

# Submission on the Victoria–NSW Interconnector West (VNI West)

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**Author:** Dr Anne S. Smith – Rainforest Reserves Australia

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## Abstract

This submission presents a formal legal opposition to the Victoria–New South Wales Interconnector West (VNI West) transmission project, exposing its unlawful trajectory and the catastrophic risks it poses to the ecological, cultural, climatic, and legal fabric of south-eastern Australia. While publicly framed as an energy transition infrastructure initiative, the project in fact constitutes a textbook case of systemic regulatory evasion, proponent capture, and legislative betrayal. Its progression reflects a wholesale failure to comply with the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act), particularly sections 18, 18A, 74(3), 82 and 145, and represents an existential threat to what remains of Australia's environmental rule of law.

The devastation embedded in the VNI West project cannot be overstated. It proposes to slice a massive industrial corridor through some of the most ecologically intact, culturally significant, and agriculturally productive landscapes in Australia. Critically endangered species such as the Swift Parrot, Regent Honeyeater, Superb Parrot, and Southern Greater Glider stand to lose irreplaceable habitat. Floodplain ecosystems, remnant woodlands, and Ramsar wetlands face irreversible fragmentation. The linear infrastructure will act as a heat-amplifying, fire-prone corridor across drought-stressed land. The project fails to assess or mitigate toxic legacies such as PFAS contamination, microplastic leaching, or the long-term bioaccumulative effects on surrounding food-producing land. No modelling has been released to estimate transmission-induced bushfire ignition, and no attempt has been made to quantify the chemical burden imported through project materials.

The procedural breaches are equally grave. The referral under the EPBC Act omits cumulative impacts from the interlinked EnergyConnect and HumeLink projects—despite their converging at the same Dinawan substation hub—violating section 74(3). The failure to conduct an independent Environmental Impact Statement (s.82), and the deliberate omission of material environmental risks, renders the project's federal approval susceptible to revocation under section 145. The approval process also stands in breach of Australia's international obligations under the Ramsar Convention, JAMBA, CAMBA, ROKAMBA, the Paris Agreement, and the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP). Critically, there has been no evidence of free, prior, and informed consent from First Nations custodians of the affected lands.

This assault on environment, heritage and law is occurring at a time when the Federal Government is actively seeking to amend or repeal core sections of the EPBC Act under the so-called “Nature Positive Plan.” VNI West proves—without ambiguity—that the current legislation is not being enforced. It proves that the government cannot be trusted with the legal instruments it already has. To weaken the EPBC Act under such circumstances is not reform—it is abdication. It is the final removal of the last legal guardrails standing between industrial-scale devastation and intergenerational responsibility.

This submission therefore does not merely identify breaches—it issues a legal warning. Any government, minister, agency or statutory authority that permits this project to proceed in its current form risks future legal action for administrative illegality, failure to consider relevant considerations, misfeasance in public office, and complicity in the unlawful degradation of nationally protected matters. VNI West is not a symbol of progress. It is a legal liability dressed in transmission wires, an ecological demolition underwritten by political negligence. Its approval cannot be allowed to stand.

## 1. Introduction

The Victoria–New South Wales Interconnector West (VNI West) project, despite its presentation as a nation-building energy initiative, constitutes one of the most profound threats to Australia’s environmental rule of law, ecological integrity, and community rights in recent history. Framed as an essential link in the transition to renewable energy, the proposal in fact represents a paradigmatic case of environmental deregulation and procedural evasion, carried out under the guise of urgent infrastructure delivery. This submission presents an uncompromising legal critique of the project’s compliance with domestic environmental law, international treaty obligations, administrative standards, and constitutional principles.

This submission focuses in particular on the multiple, interrelated breaches of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act), including sections 18, 18A, 74(3), 82, and 145. It also exposes the project’s incompatibility with key requirements under the New South Wales State Significant Infrastructure (SSI) regime, alongside its failure to conduct a lawful and adequate cumulative environmental impact assessment. Beyond domestic law, the project contravenes Australia’s obligations under international instruments including the Ramsar Convention, JAMBA, CAMBA, ROKAMBA, the Paris Agreement, and the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP).

The assessment pathway chosen—reliant on bilateral arrangements and proponent-driven environmental assessments—has facilitated a circumvention of transparency, community engagement, and independent review. This process has been marked by systemic omissions: from the failure to consider cumulative effects of co-located transmission projects at Dinawan, to the non-disclosure of per- and polyfluoroalkyl substance (PFAS) contamination, fire risk, and misrepresented carbon accounting.

