## An Independent Comparison of Two Contending Sites for the New BHS

By David Webster, AM, CSC Brigadier (Retired)

The two most obvious contenders for the new BHS are:

- the Majara St site described as the preferred site by local politicians and DoE and
- the site chosen by DPIS as the leading contender following the EOI process which is acknowledged as the standard government process for school site selection.

Both sites will be compared based on the extent to which they satisfy the Educational Facilities Standards and Guidelines (EFSG).

Images 1 and 2 at Appendix A shows the two sites.

It should be noted that the guidelines cover all schools in NSW including those in high density city and residential areas. Some of the guidelines are not necessarily applicable to rural areas such as the need for three roads to form the boundaries of the school - there are numerous rural schools that have access via only one road.

In high density/town centre areas for example, a Primary School requires a minimum 1.5ha* (Capacity up to 1000 students) and a Secondary School a minimum 2.5ha* (Capacity up to 2000) * determined based on individual assessment and school design.

The document containing the guidelines is Design Framework: Site selection and development - a guideline for determining appropriate school sites. Version 1.0 June 2023 schoolinfrastructure.nsw.gov.au.

**Site Selection Criteria**

All schools are required to be designed in accordance with the Educational Facilities Standards and Guidelines (EFSG) and with reference to the design quality principles outlined in the State Environmental Planning Policy (Transport and Infrastructure) 2021.

Due to the importance of the site selection phase, the following school design guidelines should be considered:

- provision of a clear street address, character, and frontage for the school that promotes a welcoming entry and positive learning environment
- promote safety in design, including:
- appropriate walking and cycling infrastructure surrounding the school, including pathways that provide safe and direct routes to the school, road/

railway crossings at required locations, clear wayfinding measures, and entry points to the school grounds.
- safe access to the school through appropriately located kiss-and-drop infrastructure, bus zones, vehicular access onto the school grounds for on- site parking (if applicable), deliveries, and emergency access.
- appropriate separation of vehicles, pedestrians, and built form, in line with the Department of Education's Vehicle Risk Mitigation Strategy, and
- limiting the potential for overlooking of the school by neighbouring developments.
- provide open space that is easy to supervise, and appropriate for use by various age groups
- promote the heritage significance of the site (where appropriate) as an important part of the school and celebration of local or state history
- minimise the impact of the school development on neighbouring uses, including overshadowing, scale, and character of built form.

**Site Context and Concept Planning**

The checklist below is for guidance only and provides a non-exhaustive list of issues to consider when planning for new schools. It is important to understand the need to future proof our school sites to cater for future expansion, should this be required.

Land developed for residential use brings with it an increase in population, including school -aged children who may wish to enrol at their local school. Once land has been developed for residential/other uses, it is unlikely to be released or redeveloped for an extended period of time. This restricts the land options available for new schools and the cost of land in these areas rises substantially.

It is also important to consider the environment and dwelling types that children living in dense urban areas are accustomed to. Generally, apartment living does not come with a backyard, and developments provide minimal open space for active play. Working with local councils and developers, schools can offer students and the wider community a priceless amenity in the form of undeveloped, open space in areas of dense development.

The Checklist - Design Guidance – contains 19 criteria of which some are described as essential and others preferred. These criteria form the basis for the compliance comparison which follows.

## 1. Educational Facilities Standards and Guidelines. Land Area/Size

**Rural/Regional Areas**

- **Primary School** - Minimum 2ha (Capacity up to 1000 students). Typically, this includes built form up to 2 storeys in height.
- **Secondary School** - Minimum 4ha (Capacity up to 2000 students). Open space is typically provided at grade only.

**Suburban/Low-medium Density Areas**

- **Primary School** - Minimum 1.5ha (Capacity up to 1000 students) Typically, this includes built form up to 4 storeys in height, with open space provided at grade only.
- **Secondary School** - Minimum 2.5ha (Capacity up to 2000 students) While this method is still valid for most schools, particularly those in low- density suburban areas, innovative solutions to school design in dense urban areas may be appropriate.

**Comment**: The guidelines are clear. In Rural/Regional areas, a Secondary School is entitled to a minimum of 4ha (Capacity up to 2000 students) of land on which to build its school including open areas. Stating the land requirement as a minimum infers that there is also an optimum and maximum land area. For example, the nearest regional high school under construction is a Jerrabomberra which has been allocated 4.5 ha for its school - and it has no agricultural plot.

There is no policy or guideline that stipulates that when calculating the school size, the area of any agricultural plot is counted in the minimum 4 ha area for the school. As an agricultural plot is not mandatory, and many school don't have them, to include one in the minimum land area would result in possible unintended consequences.

SINSW has chosen of its own volition to amend the guideline and state it as 2.5 ha following a unilateral decision by Mr Carlo Bellinato to re-classify Bungendore as a Suburban/mid-density residential area. This conflicts with the classification of Bungendore as Rural Regional by both the Minister for Education and the Minister for Regional NSW in recent press releases. It also conflicts with the classification of Bungendore as rural in the QPRC Structure Plan for Bungendore which describes Bungendore as a rural village.

An unfortunate (perhaps unintended) consequence of Mr Bellinato's reclassification of Bungendore as suburban is the potential loss of entitlements and concession made available to both teachers and students of rural/regional high schools.

The Majara Street site is 2.08 ha with a .47 ha agricultural plot and therefore fails to satisfy this essential criteria.

The Ashby site can be anything up 40 ha depending on how much land the Government decides it needs for its school. It satisfies the criteria.

2. **The site shall be a single lot, or consolidated group of lots.** For the ease of future development and clarity of ownership, it is important that the school site is a single lot, or a group of lots consolidated into one lot, prior to the development of the school.

**Comment:** The Majara Street site is 2.08 ha and if the agricultural plot (separated from the Majara St site by a busy road) is added, the total area is 2.5 ha. This is well below the minimum 4 ha stipulated in the guidelines.

The Majara Street site comprises two blocks and does not meet the criteria.

The Ashby site is a single site and satisfies the criteria.

3. **The shape of the site shall be substantially regular in shape**, that is, likely square/rectangular.

A regular lot is important for the design of schools as it provides flexibility for building layout and open space. It is important that the school site is easy to supervise, free of any hidden nooks or areas that will be 'out of bounds' due to inappropriate visual connections or potentially unsafe use (such as car parking, servicing units, etc).

**Comment:** The main portion of the Majara Street site is regular in shape while the separate agricultural plot is irregular in shape and separated from the main school site by a busy road.

The Majara Street site fails to meet the criteria.

The Ashby site is regular in shape allowing ample scope for innovative design, orientation and layout. It meets the criteria.

4. **The school site should be located in an area that is accessible for students who will likely attend the school.**
Schools provide unique place making opportunities to support and strengthen town centres and enhance the local character. It is important that the school is located where joint use opportunities are the greatest to ensure benefit to the local community who may utilise school facilities.

