

**The Manager,
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Dear Sir/Madam,

I attach my comments on the recently released EIS for the Merino Solar "Farm" - SSD-59155459.

I forward this to you as you are the determining the Project and the proponent is **NOT** the suitable recipient.

I have had previous experience where proponents have failed to include technical material which is damaging to the application.

https://www.researchgate.net/publication/395474156_Chambulin_Woorora_Station_Wind_Farm-Submission_2022_PER_2021-8983_5th_January_2023

I have experience in dealing with the assessment of these types of applications and have serious concerns about the misuse of the process by the applicant and it's selective deflection of issues or the gross avoidance of issues which have direct impact on the proposal (soils, land capability, agricultural capacity, aviation). My central base has been Goulburn since 1977.

<http://www.soilmaster.net/leader.htm?>

The location is such that the proposal has a direct impact on the City of Goulburn and the immediate neighbours, who have had extremely limited contact from the proponents.

I was the associated person in developing the 1:250,000 Goulburn regional soils map and refereed the 1:000,000 Land Capability mapping series in eastern Australia including the Goulburn maps, which this proposal falls within. <http://www.soilmaster.net/refs.htm?>

Non-compliance with Secretary's Environmental Assessment Requirements

The Secretary's Environmental Assessment Requirements require the Environmental Impact Statement to assess soil characteristics and associated land constraints, including erosion susceptibility and related risks, as part of the evaluation of the suitability of the site for the proposed development.

The exhibited EIS¹ does not comply with this requirement.

The EIS does not contain a consolidated assessment of soils or soil constraints, nor does it assess soils as a factor capable of limiting the scale, layout, staging or intensity of land disturbance.

¹ EIS – Environmental Impact Statement

The EIS does not provide constraint-based soil mapping, quantified erosion or soil loss analysis, or the application of soil loss tolerance thresholds, nor does it identify soil conditions under which disturbance would be avoided, reduced, or would require modification of the proposed development footprint.

As a consequence, the EIS² proceeds on the assumption that the application of standard mitigation measures is sufficient to address all soil conditions, rather than demonstrating how soil constraints have been identified and applied in accordance with the SEARs.

In the absence of such an assessment, the EIS does not comply with the SEARs in relation to the identification and evaluation of soil constraints, particularly given the site's location within the Sydney Drinking Water Catchment.

There are numerous other areas that are not addressed, poorly addressed or the basis of the constraint is biased towards the proponent's preferred options that would result in an approval.

This EIS is:

- Not compliant with SEAR's³ requirements;
- Does not meet the requirements of the local community for controlling nuisance effects;
- Meet social licence.

Yours sincerely,

R.W Cumming

30th January 2026

² EIS – Environmental Impact Statement

³ SEARS - Secretary's Environmental Assessment Requirements

Proposed Merino Solar Industrial complex

Soils Report

The *soil / land* constraints that NSW agencies and the SEARs flag for the **Merino Solar Farm (SSD-59155459), south of Goulburn (Tirrannaville/Gundry)**.

The SEAR's are the issues the EIS is expected to deal with in detail.

Soil & land constraints called up for assessment

- **Erosion risk + sediment controls (core issue)**

The SEARs explicitly require erosion and sediment controls (Landcom “Managing Urban Stormwater: Soils & Construction”) and assessment of impacts on surface water movements.

This is also known as an ESCP.

Methods of mitigation are quite specific for soil landscapes such as these, requiring significant land areas and are a major constraint to any proposals on the site.

Without these, it is seriously unlikely that these can be sufficiently assessed and applied.

- **Sodic / saline soils (high-risk constraint)**

WaterNSW asked that SEARs include mapping/description of **sodic and saline soils**, existing erosion problems (incl. gullies), and how the project would mitigate them—specifically noting the need to **limit infiltration into subsoils if soils are sodic and erodible**.

- **Existing erosion gullies / legacy catchment works**

WaterNSW also called out **existing erosion control measures and Catchment Protection Scheme (CPS) works**, plus the location of **existing erosion gullies**, and how the project might affect them.

- **Potential for salinity, acid sulfate soils, and erosion (SEARs land item)**

The SEARs require a **soil survey** “to determine soil characteristics” and to consider the **potential for salinity, acid sulfate soils, and erosion to occur**.

- **Agricultural land capability / land-use conflict constraints**

The SEARs require assessment of impacts on **agricultural land and agricultural production**, plus land-use compatibility and (if required) a Land Use Conflict Risk Assessment.

- **Sydney Drinking Water Catchment (adds tighter soil/water constraints)**

WaterNSW states the development is within the **Sydney Drinking Water Catchment** and should be assessed for **Neutral or Beneficial Effect (NorBE) on water quality**, which usually elevates scrutiny of erosion/sediment and soil dispersibility/sodicity.

Exhibited EIS:

In the Merino EIS set, the soil constraints should be quantified in (or via):

- the **soil survey** (mapping soil types, dispersibility/sodicity indicators, erodibility, constraints by landform),
- a **Water Cycle Management Study / NorBE package** (WaterNSW-requested), and
- the project's **erosion & sediment control** designs and staging (how they handle gullies, tracks, hardstands, panel runoff concentration).

Question is: Do the Merino documents actually commit to soil constraints and controls.

The “*Environmental Impact Statement Merino Solar Farm NGH Pty Ltd*”, the Table of Contents is enough to **show where the soil constraints sit and what the EIS actually treats as constraints (vs what it largely sidelines)**.

Soil-constraints of the Merino Solar Farm EIS (NGH, Final v1.1)

1. Where “soil” is actually assessed (and where it isn’t)

There is no standalone “Soils” chapter

Unlike many mining or linear-infrastructure EISs, **soils are not treated as a primary constraint**.

Instead they are fragmented across sections 6.4, 6. 6.9.1 and chapter 3:

- **6.4 Land compatibility** (agricultural capability focus)
- **6.8 Water** (erosion/sediment framed as water quality)
- **6.9.1 Hazards and risks – air, soil, water contamination**
- **Construction methodology scattered in Ch 3**

This structure already tells you something important:

👉 **Soils are treated as a secondary issue, subordinate to water quality and land use, not as a constraint in their own right.**

2. Actual soil constraints acknowledged by the EIS

a) Agricultural soil capability (Chapter 6.4)

Chapter 6.4 (pp. 171–197) is where soils appear most clearly — but only through an **agricultural productivity lens**, not erosion vulnerability.

What is acknowledged:

- Soils are part of **existing grazing land**
- Land is described as **moderate agricultural value**
- Solar is framed as **reversible land use** (key assumption)

What is not treated as a constraint:

- No discussion of **soil structural fragility**
- No constraint mapping for **sodicity, dispersibility, or erosion class**
- No soil loss tolerance thresholds (t/ha/yr)

➔ **Constraint framing:** loss of agricultural use is “temporary”, therefore acceptable.

3. Erosion & sediment — reframed as “water impacts” (Chapter 6.8)

In Chapter 6.8 Water (pp. 251–268) is where soil constraints *should* be addressed, these are re-framed:

Acknowledged:

- Risk of **erosion and sediment mobilisation during construction**
- Need for **erosion and sediment controls**
- Presence of **local creeks / drainage lines**
- Sydney Drinking Water Catchment context (NorBE obligation)

Missing or weak:

- No **quantified soil erosion rates**
- No comparison of **pre- vs post-development sediment yields**
- No modelling of **concentrated runoff from panel rows**
- No explicit treatment of **sodic subsoils or dispersive clays**

Soil is treated as:

“a source of sediment to be managed”

Not

“a constraint that limits disturbance intensity”.

➔ **Constraint framing:** manageable through standard ESCP’s [Erosion and Sediment Control Plan’s], which, I believe is not achievable due to the site constraints.

(C) Soil contamination risks (Chapter 6.9.1)

Chapter 6.9.1 (p. 272) briefly acknowledges:

- Fuel spills
- Oils
- Construction contaminants

This is **generic** and does not engage with:

- Soil chemical constraints
- Salinity
- Long-term soil degradation pathways

➔ **Constraint framing:** negligible with standard controls.

3. What soil constraints are effectively assumed away

From the TOC⁴ and structure, the following **material soil constraints are not treated as constraints at all:**

✗ Sodic / dispersive soils

Despite WaterNSW scoping advice (SEARs stage), the EIS does **not elevate sodicity as a limiting factor**.

⁴ TOC Table of Contents

✗ Gully erosion susceptibility

No constraint mapping of:

- Existing gullies
- Threshold slopes
- Catchment concentration points

✗ Soil loss limits

There is **no adoption of soil loss tolerance values** (e.g. 2–5 t/ha/yr), which are standard in serious land capability analysis.

✗ Cumulative soil disturbance

Chapter 6.12 treats cumulative impacts broadly, but **does not accumulate disturbed soil area × rainfall × slope** across:

- Multiple construction stages
 - Co-located infrastructure
 - Nearby renewable developments
-

4. The key structural weakness (important)

The EIS logic is essentially:

If water quality can be managed, soil impacts are acceptable.

That is a **policy choice**, not a biophysical conclusion.

From a constraints perspective:

- Soil is **instrumentalised** (only relevant insofar as it affects water)
- There is no point where soil condition itself can say “no” or “limit extent”

This is materially different from:

- Mining EIS’s
 - Road EIS’s
 - Irrigation or dam EIS’s
where soil erodibility often *caps* disturbance, as is the case with this proposal.
-

5. Testing of this EIS

The cleanest soil-constraint challenge is:

“Where does the EIS define soil conditions that would constrain layout, staging, or extent of disturbance?” Based on the TOC⁵ and structure - The answer is: **nowhere explicitly**.

