

Planning Report

Installation of FM Antenna Array
10 Television Road
Bickley WA

EVOLUTION PLANNING



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Bickley WA

Prepared for:

TX (Australia) Pty Limited

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EXECUTIVE SUMMARY

The proposal is for the installation of an FM antenna array system on the west side of the existing tower and the transmission of an additional FM radio service at the TXA Bickley Site located at 10 Television Road, Bickley (Bickley Site).

The antenna system and the radio service will be relocated from the Walliston facility in Lawnbrook Road, Walliston (Walliston Site). The proposed antenna system will be for back-up purposes only to services that are already transmitted from the site and the additional FM radio service will utilise existing infrastructure and also the proposed new FM antenna as a backup.

The proposal will have negligible visual impact on the environment and surrounding landscape and will only be partially or barely visible from surrounding streets and will not be visible from the residential properties in closest proximity to the site on Nairn Road located to the east of the site.

The antenna system has been assessed as being well within the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) standards, in terms of electromagnetic emissions, and will provide benefits to the community by ensuring that the relocated Community FM broadcaster can maintain transmissions in light of the future decommissioning of the Walliston site. Furthermore, the Community FM Broadcasters already transmitting from the Bickley site will also benefit from a back-up antenna system in case of failure of the main antenna or to avoid a break in transmission in case of maintenance.

The proposed development has been assessed as satisfactory against all related State and Local planning policies, is firmly within the public interest, and we therefore recommend that approval be granted to the application.

1 Introduction

We have been engaged by TX Australia Pty Limited (TXA), (the owner of the land), to assist the owners with the preparation of a Planning Application, for the installation of an FM antenna array system and the addition of an FM radio service on an existing telecommunications tower at 10 Television Road, Bickley.

The proposed antenna system will be for back-up purposes only to services that are already transmitted from the site and the additional FM radio service will utilise existing infrastructure. The new FM service will also use the re-located antenna for back-up purposes.

TX Australia Pty Limited (TXA) is a joint venture company of the three commercial television networks – Seven, Nine and Ten founded in 1999. TXA owns, operates and maintains communications infrastructure and facilities in the five mainland capital cities.

As well as providing managed television transmission services to Seven, Nine and Ten, TXA also licenses space within and upon its infrastructure to Commercial and Community Television Broadcasters, Commercial and Community FM Radio Broadcasters, Telecommunications companies and Internet and Emergency Service Providers.

Please refer to the following accompanying material:

- Planning Application form, (including separate letter providing owners consent to lodge);
- Planning Application fee;
- Certificate of Title;
- Plans, Sections and Elevations, prepared by Structel;
- Electromagnetic Emissions Assessment, prepared by Total Radiation Solutions;
- Structural Assessment, prepared by Structel;
- Antenna technical specifications.

2 Site

The site, 10 Television Road, Bickley, is legally described as Lot No 57 in DP 202661, Volume 1215 Folio 223 and has an area of approximately 15,600sq.m.

The site includes a lattice communications tower and two single storey buildings used for plant purposes associated with the use.

Surrounding uses include a Broadcast Australia telecommunications facility directly to the south and low density residential properties located in excess of 300m to the east. There are no direct sightlines from these residences on Nairn Road to the existing tower.

Refer to figures below for Location Plan, Aerial Site Plan and photographs.

