SUBMISSION TO NSW DPIE ON NORTHSTAR TO BORDER INLAND RAIL ROUTE

NAME: ANDREW MACKAY

OWNER: MERAWAH POLL HEREFORDS PTY LTD

MERAWAH

BOGGABILLA NSW 2409

We are a fourth generation beef cattle operation specializing in the production of high quality Poll Hereford seedstock since 1926 and are recognized as one of the foundation Hereford herds in Australia with our annual bull sales amongst the best sales in the Hereford breed each year. Merawah genetics are at work in every state of Australia and New Zealand, Canada and the US.

We also grow wheat, barley, chickpeas and sorghum for the domestic and export markets.

Merawah is the one of the original stations in the Boggabilla region being taken up in 1837 and **is the ONLY greenfield development in the North Star to NSW border section of the inland rail route**. The station has been in the direct ownership by our family for almost a century. The original owner, James Howe was also a relation so we have a very close affiliation with this land over a very long time and have an intimate knowledge of the flood plain and how it handles floodwater and other impacts.

I have the following concerns and observations with regard to the project and ARTC's handling of the entire process and I've attempted to list these below.

INITIAL ROUTE SELECTION PROCESS

Our first contact with ARTC personnel came around late 2106/ early 2017. The original (much shorter) route selected in the *Melbourne – Brisbane Inland Rail Alignment study* to the east had been taken off the table due to pressure from landholders and the western alignment became the preferred route. Preliminary investigations indicated a preference to go a little further west (now called option A) and there were several investigations about various crossing points in that area and our input re flooding impacts etc. were (we thought) taken on board. To our great surprise, on August 8, 2017, we were informed that an eastern route called option D1 was now the preferred alignment. This route flew against any recommendations we had made re flooding, stock safety etc. and collectively we were quite stunned that it appeared this route was pretty much pre selected whilst all these visits were taking place.

Goondiwindi Regional Council were of the same opinion and as is apparent in the EIS, affected landowners and the GRC are still of the same opinion to this day. Lack of community consultation is listed as a common complaint on pages 32-34 of the summary of findings in the EIS report. Annoyingly, ARTC regularly puts out promotional material indicating general acceptance of flood modeling and stakeholder engagement when this is clearly NOT the case. We have had to ask them to desist from such broad statements on our perceived agreement on several occasions.

In short, the only people to my knowledge who think option D1 is the best route is ARTC themselves – local flood experts and landowners think it has disastrous implications for graziers and townspeople along the Macintyre river.

SEVERANCE AND IMPACT ON FARMING OPERATIONS

The chosen alignment effectively cuts our business into 3 separate parcels, which will have very significant impacts on our operation on a number of levels. The proposed alignment was supposed to limit severance apparently but that condition appears to have been overlooked here.

A significant part (50%) of our operation lies on the western side of the alignment. Seed stock production is an intensive business and requires a lot more livestock handling procedures than a normal commercial cattle operation. Cattle need to be tattoed and tagged for ID, vaccinated for various diseases and have DNA collected for gene marking. We also conduct several AI and embryo transfer programs a year in our seed stock business and need to move livestock from that area across the rail line to livestock handling facilities on the eastern side of the alignment on a regular basis. A typical AI program for beef cattle requires them to be yarded 3 times in 10 days to achieve synchronization of the breeding females. The cattle handling facilities are very basic on the western side and would need a significant upgrade to enable us to handle all our stock work duties and take away our dependence on needing access to facilities on the eastern side. With the current rail line we have a number of access points across the rail line from each adjoining paddock – the new line affords us no such access at this point apart from a vague promise to create some form of access at the northern and southern end of our boundaries which are both low lying areas that require bridging for the rail line and are areas of high velocity and water height during flooding. Despite requests for some detail on what ARTC propose, most of what we get is an assurance that we'll talk about it later on. We would need significant road upgrades to be able to access the area in the way we do now - with ARTC's stated aim of "everything being as good as it was before", it will require a large amount of road works and bridging to give us reliable access to our property. With planting equipment and large tractors, headers, spray rigs, road trains etc. needing to be moved across the alignment into this area on a regular basis, having access through two swamps/floodways is not a viable solution, particularly during planting and harvest periods, and a workable solution would need to be explored.