School sites are important community assets that fulfill a role beyond student education during school hours. School facilities are often used by the wider community to host events such as weekend markets, polling booths, evacuation centres, and extracurricular sporting activities, to name a few. It is important that when planning for new schools, the location of the school site also considers these functions.

There are many opportunities for schools to be jointly developed or share facilities with the community, ensuring more efficient use of space and providing quality social infrastructure.

School sites are generally best located close to residential areas and town centres, which generate student populations, where joint/shared use opportunities are greatest, and facilities are easily accessed by the community.

**Comment:** The Ashby site will be central to the growing student catchment area in the north easterly expansion of the village.

See Image 3 at Appendix A.

With the Majara Street site, the school is dependent on the existing park and its facilities for access to sporting fields. A new school in the north of the town (with its own playing fields, will achieve the outcomes referred to above such as providing opportunities for sporting and other events away from the crowded town centre and close to the new residential developments north of Turallo Creek.

The Majara St site is less likely to achieve this criteria due to its restricted land area without its own playing fields. Its encroachment onto Bungendore Park conflicts with the need to establish sporting fields in developing areas of the town that need them rather than restrict the existing ones.

The Ashby site will in the foreseeable future be centrally placed in an area that is accessible for students who will likely attend the school and centrally placed in the student catchment as the village expands. The Ashby site has the potential to meet the needs of the community north of Turallo Creek

5. **The school site should provide a minimum of 10sqm per student of open space.**

It is preferable that open space is provided at grade, however other options may be appropriate dependent on context and school model.

It may be appropriate to locate a school site immediately adjacent to a Council-owned open space, and to count this open space as a portion of the 10sqm required. This would be dependent upon a formal agreement with Council that allows use of the land by the school during school hours.

Primary schools will require exclusive use of the open space during school hours while secondary schools may be more flexible - this is at the discretion of SINSW and will be determined on a project-by-project basis.

For schools on constrained sites or in dense urban areas, it may be appropriate to provide open space within levels of the built form, as under croft or roof top space. Again, this is at the discretion of SINSW and will be determined on a project-by-project basis.

**Comment:** Noting that for a rural/regional Secondary School, a Minimum of 4ha for a capacity up to 2000 students, 10 sqm per student would require 2 ha of open space. This would require 2 ha of the 2.08 ha available on the Majura Street site

The Majara Street site does not meet this criteria.

The Ashby site offers ample space for the children to relax or engage in recreational activities.

6. **The site should be appropriately zoned for school development**, in- line with the "prescribed zones".

Refer to State Environmental Planning Policy (Transport and Infrastructure) 2021.

This is required to ensure development in-line with regulatory controls and efficiency in planning approval.

**Comment:** the local council has had extensive experience at rezoning land for various uses. In the Bungendore Structure Plan, it states that Ashby land outside the odour buffer and flood planning area be considered for residential zoning in the medium term. (This land has the potential for 10 years land supply based on the current growth rate). This suggests that rezoning the land for use as a school is not an insurmountable issue.

Rezoning the Majara St site is an ongoing issue and remains unresolved.

Rezoning the Ashby site is a relatively simple matter and can satisfy the criteria if the local council so chooses.

7. **The site shall not adjoin any land which is developed, or proposed to be developed, for use which is incompatible with a school.**

The school site should not be located next to, or in close proximity to any use that may conflict with the requirements of a safe school environment. This may include uses such as heavy industrial areas where noise and traffic may be a safety concern, or entertainment precincts where activities in the area are focused on adults (for example, bars, clubs, casinos, brothels and the like).

It is also important to consider buildings or building proposals surrounding the site that may provide undesirable overlooking of the school site, particularly the open play areas, however it is anticipated that good design can overcome this.

While there is no current standard for solar access provision to schools, it is important that we treat them in a similar way to residential development and community open space.

**Comment:** This is another criteria which mostly applies to city or suburban centres rather than a small rural village.

Both sites satisfy this site requirement.

8. The site will be located within a well-structured movement network that provides appropriate road infrastructure, as well as safe pedestrian pathways from residential areas to the school site.

This criteria statement does not fit with the explanatory notes below it. A heading (Solar Access Provisions) has been inserted to address the glitch.

**8.a Solar Access Provisions**.

While there is no current standard for solar access provision for schools, it is important that we treat them in a similar way to residential development and community open space.

Not only does solar access provide a pleasant space in which to learn and teach, it may also improve the energy efficiency of the building and provide the option for sustainable energy via photovoltaic systems.

While there is no current standard for solar access provision to schools, it is important that we treat them in a similar way to residential development and community open space.

During the week, it is likely that students spend more daylight hours in classrooms than at home in their bedrooms or living spaces. In addition, as communities become more dense, the reliance on school playgrounds as community open space is increasing, and so the same principles for sunlight access should apply. Refer to the Apartment Design Guide (Department of Planning, Industry and Environment, 2015) for details on solar access requirements for residential apartments, which may also be applicable to school design.

Not only does solar access provide a pleasant space in which to learn and teach, it may also improve the energy efficiency of the building and provide the option for sustainable energy via photovoltaic systems.

**Comment:** It is assumed that the three paragraphs above relate to a question regarding solar access rather than well-structured movement networks and safe pedestrian pathways. It is assumed that this question relates to orientation of school buildings to allow the maximum possible access to sunlight in the school buildings and classrooms/teaching spaces.

If that is the case, the options for orienting buildings on Majara Street to take advantage of natural sunlight is restricted.

On the Majara St site as there is little option to orient buildings other than facing the west and east.

The Ashby site allows for the most advantageous building orientation because of the available space.

8.b **The site will be located within a well-structured movement network that provides appropriate road infrastructure, as well as safe pedestrian pathways from residential areas to the school site.**

**Comment:** Traffic congestion at either end of the Majara St site is problematic. At the northern end of Majara Street there will be significant competition for parking and drop off spaces for the new high school, the expanding Bungendore Preschool, the scout hall and now the Abbeyfield seniors' housing project that is to be built on the steeply sloping portion of Majara St north of Turallo Terrace between the Preschool and the Scout Hall.

On the southern side of the Majara Street site there is competition for drop off and short term parking for parents of Kindergarten children who are required to be escorted into their school by their parents or guardians.

See Image 4 at Appendix A.

The Ashby site allows planners to create an ideal road system within the school precinct which takes account of safety and congestion without adding to the existing congestion in and around Majara/Gibraltar and Turallo Terrace.

The Ashby site is superior to the Majara Steet site in this regard.

9. **The site shall not adjoin any land which is developed, or proposed to be developed, for use which is incompatible with a school.**

School catchments are designed to promote active transport options such as walking and cycling. This not only promotes healthy habits but is intended to reduce the pressure on road networks that surround schools, which are often already congested and struggle to support the demand of high intensity drop-off and pickup times.

It is important that safe and appropriate walking and cycling infrastructure is provided around the school, including good quality pathways, open space connections, and road- crossing points, to encourage active transport.