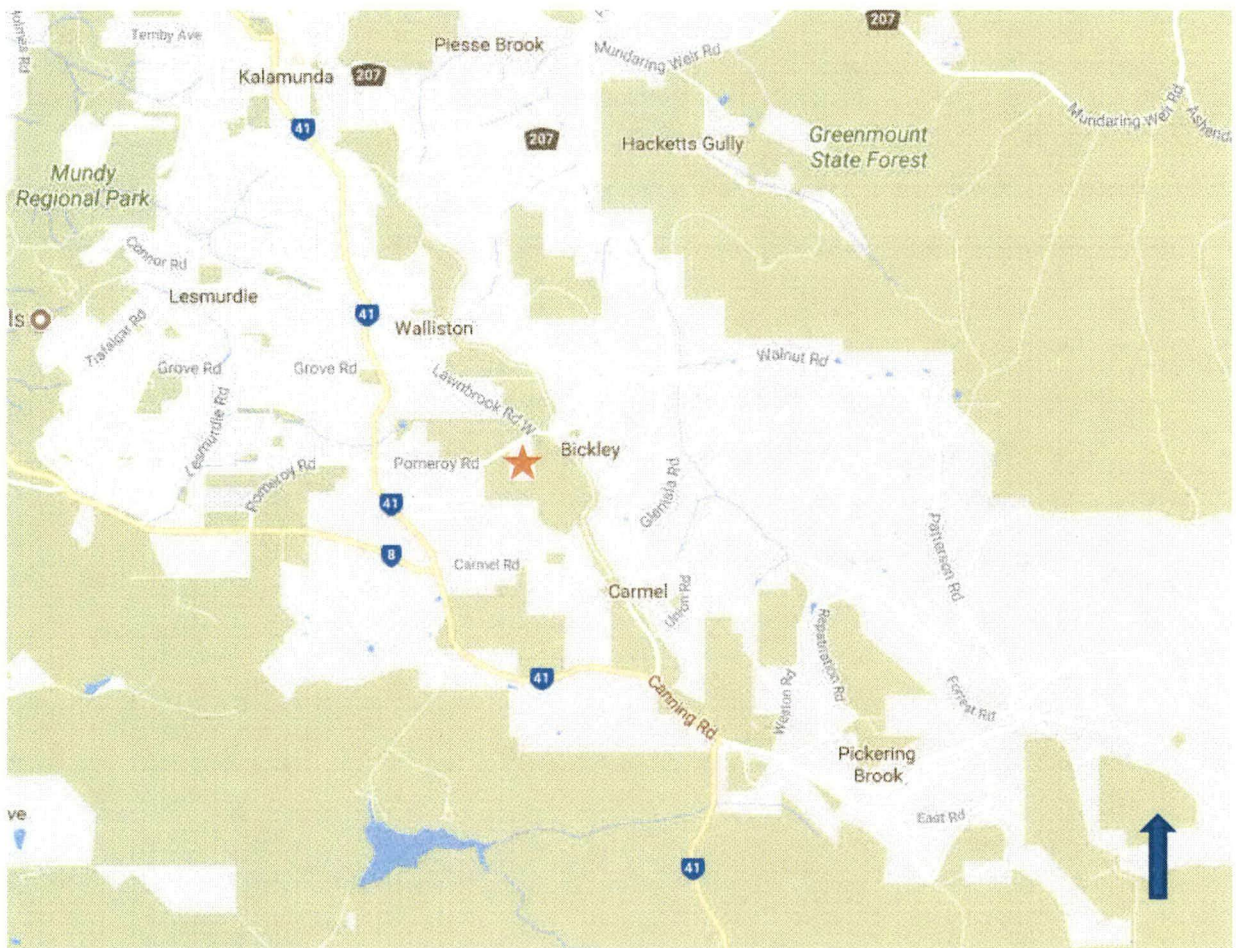


Figure 1: Location Plan

Source: Google Maps



Figure 2: Location Plan (Detail)