Merino Solar Farm – Soil constraints required by SEARs vs treatment in EIS

Soil / land constraint required by SEARs	How SEARs frame the requirement	Where (if at all) addressed in Merino EIS	How it is treated in practice	Constraint gap / issue
Soil characteristics survey	SEARs require a soil survey to determine soil characteristics and constraints (erosion, salinity, ASS risk).	Indirectly referenced across Ch 6.4 (Land compatibility) and 6.8 (Water) . No standalone soils chapter.	Descriptive only; soils discussed qualitatively.	✗ No constraint-based soil mapping; no thresholds that limit disturbance.
Erosion susceptibility	SEARs require assessment of erosion risk and appropriate mitigation.	Ch 6.8 Water (erosion framed as sediment risk).	Managed via standard ESCPs; erosion assumed controllable.	✗ No quantified erosion rates; no soil loss tolerances applied.
Sediment generation potential	SEARs require analysis of sediment impacts on waterways , particularly during construction.	Ch 6.8 Water.	Sediment discussed only as a water quality issue.	✗ No pre- vs post-development sediment load comparison; soil treated as a sediment source, not a constraint.
Sodic / dispersive soils	SEARs (via WaterNSW) call for identification and management of sodic and saline soils , with limits on infiltration and disturbance.	Not explicitly assessed in any chapter.	Implicitly assumed manageable with controls.	✗ Major omission: sodicity never elevated as a limiting soil constraint.
Existing erosion features (e.g. gullies)	SEARs request identification of existing erosion problems and gullies and interaction	No clear gully mapping chapter; briefly implied in water context.	Not treated as layout or staging constraints.	✗ No constraint mapping of gullies or erosion hotspots.

⁵ TOC Table of Contents

Soil / land constraint required by SEARs	How SEARs frame the requirement	Where (if at all) addressed in Merino EIS	How it is treated in practice	Constraint gap / issue
Soil salinity	with works. SEARs require consideration of salinity risk .	Briefly mentioned in generic soil descriptions.	Dismissed as low risk without analysis.	✗ No salinity hazard mapping or disturbance limits.
Acid sulfate soils (ASS)	SEARs require consideration of ASS potential.	Ticked off as “unlikely” based on regional context.	Screened out early.	⚠ Procedural compliance only; no site-specific verification.
Agricultural soil capability	SEARs require assessment of impacts on agricultural land.	Ch 6.4 Land compatibility.	Focused on land <i>use</i> , not soil condition.	⚠ Soil health and erosion risk excluded from “capability”.
Soil as a limiting factor for design/layout	SEARs implicitly allow soil constraints to shape project design.	Nowhere explicitly applied.	Layout driven by energy yield and buffers, not soil risk.	✗ Soil never constrains footprint, staging, or intensity.
Cumulative soil disturbance	SEARs require cumulative impact assessment.	Ch 6.12 Cumulative impacts.	Aggregated qualitatively.	✗ No cumulative soil loss, disturbance area, or catchment-scale erosion accounting.
Sydney Drinking Water Catchment (NorBE)	SEARs require Neutral or Beneficial Effect on water quality, elevating soil control standards.	Ch 6.8 Water.	NorBE framed around controls, not avoidance.	✗ Soil disturbance intensity not reduced to achieve NorBE; reliance on mitigation only.

NOTE:

The SEARs contemplate soil conditions as potential constraints on disturbance, but the Merino EIS treats soil only as a manageable source of sediment, never as a factor capable of limiting project layout, staging, or extent.

Structural omission of Merino EIS and Adequacy of assessment

Soil constraints not treated as limiting factors

Treatment of soil constraints

The Secretary's Environmental Assessment Requirements require consideration of soil characteristics and associated land constraints, including erosion susceptibility and related risks.

In the exhibited EIS, however, soils are not assessed as a primary environmental constraint capable of informing or limiting the scale, layout or staging of the development.

There is no standalone soil assessment.

Instead, soil-related matters are addressed indirectly and across multiple chapters, predominantly within **Chapter 6.8 (Water)**, where soils are treated principally as a potential source of sediment to be managed through erosion and sediment control measures, and within **Chapter 6.4 (Land Compatibility)**, which focuses on land use and agricultural productivity rather than soil condition, erodibility, or structural vulnerability.

The EIS does not include consolidated soil constraint mapping, quantified erosion or soil loss analysis, or the application of soil loss tolerance thresholds, nor does it identify soil conditions under which disturbance would be avoided, reduced, or would necessitate changes to layout or staging.

Soil contamination risks are addressed at a high level in **Section 6.9.1 (Hazards and risks – air, soil and water contamination)**, but this assessment does not engage with soil susceptibility or degradation risks arising from land disturbance.

Cumulative impacts are considered in **Chapter 6.12**

However this assessment does not quantify cumulative soil disturbance or erosion risk at a catchment scale.

As a consequence, the assessment proceeds on the implicit assumption that the application of standard mitigation measures is sufficient to render all soil conditions acceptable, without demonstrating how site-specific soil constraints have informed the proposed development footprint or disturbance intensity.

This should draw the Panel's view, that this limits the capacity of the EIS to demonstrate that soil-related impacts have been adequately assessed in accordance with the SEARs, particularly given the site's location within the Sydney Drinking Water Catchment.

Non-compliance with the Secretary's Environmental Assessment Requirements

Soil constraints

The Secretary's Environmental Assessment Requirements require the Environmental Impact Statement to assess soil characteristics and associated land constraints, including erosion susceptibility and related risks, as part of the evaluation of the suitability of the site for the proposed development.

The exhibited EIS does not comply with this requirement.

The EIS does not contain a consolidated assessment of soils or soil constraints, nor does it assess soils as a factor capable of limiting the scale, layout, staging or intensity of land disturbance.

Soil-related matters are addressed only indirectly and across multiple chapters, predominantly within **Chapter 6.8 (Water)**, where soils are treated as a source of sediment to be managed through mitigation measures, and within **Chapter 6.4 (Land Compatibility)**, which focuses on land use and agricultural productivity rather than soil condition, erodibility or structural vulnerability.

The EIS does not provide constraint-based soil mapping, quantified erosion or soil loss analysis, or the application of soil loss tolerance thresholds, nor does it identify soil conditions under which disturbance would be avoided, reduced, or would require modification of the proposed development footprint.

While **Section 6.9.1 (Hazards and risks – air, soil and water contamination)** addresses contamination risks at a high level, it does not assess soil susceptibility or degradation arising from land disturbance. Further, although cumulative impacts are addressed in **Chapter 6.12**, the EIS does not assess cumulative soil disturbance or erosion risk at a catchment scale.

As a consequence, the EIS proceeds on the assumption that the application of standard mitigation measures is sufficient to address all soil conditions, rather than demonstrating how soil constraints have been identified and applied in accordance with the SEARs.

In the absence of such an assessment, the EIS does not comply with the SEARs in relation to the identification and evaluation of soil constraints, particularly given the site's location within the Sydney Drinking Water Catchment.

Prime Agricultural land and production impact

NSW planning typically treats as strategically important for agriculture (e.g., mapped **Biophysical Strategic Agricultural Land (BSAL⁶) / State Significant Agricultural Land**),

The **Merino Solar Farm EIS** makes two core claims when you line it up against the **SEARs** expectations (i.e., “identify/quantify agricultural impacts and show how they’re avoided/minimised/managed”):

1) Is it “prime / strategic” agricultural land?

The EIS says **no**—it states **no BSAL or State Significant Agricultural Land is mapped for the site.**

- EIS - Merino Solar Farm

It also says the land is **currently used for grazing with limited cropping** (RU1 Primary Production zoning).

2) What’s the agricultural production impact (as framed for SEARs)?

The EIS provides a regional-scale “loss of production” estimate, stating the project could lead to the loss of:

- **8% of the total cropping land, or**
- **0.75% of the total agricultural land, within the Goulburn Mulwaree LGA.**

It also frames this as **minimal at a regional scale**, whereas cropping land availability is extremely limited in the region. Gundry Plains is one of the most important in the region.

3) What’s the land capability / soil constraint argument?

Even where mapping suggests better capability, the EIS says on-site soil surveys indicate **lower capability overall**:

- mapped as mostly **Class 4** with some Class 5, but
- soil sampling shows mostly **Class 5 (~82%) and Class 6 (~18%)**. **See:** EIS - Merino Solar Farm

That’s used to argue that **continued cropping may be unsustainable**, and that solar enables continued **compatible grazing** (and land return at decommissioning).

4) Avoid/minimise/manage commitments (the “SEARs-style” mitigation story)

The EIS says the project will:

⁶ BSAL - Biophysical Strategic Agricultural Land

- incorporate **exclusion zones/buffers along drainage lines** to protect waterways/sensitive soils, and maintain local hydrology. See: EIS - Merino Solar Farm
- make **commitments to maximise ongoing agricultural use**, and use operational monitoring so decommissioning returns land to **existing or better capability**. See: EIS - Merino Solar Farm

5) How this ties back to SEARs (explicitly)

The EIS includes a declaration that it **addresses the SEARs**.

It also notes “mandatory matters” considered include **agriculture** (among others).

This is blatantly untrue.

What are the cumulative effects of solar in Gundry plains

The Merino EIS and its Agricultural Impact Assessment identify as the **main cumulative effects of large-scale solar in the Gundry Plains / Gundry–Tirrannaville rural setting**, especially when you consider **Merino + Gundry Solar Farm together**.

1) Cumulative loss or displacement of agricultural production (most material effect)

- The EIS frames the cumulative agricultural effect (with other SSD⁷s, especially Gundry) as “**low to moderate**” in a **worst-case scenario**, and says it would be **reduced if “solar grazing” is implemented across both Merino and Gundry**.
- However, the Agricultural Impact Assessment (AIA) says **livestock production cumulative effects are low–moderate under “worst case” (no grazing)**, but **largely removed / not discernible if solar grazing occurs on both projects in operation**.

In fact, the Gundry Plains (Mitchell Report - Landscape) is the smaller plain/valley area, some locals describe.

A submission on the NSW Planning Portal describes a “**total area**” of **14.5 km² (≈ 1,450 ha)** when discussing cumulative development nearby.

If the “region” – Gundry Plains is nominally the Gundry locality, with one commonly cited locality size as **~107.5 km² (≈ 10,750 ha)**.

Hence “impact” can be skewed by the choice of numbers and in this case the impact is extremely marked by the choice of area, particularly when making a quite skewed relationship to the area of the Goulburn Mulwaree local government area.

⁷ SSD - State Significant Development

Assuming “Gundry Plains” = 1,450 ha (14.5 km²), here’s what the publicly stated project areas imply:

Proposal	Area measure (as published)	Hectares	% of 1,450 ha Gundry Plains
Gundry Solar Farm	Solar footprint	512 ha	35.3%
Gundry Solar Farm	Development footprint	473 ha	32.6%
Gundry Solar Farm	Project site / landholding	708 ha	48.8%
Merino Solar Farm	Development footprint	760 ha	52.4%
Merino Solar Farm	“Across” (reported site area)	767 ha	52.9%

2) Crop production impact is “notable” locally (even though cropping is limited regionally)

- The AIA notes cropping in the **Goulburn Mulwaree Council (GMC⁸)** area is **limited** (about 2,614 ha total crop area), but the **Project area contributes ~150–200 ha annually (6–8% of GMC cropping)**, and says the **loss of crop production from Merino plus additional areas associated with Gundry is likely to be “notable”** in terms of flow-on effects.
- It flags the **most noticeable flow-on impacts** as being to **agronomy/professional services and contracting** linked to cropping.