Neither site is adjoining any land which is for use which is incompatible with a school

10. **The site shall have road frontage ideally on 3, but not less than 2 sides.**

It is important that the school has an appropriate amount of road frontage to provide zones for kiss-and-drop and buses, as well as the potential for a strong street presence and school identity. The length and appropriate location of these zones should be determined following a detailed transport assessment.

Access to the site for construction should also be considered, particularly for large trucks and cranes that may be required should the school be built in line with Modern Methods of Construction (MMC) processes.

It is preferable that schools are not located with street frontage to arterial or major roads, due to safety concerns and potential noise impacts.

**Comment:** This particular criteria is mainly applicable to schools in cities or densely populated areas. There are numerous rural/regional schools that have only one road providing access to the school including Jerrabomberra.

See Image 5 at Appendix A.

The two roads either side of the Majara St site – Turallo Terrace and Gibraltar Street are necessary in Bungendore because of the congestion associated with the adjoining Preschool and BPS and the Abbeyfield seniors housing soon to be constructed on the northern extension of Majara Street. Access to the Ashby site from Tarago Road and Birchfield Drive provide more than adequate access.

Road access to the Majara Street site despite the availability of Turallo Terrace and Gibraltar Street is less favourable that the options available at Ashby because it will not compete with other school and general traffic.

11. **The site will allow for the provision of appropriate and safe pedestrian and vehicular access onto and within the school grounds.**

Vehicular and pedestrian access should be provided at safe and appropriate locations on the site periphery. It is important that the site and the design demonstrates separation of vehicles and pedestrians/school buildings to avoid potential collisions.

It is also important that school access is provided as equal for all, regardless of physical ability.

Comment: The potential to meet this requirement is easier at the greenfield Ashby site. Design engineers have a clean slate on which to design purpose built appropriate and safe pedestrian and vehicular access onto and within the school grounds.

The Majara Street site will have difficulty meeting this requirement.

The provision of appropriate and safe pedestrian and vehicular access onto and within the school grounds is easier to provide at Ashby than it is at the Majara St site.

12. **It is preferable that the site is located within walking distance to public transport (in particular for secondary schools).**

Schools need to be easily accessible for all users, including students of varying ages, parents, staff, and visitors commuting to work from undetermined locations. Where possible, it is desirable to locate schools near or within walking distance of a train station, well- serviced bus stops, or other forms of public transport.

This may minimise the requirement for car parking on the school site, freeing up valuable land for more efficient use. The provision of an appropriate amount of car parking should be determined following a detailed transport assessment.

**Comment:** Again, this criteria is more applicable to city schools where public transport is plentiful and regular. In small country towns such as Bungendore, this requirement will be met by the scheduling of public transport services once the school is built and demand identified.

Both sites equally satisfy this criteria.

13. **The site should be fully serviced with water, natural gas, sewer, power, telecommunications, local traffic infrastructure and other utilities and service infrastructure, as is necessary for a school.**

Service levels should be provided to be consistent with the intended size and future capacity of the school. It is important that the school site is well serviced by traffic infrastructure such as kerbs, gutter, footpaths, intersections, crossings, cycle pathways, etc.

**Comment:** The Ashby site offers a unique opportunity for school planners and designers to design the school building to take advantage of solar energy (either roof-top solar panels or a small solar farm perhaps in the area impacted by odour from the refuse transfer station. Solar panels combined with batteries are capable of meeting the demand for electrical power. The collection and storage of water from roof tops is also easily achieved.

A Biocycle system to collect, treat and use wastewater and sewerage could contribute to the watering of landscaped areas and ovals.

The potential for the utilities listed above to be provided at the Majara Street site is more complex and complicated than the Ashby site.

14. **The site should preferably be free of any Aboriginal Land Claims (State), Native Title Claims (federal), mining and exploration licenses below ground etc.**

Due to development limitations that may apply, land that is subject to a claim or lease may not be appropriate for use as a school.

The status of the aboriginal land claim in the southwest corner of the site near the Balladeers Gazebo is not known.

There are no known aboriginal land claims applying to the Ashby site.

15. **The school site should not be located adjacent, or in close proximity to developments or land uses that may be associated with lessened air quality, radiation or noise pollution**

To ensure the health and safety of students and staff, it is important that selection of new school sites considers **proximity to land uses including railway lines,** motorways, arterial roads, communication towers, under flight paths, near ventilation stacks, etc.

**Comment:** At its nearest point, the eastern boundary of the Majara Street site is11 metres for the centre of the rail tracks in the Bungendore rail corridor.

Note that the rail corridor is the subject of a Contamination Declaration by the EPA because of lead contamination during the period 1939 to 1962 while the Lake George mine at Captains Flat was fully operational.

See Image 6 at Appendix A

No such issues are known at the Ashby site.

16. **The site should be free of environmental constraints including, but not limited to bushfire, flood, contamination and significant vegetation**.

Environmental constraints may limit design options, complicate planning approval pathways, and present a greater level of risk in terms of design approvals and general school safety.

**Where possible, schools should be located on land that is free of environmental constraints**, both current and anticipated due to climate change. Where this approach is not possible, a master plan for the school may demonstrate an appropriate design response for a safe school environment and a feasible solution.

**Bushfire**

Schools that are partially within Bushfire Prone Land require careful planning and design to ensure user safety and minimise project cost. Buildings should be located on land that is free of any Bushfire Attack Level rating (where possible - subject to specialist advice). Access to the site for pedestrians and vehicles (in particular, emergency vehicles during a bushfire event) should also be located outside of the bushfire zone. Refer to the NSW Rural Fire Service website for details.

Boths sites are equally at risk from bushfires.

From the Bungendore Structure Plan - The RFS advise the need for North Elmslea emergency refuge/large community space, would need additional fire protection as it is located on the northern side of town, ideally community emergency refuge located on southeastern side of town. There is nothing to suggest that the additional fire protection mentioned above cannot be provided.

See Image 7 at Appendix A

**Flood**

The site (or a significant portion of the site) will be located above the 1 in 200-year flood level and provide flood free access for pedestrians and vehicles (in particular, emergency vehicles during a flood event). Buildings should be located on land that is above the Flood Prone Land contour (where possible - subject to specialist advice).

**Comment:** The land at Ashby available to be used for the new BHS is not within the Bungendore flood zone

See Image 8 at Appendix A

The Majara Street site is not impacted by flood although access to it from McCusker drive is sometimes blocked by the flooding of Turallo Creek.

The Ashby site has offered their land for a school in areas that are not affected by flood.

**Contamination**

The site shall be free of any contamination that would render it unsuitable for use as a school or require expensive remediation prior to that use, at the time of handover.

**Comment:** It is yet to be proven that the Majara Street is free of lead and asbestos contamination. A Detailed Site Investigation of the site by Douglas Partners stated that the site had not been impacted by the lead contamination in the adjoining rail corridor despite not drilling the 51 boreholes from which samples were allegedly taken showing lead levels to be within limits.