Source: Google Maps

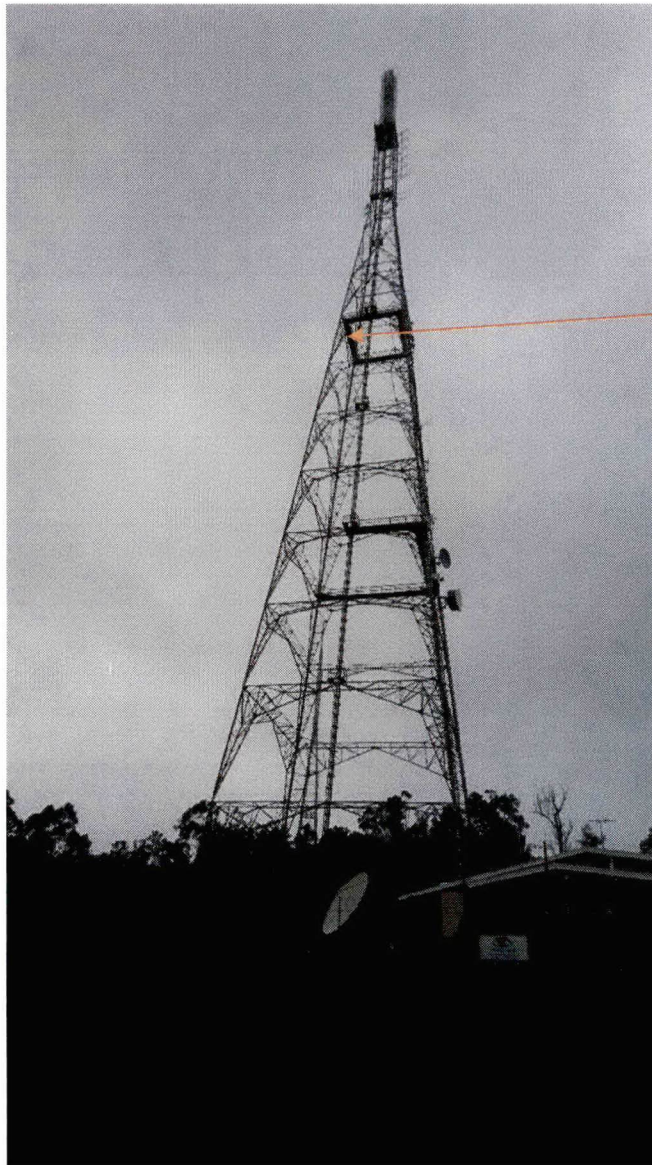


Figure 3: Aerial Site Plan (boundary indicative)

Source: Google Maps

View direction/location of Figure 5.

The tower is only visible between link road between Nairn Road and Palmateer Drive. It is otherwise screened from view from the residences on the east side of Nairn Road by vegetation.