Critically, this project unfolds amidst an active governmental agenda to amend or dilute the EPBC Act itself. VNI West illustrates why such legislative reform poses an existential threat to environmental governance in Australia. It demonstrates that even with the Act in its current form, regulatory capture and legal avoidance can prevail. If statutory protections are further weakened, as proposed under the so-called “Nature Positive Plan,” then projects of this scale will proceed without legal restraint, irrevocably damaging landscapes, communities, and democratic oversight.

This submission thus provides a rigorous and structured legal case for why the VNI West project cannot lawfully or ethically proceed. It calls not merely for regulatory compliance, but for the reassertion of the rule of law in environmental decision-making, where justice is not displaced by expedience, and where the future of biodiversity, land, and people is afforded the dignity of legal protection.

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## 2. Project Location and Landscape

The Victoria–NSW Interconnector West (VNI West) is proposed as a new 500 kV double-circuit transmission line linking the NSW/Victoria border near Murrabit to the Dinawan substation south of Jerilderie, with extensions toward Wagga Wagga and future connections

into the Gugaa substation. The project corridor traverses a highly sensitive landscape within the Murray–Darling Basin, cutting across productive floodplains, remnant woodland habitats, and established cultural landscapes. Its alignment follows a north-east trajectory, crossing through the Swan Hill–Barham region, the Moulamein–Deniliquin–Jerilderie corridor, and into the Riverina Plains before terminating at Dinawan.

This section sets out the geographic context, key landscape features, and the project footprint. These attributes establish why the corridor is ecologically, hydrologically, and socially vulnerable to disruption and why the clearance and construction of such a high-voltage interconnector is inconsistent with Australia’s obligations under the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act).

## **2.1 Geographic Context**

The project footprint lies within the Riverina bioregion, a flat alluvial plain characterised by extensive floodplains of the Murray and Edward Rivers, together with tributary systems feeding the Billabong and Wakool catchments. These floodplains support nationally significant ecosystems, including River Red Gum (*Eucalyptus camaldulensis*) forests and Black Box (*Eucalyptus largiflorens*) woodlands, both of which are recognised as Matters of National Environmental Significance (MNES) due to their role as critical habitat for threatened woodland birds and aquatic fauna (Queensland DESI, 2024a; DCCEEW, 2025).

The corridor is not a vacant landscape: it intersects rural townships such as Barham, Deniliquin, Jerilderie, and Coleambally, all of which rely on irrigated agriculture. These regions are embedded within one of Australia’s most productive farming systems, with deep reliance on irrigation channels and water security derived from the Murray–Darling Basin Plan (MDBA, 2022). The construction of wide easements across these floodplains and farmland areas has the potential to degrade soil fertility, alter hydrological flows, and reduce agricultural productivity.

## **2.2 Landscape Features**

The character of the corridor is defined by its mosaic of hydrology, remnant vegetation, and cultural landscapes. Key features include:

### **a) Landforms and geology**

The Riverina is underlain by Quaternary alluvium, with deep clay and silt deposits prone to waterlogging and salinity when disturbed (Queensland DESI, 2024b). Transmission construction involving deep excavation for footings and towers risks mobilising saline soils and destabilising fragile floodplain surfaces, particularly in the Moulamein–Deniliquin sector.

### **b) Protected areas and connectivity**

The corridor intersects areas mapped as state-significant remnant vegetation and terrestrial corridors (Queensland DESI, 2024a). It also passes within proximity of Barmah National Park and the Murray Valley Regional Park, both of which support endangered woodland bird assemblages such as the Regent Honeyeater (*Anthochaera phrygia*) and Swift Parrot (*Lathamus discolor*) (BirdLife Australia, 2023). Linear clearances of 60–80 metres for high-voltage easements fragment canopy connectivity across these critical habitats.

### **c) Hydrology and floodplain values**

The Murray–Darling Basin is the largest and most regulated river system in Australia, sustaining not only agriculture but also internationally significant wetlands such as the Barmah–Millewa Forest Ramsar site. Transmission construction across floodplains introduces sedimentation, compaction, and drainage disruption that alter natural overbank flows, weakening the ecological health of floodplain wetlands (Brodie et al., 2017).

### **d) Remnant corridors and ecological connectivity**

Despite centuries of clearing, the Riverina Plains still retain corridors of River Red Gum along waterways and native woodland patches critical for dispersal of fauna. These act as north–south linkages for migratory birds and as stepping-stones for woodland mammals such as koalas. Fragmentation of these corridors by linear easements represents an irreversible break in landscape connectivity, placing already vulnerable species at heightened risk of local extinction (Lindenmayer et al., 2013).

## **2.3 Project Footprint**

Although framed as linear infrastructure, the VNI West proposal entails a significant physical and ecological footprint.