A follow up DSI by Lanterra – whose findings were based on the Douglas Partners samples being genuine – is also discredited. These fraudulent investigations are the subject of objections to the revised SSDA with the results of the objections not likely to be known until late this year 2024.

See Image 9 at Appendix A

It is highly likely that lead and asbestos contamination will be found on the Majara Street site when genuine testing is carried out - hopefully by the EPA.

There are no known lead or asbestos contamination issues at the Ashby site.

**Significant Vegetation & Biodiversity**

School sites that include areas of Significant Vegetation (as identified in the relevant Local Environmental Plan) or Biodiversity (such as rare fauna and the like) require careful planning and design to ensure suitability of use by the school, as well as environmental protection and ongoing maintenance. It is likely that areas of Significant Vegetation and Asset Protection Zones are unsuitable for use and may not be counted as usable open space.

**Comment:** In relation to this criteria, the Bungendore Structure Plan noted that on the Ashby site there were 'Areas of High Environmental Value native vegetation cover significant portions of the land'. Offsets are likely to be required. The land most likely to be acquired for a school to me eaten down by grazing animals.

There are no obvious indications of the 'High Environmental Value native vegetation cover significant portions of the land'.

See Image 2 in Appendix A.

If the vegetation described is on the land likely to be acquired for the BHS, offsets can be found.

Majara St site complies with this criteria.

The Ashby site can be made to comply with this criteria

17. **It is preferred that schools sites are free of heritage items that are not suitable for re-use by a school or preclude appropriate design of a school.**

In most cases, heritage items can be refurbished to provide a suitable function for the school, while retaining and celebrating a unique piece of history. It is also important also to consider the appropriateness of the heritage item being used for school purposes, and how this might be more widely shared with the community.

The site should be assessed as free of archaeological heritage that would inhibit development of a school (subject to specialist advice).

The Majara Street site has impacted the Balladeers Gazebo and the curtilage of the Bungendore War Memorial which was intended to look out over the green space of Bungendore Park.

As the Ashby homestead (which is heritage listed) is not intended to be included in any acquisition of land on that property, the heritage requirements will be complied with.

18. It is preferable that the gradient of the site is no greater than 1 in 10, being relatively flat and of a consistent topography.

A flat site is preferable as it also allows construction of the school to occur in a time and cost- efficient manner. Additionally, it offers potential to create open spaces that may be easier to supervise and are accessible for all students and staff.

**Comment:** The Ashby topography is ideal for the construction of a new school on a greenfield site. It will allow the construction of the school to occur in a timely and cost- efficient manner. It also offers potential to create open spaces that may be easier to supervise and are accessible for all students and staff.

The Majara Street site will pose a more difficult challenge in terms of the demolition of existing buildings, the local swimming pool, site preparation and remediation of contaminated soil.

Both sites are flat and comply with this criteria.

19. **The site shall be free of easements and/or buffer zones that may impact development or use of the land as a school.**

This may include underground service pipelines and/or overhead cables, drainage corridors, powerlines, etc.

Where possible, avoid locating school sites within the 'measurement length' or buffer zone adjacent to high- pressure pipelines, due to the risk of exposure to a failure event. A Safety Management Study and a HIPAP Risk Assessment would

be required if a school is proposed within the Measurement Length or buffer zone of a pipeline.

**Comment:** The extent of the contamination of the Majara Street site is still to be determined. However, the land immediately adjacent to it (separated only by a line on a map) on its eastern boundary has been declared 'significantly contaminated with lead' and there is a high probability that a similar problem will be found with asbestos dust from the use of asbestos brake pads fitted to the trains and carriages between the mid-1930s and 2003 when the use of asbestos was banned.
A long term remediation plan is needed to clear the Bungendore rail corridor and this will take place immediately adjacent to the Majara St site. A buffer zone may well be needed to protect children the high school site while the remediation plan (yet to be written, approved and implemented) takes place.

The Majara Street site does not meet this criteria.

**Comment:** The Ashby site is impacted by a QQPRC imposed odour buffer from the refuse transfer station. Interviews with the staff indicate that very few if any users of this facility complain about odour. It should be noted that although this facility is open from midday Friday to midday Monday, the vast majority of the rubbish is deposited there over the weekend when the school if free of any students. The rubbish deposited there is collected and placed in trucks as it arrives and the site is clear of rubbish by midday on Monday.

The Ashby site is not impacted by the odour buffer during school hours.

See Image 10 at Appendix A.

A comparison of the two sites is summarised in Appendix B.

## Appendices

- Appendix A – Images Supporting the Comparison
- Appendix B – Comments on the Ashby site in the Bungendore Structure Plan
- Appendix C - Comments on the Ashby site from the Bungendore Structure Plan

**Appendix A**

## Images Supporting the Comparison

### Images 1

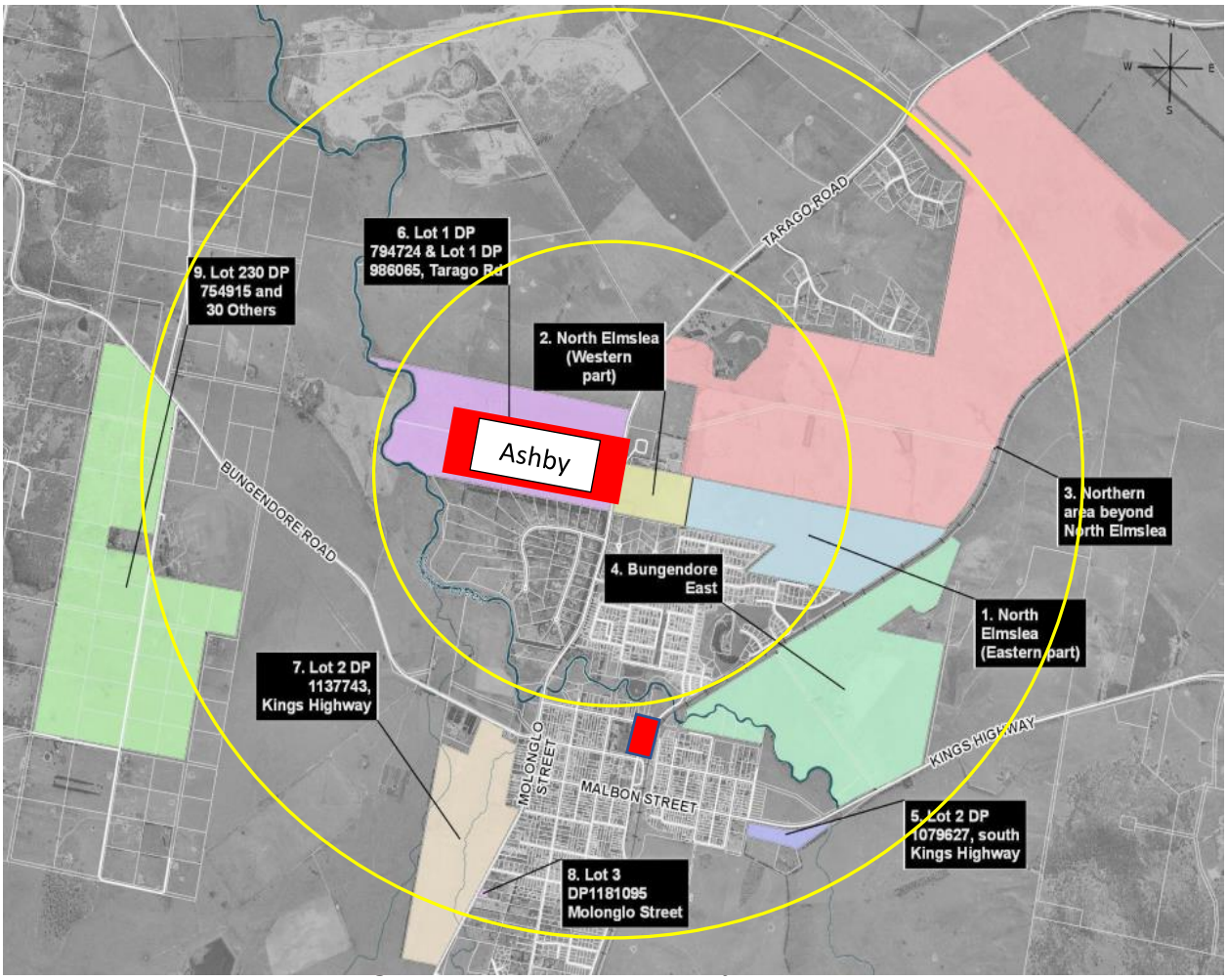
The image below shows the preferred 2.08 ha site for the new BHS. Its proximity to the contaminated rail corridor should be noted. The buildings in the NE corner of the site are to be demolished prior to any construction and the same applies to the village swimming pool in the NW corner of the site.