Approximate
centre-point
of installation

Figure 4: Existing tower

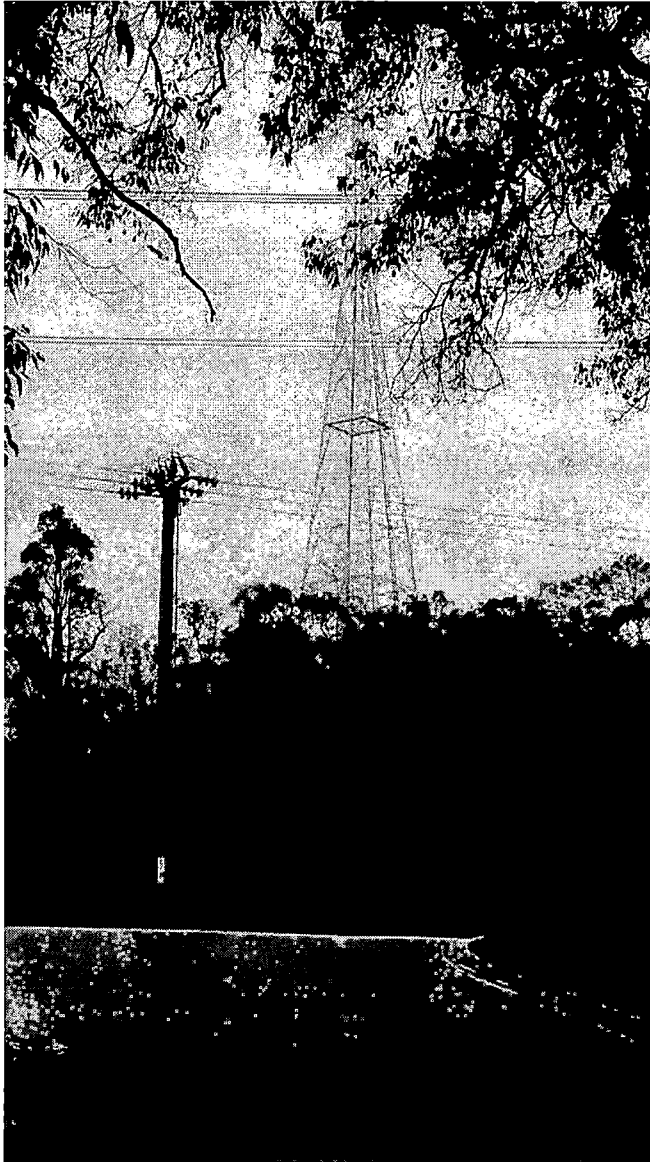


Figure 5: View of existing tower from Nairn Road (Refer to Figure 3 above)

3 Proposal

The proposal involves the installation of a side-mounted FM antenna array on the existing tower and the relocation of an FM radio service from the Walliston site to the subject site (using existing infrastructure).

The proposed antenna array is properly described as an FM Dipole Array Model 828DA-6, manufactured by Radio Frequency Systems. Refer to the accompanying specifications.

The antenna array will be mounted on the west side of the existing tower with its centre-point at RL66. It will have a height of approximately 11m.

Refer to Figure 6 below for extract of proposed west elevation.

The proposed antenna is to be relocated from the Walliston Site and installed on the Bickley Site and will act as a back-up facility to the existing community radio antenna on the same tower. It should be understood that each service can only operate from one antenna system at any given time. However, because the decommissioning of the Walliston site also includes the relocation of a radio service to the Bickley site there will be a modest increase in the levels of electro-magnetic emissions from the site but as discussed below such emissions will remain well within the ARPANSA standards.

