this plan by reference to the actual costs incurred by Council as published in Council's Management Plan.

In accordance with clause 32(3)(b) of the Environmental Planning and Assessment Regulation, the following sets out the means by which Council will make changes to the rates set out in this plan.

For changes to the CPI, the contribution rates within this plan will be reviewed on a quarterly basis in accordance with the following formula:

$$C = \frac{\$C_A + \$C_A \times (CPI_C - CPI_B)}{CPI_B}$$

Where:

**\$C<sub>A</sub>** is the contribution at the time of adoption of this plan expressed in dollars;

**CPI<sub>C</sub>** is the CPI as published by the Australian Taxation Office (ATO) available at the time of review of the contribution rate; and

**CPI<sub>B</sub>** is the CPI as published by the ATO at the date of adoption of this Plan which is \_\_\_\_\_ 2010.

*Note: In the event that the current CPI is less than the previous CPI, the current CPI shall be taken as not less than the previous CPI.*

For changes to land values, Council will publish, at least on an annual basis, the revised land index values that are to be used to change the base land values contained in this plan, which will be determined in accordance with the following formula:

#### **B14. Adjusting contribution rates at the time of payment**

The contributions stated in conditions of consent are calculated on the basis of the contribution rates determined in accordance with this plan. If the contributions are not paid within the quarter in which consent is granted, the contributions payable will be adjusted and the amount payable will be calculated on the basis of the contribution rates that are applicable at time of payment in the following manner:

$$\$C_P = \frac{\$C_{DC} + [\$C_{DC} \times (\$C_Q - \$C_C)]}{\$C_C}$$

Where:

**\$C<sub>P</sub>** is the amount of the contribution calculated at the time of payment;

**\$C<sub>DC</sub>** is the amount of the original contribution as set out in the development consent;

**\$C<sub>Q</sub>** is the contribution rate applicable at the time of payment; and

**\$C<sub>C</sub>** is the contribution rate applicable at the time of the original consent.

#### **B15. Exemptions**

This Development Contribution Plan only applies to Traffic Generating Development as a result there are no exempt developments.

#### **B16. Planning Agreements**

In accordance with Section 93F (1) of the EP&A Act a planning agreement is a voluntary agreement or arrangement between a planning authority and a developer under which the developer agrees to make contributions towards a public purpose. A planning agreement may wholly or partly exclude the application of Section 94 to the development that is subject of the agreement.

The provisions of Sections 93F to 93L of the EP&A Act and accompanying Regulation prescribe the contents, form, subject matter and procedures for making planning agreements.

Any person seeking to enter into a planning agreement should in the first instance submit a proposal in writing to Council, documenting the planning benefits and how the proposal would address the demands created by development for new public infrastructure, amenities and services.

**B17. Administration**

Management is essential if the desired outcomes of this Plan are to be achieved in a timely and affordable manner, and to meet the requirements of the s94 Regulations. Constant supervision and management will be required over a number of years. The recovery of these costs is required by Council and is set at 5% of the contribution payable. This rate will be reviewed at the 1<sup>st</sup> of July each year.

**B18. Cross Boundary Contributions**

Section 94C of the EP&A Act allows adjoining Councils to require a contribution from developers for the provision of public amenities and services required as a consequence of development. This will require that each road in each Council area to be calculated separately in accordance with this plan and the contribution for the section of road within the Council area be collected by the relevant Council. This will be clearly defined in a condition of development consent.

**B19. Savings and transitional arrangements**

A development application which has been submitted prior to the adoption of this plan but not determined shall be determined in accordance with the provisions of the plan which applied at the date of determination of the application.

## Part C - Strategy Plans

### C1. Traffic Generating Development and the Road Nexus

Traffic Generating Development typically causes and exacerbates the deterioration of the road surfaces. Council prior to development could have budgeted to maintain the road at a certain level of service. As a result of the development there is a need for continual and considerable expenditure by Council to maintain, repair and, where necessary, earlier reconstruction of the roads.