See Appendix F3 - Agricultural Impac...

3) Cumulative effects on farm support services (crop inputs, contractors, advice)

- The AIA says **support services for crop production are expected to be impacted** by the **cumulative effects of solar projects**, with the **most significantly impacted providers** being local

⁸ GMC – Goulburn Mulwaree Council

GMC businesses supplying **crop consumable inputs and agronomic advice** (seed, fertiliser, crop protection products, advice).

4) Scale and clustering of solar proposals in/near the Gunday Plains

- The AIA⁹'s cumulative table lists **Merino (986 ha)** and **Gunday (702 ha)** and shows a **sub-total of 2,083 ha of solar projects in GMC** (Merino + Gunday + Marulan).

Appendix F3 - Agricultural Impa...

5) Cumulative landscape character / visual change (moderate-low in the Gunday Plains zone)

- The EIS says Merino + Gunday together would cause a “**moderate magnitude of change**” in the **Gunday undulating rural plains Landscape Character Zone**, but overall a “**moderate-low cumulative landscape character impact**” (and **low** in the river/valley zone), not considered significant.

Untrue

EIS - Merino Solar Farm

- It also says the two projects are **unlikely to be simultaneously visible from any dwelling** (landform/vegetation), though they **may be seen sequentially** from vehicles on **Windellama Road**.

EIS - Merino Solar Farm

6) Cumulative construction traffic / noise (localised and timing-dependent)

- The EIS identifies potential **minor cumulative traffic noise** because **Windellama Road is a shared access route** and notes another assessment for Gunday.
- suggested there *may* be cumulative road-traffic noise exceedance risk (contextualised as unlikely if Merino remains below the +2 dB threshold).

EIS - Merino Solar Farm

- It also says **cumulative construction noise is possible if both projects build concurrently at closest points**, but is “**highly unlikely**” if each is managing noise appropriately.

EIS - Merino Solar Farm

⁹ AIA – Agricultural Impact Assessment

7) Biosecurity risk (cumulative) is treated as low with controls

- The AIA states **potential cumulative biosecurity risks are expected to be low with mitigation measures.**

Appendix F3 - Agricultural Impa...

1) Effect of wool contamination (why it matters commercially)

Non-wool contamination is effectively “zero tolerance” in the processing chain. Training material used in the industry notes that processors expect *zero* non-wool contamination (with polypropylene/PP twine as the classic example), and that contamination detected can lead to a lot being withdrawn from sale, with handling/reprocessing costs potentially passed back to the producer.

Industry guidance also notes contamination can trigger **discounts** and financial claims for loss once found in processing.

Solar project pathways that can drive wool contamination risk

On/around solar farms, the practical contamination pathways are usually:

- **Polypropylene / plastic fragments:** bale twine, packaging straps, cable ties, mesh/shade cloth offcuts, geotextiles, silt-fence remnants, feed bags, insulation fragments, etc. (PP products are singled out as a particular problem in wool handling resources).
- **Vegetable matter / weeds:** increased weed pressure from soil disturbance and vehicle movement; seeds/awned grasses can lift VM contamination (and shearers/classers will downgrade lines if it's obvious).
- **Foreign fibres:** high-vis clothing fibres, rags, insulation, synthetic ropes—anything that can get into yards/sheds or paddocks grazed pre-shearing.
- Metal filings, wire, loose steel fragments etc.

What it means for producers (the “effect”)

- **Price and marketability risk:** discounts, downgrades, and reduced buyer confidence (especially if contamination becomes repeat-associated with a district/clip).
- **Direct cost exposure:** extra classing/sorting, rehandling, or claims if contamination is identified post-sale/processing.
- **Operational friction:** more exclusion fencing, more time spent policing rubbish/strapping/twine, extra precautions in shearing/pressing areas if grazing continues.

When you **move or sell livestock**, you must complete movement/assurance paperwork—so any management changes on a solar-grazed property end up needing to be **traceable and defensible**.

NSW baseline movement requirements

NSW guidance says that to move livestock correctly you must have:

- a **PIC**,
- a **National Vendor Declaration (NVD) and/or Transported Stock Statement**, and
- correct **NLIS** tagging, plus welfare fitness-to-load requirements.

LPA / NVD specifics (sheep included)

- To access and use **LPA NVDs/eNVDs**, producers must be **LPA-accredited**.
- LPA guidance also states an **LPA NVD is required for livestock movements** through the supply chain (property-to-property, saleyards, processors, feedlots, etc.).
- NVD completion includes declarations about things like livestock history/management and (for example) **how long you've owned the livestock**.

Practical implication: if a solar operator proposes “solar grazing,” producers will still be expected to maintain the normal assurance/movement declarations—and buyers can be more cautious where they perceive added contamination or biosecurity risk (even if the NVD itself doesn't have a “solar farm” tick-box).

3) Management of risks

This currently does not include:

- **“Zero polypropylene” policy** across site (no PP baling twine/ropes, PP feed bags, loose strapping; mandatory substitution + procurement controls) aligned with the “zero contamination” expectation.
- **Foreign-material and litter audits:** routine paddock sweeps (esp. before shearing), incident reporting, and documented cleanup after storms.
- **Biosecurity + weed hygiene:** vehicle washdown rules, certified weed-free mulch/straw, and monitoring tied to grazing paddocks.
- **Metal on site:** Filings, wire, loose steel fragments etc.
- **Clear allocation of liability:** contract term that contamination costs/discounts attributable to project materials are indemnified (this is often the only thing that makes the risk bankable for a wool enterprise).

What does the EIS propose to control these risks to agriculture?

The Merino Solar Farm EIS (and its Agricultural Impact Assessment, Appendix F3) says it will do to control agriculture risks (including the wool/stock contamination + LPA/NVD declaration issues):

1) Keep agriculture operating via “solar grazing” (sheep), with design controls

The EIS/AIA position is that **grazing can continue under panels** during operation (to reduce the “loss of productive farmland” concern and help manage vegetation/weeds).

No confirmatory advice given

EIS - Merino Solar Farm

Appendix F3 then lists **specific design/management measures** recommended to make sheep grazing workable and reduce animal/wool entanglement/foreign-matter risks, including:

- internal subdivision fencing and access to water
- panel layout to allow mustering and pasture management machinery
- reticulated livestock water system (tanks/pipes/troughs)
- **panel height** to reduce sheep entanglement/access to wiring
- **protect/cover wiring** within reach of sheep to prevent chewing/entanglement
- use **non-shedding sheep breeds** (less rubbing on infrastructure)
- **shear every 6 months** (instead of 12) to reduce wool length and risk of wool catching in infrastructure

Appendix F3 - Agricultural Impa...

2) Biosecurity (weeds/pests/diseases): plan-based controls + monitoring/response timeframes

The EIS frames weeds/spread of biosecurity matter as one of the **highest residual risks**, and proposes to manage it through:

- a **Biodiversity Management Plan (BMP¹⁰)** with **site-specific biosecurity actions**
- a **Pest and Weed Management Plan** as a sub-plan to the BMP, with a **biosecurity plan** that **categorises risks** and sets **response actions/timeframes**, plus monitoring/reporting.

Appendix F3 - Agricultural Impa...

¹⁰ BMP - Biodiversity Management Plan

The EIS also commits to **integrated weed management** (to reduce/delay herbicide resistance) and **monitoring for herbicide resistance**.

EIS - Merino Solar Farm

3) Soil and erosion protection: avoid worst soils + ESCP + soil monitoring/rehabilitation intent

Key soil/land productivity controls described include:

- **avoidance of “highly sodic” areas** unless remediation is proven successful (to avoid structural damage/pollution risks)

EIS - Merino Solar Farm

- an **Erosion and Sediment Control Plan (ESCP)** during construction, aligned to the “Blue Book” stormwater/soil & construction guidance (controls to be finalised at detailed design)

EIS - Merino Solar Farm

- operational intent that the operator will be responsible for **decommissioning/rehabilitation**, supported by monitoring (including contaminant monitoring as part of soil monitoring so decommissioning commitments can be met).

Appendix F3 - Agricultural Impa... and EIS - Merino Solar Farm

4) Agricultural access/operations during construction: traffic + consultation so stock can be moved

Where construction disrupts normal farm movements, the LUCRA mitigation includes:

- a **Traffic Management Plan (TMP)** and **Road Dilapidation Report**, liaison with Council/Transport NSW, monitoring/reporting, and ongoing consultation

EIS - Merino Solar Farm

- communication with landholders (e.g., to enable **livestock to be moved** if operations may disturb them).

Appendix F3 - Agricultural Impa...

5) Chemical/physical contamination and market access declarations (LPA/NVD; wool scheme): the “control” is mostly *risk identification + management*, but the AIA flags a gap

Appendix F3 explains the **new LPA requirement (from 1 Sep 2024)**: farmers must identify **chemical/physical contamination risks** from degrading infrastructure (explicitly citing **solar panels** etc),

and then **detail measures to eliminate/mitigate** those risks. It also notes that **declaring solar grazing** signals perceived risk in the supply chain, even though LPA says it doesn't prohibit the infrastructure.

Appendix F3 - Agricultural Impa...

For wool: it notes the wool scheme (AWSS) is being updated and solar grazing must be treated as a risk with management actions, **but** concludes that **LPA/AWSS don't provide defined mitigation measures compatible with solar grazing** and that the **only clear scheme "mitigation" offered is exclusion of livestock from solar infrastructure**—creating "uncertainty and risk".

Appendix F3 - Agricultural Impa...

So in practical terms: the EIS/AIA "control" response to the declaration/contamination issue is mainly

(a) **designing solar grazing to reduce interaction/entanglement** (panel height, wiring protection, frequent shearing, etc.) and

(b) relying on **management plans + monitoring**, while acknowledging the assurance-scheme uncertainty.