### **a) Scope of works**

The interconnector involves construction of approximately 180 kilometres of 500 kV double-circuit transmission line within NSW, together with substation upgrades at Dinawan and a future Gugaa substation near Wagga (Powerlink Queensland, 2023; DCCEEW, 2025). Each tower requires large concrete foundations, crane pads, and access tracks, all of which extend beyond the immediate tower base.

### **b) Easements and clearance width**

High-voltage 500 kV lines require easements of at least 80 metres, maintained as permanently cleared corridors for electrical safety (Powerlink Queensland, 2023). This produces a continuous scar through remnant vegetation and farmland, with long-term suppression of regrowth and increased vulnerability to weed invasion and fire spread.

### **c) Receiving environment sensitivity**

The corridor lies across irrigation landscapes, Ramsar-listed wetlands, and remnant woodlands of state significance. Each represents high-value habitat for Matters of National Environmental Significance under the EPBC Act, including migratory bird species and threatened woodland fauna (DCCEEW, 2025). The sensitivity of these landscapes magnifies the risk of ecological degradation from transmission construction.

### **d) Regional cumulative footprint**

The VNI West corridor does not exist in isolation. It converges at Dinawan with two other mega-projects—EnergyConnect and HumeLink—each requiring extensive easements and substations. The combined footprint of these projects amounts to thousands of hectares of cleared land, creating a cumulative impact corridor stretching from the South Australian border to Wagga. Such a concentration of industrial transmission lines has never before been imposed on the Murray–Darling Basin, and its scale demands full cumulative assessment under the EPBC Act (Strickland v Commonwealth, 2014).

In summary, the proposed alignment of the VNI West interconnector cuts through a landscape of extraordinary ecological, cultural, and agricultural value. Far from being a neutral corridor, the route overlays floodplain systems that sustain Ramsar-listed wetlands, traverses remnant woodland critical for threatened species, and intersects productive farmlands central to regional identity and national food security. The footprint of easements, substations, and access infrastructure is not transient—it represents a permanent reclassification of landscapes from living ecosystems and working farms into industrial corridors. When compounded by the convergence of EnergyConnect and HumeLink at Dinawan, the VNI West proposal initiates a cumulative scar across the Murray–Darling Basin that is incompatible with both the precautionary principle and the statutory purpose of the EPBC Act. This landscape is not expendable; its protection is integral to the ecological resilience, agricultural viability, and cultural continuity of south-eastern Australia.

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### **3. Environmental and Ecological Impacts**

The Victoria–NSW Interconnector West (VNI West) is proposed within one of the most biologically significant and ecologically fragmented regions of south-eastern Australia. The Murray–Darling Basin, though extensively cleared, continues to support remnants of floodplain forests, temperate woodlands, and wetland systems that serve as refuges for threatened species and migratory birds. These ecosystems are formally recognised under the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) as Matters of National Environmental Significance (MNES). Any degradation of their integrity through habitat clearance, fragmentation, chemical pollution, or acoustic disturbance represents a clear statutory breach. The following subsections identify the unique biodiversity values, threatened species, migratory birds, and ecological systems at risk from this development.

#### **3.1 Unique Biodiversity Values**

The VNI West corridor intersects the Riverina and Murray–Darling Depression bioregions, both of which contain remnants of vegetation communities listed as nationally threatened ecological communities. These include the Grey Box (*Eucalyptus microcarpa*)–Ironbark woodlands and the River Red Gum (*Eucalyptus camaldulensis*) forests that line the Murray, Edward, and Wakool rivers (Lindenmayer et al., 2013). Despite historical fragmentation, these communities retain extraordinary biodiversity significance, supporting assemblages of woodland birds, arboreal mammals, and aquatic fauna that cannot be replaced once destroyed.

River Red Gum forests are particularly critical as they provide hollow-bearing trees essential for the survival of species such as the Superb Parrot (*Polytelis swainsonii*), the Barking Owl (*Ninox connivens*), and the Squirrel Glider (*Petaurus norfolcensis*) (Robinson et al., 2021). The persistence of these faunal assemblages is dependent on large continuous tracts of canopy cover and water regime stability, both of which are disrupted by the linear clearance required for high-voltage transmission easements.

### 3.2 Endangered and Vulnerable Species

The project area supports a number of species listed as endangered or vulnerable under the EPBC Act:

**a) Swift Parrot (*Lathamus discolor*)**

The Swift Parrot is critically endangered, with fewer than 750 individuals estimated to remain in the wild (Woinarski et al., 2015). Migrating seasonally between Tasmania and the mainland, the species depends on flowering eucalypts in the Riverina corridor for winter feeding. Transmission clearings will remove mature trees and fragment foraging habitat, undermining recovery objectives set under the national recovery plan.