For all road pavements, performance is influenced only by the heavy end of the traffic spectrum. No account need be taken of cars and light commercial vehicles as far as loadings are concerned (Austroads – “Pavement Design – A Guide to the Structural Design of Road Pavements”).

The basis of the calculation has regard to reconstruction costs and the average annual road maintenance costs and the length of roads likely to be used by vehicles associated with Traffic Generating Development. The increased maintenance costs are calculated on the basis of the average cost per kilometre to bring a road up to the required standard for the development. The impact is calculated on the ESA loading on the road per vehicle as a proportion of the total loadings on the road. This is then converted to a total cost per tonne (1000 kilograms) per kilometre. The designated travel route will form the length of road upon which the contribution will be levied.

It is well established that damage to road surfaces is caused by heavy vehicles and is to be measured by equivalent standard axles (ESA's). It is also widely accepted that the damaging effect of a 4 axle vehicle on road pavement is non-linear (e.g. double the load causes 16 times the damage –  $2 \times 2 \times 2 \times 2$ ).

One ESA is equivalent to approximately 8.2 tonnes and has the same damaging effect on road pavement as around 550,000 car axles (of 0.3 tonnes), or 4,500 car axles transmitting 1.0 tonne.

Assuming an average car weighs 1,300kg (500kg on one axle and 800kg on the other), one ESA is the equivalent in pavement damage of around 9,500 average cars. The ESA of a 4 axle articulated truck is 1.5; while the ESA of a 5 axle articulated truck is 2.0. Consequently, the approximate number of cars needed to do the same road damage as a standard 5 axle articulated truck is around 19,000.

This load equivalency results in high potential levels of damage to roads from heavy vehicles. Therefore, a section 94 contribution is reasonable for new Traffic Generating Development or Traffic Generating Development that expands production to cover the increased level of road deterioration. Such a levy is appropriate for new construction, maintenance and rebuilding of any road that is used by traffic from Traffic Generating Development.

The extent of this reduced road life and increased maintenance depends entirely on the amount of heavy vehicular traffic generated by the development. Therefore, this has a major impact on Council's financial resources which, in effect, without a contribution from the development, would burden the existing community with providing the extra financial resource needed by Council to maintain the existing level of service for the road network as a result of the development.

The contributions methodology is applicable to Regional and Local Roads (Austroads Rural Class 3 road) which are currently in existence. For those development proposals which necessitate a need to upgrade or provide a new Regional or Local road to service the development, Council will stipulate via a condition of consent the expected road standard required.

## **C2. Council's Contributions Methodology**

The criteria for the traffic generating developments contributions methodology can be broken up into five main areas.

### **Components of the contributions rate**

Contributions depend on:

- The cost of reconstruction of road pavement;
- The number of ESAs in the life of the pavement between reconstructions
- Hence the cost of damage done by one ESA;
- The number of tonnes of payload represented by one EDA
- Hence the cost of damage done by one tonne

A traffic generating development will be required to pay a proportion of all of the above criteria based upon the heavy vehicle Equivalent Standard Axle (ESA) impact on a Regional or Local road. The Contributions Methodology Formula is explained below.

### **C2.1 Method of Measurement**

The method of determining initial numbers of heavy vehicles on the road will be based on the details provided in the documentation submitted with Development Application if considered reasonable by Council and verified by traffic count over a minimum period of 1 month, prior to the commencement of the development prior to setting the maintenance contribution rate. Where the designated travel route involves the use of more than one road then each road will be treated separately in terms of the road maintenance contribution. Therefore, the total contribution payable for the development will be the sum of all the calculated contribution rates for all the individual roads on the designated travel route/s.

Traditionally, the method of assessing heavy vehicle movements generated by a development has been to utilize the projected movements provided as part of the SEE or EIS accompanying the proposed development application. This practice has, in the past led to some concerns regarding the reliability of the movements adopted for the purpose of calculating contributions.