The EIS' proposed controls for agricultural risk are predominantly **plan-based and deferred** (e.g., Biosecurity/Biodiversity Management Plans, Pest and Weed sub-plans, ESCP, monitoring and consultation), and

Its principal "avoid–minimise" response relies on the **assumption that sheep "solar grazing" can be made workable through design and management measures** (panel height, protected wiring, subdivision and water, and more frequent shearing).

NOT PROVEN

Appendix F3 - Agricultural Impa...

EIS - Merino Solar Farm

Appendix F3 - Agricultural Impact...

However, the EIS does **not** resolve the materially different question of **market assurance and declaration compliance**.

Appendix F3 acknowledges that, from **1 September 2024**, LPA declarations require producers to identify and manage **chemical/physical contamination risks from degrading infrastructure (expressly including solar panels)**, and

That "declaring solar grazing" itself signals a perceived supply-chain risk.

Appendix F3 - Agricultural Impa...

It further notes that the wool assurance framework is being updated but that **LPA/AWSS do not provide defined mitigation measures compatible with solar grazing**, with the only clearly articulated scheme response being **exclusion of livestock from solar infrastructure**, creating **ongoing uncertainty and risk** for affected producers.

Appendix F3 - Agricultural Impa...

Accordingly, while the EIS presents mitigation through future plans and operational protocols:

1. It does **not demonstrate—at approval stage—how producers can meet assurance-scheme requirements without loss of market access**
2. **Or unacceptable contamination exposure**, nor
3. Does it commit to enforceable, auditable controls aligned to those declaration obligations.

To summarise: A comparison of Expert (Agricultural Impact and Soil characteristics) vs. EIS

<i>Topic</i>	<i>Expert says</i>	<i>EIS says</i>	<i>What’s missing / mismatch</i>
Verified land capability is materially worse than desktop mapping	AIA explicitly states verified LSC shows lower overall capability than broadscale mapping and identifies “ potentially significant soil-landscape factors ” needing to be addressed across all phases. Appendix F3 - Agricultural Impa...	EIS adopts the same headline: no Class 4 , more Class 5, and a Class 6 component , plus lists soil-landscape issues. EIS - Merino Solar Farm EIS - Merino Solar Farm	The EIS records the reclassification but doesn’t consistently translate it into a clear consequence statement (i.e., what “lower capability” means for constructability, rehab risk, and residual soil risk), beyond generic mitigation language.
Class 6 land is linked to drainage/flood/erodibility incl. tunnel erosion	Soil verification identifies high erodibility and tunnel erosion risk for disturbed dispersive/sodic materials; prevention/avoidance is emphasised because repair can be difficult and costly. Appendix F4 - Soil and Land Cla... Appendix F4 - Soil and Land Cla...	EIS notes Class 6 areas were reclassified due to poor drainage, flood hazard, high erodibility including tunnel erosion , salinity and structural decline. EIS - Merino Solar Farm	The EIS does not clearly carry through a risk-ranked treatment (e.g., “avoid / minimise / engineered controls / monitoring triggers”) specifically for tunnel-erosion-prone soils, despite acknowledging the hazard.

<i>Topic</i>	<i>Expert says</i>	<i>EIS says</i>	<i>What's missing / mismatch</i>
Measured tunnel erosion risk in sampled soils	Soil verification includes lab-based indicators (ESP + Emerson Aggregate Test) and lists multiple samples with “ High ” tunnel erosion risk when disturbed. Appendix F4 - Soil and Land Cla... Appendix F4 - Soil and Land Cla...	EIS references the verified LSC outcomes and lists “tunnel erosion” as a factor, but does not reproduce the lab-driven risk evidence in the same level of specificity. EIS - Merino Solar Farm	Missing: a transparent link from lab results → design constraints → construction method requirements → acceptance criteria (and how these will be enforced through conditions/management plans).
Agricultural income outcome depends on Whether solar grazing actually works	AIA quantifies: -\$5.71m net income (no grazing) vs +\$1.78m (with grazing) and frames the grazing scenario as something that must be enabled by design/management. Appendix F3 - Agricultural Impa...	EIS repeats the grazing-upside framing (including net income increase figures) and treats impacts as mitigable with solar grazing. EIS - Merino Solar Farm	The EIS does not clearly state that the “benefit” case is conditional and should be treated as uncertain unless secured by enforceable commitments (design parameters, grazing plan, stocking limits, infrastructure delivery, monitoring).
Australian evidence base for solar grazing is limited; outcomes uncertain	AIA cautions international findings should be treated carefully (different climates) and notes the need for caution in applying them locally. Appendix F3 - Agricultural Impa...	EIS acknowledges: Australian data is very limited , outcomes uncertain, and more research required. EIS - Merino Solar Farm	What’s missing is the decision consequence : if outcomes are uncertain, the EIS should present a conservative “no-grazing” baseline for impact significance, unless the grazing scenario is locked in by conditions.
Biosecurity / weed control risk includes herbicide resistance	AIA warns that over-reliance on one herbicide creates an “unacceptably high risk” of resistance spreading offsite for key grass weeds.	EIS recommends a vegetation/weed plan and warns resistance is “highly likely” if herbicides are the primary	Missing: clear minimum standards (e.g., integrated weed management requirements, audit frequency, responsibility, triggers and corrective

Topic	Expert says	EIS says	What's missing / mismatch
	Appendix F3 - Agricultural Impa...	control, but remains at recommendation level. EIS - Merino Solar Farm	actions) rather than general commitments.
Dispersive soils management should be prevention-led and often conditioned	Soil verification notes dispersive soils can cause infrastructure damage and environmental harm (incl. tunnel/surface erosion) and that it is often a condition to have a dispersive soils management plan prior to works. Appendix F4 - Soil and Land Cla...Appendix F Soil and Land Cla...	EIS acknowledges erosion/tunnel erosion susceptibility as a soil-landscape factor needing attention through project phases. EIS - Merino Solar Farm	Missing: an explicit commitment that a dispersive soils management plan (or equivalent) will be required pre-construction , with enforceable measures tied to mapped areas and soil types.
Cumulative impacts: experts identify larger effects from solar than lines/wind and highlight crop land exclusion	AIA flags solar projects commonly remove arable land from cropping during the project life and discusses cumulative agricultural implications. Appendix F3 - Agricultural Impa...	EIS adopts a strong conclusion that cumulative impacts are "readily manageable" / "highly supportable" in strategic terms. EIS - Merino Solar Farm	The EIS conclusion reads more definitive than the evidence warrants: it doesn't clearly reconcile project-level farm impacts + regional aggregation over time , especially under "no-grazing" or partial-grazing realities.

Effects of proposal on Goulburn Airport (YGLB)

Question is: What are the matters for glare, location and aviation use?

Airservices' ERSA¹¹ for Goulburn (YGLB) shows it's a **certified aerodrome** with **CTAF¹²/AFRU 127.15**, and notes **intensive parachute activity (including weekends)** and nearby **glider operations**.

The airport has a series of NPA's¹³, which allow for aircraft landing in IFR¹⁴ (Instrument Flight Rules), in poor weather conditions.

These approaches have broad requirements for clearances and no attempt is made to assess these situations in the EIS, nor explain the procedures at the end of an aircraft approach to land including the low level/ circling that occurs and requires good ground clearance and generally within 2NM of the airport.

Goulburn is a non-towered airport, that has requirements to be perpetually kept as a licenced airport (Agreement with Goulburn City Council – circa 1994.

The proposal for the Solar “farm”, could in fact jeopardise that requirement

Through time, Goulburn has become a major hub for aviation training (fixed wing, rotary wing) and parachute training/ routine PJ Ops. This results in low experience pilots and parachutists.

Consequently, that operational mix matters because a glare study that only models straight-in approaches can miss **circuit patterns, jump runs, and non-standard traffic**.

The EIS states FAA “2021 policy” vs an SGHAT “PASS” (they're not the same thing)

The FAA's 2021 policy is specifically for **on-airport solar on federally-obligated towered airports** and is focused on **ocular impacts to the ATCT cab**. It also explicitly **withdraws SGHAT as the FAA's recommended/mandated tool** and says the FAA is **not requiring/endorsing a specific tool**.

So if a report says “SGHAT PASS against FAA 2021 policy”:

- **FAA 2021 policy** isn't really a “pass/fail tool standard” anymore (it's a sponsor-attestation policy for towered airports).
- And **Goulburn has no ATCT** in the first place (CTAF aerodrome).
- An **SGHAT PASS can still be useful**, but it's best described as: *“a glare modelling result consistent with FAA-style ocular hazard criteria”*

This is not “compliance with FAA 2021 policy”

CASA angle: glare isn't prescribed, so they lean on FAA-style guidance + a safety case

A published Australian aviation glare report (Landrum & Brown, Sydney Airport vicinity) states:

¹¹ ERSA – Enroute Supplement Australia

¹² CTAF – Common Traffic Advisory Frequency

¹³ NPA's – Non precision approaches

¹⁴ IFR – Instrument Flight Rules

- **CASA does not publish specific regulations in relation to solar glare** and instead expects a **safety case**; and
 - the assessment used a tool aligned to FAA policy and notes **CASA accepts the FAA test**.
-

For Merino Solar Farm’s EIS (near Goulburn Airport)

The NSW Planning Portal lists **Merino Solar Farm (SSD-59155459)** as on **public exhibition in Goulburn Mulwaree**.

Given the “SGHAT PASS” claim and CASA’s stance, the practical questions become:

1. What exactly was modelled?

Ensure observation points include **runway thresholds + approach/departure corridors + circuit legs**, and account for **parachute and glider activity** noted for YGLB.

2. What does “PASS” mean in the report’s own criteria?

Many studies still use the older FAA¹⁵-style “no glare/low after-image on approach” constructs even though FAA 2021 refocused on ATC¹⁶’s.

3. What’s the control/mitigation commitment if reality differs?

Because CASA frames this as a safety case rather than a prescriptive rule-set (FAA style), typically consent conditions in the EIS do not have:

- independent peer review of inputs/flight paths,
- final layout re-run of glare modelling before construction,
- operational complaint pathway with the aerodrome operator, and
- enforceable mitigation (panel re-tilt, screening, selective deactivation, etc.) if glare is observed.

CASA¹⁷ say:

The Civil Aviation Safety Authority (CASA) generally advise that large scale solar farms are very unlikely to be a hazard to aircraft operations unless they are very close to, and aligned with, an airport’s approach or take off paths (***within 2 nautical miles***).