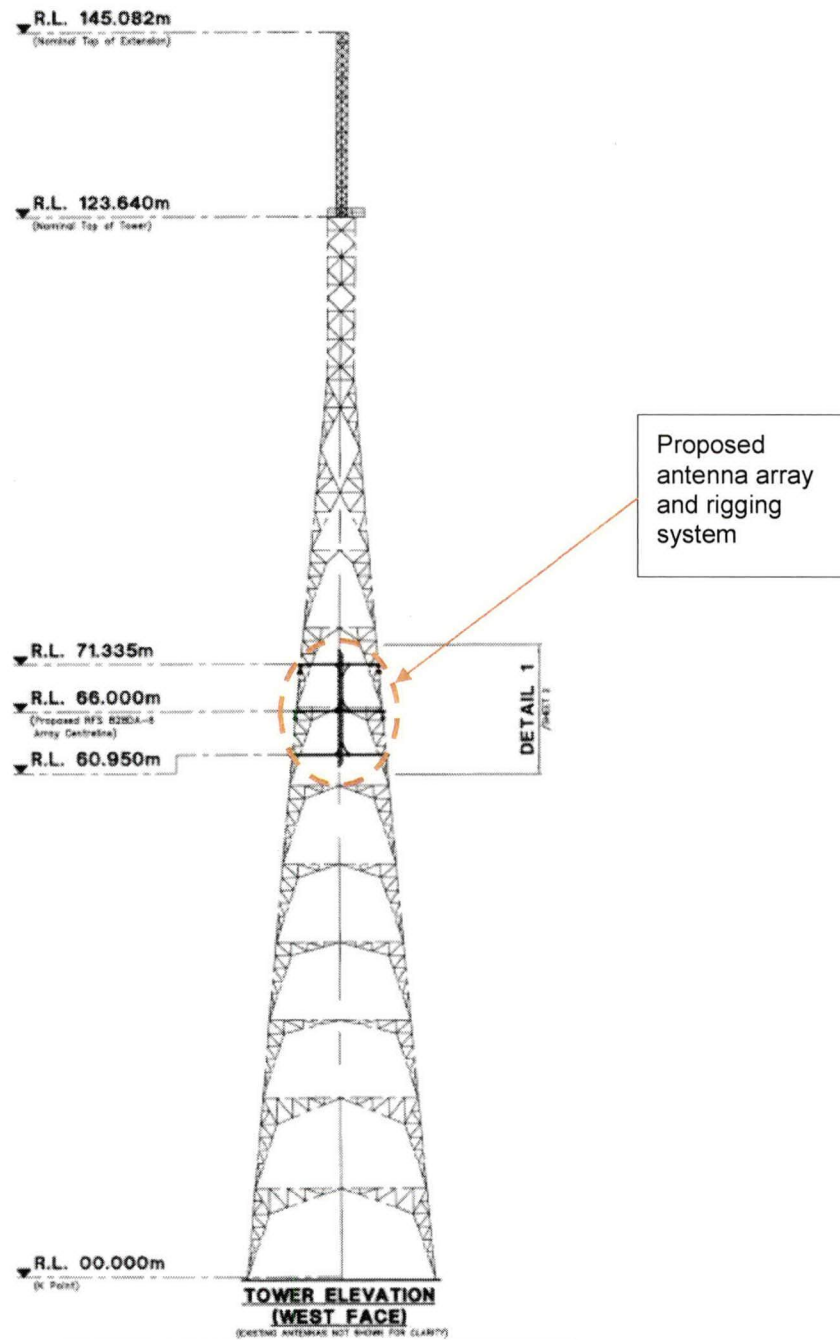


Figure 6: Extract proposed west elevation

4 Statutory Assessment

4.1 Metropolitan Region Scheme

Under the Metropolitan Region Scheme, the site is zoned "Urban".

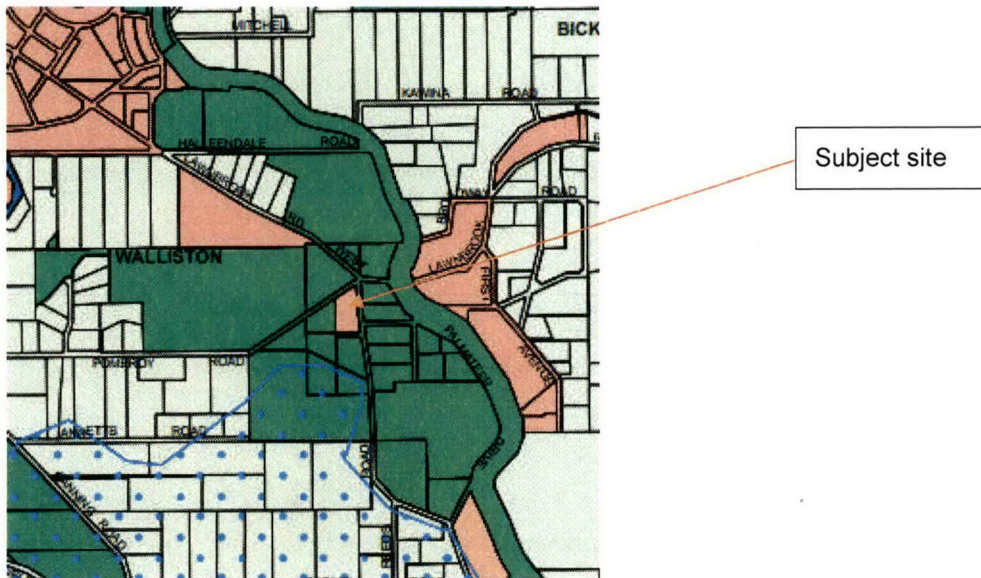


Figure 7: Extract zoning map Metropolitan Region Scheme

4.2 State Planning Policies

4.2.1 State Planning Policy 5.2– Telecommunications Infrastructure

State Planning Policy No.5.2 – Telecommunications Infrastructure applies to the zoning, subdivision and development of land throughout Western Australia in respect of all telecommunications infrastructure other than those exempted under the Telecommunications Act.

The proposed development is not exempted under the Telecommunications Act as the proponent is not a "licensed carrier" which generally applies to mobile network operators.

The key objectives of this policy applicable to this application are:

- facilitating the provision of telecommunications infrastructure;
- assisting in community understanding;
- proposing a consistent approach to planning and determining applications;
- minimising disturbance to environment and amenity; and,
- ensuring health and safety.