Council will utilise other methods to set/validate heavy vehicle movements generated by a development In order to overcome this uncertainty and establish some reliability in the basis for contribution calculations, a traffic count over a minimum period of 2 months for 3 years will be carried out.

In relation to extractive industries a relationship has been established between the volume of material extracted and vehicle movements generated. Generally a 30% loose volume factor is adopted within the industry for conversion of solid volume to loose volume and therefore, it is assumed that an average haulage truck of loose fill volume 10 represents 7.7 m<sup>3</sup> of solid volume extracted. The extraction of this amount of material thereby also represents two truck movements (one outward and one

return) and will also be used to verify the number of truck movements relating to the development.

### C3. Contributions Methodology Formula

#### C3.1. Cost of Reconstructing A Road Pavement

The cost of road pavement reconstruction from Council's recent experience is typically as follows

Type of Road	Cost
Urban	\$880,000/km
Unsealed	\$3/km
Local sealed	\$235,000/km
Regional sealed	\$335,000/km

#### ESAs In Life of Roads

The design life of a road pavement is expressed in number of ESA's passing before the pavement requires reconstruction.

Design life is function of:

- Traffic counts
- ESAs per vehicle
- Pavement life in years

Traffic counts on typical class 3 roads in Gwydir Shire are as follows;

Road	Average Daily Count	
	Total	Heavy Vehicles (Class 3-12)
1. Horton Road North	41	6
2. Horton Road South	120	16
3. Croppa Creek Road North	105	39
4. Croppa Creek Road South	139	36
5. Elcombe Road South	205	25
6. Elcombe Road North	68	25
7. Baroma Downs Road South	77	30
8. Baroma Downs Road North	86	22

#### Converted traffic to ESAs

Only the class 3-12 vehicles count towards the ESA life of a road. To convert vehicles to ESAs there are two sources

The "Source book of Australian Roads" by M G Lay contains a conversion table (Fig 27.10) for typical heavy vehicles. These conversion factors are as follows for class 3 roads. Note these are all heavy vehicles, laden and unladen

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Type of vehicle	Number of ESAs	Vehicle class
<i>Rigid Trucks</i>		
2 Axles	0.7	3
3 Axles	1.1	4
4 Axles	1.4	5
<i>Articulated Trucks</i>		
3 Axles	1.1	6
4 Axles	1.5	7
4 Axles Spread Tandem	1.4	7
5 Axles	2.0	8
5 Axles Spread Tandem	1.9	8
6 Axles	2.1	9

Lay's list did not extend to B doubles and road trains (classes 10, 11, 12). These are however covered by Table 47 in the National Transport Commission's Technical report for the Third Heavy Vehicle Road Pricing Determination October 2005. Table 47 is national derived from the 2003 Survey of Motor Vehicle Use by the Australian Bureau of Statistics.

B double less than 9 axle	3.56	10
B double 9 or more axles	3.61	10
Weight average B double	3.6	10
Road Trains 2 trailers	4.46	11
Road Trains 3 trailers	5.48	12

The distribution of heavy vehicles in the traffic counts, and the derivation of an average ESA value for heavy vehicles is as follows.

Vehicle Class	3	4	5	6	7	8	9	10	11	Avg
ESA per vehicle	0.7	1.1	1.4	1.1	1.5	2.0	2.1	3.6	4.5	
1. Horton Road North	48%	17%	3%	1%	5%	5%	14%	6%	1%	1.64
2. Horton Road South	59%	8%	1%	1%	7%	5%	14%	5%	0%	1.21
3. Croppa Creek Road North	28%	7%	2%	1%	2%	1%	17%	41%	1%	2.09
4. Croppa Creek Road South	20%	9%	3%	0%	2%	2%	18%	45%	1%	2.40
5. Elcombe Road South	69%	10%	1%	2%	5%	3%	7%	3%	0%	1.02
6. Elcombe Road North	65%	17%	1%	2%	4%	1%	6%	4%	0%	1.02
7. Baroma Downs Road South	41%	5%	6%	1%	2%	0%	25%	19%	1%	1.80
8. Baroma Downs Road North	38%	7%	3%	1%	3%	2%	23%	23%	0%	1.80

