

Appendix A: Additional Information and Aerial Image

1 Area to be Cleared

Further to the area description in section 5.2 of the application, we estimate the clearing area to be 1460m² of paperbarks (summing the total m² for each of the trees to their drip-lines) plus 107.35m² of other scrub/shrubs. This area is shown in Figure 1 below, with the Environmentally Sensitive Area (ESA) shown in light green, paperbark trees shown in dark green and other bushes/shrubs/scrub shown in brown.



Figure 1: Trees/shrubs to be cleared: Paperbark trees shown in dark green and other bushes/shrubs/scrub shown in brown.

However if the total area involving the scrub/shrubs is counted, not just the scrub/shrubs themselves individually, then the area for clearing is 960m² rather than 107.35m², plus the 19 paperbark trees (4 of which appear dead). This amalgamated clearing area for scrub/shrubs is shown in red in Figure 2 below.



Figure 2: Amalgamated area of clearing for bushes/shrubs/scrub shown in red

The location of the creek in the above images was taken from Landgate mapping but may be skewed a little further north than in reality. The brownish-green shaded area containing the creek (the southernmost shaded rectangle on the image) represents the buffer area for the creek.

2 Aerial Image

The image in Figure 3 below shows the proposed area of development in pink. Much of the area is already cleared although some of it now contains tussock-forming weeds/grass, which have been starting to spread (images of some of these within the northern side of the ESA are in Appendix B). All the plants in the southern end and SW corner of the main pink shaded area are these weeds.



Figure 3: Aerial image showing ESA and whole area of development

An additional aerial photo is included as Figure 4 below to show how other properties in the area already contain developments close to the creek and also within another area indicated as an 'Environmentally Sensitive Area'.

