

Department for Victorian Communities

Site Evaluation and Planning for the
Establishment of Self Help SBS Radio
Transmitters in Regional Victoria

Phase 1 Reports

Scope

- Discuss with councils what areas within their boundaries that they wish to cover and determine any budgetary constraints applicable to site selection.
- Determine and rank potential sites stating advantages and disadvantages including establishment and operational costs.
- Provide coverage maps for preferred sites.
- Undertake preliminary site sharing discussions where applicable and supply cost estimates.
- Show options for service provision contract versus separate installation and maintenance contracts.
- Obtain written agreement from councils to proceed with detailed planning and negotiation of site sharing arrangements for the sites selected. After this has been completed liaise with ACMA for frequency planning and prepare ACMA B12s.

Advantages and Disadvantages Between Various Sites.

High power Sites

Advantages

- High power sites can cover the entire council region.
- Sites sharing costs for Broadcast Australia are only \$250 PA plus power and maintenance costs

Disadvantages

- Although the high powered sites may cover all of the council area, they will also cover other councils not part of this project. There may be difficulty arranging cost sharing between councils.
- The high location and high power of these sites have a higher chance of interfering with other distant areas on the same frequency. They are therefore harder for the ACMA to find an available frequency.
- If the ACMA find an available frequency there will probably be heavy restrictions on the antenna pattern which will cause the council to pay for specialist antenna systems which can become very expensive.
- Transmitters are generally in the vicinity of 10Kw and above. A 10Kw transmitter costs about \$120K and uses \$18100 of electricity alone each year. Installation costs and maintenance costs are also expensive.

Medium power Sites

Advantages

- Medium power sites can cover a large portion of the council region if they are in a good location.
- Sites sharing costs for Broadcast Australia are only \$250 PA plus power and maintenance costs.
- Cheaper to run, maintain and install than high power sites. A 1Kw transmitter costs about \$24000 and uses \$2400 of electricity each year.
- Easier for ACMA to find an available frequency and less restrictions on antenna patterns.

Disadvantages

- Although the medium powered sites may cover most of the council area, they may also cover other councils not part of this project. There may be difficulty arranging cost sharing between councils.

Low Power Sites

Advantages

- Easiest option for ACMA to find available frequencies and little chance of costly antenna restrictions.
- These sites have little electromagnetic radiation issues and can easily be located on existing council infrastructure.
- Cheapest to run, maintain and install. A 30W transmitter costs about \$4000 and uses \$150 of electricity each year.

Disadvantages

- Will only cover small town area only.
- May need more than 1 to cover larger towns / cities.
- Often these low power sites are located in town and unless they are on a high structure the signal may be degraded by other structures in the vicinity of the site. Best locations are generally water towers, however these are not owned by councils in Victoria.

Site Selection Information

- Mark Bidwell from the ACMA frequency planning division has advised that the medium power and high power options will not be possible for most areas due to a lack of frequencies available.
- Preference has been given to utilising existing council buildings, towers etc Site sharing using existing third party buildings, towers, and equipment on all sites but Broadcast Australia sites will increase ongoing costs to councils and has therefore been excluded in most circumstances from site preference.
- Greenfield sites can cause building and development application delays and public outcry.
- SBS funding division will fund 100% of establishment costs for a single community up to a total of \$25K. If the service covers more than one community they will fund 100% up to \$50K.