The number of ESAs in a 20 year period assuming a growth of 2% per year is as follows;

	Heavy vehicle/day	ESA/heavy vehicle	Yearly ESA	20 year ESA at 2% growth rate
	A	B	$C = Ax \times 365$	$D = C \times 24.3$
1. Horton Road North	6	1.64	3,592	87,286
2. Horton Road South	16	1.21	7,066	171,704
3. Croppa Creek Road North	39	2.09	29,751	722,949
4. Croppa Creek Road South	36	2.40	31,536	766,325

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5. Elcombe Road South	25	1.02	9,308	22,618
6. Elcombe Road North	25	1.02	9,308	22,618
7. Baroma Downs Road South	30	1.80	19,710	478,953
8. Baroma Downs Road North	22	1.80	14,454	351,232

The typical class 3 road has a design life of 5,000,000 ESAs.

### Typical Haulage Vehicles

The sum of the ESA loads for each axle will give the total ESA load for a vehicle. The ESAs for typical axles are as follows;

	Mass for 1 ESA (t)	Legal mass (t)	ESA for legal mass
Single Axle with Single tyres (SAST)	5.40	6	1.52
Single Axle with dual tyres (SADT)	8.15	9	1.49
Tandem axle with dual tyres (TADT)	13.76	16.5	2.07
Tri-axle with dual tyres (TRDT)	18.45	22.5	2.21

The two main vehicle types used for haulage are the truck and trailer combination and the semi-trailer.

ESAs for laden trucks are as follows;

#### Truck and Trailer

	Mass (t)	ESA
SAST	6	1.52
TADT	16.5	2.07
SADT	9	1.49
TADT	16.5	2.07
Total	48	7.15
Payload (tonnes)	33	
Tonnes per ESA	4.62	

#### Semi-Trailer carrying 27 tonnes

	Mass (t)	ESA
SAST	6	1.52
TADT	16.5	2.07
TADT	22.5	2.21
Total	45	5.8
Payload (tonnes)	27	
Tonnes per ESA	4.66	

The rates adopted is 4.66t/ESA, which yields the lower contribution rate

### Derivation of contribution rate for Unsealed Roads

The contribution rate per ESA per km for Unsealed Roads is

$$\frac{\text{Cost of reconstruction of pavement}}{\text{Life of pavement in ESAs}} = \frac{\$15,000}{1,600,000} = 0.9\text{c/ESA/km}$$

The contribution rate per tonne per km is

$$\frac{\text{Rate per ESA per km}}{\text{ESA per tonne of payload}} = \frac{0.9c}{4.66} = 0.19 \text{ cents}$$

#### **Derivation of contribution rate for Local Sealed Roads**

The contribution rate per ESA per km for Unsealed Roads is

$$\frac{\text{Cost of reconstruction of pavement}}{\text{Life of pavement in ESAs}} = \frac{\$235,000}{3,900,000} = 6.02c/\text{ESA/km}$$

The contribution rate per tonne per km is

$$\frac{\text{Rate per ESA per km}}{\text{ESA per tonne of payload}} = \frac{6.02c}{4.66} = 1.29 \text{ cents}$$

#### **Derivation of contribution rate for Regional Sealed Roads**

The contribution rate per ESA per km for Unsealed Roads is

$$\frac{\text{Cost of reconstruction of pavement}}{\text{Life of pavement in ESAs}} = \frac{\$335,000}{3,900,000} = 8.6c/\text{ESA/km}$$

The contribution rate per tonne per km is

$$\frac{\text{Rate per ESA per km}}{\text{ESA per tonne of payload}} = \frac{8.6c}{4.66} = 1.85 \text{ cents}$$

The rates apply to consents issued in the financial year 2006-07.