EIS page 186

See attached

¹⁵ FAA – Federal Aviation Administration

¹⁶ ATC – Air Traffic Control

¹⁷ CASA – Civil Aviation Safety Authority

But, there is no addressing of this requirement. See Diagram below for impact zone.

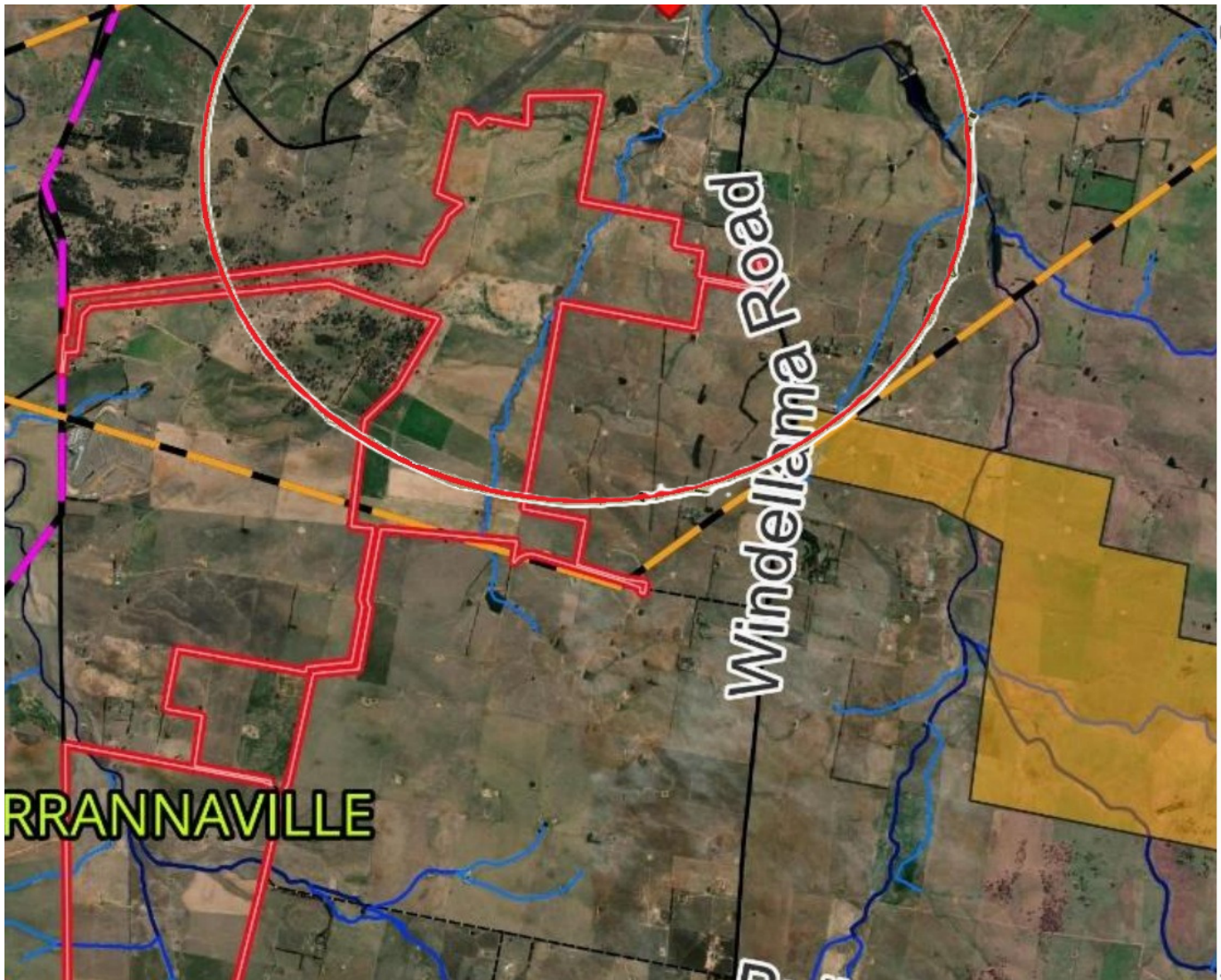
2 NM [Nautical buffer from ARP of Goulburn airport]

This enables local manoeuvring area around the VFR and IFR procedures and in poor weather.

Further, with PJOps¹⁸, there is a high probability of off-field landings and any @build environments@ will increase risk to both operators and participants.

The diagram below shows the 2NM circle to the south of the airfield, where there should be no increased risks attributed from any source.

No solar panels in the area would negate the clear risk.



¹⁸ PJOps – Parachute Ops

EIS, fails to meet part 139 and Part139 – MOS¹⁹

APPLICATION OF AERODROME STANDARDS

Advisory Circulars are intended to provide advice and guidance to illustrate a means, but not necessarily the only means, of complying with the Regulations, or to explain certain regulatory requirements by providing informative, interpretative and explanatory material.

Advisory Circulars should always be read in conjunction with the relevant regulations.

Audience

This advisory circular (AC) applies to:

- aerodrome owners/operators
- consultants engaged to act on behalf of the aerodrome owner/operator
- the Civil Aviation Safety Authority (CASA).

Purpose

This AC provides supplementary guidance to all aerodrome operators on the:

- application of aerodrome certification under Part 139 of the *Civil Aviation Safety Regulations* 1998 (CASR) and the subsidiary Part 139 MOS
- timeframes and requirements for transitioning to the revised Part 139 MOS
- scalable certification standards based on the complexity of aerodrome operations
- determination and nomination of key aerodrome facilities
- 'grandfathering', upgrade and replacement of aerodrome facilities
- election to 'opt-in' to revised standards
- identification and management of non-compliant facilities
- identification and management of non-preferred elements in the Part 139 MOS

¹⁹ MOS Manual of Standards

AC-139-21 at 4.2.4.4 applies to the threshold of RWY 04

This is NOT applied.

4.2.4.4 Unlike the VSS for localiser or look-alike lateral guidance, each side of the VSS diverges away from the approach baseline along a 15% splay. Refer to the lower part of Figure 7 below.

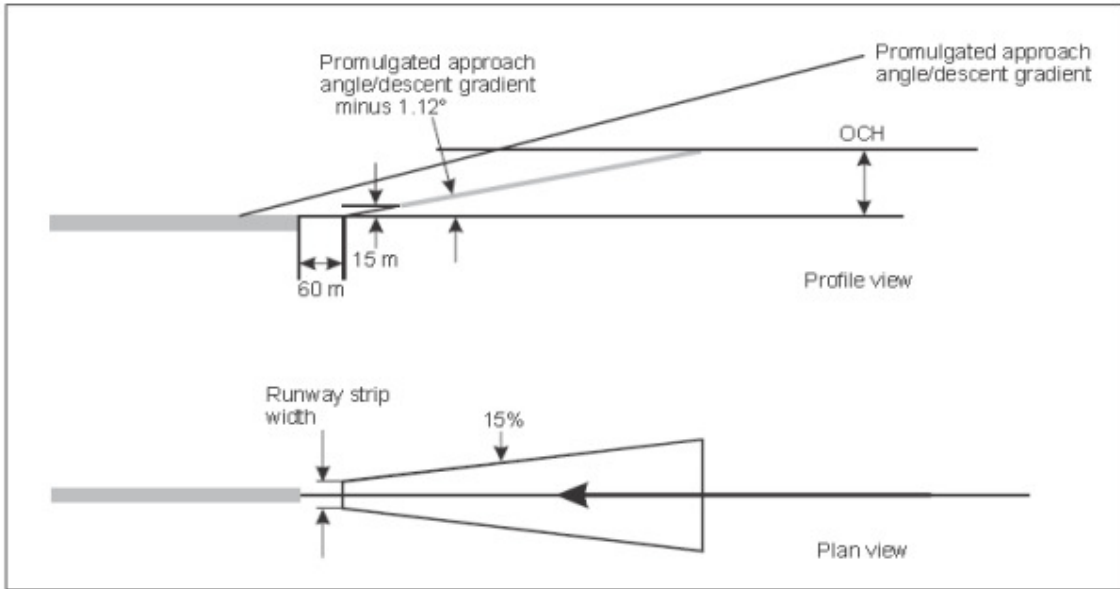


Figure 7: The VSS of other approach procedures for a normal straight-in approach⁵

⁵ Figure sourced from PANS-OPS Vol II

OFFICIAL

Further, there is no reference to the standards as:

1. ICAO annex 14 volume 1 aerodrome design and operations;
2. The impact within the 2NM zone, which incorporates, core aerodrome elements:
 - a. Circling area;
 - b. Low cloud zone
 - c. Clearance/ safety requirements for circling off a non-precision approach.

EIS fails to compute AC139-21 Version 1.1

[Visual segment surface monitoring requirements and the reporting of obstacles]

For **Goulburn Airport (YGLB) RWY 04**, the “approach offset” question in **VSS / PANS-OPS** terms boils down to: **is the published final approach course runway-aligned, or is it offset (angled or laterally displaced) from the RWY 04 centreline?**

1) What instrument procedure at YGLB RWY 04

Airservices’ DAP chart list shows there is an **RNP RWY 04** procedure for **Goulburn (YGLB)**.

Airservices’ community material for Goulburn indicates the “new approach procedure to Runway 04 will be **aligned with the runway**”, after shifting east (described as up to ~1.5 km).

That strongly suggests **the current RWY 04 final approach course is not an “offset final”** (i.e., the *procedure* was changed to be runway-aligned).

2) How to confirm the “offset” from the published chart (the practical test)

On the **RNP RWY 04** plate, look for the **Final Approach Track / inbound course** and compare it to the **runway centreline bearing**.

- **Offset angle (degrees) = | Final Approach Track – RWY 04 bearing |**
- If that value is effectively **0° (or within rounding/variation)** → treat as **runway-aligned** for VSS purposes (i.e., no offset adjustment needed).

