

**TALLAGANDA SHIRE COUNCIL**

**SECTION 94 CONTRIBUTIONS PLAN NO. 4**

**BUSHFIRE CONTROL & SUPPRESSION**

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BUSHFIRE CONTROL & SUPPRESSION

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The Service Requirement

Council has responsibility under the Bush Fires Act 1949 (as amended) to provide bush fire control and suppression services in its Shire.

These services are provided to protect life and property in rural areas from bush fire risk.

Type of Contribution

Council requires a monetary contribution per lot created by new development towards a proportion of the cost of bush fire fighting assets for which the Council requires monetary contributions from the community bush fire brigades. Those assets are: New or replacement fire tankers; new or replacement brigade stations (tanker sheds); and upgrading and replacement of radio communication equipment.

The Nexus

Causal

Land development will result in increases in persons and property to be protected; increasing the risk from bush fires and so the demand for bush fire services.

It is appropriate that new development should be charged an equitable proportion of the cost of the specified new assets based on two factors:

- a. protection of life (based on population); and,
- b. protection of property (initially based on dwellings).

In the 1991/92 period bush fire brigades in the Shire answered in excess of 27 fire calls utilising most of the bush fire fighting equipment available and expending over 170 man hours of brigade members. Fires are classified by type. The Department is developing a method of determining fire risk based on empirical data.

Causal factors in the first year of this plan shall be based on statistics of population, for assessment of the proportion of contributions for protection of life, and housing (dwellings), for assessment of the proportion of contributions for protection of property. These are reasonable initial indicators of risk and demand for bush fire services.

For the purpose of implementation of the plan, for the first year until it is first reviewed, it is assumed that the data upon which the components of the contribution are based, is uniformly spread. Completion of the empirical data currently being collected by the Department of Bush Fire Services will in due course be utilised to revise the factors for calculation of the population and fire risk components.

In the second and subsequent years, the actual population statistics, by spread across brigade and group

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areas may alter, but population shall remain as the causal base for calculation of the proportion of contributions for protection of life; assessment of the causal nexus and calculation base for the proportion of the contribution attributable to the protection of property shall be based empirical data collected and analysed by the NSW Department of Bush Fire Services, summarised as follows:

(The Department has designed) a method by which fire threat and risk could be reduced to empirical data for analysis. The factors and weightings have been derived by experiment and recalculation to give a more realistic and valid spread of data and therefore allow a method of ranking brigades.

It examines risk in four major areas: bush fire risk, structural risk, population risk and transport risk. Each risk is taken as a function, modified by the area covered by the brigade and its fire history, to produce a fire threat for each brigade area. This procedure will be repeated on an annual basis and updated.<sup>1</sup>

Physical

Tallaganda Shire has 12 bush fire brigades in three group areas as follows:

|                |  |
|----------------|--|
| Northern Group | Boro<br>Mulloon<br>Charleyong<br>Nerriga           |
| Central Group  | Bombay<br>Braidwood<br>Mongarlowe<br>Reidsdale     |
| Southern Group | Farringdon<br>Majors Creek<br>Krawarree<br>Araluen |

The brigades are classified in group areas for administrative, organisational, operational and geographic reasons. In immediate command of each group area is a group Captain (who is in turn under command of the Fire Control Officer) who may in operational fire incidents call in to a particular brigade area other brigades from the group area.

Resources required for a particular fire incident will depend on the nature of the incident; however, for determining the physical nexus as to where increased demand for bush fire services will be needed, the existing group areas with respect to the application of contributions derived from development in

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<sup>1</sup> Department of Bush Fire Services Standards of Fire Cover Methodology 1992

particular brigade areas, is appropriate. That is, the mobility of resources from particular brigades assists in coverage of the group areas, so that the increased demand for bush fire services for a development in a particular brigade area may be sourced from any of the brigades in the group area. A particular development could therefore be reasonably be seen to derive benefit, or potential benefit, from bush fire equipment located at any of the brigades in the group area in which the development is located.

Based on the brigade groupings and the physical nexus thereby established, contributions towards bush fire control and suppression for a particular development may be applied to a proportion of the cost, as determined in the calculation methodology below, of equipment allotted to any of the bush fire brigades in the group area in which the development is located.

#### Temporal Nexus and Development Potential

The existing residents of the rural Shire area have an equity in the existing bush fire assets. The existing assets require continual replacement and upgrading. It is reasonable that new developments, which increase the demand on these assets, should bear an equitable proportion of the share required to be contributed by the community towards the cost of the replacement and upgrading of these assets.

Development potential is spread across the Shire. Rural subdivisions are increasing. The Shire population has positive growth (approx 3% between 1986 and 1991 census periods). The growth in demand through assessment of bush fire risk factors will be made annually commencing from the beginning of the second year of the implementation of this plan; initially it is based on existing census figures for population and housing.