The rate will be indexed on each 1 July thereafter in accordance with the change in the CPI for the year to the previous December quarter. The CPI is the All Group Consumer Price Index, weighted average of 8 capital cities. Its value in the December quarter 2005 is 150.6.

#### **C4. Information is required to be submitted to Council to Determine Contribution Amount**

When submitting a development proposal to Council for consideration and determination, a Development Application will need to contain supporting written documentation which elaborates upon the developments specific attributes. One section of the written documentation will need to contain the following data for Council to consider:

- a. mapping which depicts the nominated vehicle public road network to service the rural based industry;
- b. estimate of total vehicle movements (both laden and unladen) generated by the development proposal;
- c. estimate of the total amount of material imported and exported by the proposal over the life of the development;

- d. detail on the type, size and volume of vehicles (ie includes contracted Company vehicles) proposed to service the development; and
- e. the location of the nearest private or public weighbridge to authorise and record the tonnages of material leaving the supplied development site.

Upon receipt of the above information, Council can start to determine the contribution amount(s) attributable to the development proposal.

**C5. Who Determines the Contribution Amount under the Methodology for Development Proposals?**

The final Contribution amount for a proposed development is based on an audit of the existing public road network, which is nominated to be used by the development. These audits are carried out by a professional engineer nominated by Council's Engineering Department.

For example, some of the matters which will be considered within a proposal may include;

- the condition of the existing road pavement,
- the road resealing intervals necessary,
- the required annual routine maintenance of a road and the need for any road stabilisation work.

All of these factors are detailed and considered in conjunction with the Methodology to determine an equitable contribution.

## Part D - References

- Development Contributions – Practice Notes Issued July 2005, Department of Planning (formally Department of Infrastructure Planning and Natural Resources).
- Barraba Local Environmental Plan, 1990.
- Bingara Local Environmental Plan, 1994.
- Yallaroi Local Environmental Plan, 1991.
- Gwydir Shire Council Social Plan, 2007 - 2011.
- *Section 94 Contributions Plan No. 4 - Rural Based Industry Traffic Generating Developments*, Former Parry Shire Council.
- Sydney Regional Environmental Plan No.9 – Extractive Industries, gazetted 17 October 1986.
- Hills Shire Council, *Contributions Plan No.6 – Extractive Industries 2009*.
- Sydney Regional Environmental Plan No.9 – Extractive Industry (No.2), gazetted 15 September 1995 and amended most recently in 2006 (gazetted 15 November 2006).
- Deniliquin Development Contributions Plan 2007
- Appeal No.10521 of 1994 Land & Environment Court of NSW, Manaldo –v- Baulkham Hills Shire Council, 1995.
- Appeal No.10064 of 1997 Land & Environment Court of NSW, Neville Francis Diamond –v- Baulkham Hills Shire Council, 1998.  
Appeal No.10501 & 10502 of 1987 Land & Environment Court of NSW, Collin C Donges & Assoc Pty Ltd v Baulkham Hills Shire Council [1989] NSWLEC 39 (4 May 1989).
- Study of Section 94 Contributions made for the Provision of Roads, Traffic facilities and Parking – Stage 1 Report, prepared by Stapleton & Hallam for Western Sydney Regional Organisation of Councils, September 1991.