3) If it *is* offset, what VSS rule applies (the CASA method)

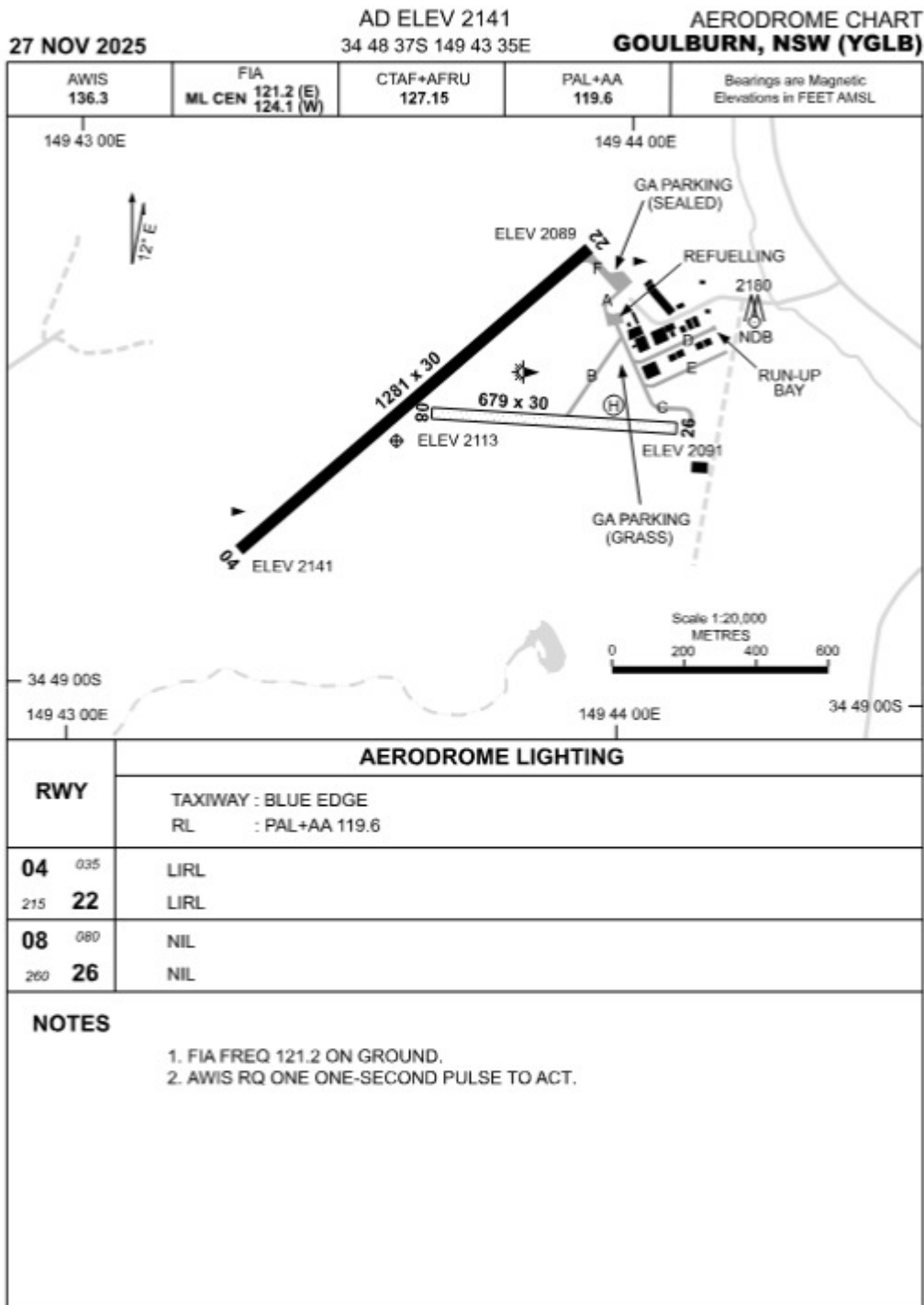
CASA’s VSS guidance (AC 139-21) uses two cases:

Case A — offset final approach course *intersects* the extended runway centreline

→ **Increase the VSS splay on the side closest to the final approach course by the offset angle.**

Case B — offset final approach course does *not* intersect the extended runway centreline (i.e., it’s laterally displaced/parallel)

→ **Increase the VSS splay closest to the final approach course by the amount equal to the offset at 1,400 m from the threshold.**



Changes: RUN-UP BAY ADDED. Editorial.

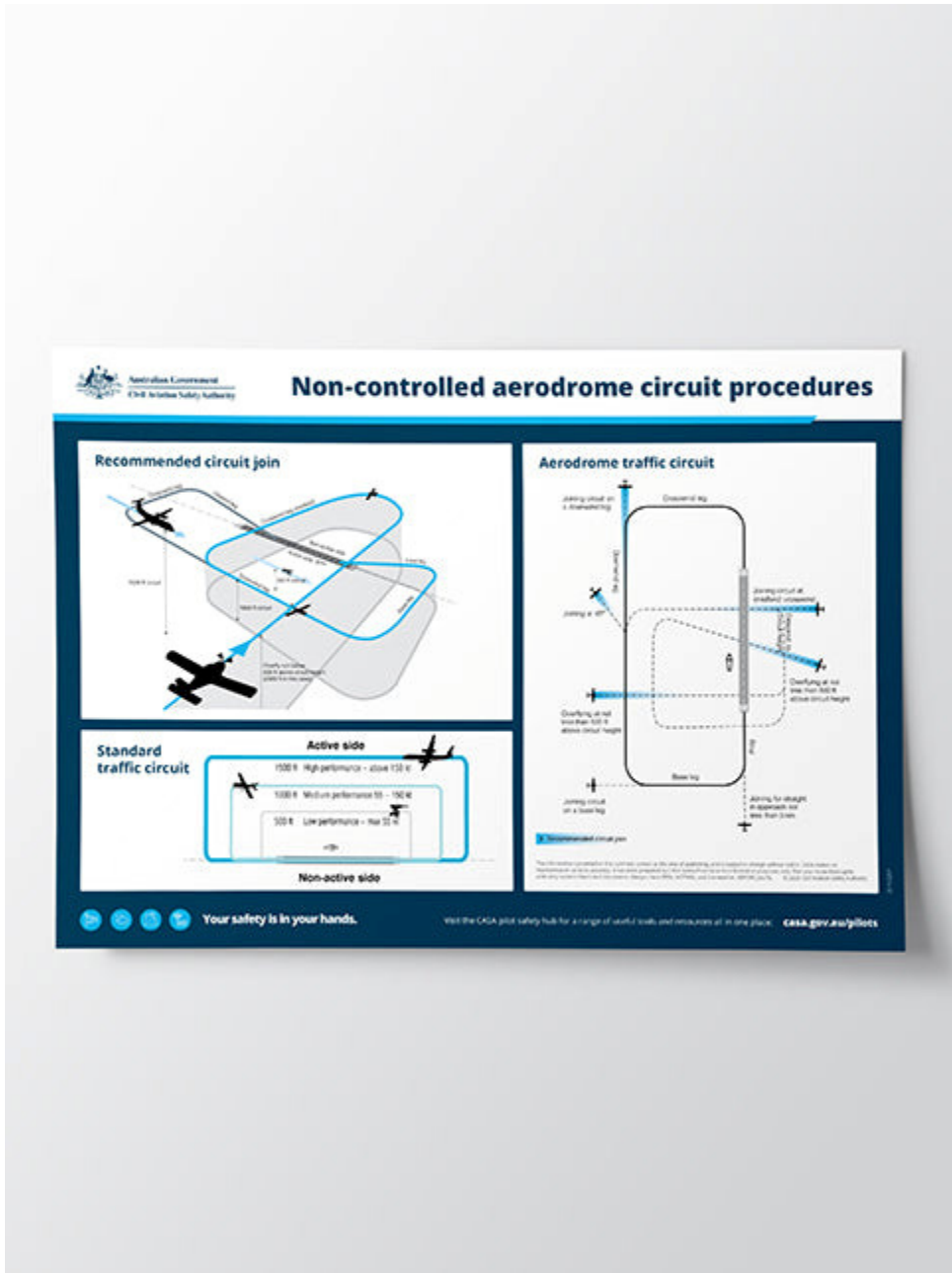
GLBAD01-185

© Airservices Australia



Here's a **clean, planning-ready diagram explanation** of a **non-controlled aerodrome layout with IFR approaches**, written so it lines up with CASA/ICAO conventions and can be used in reports or submissions.

Non-controlled aerodrome – typical layout (with IFR)



1. Core aerodrome elements

At a **non-controlled aerodrome** (no ATC tower):

- **Runway(s)**
 - Shown with magnetic headings (e.g. RWY 04/22).
 - **Apron & terminal**
 - Typically offset from runway centreline.
 - **Windsock**
 - Near runway / apron for visual conditions.
 - **CTAF**
 - Mandatory broadcast area (usually 10 NM radius).
 - **AWIS**
 - Weather broadcast (often co-located on field).
-

2. Airspace context (no control tower)

- **No control zone (CTR)**
 - Aircraft self-separating using CTAF.
 - **Overlying controlled airspace**
 - Often **Class E or D** starting at a published altitude (e.g. 2,500–3,800 ft).
 - **IFR aircraft**
 - May operate **in IMC** without ATC at the aerodrome itself, provided separation rules and published procedures are followed.
-

3. IFR approach paths (key planning issue)

Even though the aerodrome is non-controlled, **published IFR procedures still exist.**

Typical examples:

RNAV (GNSS) approach

- **Straight-in or offset final** aligned with runway centreline
 - **Final approach course** extends several kilometres beyond the runway threshold
-

- **Missed approach path** continues straight ahead or turns to a holding fix

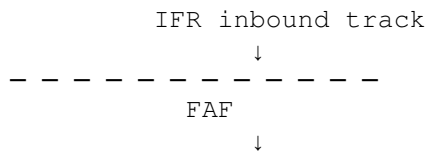
Legacy ground-based aid (if present)

- **NDB or VOR approach**
- Wider lateral tolerances than GNSS
- Often longer straight-in segments

These paths are **critical** for:

- obstacle limitation surfaces (OLS),
 - glare assessments,
 - wind/solar/wind-farm risk envelopes.
-

4. Conceptual plan-view (text diagram)



↑
Missed approach
climb-out path

Apron / terminal offset to one side
Windsock near runway
CTAF applies within 10 NM

For **non-controlled aerodromes**, proponents often argue “no tower = low risk”.