We would also have to alter fences etc. as the new alignment with it's fondness for no private crossings will require re planning of the block as it will become a "stand alone" block if and when this railway comes to fruition. Transporting cattle by truck to the main portion of the property looks increasingly like the only option for moving cattle. In many instances, using ARTC's bridges will require cattle to travel additional distances of 6-8 kilometres to access these crossings – not feasible in the hot northern summers and unreasonable from an animal welfare and logistical point of view and turning a one day job into two on numerous occasions. ARTC states in the **EIS under Land use and Property**22.6.2 that "the proposals design does not inhibit existing activities on either side of the alignment which features raised bridges to ensure connectivity between

these parcels of land, including access points. This has also addressed the potential for cattle yards to be stranded." I fail to see how any of the above points have been adequately addressed as to date little discussion has taken place. ARTC staff involved in this area has little knowledge of livestock or farming practices and the requirements of both.

In addition, one parcel of the land to the west is held under another entity of the business and I believe is legally entitled to have it's own access in any case.

On the south eastern side of the alignment, segregation of various paddocks, both farming and grazing blocks, will lead to blocks of unworkable shape and size for what they are intended for and will require substantial redevelopment to make them feasible for their purpose again.

Our carrying capacity re livestock numbers will also be impacted heavily during the construction phase, as land along the alignment will be basically "out of action" to livestock. ARTC seem to believe stock will just happily graze right alongside a massive construction site and that there will be little impact. Anyone with any livestock experience will understand that will not be the case. Moving stock around the property will also be a logistical nightmare during construction

LAND VALUES

The impact of the D1 rail alignment on the value of our holding cannot be understated – not only has it been basically un saleable since the beginning of this process, it is likely to remain so until at least 2025 and if history is anything to go by, considerably longer. The alignment runs the entire length of our property from when it enters the floodplain right to the Macintyre river. Selling a property with a large railway development with banks up to 7 meters being built through the middle of it is not conducive to a happy result. A leading real estate expert in the area stated to me that around 70% of the land sales in the area in the last decade have been to corporate agriculture – he also said that he was quite sure that no corporate would be interested in buying land with a railway running clean through it. A similar dampening of interest could be expected in the entire buying community. Agricultural land has had a boost in year on year values (7%) during the last ten years – it would be difficult to think that will apply to us with this project running through us now or in the foreseeable future.

There is also considerable debate over the validity of ARTCs flood modeling and the extent of damaging afflux over a lot of our most productive country to the east and severe erosion and scouring to our western country. ARTC's use of a 1% AEP flooding event, as the basis for compensation and mitigation is completely unsatisfactory for us as the effects are going to be far greater than that. This has led to ongoing discussions with our bankers who obviously share some concerns about the above scenarios all at a time when we are still, to a large degree, enduring the worst drought in recorded history. Any devaluation in land values increases our exposure to risk and borrowing capacity and potentially higher interest rates. This is obviously quite a drain on us all, mentally and

physically. Development plans are largely on hold at the present time for obvious reasons. It is nearly impossible to see how the property could function as it did before despite the proponents assurances that there will be little impact outside of the construction zone. There has been basically no consultation with the property acquisition team as they have basically refused to engage with us at any stage of the project thus far. HYDROLOGY AND FLOODING

Hydrology and flooding are obviously a major problem for us with the development of this project. Central to this has been ARTC's use of a 1% AEP flooding event to design their project. This has been a major problem for us as the 1996 flood event on which the 1% AEP is modeled was a relatively minor event compared to the obvious benchmark, the flood of 1976 which is widely known as the biggest recorded flood in the valley.

It staggers me (and the wider community) that a project can be built to a lower standard than a known event that is;

- (a) Relatively recent
- (b) Has both statistical data and "lived in" experience by stakeholders of the event.
- (c) Is used as the design reference by NSW DPIE for the Macintyre valley flood management plan hydraulic analysis. Interestingly, to quantify their reasoning, they gave the following;

 Two design floods were selected for the draft Border RiversValley FMP –

 Large design flood February 1976 (1.3%AEP at Boggabilla)

 The large design flood (1976) was used to delineate floodways with significant discharge and to determine the extent of the floodway network and is representative of large floods in the floodplain.
- (d) You will note NSW DPIE refer to the 1976 flood as a 1.3% AEP event, not the 0.5% event bandied around by ARTC
- (e) Is used by Goondiwindi Regionl Council for all design work.
- (f) The independent review done by BMT Brisbane in May 2020 states "We recommend that it would be prudent to use the 1976 flood event as a sensitivity analysis/check in subsequent design and to assist with landholder negotiations prior to undertaking the joint probability. It is appreciated that from the analysis undertaken, the 1976 modeled event while having inherent uncertainties is **significantly greater** than the design 1%AEP flood event. Agricultural land around chainage 25km north/south (Merawah) will see an increase in the 0.2 to 0.5m and potentially greater then >0.5m closer to the alignment.