Key policy provisions include:

- ensuring a co-ordinated approach to planning and development;

- locating facilities to meet community needs;
- minimising potential adverse visual impacts, natural conservation, heritage significance;
- integrating facilities with existing buildings and structures;
- co-locating should generally be sought;
- encouraging measures such as surface mounting, concealment, colour co-ordination, camouflage and landscaping to screen;
- ensuring design and operation is consistent with the licensing requirements of the Australian Communications and Media Authority; and,
- ensuring construction minimises adverse effects on the natural environment, amenity of users, occupiers and complies with relevant health and safety standards.

The proposal complies with SPP 5.2, particularly since it involves the co-location of existing infrastructure, co-locates apparatus avoiding another tower, enhances service provision in accordance with Federal Government mandated legislation and policy, has negligible visual impact, and is consistent with the Australian Standards related to health and safety requirements.

Section 5 of SSP 5.2 includes policy measures for consideration prior to the determination of any application. The objectives of this Part are to:

- a) *facilitate the provision of telecommunications infrastructure in an efficient and environmentally responsible manner to meet community needs;*
- b) *manage the environmental, cultural heritage, visual and social impacts of telecommunications infrastructure;*
- c) *ensure that telecommunications infrastructure is included in relevant planning processes as essential infrastructure for business, personal and emergency reasons; and,*
- d) *promote a consistent approach in the preparation, assessment and determination of planning decisions for telecommunications infrastructure.*

The related policy measures (and the above objectives) are addressed below:

Telecommunications infrastructure should be sited and designed to minimise visual impact and whenever possible:

- a) *be located where it will not be prominently visible from significant viewing locations such as scenic routes, lookouts and recreation sites;*

Response: The proposal is diminutive in scale when compared to the existing tower and will have a negligible visual impact. It is screened from the residences in closest proximity to the site on Nairn Road by the dense vegetation between Nairn Road and Palmateer Drive.

- b) *be located to avoid detracting from a significant view of a heritage item or place, a landmark, a streetscape, vista or a panorama, whether viewed from public or private land;*

Response: The proposal will not detract from any significant views.

- c) *not be located on sites where environmental, cultural heritage, social and visual landscape values maybe compromised and*

Response: The site, nor any land in proximity of the site, is heritage listed. The proposal will not adversely impact on the visual landscaping values of the locality by being diminutive in scale and of a colour which will blend into the existing tower structure.

- d) *display design features, including scale, materials, external colours and finishes that are sympathetic to the surrounding landscape;*

Response: Refer to (c) above.

Telecommunications infrastructure should be located where it will facilitate continuous network coverage and/or improved telecommunications services to the community;

Response: The FM antenna array will provide standby radio transmission capability for community broadcasters to ensure continuity of service. This is considered to be in the public interest and is of social and economic benefit.

Telecommunications infrastructure should be co-located and whenever possible. Cables and lines should be located within an existing underground conduit or duct; and, overhead lines and towers should be co-located with existing infrastructure and/or within existing infrastructure corridors and/or mounted on existing or proposed buildings.

Response: The proposal utilises an existing tower and consolidates infrastructure at this site.

Section 6 details the information required to be submitted when lodging a planning application, including:

- a) EME Report;
- b) Statement addressing network capacity;
- c) Statement addressing any local planning policies;
- d) Drawings;
- e) Details of any significant environmental constraints;
- f) Location plan;
- g) Statement addressing the policy measures of *State Planning Policy No.5.2 – Telecommunications Infrastructure*.

In response to these submission requirements:

- a) An Electromagnetic Emissions Assessment, prepared by Total Radiation Solutions, accompanies the application;
- b) The TXA Bickley facility was built to cater for broadcasting of radio, television and telecommunications services for the Perth metropolitan area. The facility has the capacity to support future broadcasting and telecommunication infrastructure to meet community needs.
- c) This Planning Report address all relevant local planning policies.

- d) The application is accompanied by section, elevation and plan drawings, considered to be adequate for the purposes of this assessment.
- e) The site is bushfire prone, but as discussed below this type of development is exempt from the provisions of *SPP 3.7 Planning in Bushfire Prone Areas*.
- f) A location plan is provided above.
- g) The policy measures of *State Planning Policy No.5.2 – Telecommunications Infrastructure* are addressed above.