That is **not correct** where **IFR procedures exist**, because:

- IFR aircraft fly **fixed, repeatable tracks**
- Final approach and missed-approach paths are **protected surfaces**
- Glare, turbulence, wake, and obstacle intrusions must be assessed **against IFR geometry**, not just VFR circuits

IFR requirements:

AIP Australia

27 NOV 2025

FAC YGLB - 1

GOULBURN

ELEV 2141

AVFAX CODE 2112

NSW

UTC +10

YGLB

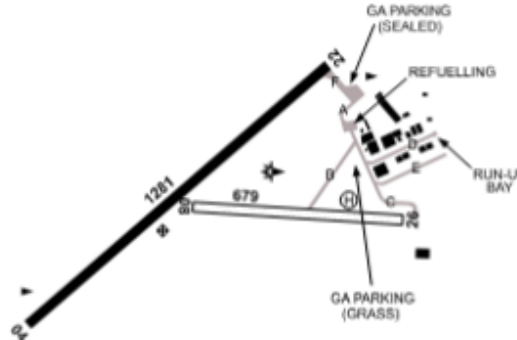
344837S

1494335E

VAR 13 DEG E

CERT

AD OPR John Ferrara Pty Ltd, PO Box 844, Goulburn, NSW, 2580. ARO 0403 368 933.



REMARKS

1. AD Charges: All ACFT.
2. PPR for OPS on TWY A PRKG bay. CTC ARO 0403 368 933.
3. RWY 04/22 not AVBL to ACFT BLW 650KG on weekends EXC with 60MIN PN to ARO.
4. TWY D access:
 - a. Per movement BLW 1.5 tonne \$20.00 plus GST.
 - b. Per movement ABV 1.5 tonne CTC AD OPR or \$100.00 plus GST.

HANDLING SERVICES AND FACILITIES

AVGAS Bowser H24 (Credit Card and Aero Refuellers card only). JET A1 from tanker. Call-out fee H24. Phone 0403 368 933.

METEOROLOGICAL INFORMATION PROVIDED

1. TAF CAT D, METAR/SPECL.
2. AWIS PH 02 9353 6422 - Report faults to BoM.
3. AWIS FREQ 136.30 (requires one-second pulse to activate) - Report faults to AD OPR.

PHYSICAL CHARACTERISTICS

04/22	035	42a	Unrated.	WID 30	RWS 90
08/26	079	22c	Unrated. Grassed red clay	WID 30	RWS 70

AERODROME AND APPROACH LIGHTING

RWY 04/22 LIRL PAL+AA 119.6

OTHER LIGHTING

TWY LGT: Blue edge.

ATS AND AERODROME COMMUNICATION FACILITIES

FIA	MELBOURNE CENTRE	121.2 to E - On ground (121.2)
FIA	MELBOURNE CENTRE	124.1 to W

RADIO NAVIGATION AND LANDING AIDS

NDB GLB 407 344825.8S 1494413.8E Range 40 (HN 40)

LOCAL TRAFFIC REGULATIONS

PRKG not AVBL on central grassed area TWY A, TWY B, APN and both RWY due PJE OPS.

CTAF - AFRU 127.15

AIP Australia

27 NOV 2025

FAC YGLB - 2

ADDITIONAL INFORMATION

1. Ultralight training activity in vicinity of AD.
2. PJE OPS FM FL150 OHD AD. Intensive PJE activity on weekends.
3. MIL PJE OPS may occur HJ HN, WI 25NM radius AD, exit height up to FL250. During validity of any MIL PJE NOTAM, all ACFT are requested to contact CS SNOWBIRD or DZSO on CTAF 127.15 prior to start up at AD or MNM 25NM from AD on arrival. Canopies can be high opening and transiting to land at AD for up to 30MIN. Refer to MIL PJE NOTAM for current DZSO contact details and operating area.
4. Glider OPS at Towrang airstrip, 035 DEG 12NM to NE Goulburn, JF HJ. Winch launch to 4,500FT. Goulburn CTAF 127.15 monitored by gliders.

CHARTS RELATED TO THE AERODROME

1. WAC 3456, 3457.
2. Also refer to AIP Departure and Approach Procedures.

RUNWAY DISTANCE SUPPLEMENT

27 NOV 2025

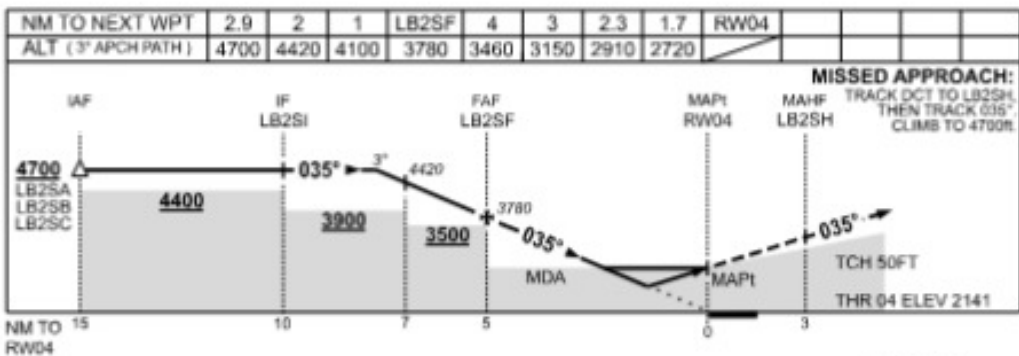
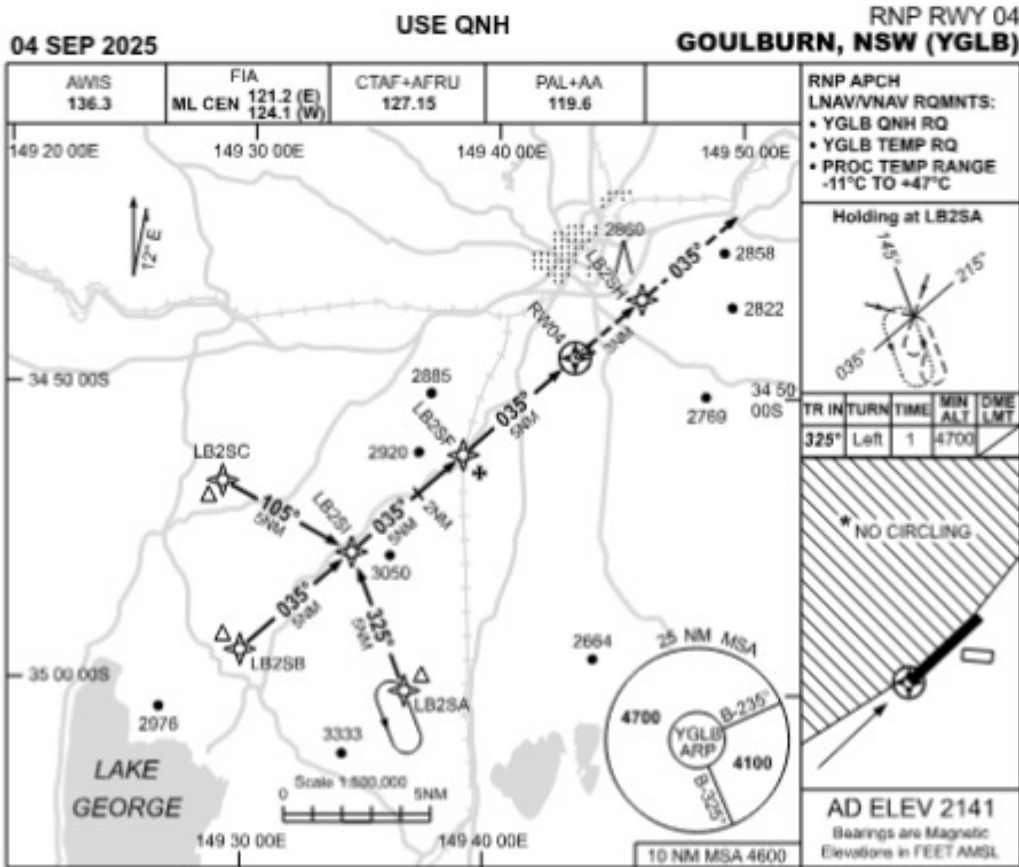
RDS YGLB - 1

GOULBURN

RWY	(CN)	TORA	TODA	ASDA	LDA
04	(3)	1281 (4203)	1342 (4403) (2.57%)	1281 (4203)	1281 (4203)
RESA dimensions 61M X 90M commences from RWY end.					
22	(3)	1281 (4203)	1342 (4403) (2.42%)	1281 (4203)	1281 (4203)
RESA dimensions 61M X 90M commences from RWY end.					
Fences 6.6FT ABV RWS end and PARL to RWY 22, 91.4M N and S of RCL not taken into account in calculation of TODA GRAD and STODA.					
Slope 1.2% down to NE. RWY WID 30 RWS WID 90 Graded 90					
08	(1)	679 (2228)	739 (2425) (3.8%)	679 (2228)	679 (2228)
RESA dimensions 60M X 75M commences from RWY end.					
26	(1)	679 (2228)	739 (2425) (3.1%)	679 (2228)	679 (2228)
RESA dimensions 60M X 75M commences from RWY end.					
Slope 0.9% down to E. RWY WID 30 RWS WID 70					

SUPPLEMENTARY TAKEOFF DISTANCES

RWY04- 1007(3304)(1.9) 1162(3812)(2.2) 1308(4291)(2.5)
 RWY22- 998(3274)(2.2)