**PART E - APPENDICES**

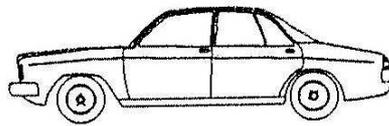
**APPENDIX 1: Abbreviated Terms Used in the Plan**

Plan	Section 94 Traffic Generating Development Contributions Plan
S.94	Section 94 of the Environmental Planning & Assessment Act, 1979
EP&A Act	Environmental Planning & Assessment Act, 1979 (as Amended)
EP&A Reg	Environmental Planning & Assessment Regulation, 2000 (as Amended)
RTA	NSW Roads and Traffic Authority
WIK	Working in Kind
LEP	Local Environmental Plan
DoP	Department of Planning
BTCE	Bureau of Transport and Communications Economics Index
AADT	Annual Average Daily Traffic
ESA	Equivalent Standard Axle
DA	Development Application
LGA	Gwydir Shire Council Local Government Area
ABS	Australian Bureau of Statistics
LEC	NSW Land and Environment Court

**APPENDIX 2: Dominant vehicles in each AUSTRROADS class**

1. Short vehicles – Class 1

Characteristics -  $\leq 3.1\text{m}$  wheelbase length



**Class 1**  
Short Vehicle

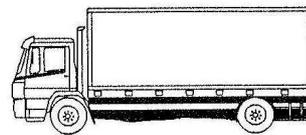
2. Medium vehicles – Classes 2 – 5

Characteristics -  $> 3.1\text{m}$  wheelbase length  $\leq 8.5\text{m}$

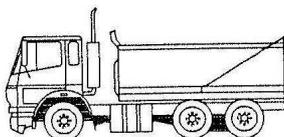
- Light truck towing (e.g., towing caravan, boat etc)
- Rigid truck
- Tandem drive truck
- Twin steer truck



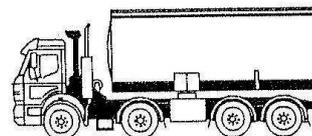
**Class 2**  
Short Vehicle Towing



**Class 3**  
Two Axle Truck



**Class 4**  
Three Axle Truck



**Class 5**  
Four Axle Truck

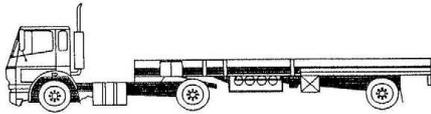
3. Long vehicles – Classes 6 - 12

Characteristics -  $> 8.5\text{m}$  wheelbase length

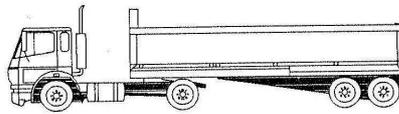
- Articulated truck
- Twin steer towing truck
- Double road train

Characteristics - >34m wheelbase length

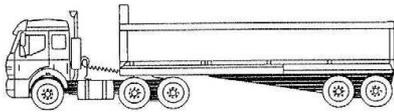
- Triple road train



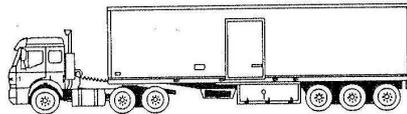
**Class 6**  
Three Axle Articulated Vehicle



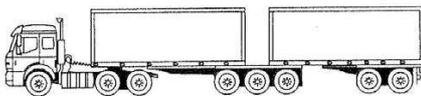
**Class 7**  
Four Axle Articulated Vehicle



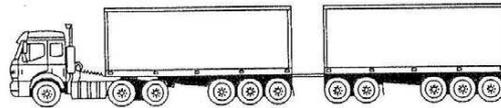
**Class 8**  
Five Axle Articulated Vehicle



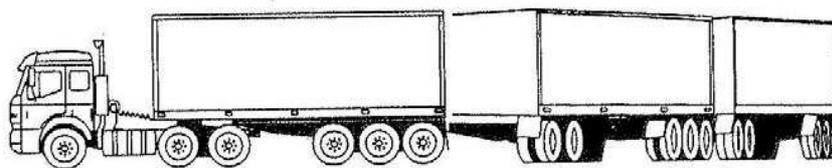
**Class 9**  
Six Axle Articulated Vehicle



**Class 10**  
B Double



**Class 11**  
Double Road Train



**Class 12**  
Triple Road Train