4.2.2 State Planning Policy SPP 3.7 Planning in Bushfire Prone Areas

Despite the site being bushfire prone, in accordance with the Western Australia Planning Commission "*Planning Bulletin 111/2016 Planning in Bushfire Prone Areas*", (the Bulletin), the proposed development is exempt from the provisions of SPP 3.7

The Bulletin states that:

"the requirements of SPP 3.7 and the deemed provisions should be applied pragmatically by the decision maker. If the proposal does not result in the intensification of development (or land use), does not result in an increase of residents or employees; or does not involve the occupation of employees on site for any considerable amount of time, then there may not be any practicable reason to require a BAL Assessment.

*Exemptions may apply to infrastructure including roads, **telecommunications** and dams; and to rural activities, including piggeries and chicken farms which do not involve employees on site for a considerable amount of time."*

[emphasis added]

The proposed development involves the installation of a non-combustible device located ~66m above ground level on a non-combustible structure and will not result in any increase to the number of employees on-site and we therefore believe that the exemption under the Bulletin may be appropriately applied in this instance.

4.3 Local Planning

4.3.1 Shire of Kalamunda Town Planning Scheme No.3

In accordance with *The Shire of Kalamunda Town Planning Scheme No.3*, (the Scheme), the site is zoned *R5 Residential Bushland*. Refer to Figure 8 below.

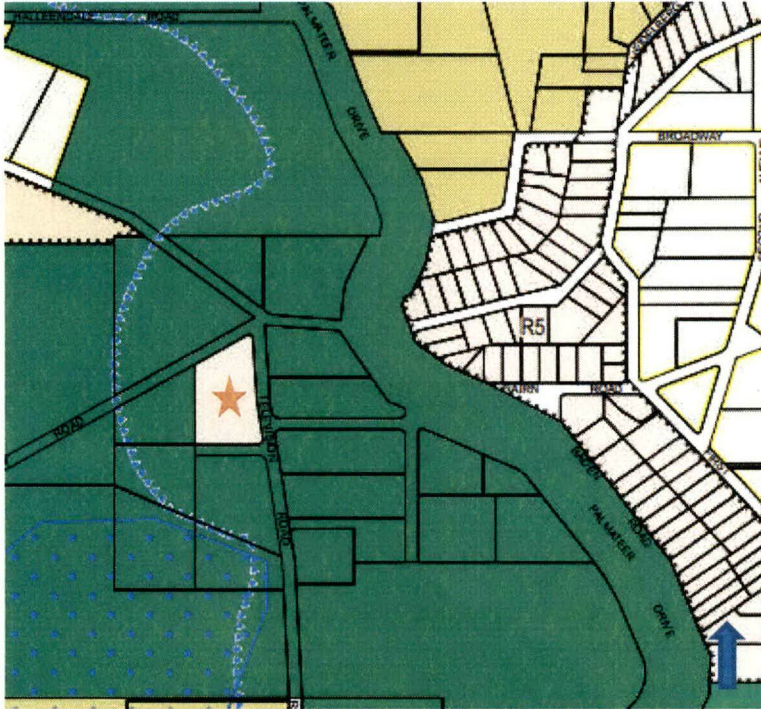


Figure 8: Zoning extract town planning scheme no. 3

The proposed development is best described under the Scheme as *"telecommunications infrastructure"*, defined as:

"any part of the infrastructure of a telecommunications network and includes any line, equipment, apparatus, tower, antenna, tunnel, duct, hole, pit or other structure used, or for use, on or in connection with a telecommunications network"

Under Clause 4.3 Zoning Provisions of the Scheme, *"telecommunications infrastructure"*, is identified as 'A' in the Residential Bushland zone. This means that the use is not permitted unless Council has exercised its discretion by granting planning approval after giving special notice in accordance with clause 9.4.

Clause 9.4 pertains to the advertising of applications and therefore subject to the appropriate public notification of the application the proposed development is permitted with consent.