 This is on top of the current water levels present and known during flood events! Modeling to 1976 flood levels with the proposed alignment increases this to levels where we have basically no refuge left for livestock and no avenue to get them through the alignment as the velocity

and depth where the bridging is located will be the deepest, fastest flowing water of all. We have very limited high ground on the property but with time and experience, we have found the slightly higher ground to save our valuable seed stock – often this has been the old abandoned railway line! If ARTC build the D1 alignment, the increased water heights and extra time under inundation will potentially be an animal welfare disaster

We also have grave fears that the D1 alignment is significantly under drained and will cause significant diversion of flows north of the alignment, threatening houses, infrastructure and livestock on our property as well as posing a significant risk to Boggabilla and Goondiwindi.

The significant amount of inundation on our country to the eastern side of the alignment will cause high quality farming land to be exposed to excessive time under water and the salinity problems caused by that as well as erosion and scouring as water runs along the alignment and funnels its way through the (inadequate) bridging and culverts. The vertisol soils of the floodplain are highly susceptible to erosion and will I believe, suffer significant damage when water is compressed and re distributed through culverts and bridging at high velocity. I don't believe ARTC's modeling of water velocity is anywhere the volumes that we, and other local flood experts, have encountered during previous flood events.

Dr. Rob Loch is a soil scientist of some 45 years experience and was asked to provide a submission to the senate enquiry. His (submission33) to the senate enquiry concluded;

"the only design option that could reduce the risk of significant economic and environmental damage to the adjoining high value cropland is for the complete length of the crossing to be constructed as a bridge or viaduct.

Further findings by 14 ex QLD government soil conservationists (submission 47) stated that; "taking the rail line across flood plains, and in particular, the Condamine and Macintyre River floodplains could, if not properly designed, constructed and maintained, create many soil erosion issues that could be difficult and expensive to control both on and off site."

ARTC has done little to no work, to my knowledge, with regard to soil structure and we have certainly had no dialogue with any experts in that field from ARTC>

Fencing along the alignment will be necessary to keep livestock off the line – this creates a number of problems particularly during a flood event. The fencing upstream and adjacent to the track will be tangled up with debris; especially near bridges and culverts with the subsequent blocking leading to even higher water levels. Downstream fencing near the outlets will be dragged west out into the floodplain.

VISUAL IMPACTS

The visual impact of the development will be considerable with massive construction over 7 metres high at either end of the Greenfield section both rated as HIGH in the EIS 57 Appendix P Visual impact assessment. **That would be an understatement in my view.** The landscape that we currently enjoy is about to be hit with an eyesore that is basically constantly in view no matter which part of the property we are on at any given time. The seedstock business has a high one on one relationship with prospective clients who like to inspect animals that they own (or are looking to buy) and a visually appealing scenario is all part of the buying experience – take a visit to any racehorse stud and you'll see what I mean.

IN SUMMARY

It appears to us that ARTC is committed to using a moderate flooding event as a way of getting the project to stack up both financially and at the design phase and try and mitigate the damage later on. This would potentially leave them liable to claims of "actionable nuisance" at later stages of the project if things don't turn as they planned. It beggars belief that an infrastructure project of this size will be engineered to a standard below the level that far more minor projects are expected to design to.

We are not prepared to accept the assurances that "We'll sort it all out after the project gets approved scenario" as we are extremely unwilling participants in this whole, poorly thought out project. Our family's way of life and labour of love for over 4 generations is under threat with this development. Community and hard won local knowledge has always favoured the Option A route which has the support of business and landowners alike. We believe this option was never given a "fair shake" at the design and costing level and I would urge the relevant planning approval authorities to revisit this option, particularly with all the inherent, potentially catastrophic consequences of the D1 alignment.

Kind Regards,

Andrew Mackay