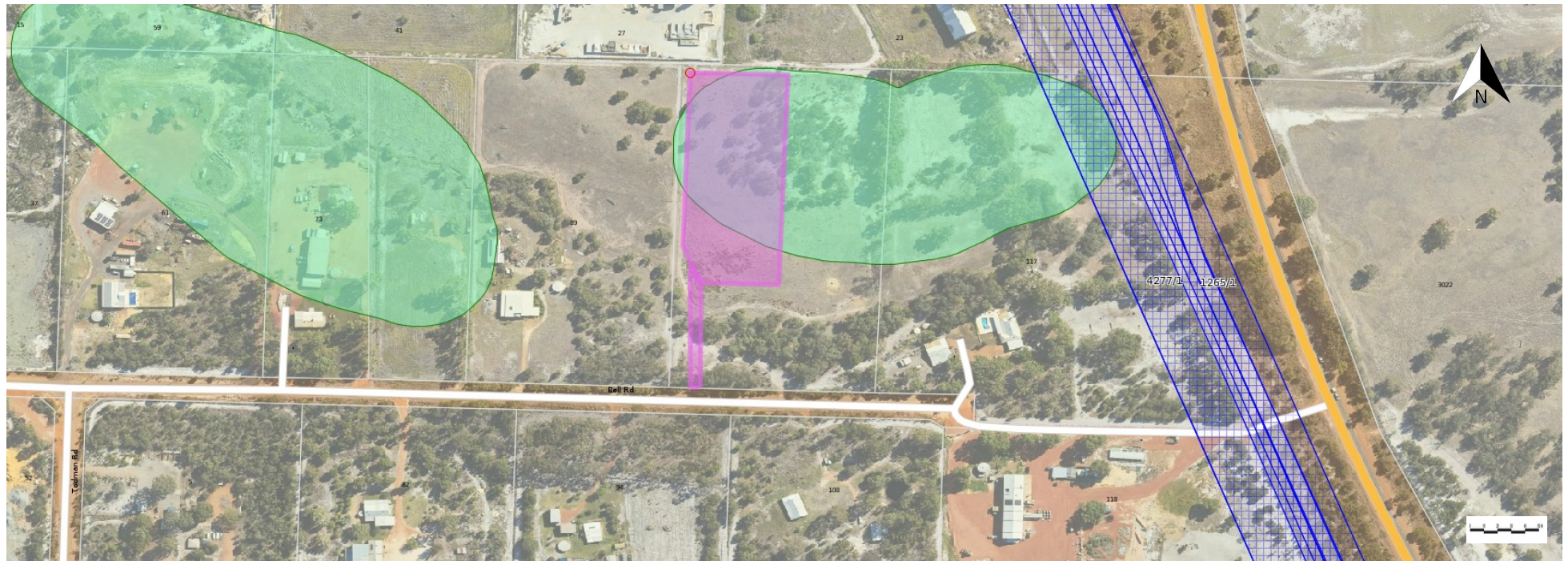


Figure 4: Surrounding Area

3 Proposed Development

Figure 5 below shows the proposed development, with the industrial use in the NW corner, comprising a main warehouse/storage building, office and ancilliary buildings and the residence to the south. Between the industrial buildings and the residential building is a large drainage sump to allow storm water containment. Between the industrial buildings and the residential building is a large drainage sump to allow storm water containment.