The objectives of the Residential Bushland zone are:

- *To promote the development and use of land primarily for single detached houses, ensuring that development is designed and sited in a manner which is sensitive to the environmental characteristics of the land.*
- *To give due consideration to land uses that are compatible with the amenity of surrounding residential development.*
- *Encourage the retention and rehabilitation of native vegetation and the minimisation of bush fire hazard.*

The proposed development is considered to be consistent with the related zone objectives since the proposed antenna array will not interfere with the amenity of surrounding residential amenity and will not introduce any additional bush fire hazards.

Clause 5.8 of the Scheme includes provisions specific to the R5 Zone. Clause 5.8 states in part that:

"This zone provides for residential and residentially compatible use and development of land which is considered suitable for such use and development but which has special environmental characteristics including land predominantly covered with natural vegetation."

The proposal is considered to be a "residentially compatible use" due to its negligible visual impacts and since the cumulative electro-magnetic emissions from the site are well within the ARPANSA standards.

The further provisions under Clause 5.8 are addressed below:

(i) *In areas which the local government considers to be deficient in tree cover, it may require as a condition of development or subdivision, that the owner plant and maintain native trees on the subject lot.*

Response: The site is bushfire prone and additional planting will diminish existing asset protection zones.

(ii) *Development of buildings and effluent disposal systems shall be contained within building envelopes where adopted by the local government, unless otherwise approved.*

Response: N/A

(iii) *The keeping of any non-domesticated four-footed animals in the zone is not permitted.*

Response: N/A

(iv) *Setbacks for structures and buildings in this zone will be in accordance with the relevant provisions of the Residential Design Codes*

Response: The antenna array is to be attached to an existing structure.

The proposed development is considered to be consistent with and satisfies the related provisions of the Scheme.

4.3.2 P-DEV52 Telecommunications Infrastructure

P-DEV52 Telecommunications Infrastructure was adopted by Council on 25 July 2016.

TXA commissioned Total Radiation Solutions (TRS) to undertake an Electromagnetic Emission Assessment to determine the effect the proposed service will have on the locality and considers the cumulative effect of the existing infrastructure and services and the additional radio service.

The proposed antenna array will make no difference to the emissions from the site since it is a back-up to another antenna on the same tower and each service cannot operate from both antenna systems at the same time.

The accompanying EME Report indicates that at worst the proposal will cumulatively amount to 21% of the ARPANSA General Public Reference Level, or in other words will be ~79% below the "limit".

4.3.3 Planning and Development (Local Planning Schemes) Regulations 2015

When considering an application for planning approval, Clause 67 of the *Planning and Development (Local Planning Schemes) Regulations 2015* requires Council to have due regard to a number of matters including:

- The compatibility of the development within its settings;
- Amenity impacts on the locality;
- Traffic generation; and,
- any relevant submissions received on the application.

In response to these matters:

- i. The site continues to be suited to its current approved purpose and the proposal does not make it any less compatible with its surroundings to any significant degree;
- ii. As discussed above, the proposal will have negligible visual impact on surrounding streets and properties and will not increase will remain well within adopted standards with regard to electro-magnetic emissions;
- iii. The proposal will not lead to any additional traffic generation;
- iv. Any submissions will be addressed by the proponent as required.

4.3.4 Public Interest

The proposed development is considered to be firmly within the public interest by maintaining the continuity of community FM radio transmission services, particularly in light of the future decommissioning of the Walliston site, and by not introducing any significant adverse impacts on adjoining properties or the environment.

5 Conclusion

The subject site already supports the services of 3 community FM radio broadcasters, and the re-location of another broadcaster to the site promotes the principle of co-location of infrastructure.

The proposed back-up FM antenna array will have negligible visual impacts and the additional FM radio service will not introduce any significant impacts related to electro-magnetic emissions, it being assessed as being well within the ARPANSA standards.

The proposed development has been assessed as satisfactory against all related State and Local planning policies, is firmly within the public interest, and we therefore recommend that approval be granted to the application.

APPENDICES