**Image 2 – Ashby site looking east**


Ashby site looking east

## Appendix A

## Image 3 - Ashby Site Relative To The Planned Expansion Of Bungendore



## Appendix A

## Image 4

A grandmother walking home baby grandson in a stroller wear along Turallo Terrace after delivering her 4 year old granddaughter to the Bungendore Preschool located opposite the new BHS north entrance. There are no footpaths between her home on Malbon Street and the Preschool. The closure of Majara Street exposes families to high levels of unnecessary risk. This situation is likely to worsen when the new BHS opens on the Majara Street site.

Both photos were taken at about 08.50 on a Wednesday morning.


## Appendix A

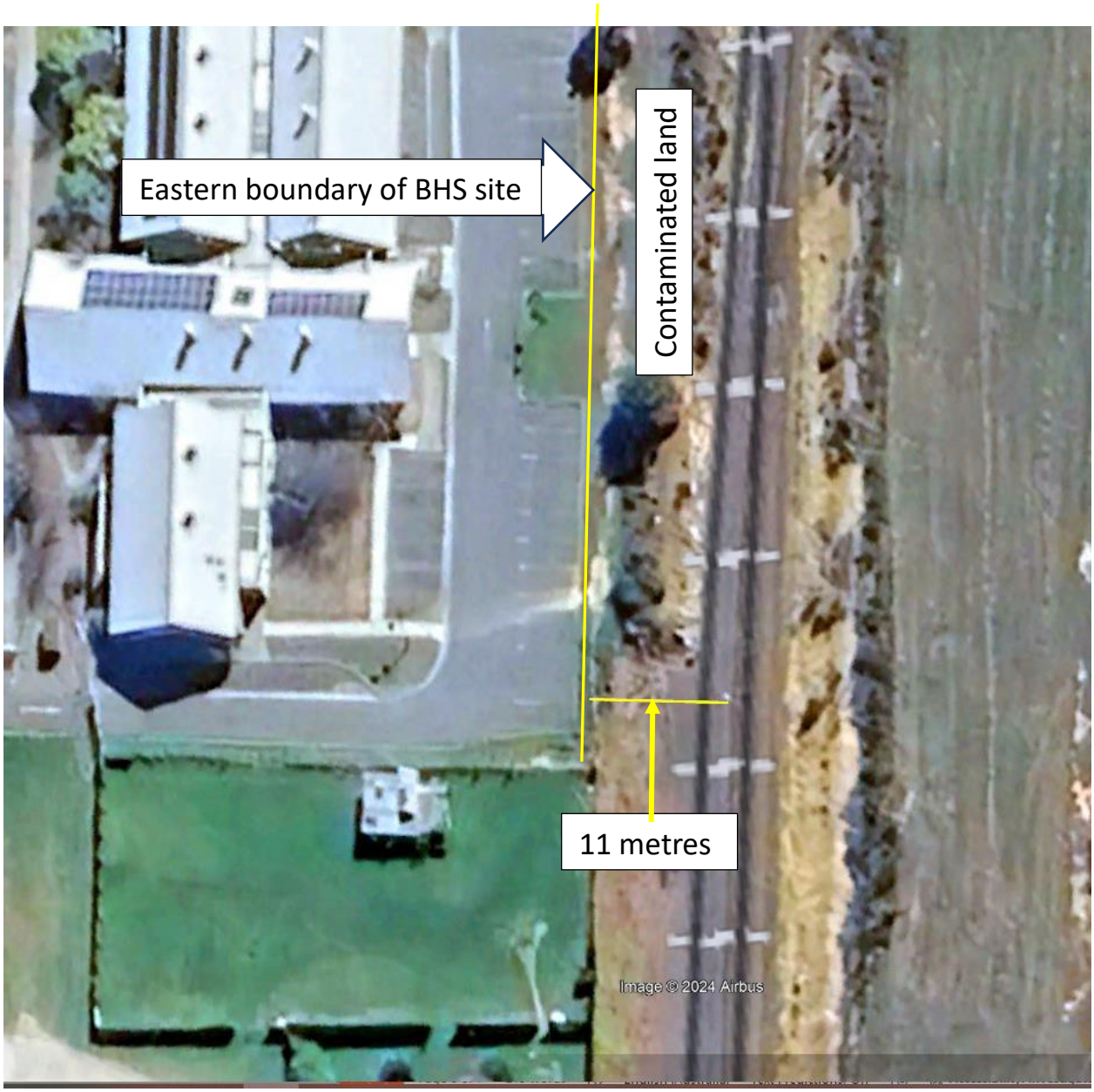
## Image 5 – Jerrabomberra Regional High School

The Jerrabomberra High School does not have a road frontage ideally on 3, but not less than 2 sides. There is no obvious adverse impact as a result of failure to meet this criteria which appears to be mainly applicable to school sites in cities or built up area.

## Appendix A

## Image 6

The eastern boundary of the BHS site is shared with the western boundary of the land subject to the EPA declaration of contaminated land (lead). The plan to remediation the contaminated railway land is not known. Remediation of the land while the school is occupied by children and teachers would involve risking their health and well-being.