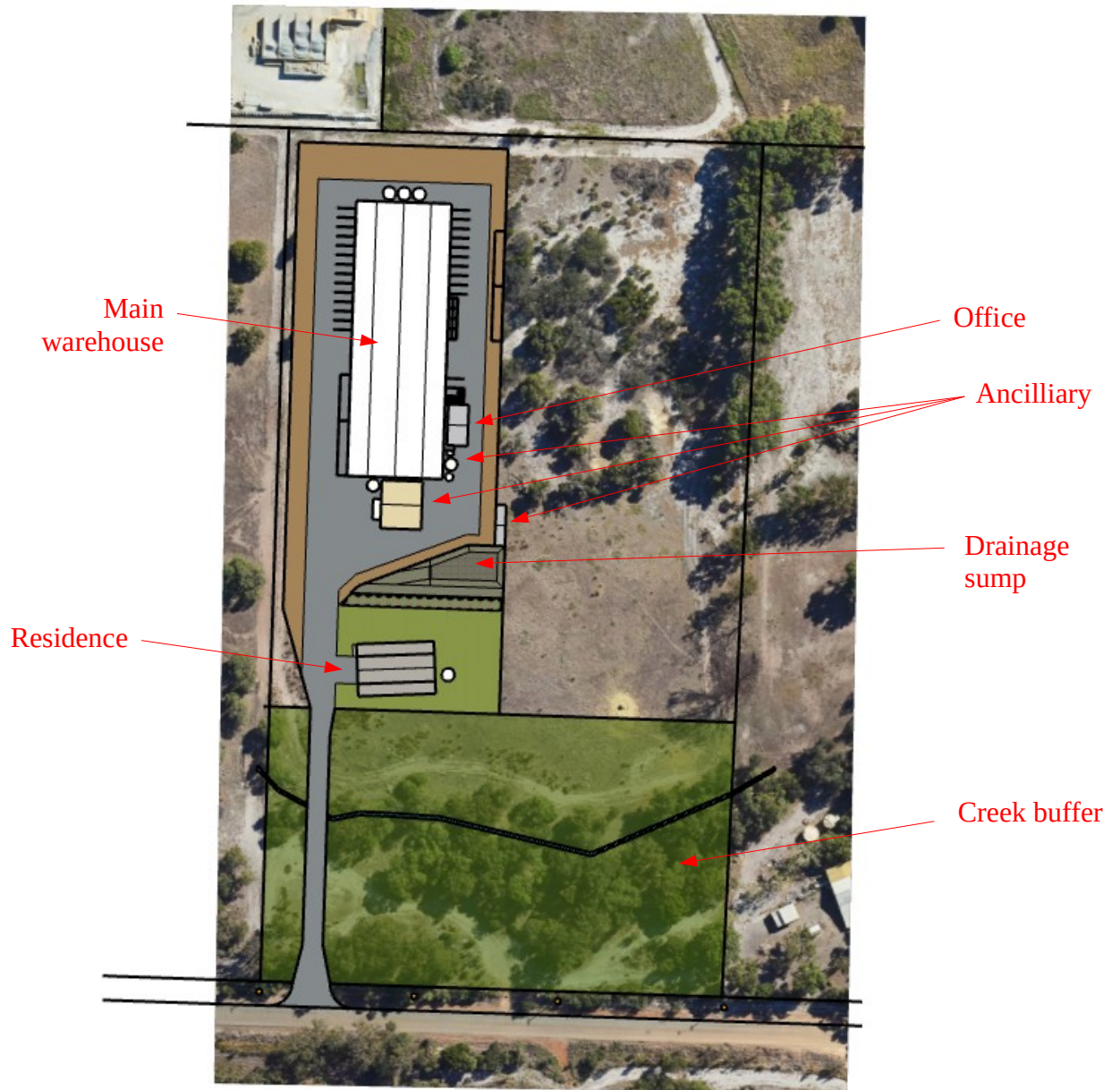


Figure 5: Proposed Development

4 Background

Prior to the lot being purchased in 2009, we made a development application with the Shire of Gingin to make sure we would be able to run our business on the lot. At that time, neither the real estate agent nor the shire made any mention of an Environmentally Sensitive Area (ESA) being present on the lot. Perhaps it didn't exist at the time, although our enquiries, when becoming aware of this ESA recently, suggest that the legislation creating these ESAs did exist back then. However the exact content of the maps that back up the legislation from that time is hard to determine. An image showing the size and location of that development application, as approved in 2009, is shown in Figure 6 below. This development would have encroached into the ESA, at least as it currently exists, but looks like it may not have required any trees to be cleared and the existence of the ESA was never raised with us.



Figure 6: Development approved in 2009 but never constructed

Unfortunately we could not afford to undertake the development at that time. In the meantime, we managed to lease a premises for our business in the Perth metro area,

which was beneficial anyway given our children were beginning to attend high school in the metro area. However that lease in Perth cannot continue due to changes beyond our control. We are luckily just now in a position to be able to hopefully undertake some development of the site and move our business back to Gingin.

Our business has grown however over the years and we now require a larger warehouse to accommodate the stock and equipment we now hold compared to 2009. Our business involves storage, sales and distribution of steel and steel products so they are large, heavy products which require quite a lot of space to store and move. Steel products also need a large, contiguous area to be able to safely and efficiently handle them. Given that 6 – 12m lengths are common and the weight involved, multiple smaller buildings, split levels, or similar incongruous arrangements are difficult, if not impossible, to work with. For this reason, we do not believe there are any realistic/viable engineering solutions that provide alternatives to a contiguous warehouse of the size proposed.

We are husband-and-wife small business owners and have been running since 2007. Angela (My Tien) started the business and used to deliver all the steel herself. We grew to having 6 full-time staff and 3 part-time/casual staff while in the metro area but have scaled down for the move to Gingin and are back to now just 2 full-time staff and 2 part-time/casual staff. We hope to scale the business back up again once established in Gingin.

The property at Lot 16, Bell Rd was purchased with the intention to be a base for our business and also to provide a possibility for some future retirement funding either through:

1. Developing and leasing some additional smaller industrial/storage buildings on the site, possible examples of which are shown on the eastern half of the lot in Figure 7 below; or
2. Possible sub-division of the eastern half of the site into a separate lot to be sold. This was successfully done by our 'neighbour' a few lots to the west. In this case a new owner may be able to fit a house and small industrial/storage building in place of the two industrial/storage buildings shown in Figure 7.

One of these options is desirable personally/financially to help fund our retirement, given we have been unable to pay ourselves superannuation while trying to maintain and grow our small business over the years.



Figure 7: Possible future development options on eastern half of the lot. These are not being proposed for development approval at this time but are a hope as a future possibility.