The replacement and upgrading of the bush fire assets for which contributions are required are based on a 10 year forward program. The forward program is to be updated annually, concurrently with upgrading of the risk factors. The actual placement of bush fire assets acquired during that program will be determined by risk factors and Council priorities. The existing program provides for the replacement of all existing category 2 bush fire tankers in the 10 year period from 1992; the erection of 6 new tanker sheds; and, upgrading of the radio network, in that period. It can therefore reasonably be expected that contributions collected in any year will be utilised at a time during the ten (10) years following, from the time of collection of the contribution.

A current listing of relevant existing assets is provided for information.

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Existing

Southern Group

| <u>Brigade</u> | <u>Category</u>      | <u>Plant No</u> | <u>New Cost</u> | <u>Real. Value</u> | <u>Stations</u> |
|----------------|----------------------|-----------------|-----------------|--------------------|-----------------|
| Araluen        | 2                    | 714             | 93,000          | 40,000             |                 |
|                | 7                    | 725             | 60,000          | 30,000             |                 |
|                | 9                    | 706             | 35,000          | 20,000             |                 |
|                | Station              |                 |                 |                    | 13,500          |
| Farrington     | 2                    | 723             | 93,000          | 40,000             |                 |
|                | 2-1                  | 731             | 93,000          | 40,000             |                 |
| Krawarree      | 2                    | 718             | 93,000          | 40,000             |                 |
|                | 7                    | 724             | 60,000          | 30,000             |                 |
| Majors Ck      | 7                    | 720             | 60,000          | 30,000             |                 |
|                | 9                    | 704             | 35,000          | 20,000             |                 |
|                | Station              |                 |                 |                    | 13,500          |
| <u>Totals</u>  |                      |                 | 622,000         | 290,000            | 27,000          |
| Gp Summary     | Cat 2 x 4            |                 | 372,000         | 160,000            |                 |
|                | Cat 7 x 3            |                 | 180,000         | 90,000             |                 |
|                | Cat 9 x 2            |                 | 70,000          | 40,000             |                 |
|                | Brigade Stations x 2 |                 |                 |                    | 27,000          |

Central Group

| <u>Brigade</u> | <u>Category</u> | <u>Plant No</u> | <u>New Cost</u> | <u>Real. Value</u> | <u>Stations</u> |
|----------------|-----------------|-----------------|-----------------|--------------------|-----------------|
| Bombay         | 7               | 708             | 60,000          | 30,000             |                 |
| Braidwood      | 1               | 707             | 108,000         | 45,000             |                 |
|                | 2               | 709             | 93,000          | 40,000             |                 |
|                | 3               | 711             | 93,000          | 30,000             |                 |
|                | 3-1             | 712             | 93,000          | 30,000             |                 |
|                | 7               | 710             | 60,000          | 30,000             |                 |
|                | Stations        |                 |                 |                    |                 |
|                | 2 x 2 bay       |                 |                 |                    | 27,000          |
|                | 1 x 4 bay       |                 |                 |                    | 27,000          |
| Mongarlowe     | 7               | 727             | 60,000          | 30,000             |                 |

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|               |   |   |         |         |        |
|---------------|---|---|---------|---------|--------|
| Reidsdale     | - | - | -       | -       | -      |
| <u>Totals</u> |   |   | 567,000 | 235,000 | 54,000 |

|            |                  |  |         |        |        |
|------------|------------------|--|---------|--------|--------|
| Gp Summary | Cat 1 x 1        |  | 108,000 | 45,000 |        |
|            | Cat 2 x 1        |  | 93,000  | 40,000 |        |
|            | Cat 3 x 2        |  | 186,000 | 60,000 |        |
|            | Cat 7 x 3        |  | 180,000 | 90,000 |        |
|            | Brigade Stations |  |         |        | 54,000 |

Northern Group

| <u>Brigade</u> | <u>Category</u> | <u>Plant No</u> | <u>New Cost</u> | <u>Real. Value</u> | <u>Stations</u> |
|----------------|-----------------|-----------------|-----------------|--------------------|-----------------|
| Boro           | 2               | 721             | 93,000          | 40,000             |                 |
| Charleyong     | 2               | 729             | 93,000          | 40,000             |                 |
|                | 9               | 730             | 35,000          | 20,000             |                 |
| Mulloon        | 2               | 728             | 93,000          | 40,000             |                 |
|                | 9               | 722             | 35,000          | 20,000             |                 |
| Nerriga        | 2               | 713             | 93,000          | 40,000             |                 |
|                | 9               | 703             | 35,000          | 20,000             |                 |
|                | Station         |                 |                 |                    | 13,500          |
| <u>Totals</u>  |                 |                 | 477,000         | 220,000            | 13,500          |

|            |           |  |         |         |        |
|------------|-----------|--|---------|---------|--------|
| Gp Summary | Cat 2 x 4 |  | 372,000 | 160,000 |        |
|            | Cat 9 x 3 |  | 105,000 | 60,000  |        |
|            | Station   |  |         |         | 13,500 |