## Appendix A

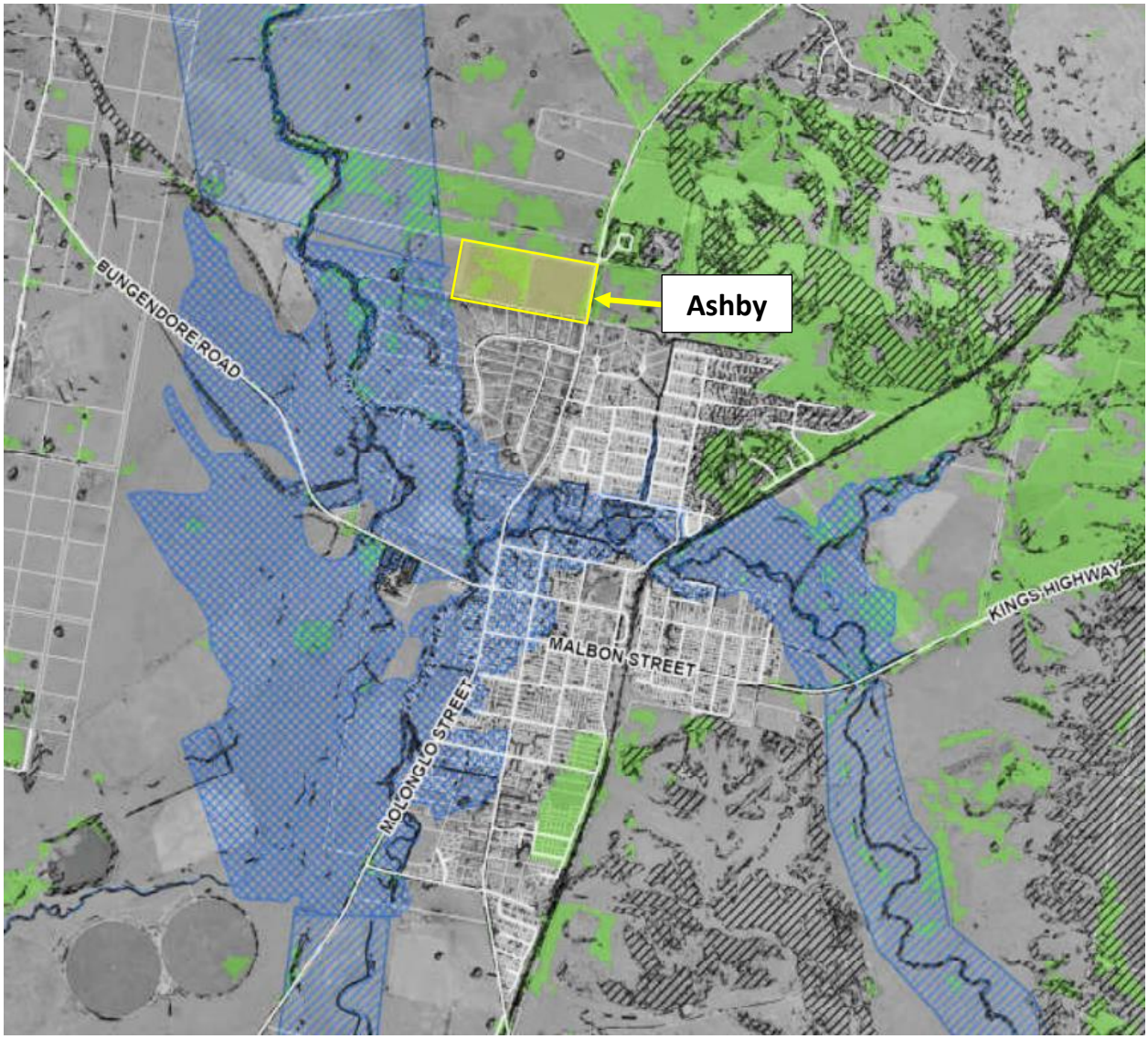
## Image 7 – Ashby paddocks.

The eaten-down paddocks in the centre of the image below do not appear to pose any greater bushfire threat that the surrounding properties.

## Appendix A

## Image 8

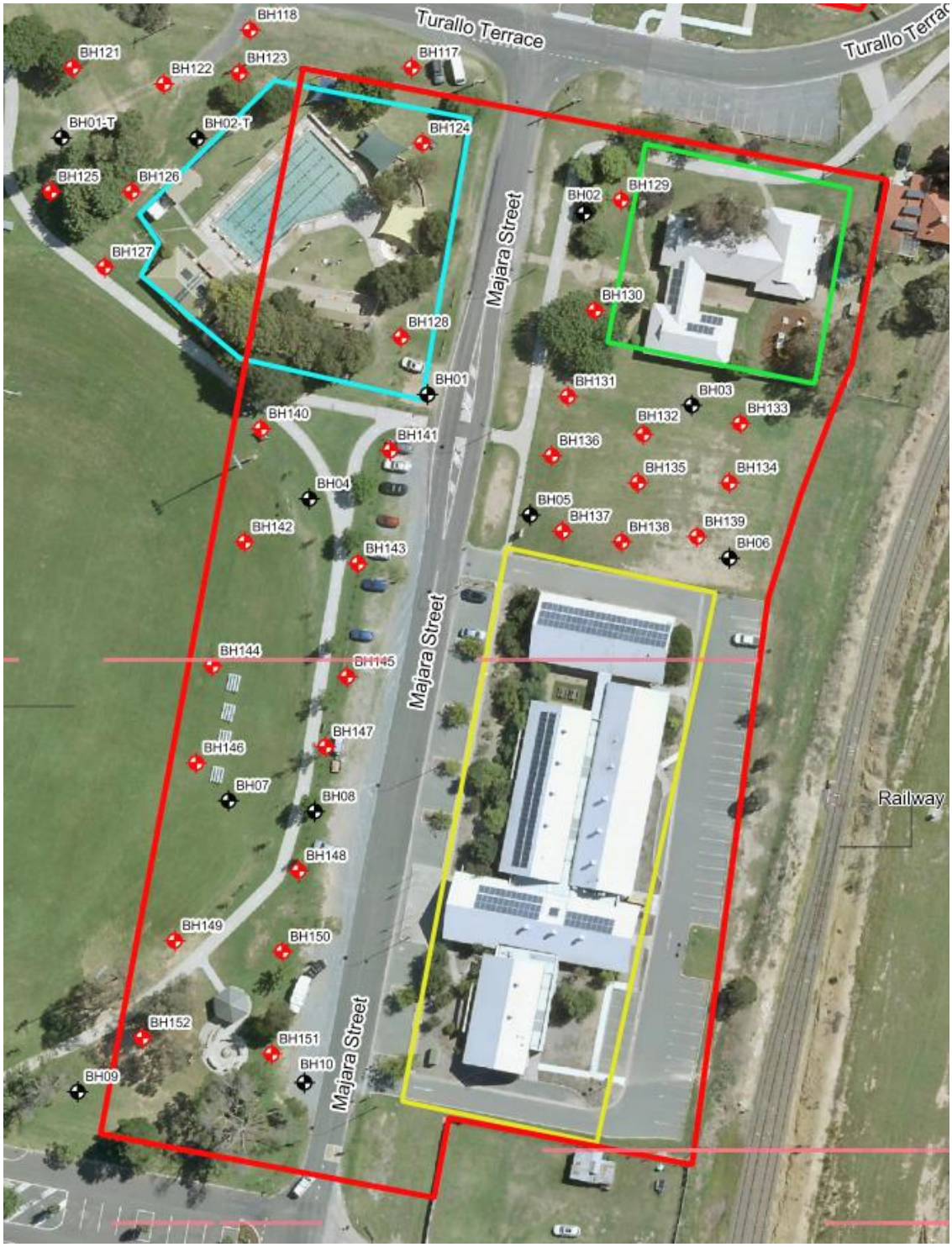
The two blocks of interest for the new BHS is shown in yellow below – they are not with the flood zone as shown on the map below taken from the Bungendore Structure Plan.