5 Wetland and Environmentally Sensitive Area

We were a little surprised to discover a Conservation Category Wetland (CCW) and associated Environmentally Sensitive Area (ESA) on the northern end of the lot. As mentioned in Background above, nothing of the sort was brought to our attention at the time of purchase. That northern area on the lot is mostly sandy ground, although the presence of some paperbark trees perhaps indicates some sub-surface water is present? It doesn't seem like a wetland there though, to our admittedly-untrained eyes. There are now a few scattered reeds in the very NW corner (refer to pictures in Appendix B). These appear to be a recent development to our knowledge, as evidenced by them not being present in Figure 6 from 2009 but being visually present in the more recent Figure 1 for instance. With the relative height difference now between the much-elevated concrete batching plant and this lot, we cannot help but speculatively wonder if these reeds have appeared in recent years due to a change in drainage patterns.

Perhaps if we had the budget of some of the large residential and commercial developers, who in our (perhaps cynical) view seem to engage environmental consultants and justify all kinds of mass destruction of bushland all over the Perth region, we could investigate the actuality or value of this mapped CCW, however we are not likely to have much extra budget to try to get this development done as it is so it seems unwise to try to pursue such a course of action.

Nonetheless, we certainly would not believe that there are any flora or fauna of national environmental significance there nor that the area is in a state to readily make it so. We've only just become aware of the existence of the ESA recently. There have been stock, which belong to others but with our permission to continue, grazing the property from since 2009 when we bought the property or before.

The lot and the ESA are in an industrial area and not particularly pristine; Figure 4 shows that other developments in the area have encroached on the creek more than we propose to do and into ESAs at least as much as we propose to do. Almost all of the area proposed to be developed is grass (appearing to be non-native), with the balance containing the scattered trees we propose to clear for the development. Comparison of current aerial photos with the aerial photo in Figure 6 from 2009, shows that some proportion of the trees and scrub that are present are re-growth.

6 Development Design Philosophy

When initially planning for the development, although unaware of the ESA at that time, our aim was to try to keep the industrial development in the corner of the lot closest to the concrete batching plant to the north-west because it is the 'most industrial' use on adjoining lots and because we were trying to keep the development as far as possible from the creek that runs through the southern end of the lot.



Figure 8: Development including indicative vehicle paths

Laying the development out in this way allowed for:

1. Industrial activity to be kept as far from the creek as possible
2. Containment of storm-water run-off from the industrial use well away from the creek (and ESA) via the drainage sump

3. Efficient vehicle movements, as well as minimal interface of vehicles with the creek and its buffer area
4. East-West alignment of the main warehouse doors, limiting rainfall entry via the doors and allowing for operation during bad weather by closing the western doors and the office being next to doors on the eastern/leeward side of the building (because steel products need to stay dry to prevent rust)
5. Keeping the residential dwelling further from the concrete batching plant
6. With use of an ATU for water treatment, and an irrigation area to the north of the residence, keeping all waste water as far away as possible from the creek

We have allocated approximately 1.09ha as a buffer to the creek in our plans. This buffer is identified and labelled in Figure 5 above. That area surrounding the creek seems, to our thinking, to be the area of most environmental value on the lot. To protect the creek, we have allowed a 30m minimum average buffer, as recommended by your department, between it and any development on the north side of it and by undertaking no development on the south side of it, apart from bringing in the driveway. That reduces the usable size of the whole lot by about 2.7 acres, or over one third.

According to the exemption criteria, it would appear that the small area crossing the creek for the driveway would be exempt and allowed to be cleared. I have included it on the aerial photo in Figure 3 above anyway but it is not included in the areas under heading 5.2 in the application because it is exempt. I have highlighted it on the aerial photo regardless because we consider that southern end of the lot of greater environmental value than the northern end. We have made the driveway cross the creek in the shortest, most direct way and at the place of least possible impact.

7 Design Alternative to Reduce Clearing

There is some possibility that we could re-align the development to have the warehouse running east-west and maybe encroach a little less on the ESA. Figure 9 below shows a version of the development with an attempt to rotate the warehouse to have an east-west alignment.