Control Vehicles

| <u>Unit</u>                 | <u>Plant No</u> | <u>Real Value</u> |
|-----------------------------|-----------------|-------------------|
| Troop Carrier               |                 | 24,000            |
| Group Capt Veh x 2          |                 | 46,000            |
| FCO Vehicle                 |                 | 31,000            |
| Quick Fill Tanker Pumps x 3 |                 | 3,600             |

Anticipated Capital Assets Program

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The anticipated program, based on Council's current program for new and replacement category 2 tankers; for the new tanker shed (brigade station) program; and, for the radio network upgrading follows. The program incorporates an annual cost escalation factor of 3% (Note: DBFS = Department of Bush Fire Services). It should be noted that this program is not a complete list of bush fire equipment; it only relates to the capital items for which the contributions are required. The current tanker program is for replacement of all category 2 tankers. The program will be reviewed annually; so that a rolling up to date ten year program continues.

| Years  | Vehicle Cost | DBFS    | Council |
|--------|--------------|---------|---------|
| 92-93  | 186,000      | 139,500 | 46,500  |
| 93-94  | 95,790       | 71,843  | 23,948  |
| 94-95  | 98,664       | 73,998  | 24,666  |
| 95-96  | 101,624      | 76,218  | 25,406  |
| 96-97  | 104,672      | 78,504  | 26,168  |
| 97-98  | 107,812      | 80,859  | 26,953  |
| 98-99  | 111,047      | 83,285  | 27,762  |
| 99-00  | 114,378      | 85,784  | 28,595  |
| 00-01  | 117,810      | 88,357  | 29,452  |
| 01-02  | 121,344      | 91,008  | 30,336  |
| Totals | 1,159,141    | 869,356 | 289,785 |

| Years  | Station Cost | DBFS   | Council |
|--------|--------------|--------|---------|
| 93-94  | 14,000       | 10,500 | 3,500   |
| 94-95  | 14,420       | 10,815 | 3,605   |
| 95-96  | 14,853       | 11,139 | 3,713   |
| 96-97  | 15,298       | 11,474 | 3,825   |
| 97-98  | 15,757       | 11,818 | 3,939   |
| 98-99  | 16,230       | 12,172 | 4,057   |
| Totals | 90,558       | 67,918 | 22,639  |

| Radio<br>5 yr progrm | Network   | Upgrade |         |
|----------------------|-----------|---------|---------|
| 93-98                | 60,000    | 45,000  | 15,000  |
| G/Totals             | 1,309,699 | 982,274 | 327,425 |

Calculation of Contributions

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The total contribution per allotment is calculated with even weightings given to population and to dwellings. Based on the available census data<sup>2</sup>, rural housing and population figures are calculated and forecast to 2002, the period of the current capital program. The Population Factor Contribution is based on the estimated rural resident population at 2002. The number of rural dwellings is estimated, to give a Housing Factor Contribution; which is the Dwelling Contribution. The Population Contribution is based on the Population Factor Contribution and the Average Persons per Dwelling. The sum of the two contributions is the Contribution per Allotment for new development, which is an equitable contribution per allotment towards the cost of capital bush fire equipment within the group area. Such contribution will be utilised within the ten year rolling capital program, from the time of collection of the contribution.

|   |                           |
|---|---------------------------|
| Total Estimated Capital Program             | 327,425                   |
| Population factor                           | 0.5                       |
| Dwelling (Property) Factor                  | 0.5                       |
| Current Shire Population                    | 2,478                     |
| Village Population                          | 975                       |
| Rural Population                            | 1,503                     |
| Anticipated Population Growth<br>(10 years) | 6%                        |
| Estimated Rural Population 2002             | 1,593                     |
| Population Factor Contribution              | 102.77 per rural resident |
| Number of Dwellings                         | 1,281                     |
| Village Dwellings                           | 430                       |
| Rural Dwellings                             | 851                       |
| Estimated Rural Dwellings 2002              | 900                       |
| Persons per Dwellings                       | 1.77                      |
| Housing Factor Contribution                 | 181.49                    |
| Contribution per Development Allotment      |                           |
| Dwelling Contribution                       | 181.90                    |
| Population Contribution                     | 181.90                    |
| Total Contribution / allotment              | 363.80                    |
| Say   | 364.00                    |

Review

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<sup>2</sup> ABS Census of Population & Housing (Prelim) 1991 (sheet attached)



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The contributions plan is to be reviewed annually with respect to the ten year forward capital program and the population and risk factors, based on the empirical data supplied by the Department of Bush Fire Services.

Recommendation

That the draft S94 Contributions Plan for Bush Fire Control and Suppression be advertised.

Adjustment

The plan will be adjusted annually and indexed to the consumer price index increase for the previous 12 months.

Other Developments

In the case of development other than rural or residential subdivision or other developments, a specific assessment of the contribution will be made.

Application of Plan

The Plan applies to the villages of Majors Creek and Araluen (it applies to the Shire area outside the Braidwood village).

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1. ROADWORKS - TECHNICAL SERVICES
  
2. BUSH FIRE CONTROL & SUPPRESSION -  
ENVIRONMENTAL SERVICES