## Appendix A

## Image 9 – The Boreholes That Were Not Drilled

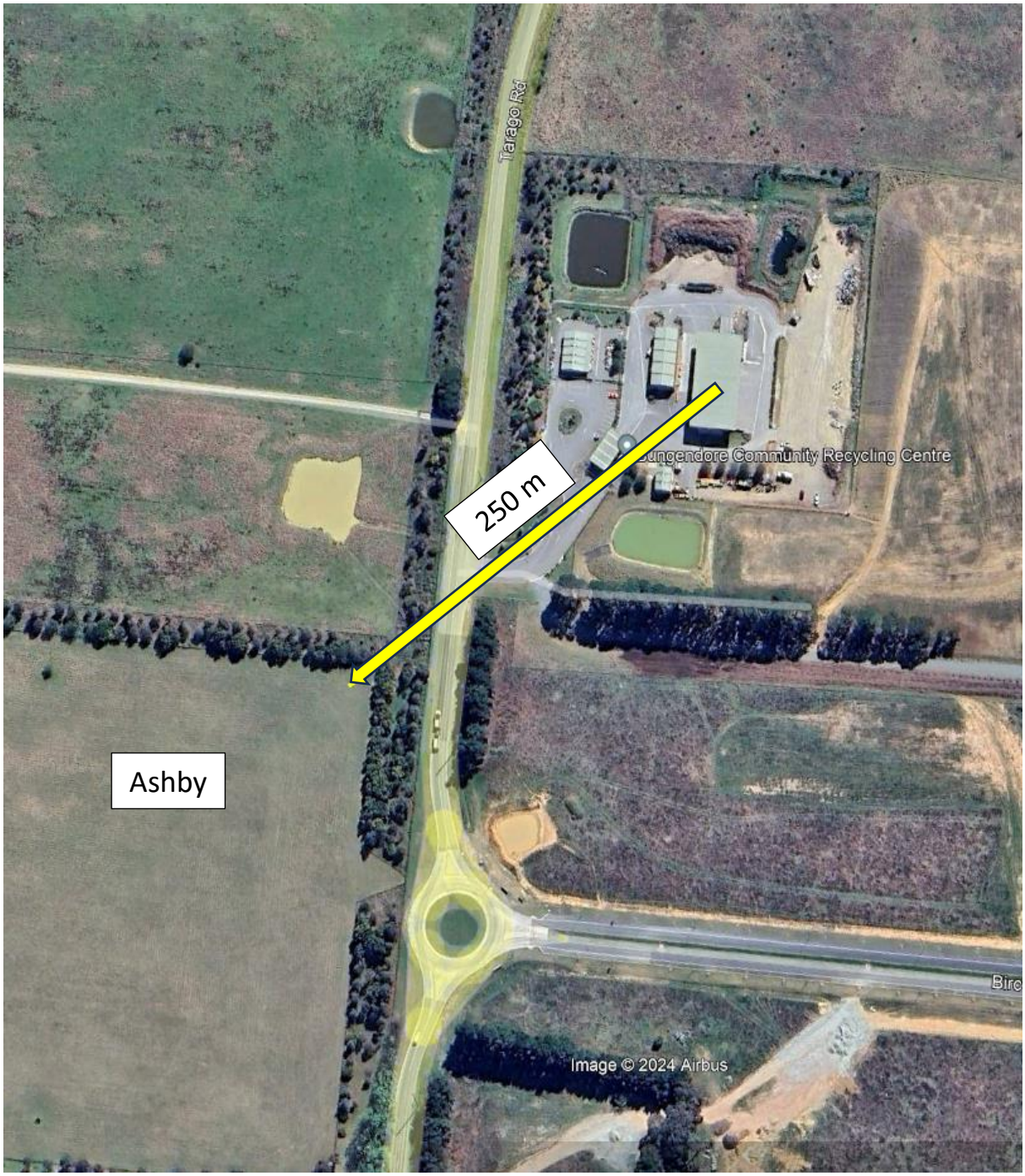
The borehole locations BH118 – 152 (taken from the Douglas Partners Detailed Site Investigation (Contamination) marked by red squares on the map below were not drilled dure to 'access constraints'. This means the true extent of the contamination in the BHS site is not known.



## Appendix A

### Image 10 – Odour Buffer at Bungendore Refuse Transfer Station

There is currently a 250 m odour buffer around the transfer station rubbish pit. Its negligible impact on the Ashby site is illustrated below.



## Appendix B

### Comparison Summary Majara v Ashby

| Serial | Criteria | Majara Street | Ashby | Majara St | Ashby |
|---|---|---|---|---|---|
| 1. | Educational Facilities Standards and Guidelines. Land Area/Size<br>Minimum 4ha (Capacity up to 2000 students). | 2.08 ha with a .47 ha agricultural plot and therefore fails to satisfy this essential criteria. | Up to 20 ha | Does Not Comply | Complies |
| 2. | The site shall be a single lot, or consolidated group of lots. | The Majara Street site is made up of two lots and does not meet the criteria. | The Ashby site is a single site and satisfies the criteria. | Does Not Comply | Complies |
| 3. | The shape of the site shall be substantially regular in shape, that is, likely square/rectangular. | The Majara Street site does not meet the criteria. | The Ashby site is a rectangular shape and satisfies the criteria. | Does Not Comply | Complies |
| 4. | The school site should be located in an area that is accessible for students who will likely attend the school. | The Majara St site does not satisfy this criteria. | The Ashby site has the potential to meet the needs of the community north of Turallo Creek | Does Not Comply | Complies |
| 5. | The school site should provide a minimum of 10sqm per student of open space. | The Majara Street site does not meet this criteria. | The Ashby site offers ample open space for the children to relax or engage in recreational activities. | Does Not Comply | Complies |