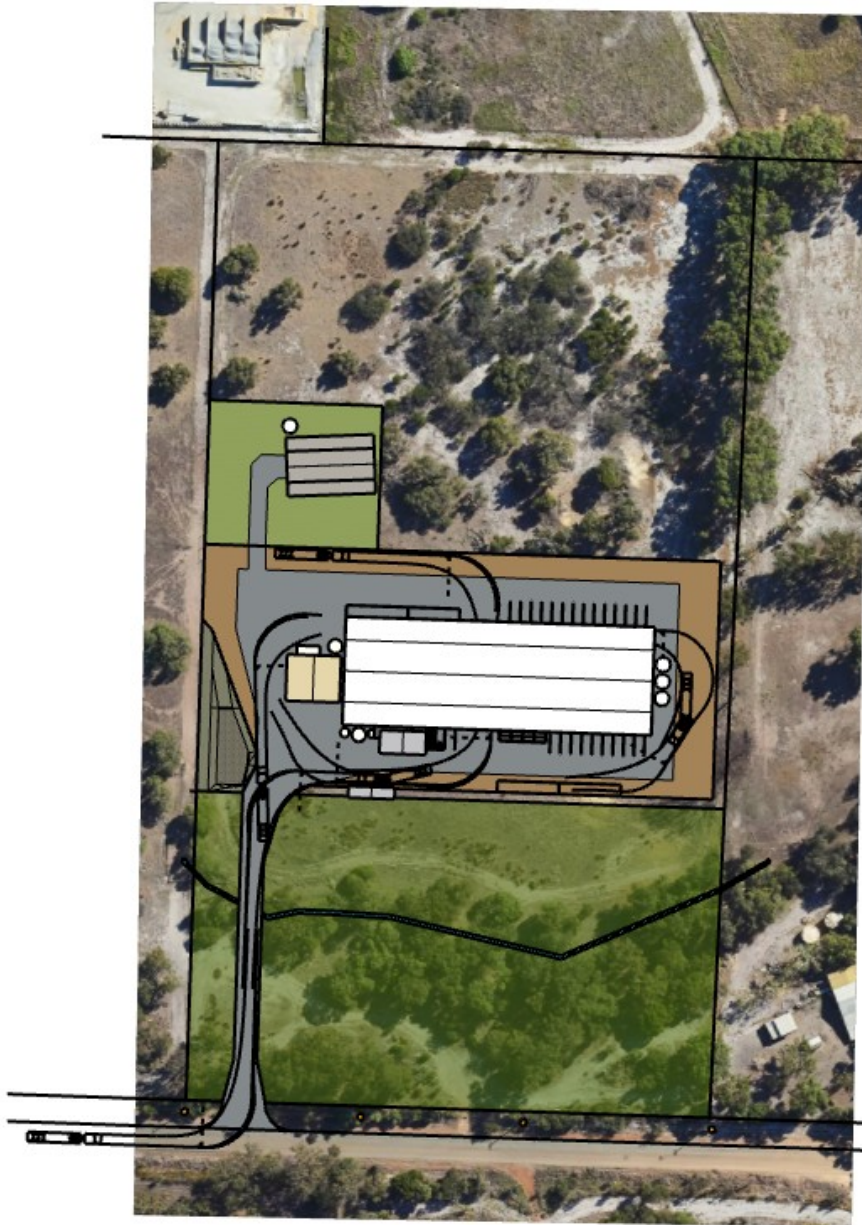


Figure 9: Modified alignment with warehouse running east-west

This alignment could slightly reduce the amount clearing required in the ESA but has the following significant concerns:

1. Industrial activity is closer to the mapped ESA/CCW and the creek. Figure 10 below shows how the mapped CCW is mostly on the north-eastern part of the lot so this alignment enlarges the interface between the industrial use and the CCW.