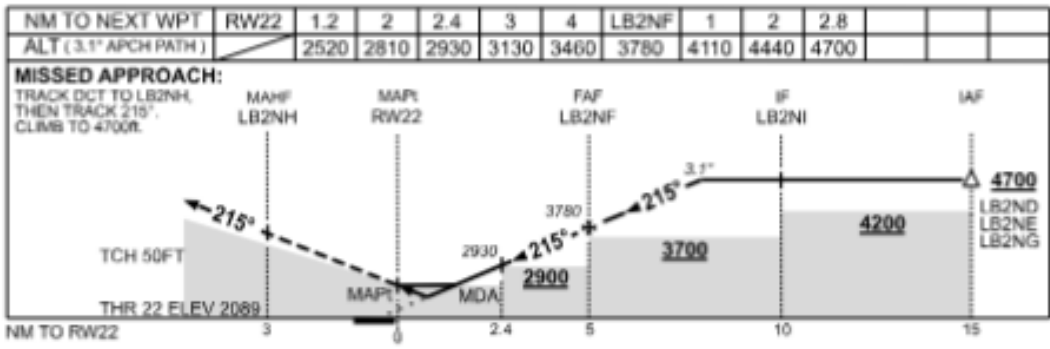
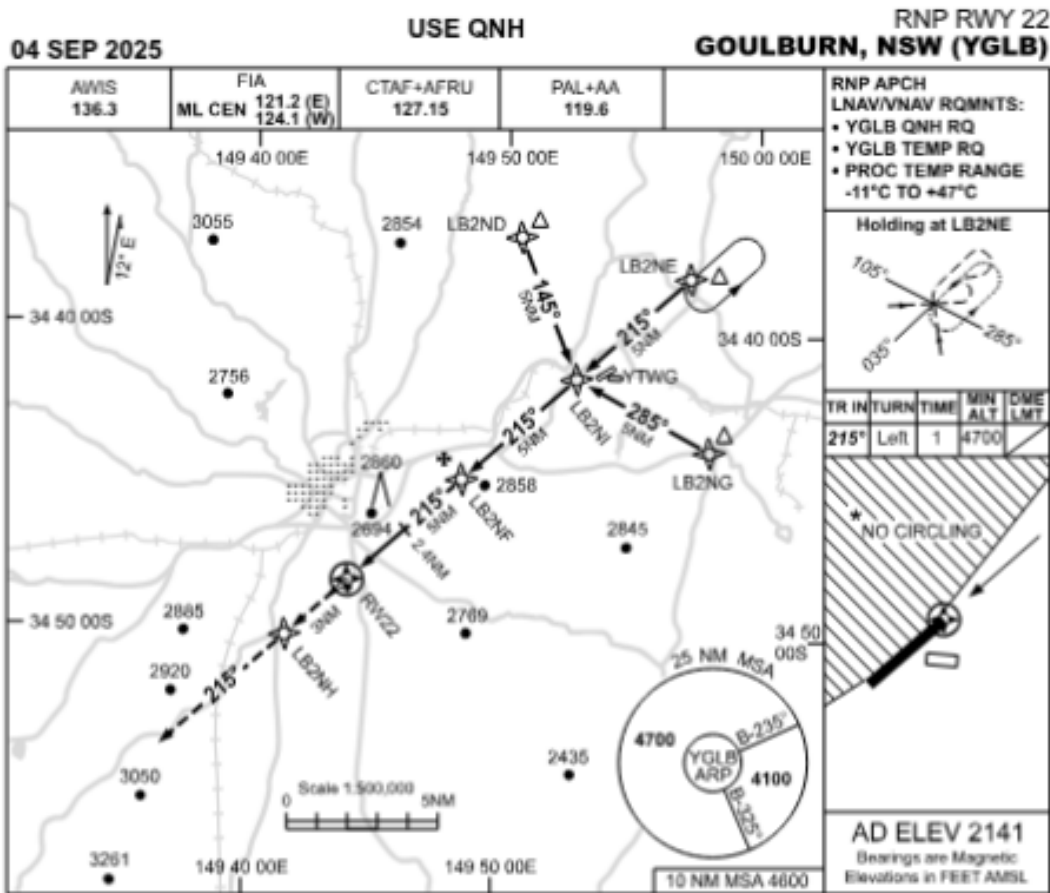
NOTES

- MAX IAS: INITIAL : 220KT.
- NO CIRCLING N OF RWY 04 / 22.

CATEGORY	A	B	C	D
LNAV/VNAV		2720 (579-3.3)		NOT APPLICABLE
LNAV		2910 (769-4.4)		
CIRCLING *	3290 (1149-2.4)		3520 (1379-4.0)	
ALTERNATE		(1649-4.4)		(1879-6.0)

Changes: LB2SB ALT, HOLD MOVED, WPT NAMING CONVENTION GLBGN01-184





NOTES

- MAX IAS: INITIAL - 210KT.
- * 2. NO CIRCLING N OF RWY 04 / 22.

CATEGORY	A	B	C	D
LNAV/VNAV	2520 (431-2.4)			NOT APPLICABLE
LNAV	2810 (721-4.0)			
CIRCLING *	3290 (1149-2.4)	3520 (1379-4.0)		
ALTERNATE	(1649-4.4)		(1879-6.0)	

Changes: WPT NAMING CONVENTION.

GLBGN02-184



**GNSS ARRIVAL PROCEDURES
GOULBURN, NSW (YGLB)**

15 JUN 2023

AWIS 136.3	FIA ML CEN 121.2 (E) 124.1 (W)	CTAF+AFRU 127.15	PAL+AA 119.6	Bearings are Magnetic Elevations in FEET AMSL
---------------	--------------------------------------	---------------------	-----------------	--

REFERENCE WAYPOINT GLB NDB

25 NM MSA
4700 GLB NDB 4100
B-235°
B-325°
10 NM MSA 4600
GLB NDB 407
* NO CIRCLING NORTH OF RUNWAY 04/22.
AD ELEV 2141

SECTOR A

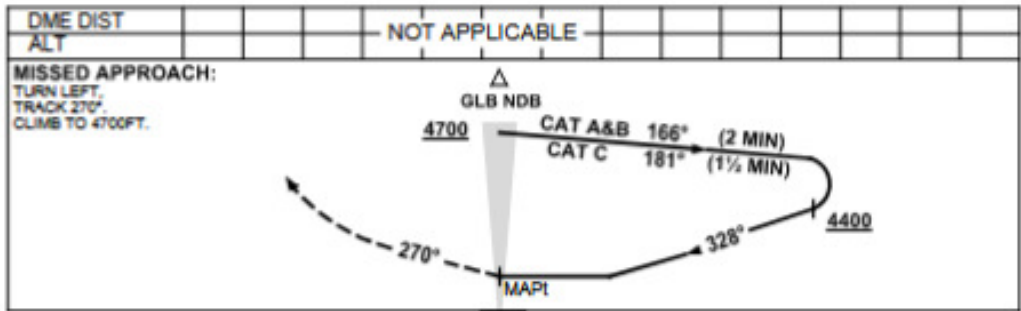
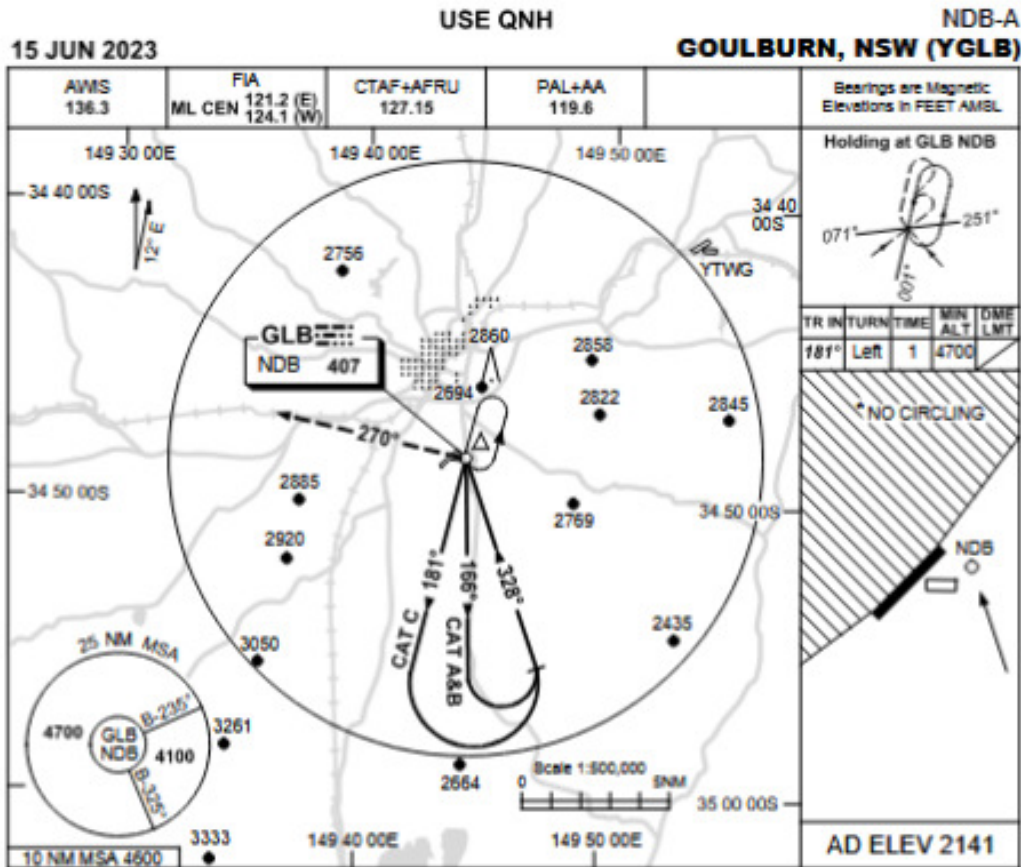
GLB NDB
017° 312°
4700 4500 4300 3600 3600 MDA 4700
3° 4560 236°
NDB
MISSED APPROACH:
TURN LEFT,
TRACK 236°.
CLIMB TO 4700FT.

NM TO GLB NDB	25	15	12	8	6	5	2	0											
CIRCLING MINIMA				A,B: 3290-2.4		C: 3520-4.0		D: N/A											
NM TO GLB NDB	5.5	5	4	3	2	1.7	1												
ALT (3° APCH PATH)	4700	4560	4240	3920	3600	3520	3290												

SECTOR B

GLB NDB
018° 311°
4800 4500 3800 3600 3600 MDA 4700
3° 270°
NDB
MISSED APPROACH:
TURN AS
APPROPRIATE,
TRACK 270°.
CLIMB TO 4700FT.

NM TO GLB NDB	25	15	11	7	5	4	2	0											
CIRCLING MINIMA				A,B: 3500-2.4		C: 3520-4.0		D: N/A											
NM TO GLB NDB	5.8	5	4	3	2	1.7													
ALT (3° APCH PATH)	4800	4560	4240	3920	3600	3500													



NOTES

1. MAX IAS:
INITIAL : 210KT.
MAP TURN : 210KT.
- * 2. NO CIRCLING N OF RWY 04/22.

CATEGORY	A	B	C	D
CIRCLING *	3290 (1149-2.4) 3520 (1379-4.0)			NOT APPLICABLE
ALTERNATE	(1649-4.4) (1879-6.0)			

Changes: WINCH AND GFY OPS SYMBOL REMOVED. GLBNB01-175