| | | | | | |
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| 6. | The site should be appropriately zoned for school development, in- line with the "prescribed zones". | Rezoning the Majara St site is an ongoing issue that remains unresolved. | Rezoning the Ashby site is a relatively simple matter and can satisfy the criteria if the local council so chooses. | Unresolved | Complies |
| 7. | The site shall not adjoin any land which is developed, or proposed to be developed, for use which is incompatible with a school. | Both sites satisfy this site requirement. | | Complies | Complies |
| 8.a. | Solar Access Provisions. While there is no current standard for solar access provision for schools, it is important that we treat them in a similar way to residential development and community open space.<br>Not only does solar access provide a pleasant space in which to learn and teach, it may also improve the energy efficiency of the building and provide the option for sustainable energy via photovoltaic systems. | On the Majara St site as there is little option to orient buildings other than facing the west and east. | The Ashby site allows for the most advantageous building orientation because of the available space. | Does Not Comply | Complies |
| 8.b | The site will be located within a well-structured movement network that provides appropriate road infrastructure, as well as safe pedestrian pathways from residential areas to the school site. | The Majara Street site does not meet this criteria | The Ashby site has the potential to meet criteria | Does Not Comply | Complies |
| 9. | The site shall not adjoin any land which is developed, or proposed to be developed, | Neither site is adjoining any land which is for use which is incompatible with a school. | | Complies | Complies |

| | | | | | |
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| | for use which is incompatible with a school. | | | | |
| 10. | The site shall have road frontage ideally on 3, but not less than 2 sides. | The two roads either side of the Majara St site – Turallo Terrace and Gibraltar Street are necessary in Bungendore because of the congestion associated with the Preschool, BPS and the Abbeyfield seniors housing soon to be constructed on the northern extension of Majara Street. | Access to the Ashby site from Tarago Road and Birchfield Drive provide more than adequate access. | Complies | Complies |
| 11. | The site will allow for the provision of appropriate and safe pedestrian and vehicular access onto and within the school grounds. | The Majara Street site will have difficulty meeting this requirement. | The provision of appropriate and safe pedestrian and vehicular access onto and within the school grounds is easier to provide at Ashby than it is at the Majara St site. | Unresolved | Complies |
| 12. | It is preferable that the site is located within walking distance to public transport (in particular for secondary schools). | Both sites equally satisfy this criteria. | Both sites equally satisfy this criteria. | Complies | Complies |
| 13. | The site should be fully serviced with water, natural gas, sewer, power, telecommunications, local traffic infrastructure and other utilities and service infrastructure, as is necessary for a school. | The potential for the utilities listed above to be provided at the Majara Street site is more complex and complicated than the Ashby site. | The Ashby site offers a unique opportunity for school planners and designers to design the school building to take advantage of solar energy. Solar panels combined with batteries are capable of meeting the demand for electrical power. The collection and storage of water from roof tops is also easily achieved. | Unresolved | Complies |

| | | | | | |
|---|---|---|---|---|---|
| 14. | The site should preferably be free of any Aboriginal Land Claims (State), Native Title Claims (federal), mining and exploration licenses below ground etc. | The status of the aboriginal land claim in the southwest corner of the site near the Balladeers Gazebo is not known. | There are no known aboriginal land claims applying to the Ashby site. | Unresolved | Complies |
| 15. | The school site should not be located adjacent, or in close proximity to developments or land uses that may be associated with lessened air quality, radiation or noise pollution | At its nearest point, the eastern boundary of the Majara Street site is 11 metres for the centre of the rail tracks. The rail corridor is the subject of a Lead Contamination Declaration by the EPA. | No such issues are known at the Ashby site. | Unresolved | Complies |
| 16. | The site should be free of environmental constraints including, but not limited to bushfire, flood, contamination and significant vegetation. | **Bushfires** | | Equally at risk | Equally at risk |
| | | Boths sites are equally at risk from bushfires.<br>There is nothing to suggest that the additional fire protection mentioned above cannot be provided. | | | |
| | | **Flood** | | | |
| | | The Majara Street site is not impacted by flood although access to it from McCusker drive is sometimes blocked by the flooding of Turallo Creek. | The Ashby site has offered their land for a school in areas that are not affected by flood. | Complies | Complies |
| | | **Contamination** | | | |
| | | It is highly likely that lead and asbestos contamination will be found on the Majara Street site when genuine testing is carried out by the EPA. | There are no known lead or asbestos contamination issues at the Ashby site. | Unresolved | Complies |

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| | | **Significant Vegetation & Biodiversity** | | | |
| | | Majara St site complies with this criteria. | The Ashby site can be made to comply with this criteria | Complies | Complies |
| 17. | It is preferred that schools sites are free of heritage items that are not suitable for re-use by a school or preclude appropriate design of a school. | The Majara Street site has impacted the Balladeers Gazebo and the curtilage of the Bungendore War Memorial which was intended to look out over the green space of Bungendore Park. | As the Ashby homestead (which is heritage listed) is not intended to be included in any acquisition of land on that property, the heritage requirements will be complied with. | Unresolved | Complies |
| 18. | It is preferable that the gradient of the site is no greater than 1 in 10, being relatively flat and of a consistent topography. | Both sites are flat and comply with this criteria. | | Complies | Complies |
| 19. | The site shall be free of easements and/or buffer zones that may impact development or use of the land as a school. | The Majara Street site will need a buffer zone between its eastern boundary and the railway corridor. It does not meet this criteria. | The Ashby site is not impacted by the odour buffer during school hours. | Unresolved | Complies |
| Equally at Risk | | | | 1 | 1 |
| Complies | | | | 6 | 22 |
| Does Not Comply | | | | 8 | 0 |
| Unresolved | | | | 8 | 0 |
| **Total** | | | | **23** | **23** |

## Appendix C

## Comments on the Ashby site from the Bungendore Structure Plan

### Ashby - From the Bungendore Structure Plan

(Lot 1 DP 794724 and Lot 1 DP 986065) No. 175-217 Tarago Road

- Areas of High Environmental Value native vegetation cover significant portions of the land. Offsets are likely to be required.
- Western portion of land is located within the flood planning area and also Probable Maximum Flood (PMF) area and the unmapped/modelled area of the creek. Land outside flood planning area be considered for residential zoning in the medium term.
- Part of land located within the buffer for Resource Recovery Facility. (That the portion of land within the 250m for the Resource Recovery Facility, be excluded from Residential development/zoning).
- Land is immediately adjacent to existing urban area with ready connection to existing infrastructure.
- Limited impact on Rural Entry roads one entry from Tarago Road likely and no additional entry required to Kings Highway
- Limited impact on rural vista by additional housing on Tarago Road adjoining existing large lot residential area
- Will result in loss of agricultural land
- Agricultural setting of the town is maintained.
- Land is contiguous with the existing urban area.

**Other:**

RFS advise the need for North Elmslea emergency refuge/large community space, would need additional fire protection as it is located on the northern side of town, ideally community emergency refuge located on south eastern side of town.

That the portion of land within the 250m for the Resource Recovery Facility, be excluded from Residential development/zoning.

Land outside buffer and flood planning area be considered for residential zoning in the medium term. (This land has the potential for 10 years land supply based on the current growth rate).