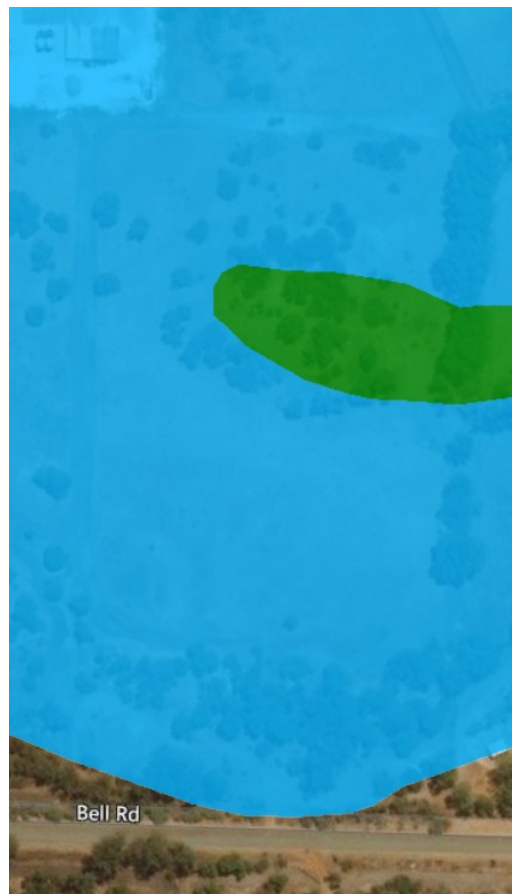


Figure 10: Conservation Category Watland (green) and Multiple Use (blue)

2. Containment of storm-water run-off from the industrial use becomes much more difficult due to (a) reduced suitable areas to create a drainage sump and (b) the increased interface, particularly to the creek as already mentioned. In Figure 9 the drainage sump is shown on the western boundary where it is closer to the creek than in the original design. There are not a lot of options for where/how to locate it with this alignment. Capturing storm water run-off and preventing it from entering the creek, and the CCW, becomes much more difficult and risky with this alignment.
3. Vehicle movements become a little more difficult and ungainly and, as above, have a greater proximity to the mapped CCW and creek.
4. Warehouse doors end up facing north and south. The office, if located on the south side of the building, will be on the windward side, making operation in wet weather awkward. If the office is moved to the north side it will be at the back of the development, which is a little weird. Moving the warehouse to be east-west aligned will possibly also make it hotter in summer due to a larger surface area of warehouse walls with a northerly aspect.
5. The residential dwelling ends up closer to the concrete batching plant than the industrial use which is undesirable from an amenity point of view.

6. The ATU irrigation area may also end up being located inside the ESA unless waste water is pumped over a large distance to some other area on the lot, however the warehouse occupies much of the non-ESA area on the lot with this alignment so candidate areas are scarce.
7. There would still be a need to clear quite a number of trees in the ESA regardless, especially given the residence would need at least some trees cleared just to be built and maintain required setbacks, plus possibly more would need to be cleared to achieve a satisfactory Bushfire Attack Level (BAL). An overlay of the east-west aligned design and the trees proposed to be cleared from the original design is shown in Figure 11 below. It could be possible that Paperbark trees P4 - P7, and P9 - P17 (13 trees) and possibly even P18 and P19 may still need to be removed (numbering of trees is as identified in Appendix C).
8. Any future development or subdivision is precluded.



Figure 11: East-West design with trees overlaid

Given the significant environmental, operational, amenity and other concerns with this alternate alignment, we do not believe it is a great option, despite requiring clearing of a slightly smaller amount of vegetation.

8 Photos

Photos of the area to be cleared and of all paperbark trees in the whole ESA on the lot are included as separate attachments in Appendices B and C respectively.

9 Conclusion

We hope that consideration can be given to the fact that we are seeking to preserve the area with, by our estimation, greater environmental significance along the creek. This includes reserving over one third of our land as a buffer for the creek. We hope that this clearing application may be approved to allow us to develop on part of the rest of the site in a reasonable way. We assert that our development proposal strikes a balance between looking after the best environmental features in the area and personal/commercial viability. We feel that the difference in the amount of vegetation to be cleared with the two options presented above is not significant enough to prevent clearing approval for our preferred option.

Thank you for your consideration and advice.