**b) Regent Honeyeater (*Anthochaera phrygia*)**

The Regent Honeyeater is listed as critically endangered, with habitat contraction largely driven by the loss of Box–Ironbark and woodland vegetation (BirdLife Australia, 2023). The Murray corridor provides one of the last known breeding and foraging grounds. Any further loss of canopy cover or disruption of remnant corridors threatens to collapse these small, isolated populations.

**c) Superb Parrot (*Polytelis swainsonii*)**

Listed as vulnerable under the EPBC Act, the Superb Parrot breeds in River Red Gum forests along the Murray and migrates across the Riverina Plains to forage in woodlands near Deniliquin and Jerilderie (Webster and Ahern, 1992). The linear clearance associated with VNI West severs these foraging and breeding linkages, compounding stress from land clearing and agricultural intensification.

**d) Southern Greater Glider (*Petauroides volans*)**

Recent taxonomic reviews recognise three species of greater glider, with the southern form persisting in remnant woodland patches of the Riverina (Kearney et al., 2020). These hollow-dependent nocturnal mammals are highly sensitive to habitat fragmentation and edge effects. The clearance of large trees for transmission easements represents a direct loss of hollow resources critical to survival.

**e) Koala (*Phascolarctos cinereus*)**

Koalas in the southern Murray–Darling Basin are already experiencing population decline due to habitat loss, climate stress, and road mortality (McAlpine et al., 2015). River Red Gum and Grey Box corridors provide key habitat linkages. Any additional fragmentation caused by high-voltage transmission lines will sever dispersal pathways, further isolating populations and elevating extinction risk.

### 3.3 Migratory Birds

The project corridor lies along a natural north–south flyway used by migratory species protected under international treaties including JAMBA (Japan–Australia Migratory Bird Agreement), CAMBA (China–Australia Migratory Bird Agreement), and ROKAMBA (Republic of Korea–Australia Migratory Bird Agreement).

Species of concern include:

- **Fork-tailed Swift (*Apus pacificus*)** and **White-throated Needletail (*Hirundapus caudacutus*)** – both listed as migratory under the EPBC Act. These aerial insectivores depend on intact airspace and woodland edge habitats during their migratory passage. The erection of high-voltage towers and conductors increases collision risk and disrupts foraging opportunities (BirdLife Australia, 2021).
- **Latham’s Snipe (*Gallinago hardwickii*)** – a migratory wader that utilises Murray wetlands and floodplain depressions during the austral summer. Wetland disruption from sedimentation and altered hydrology compromises these seasonal refuges (DSEWPoC, 2011).

Failure to adequately model and mitigate impacts on migratory birds places Australia at risk of breaching its international environmental obligations.

### 3.4 Murray River Corridor and Wetland Systems

The Murray and Edward rivers form the ecological heart of the corridor, supporting one of the largest floodplain forest systems in the Southern Hemisphere. The Barmah–Millewa Forest, listed as a Ramsar wetland of international importance, relies on regular flooding and intact woodland buffers to sustain ecological processes (MDBA, 2022). Transmission corridors crossing these floodplains risk altering natural flow regimes, increasing sedimentation, and introducing pollutants that threaten the Outstanding Universal Value (OUV) of the system.

Wetland systems in the Riverina also serve as drought refuges for waterbirds, including species such as the Australasian Bittern (*Botaurus poiciloptilus*), which is listed as endangered under the EPBC Act (Kingsford et al., 2010). The decline of these wetlands through cumulative stressors—including vegetation clearance, hydrological disruption, and infrastructure encroachment—represents a severe breach of national and international conservation commitments.

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## 4. Pollution and Contamination Risks

The VNI West project is presented as a simple transmission corridor, yet its chemical and material legacy represents one of the most insidious and permanent environmental risks. Modern high-voltage infrastructure and the renewable energy systems it enables are not free from contamination. Rather, they are heavily dependent on composite plastics, toxic chemical treatments, and hazardous materials that carry a long-term pollution burden. Far from aligning with the precautionary principle, the VNI West proposal imports a toxic legacy into one of Australia’s most productive agricultural and ecological regions.

### 4.1 Microplastics and Fibre Shedding

Transmission corridors such as VNI West enable and expand industrial wind and solar developments across the Murray–Darling Basin. This in turn accelerates the release of microplastics from turbine blades, cable coatings, and polymer components. Research confirms that turbine blades erode over time, shedding up to 25 kilograms of microplastic particles per blade each year, particularly in high UV and rainfall environments (Primpke et



al., 2020). These particles are readily mobilised into soil and water systems, where they persist for decades.

The consequences are threefold:

- **Soil contamination** – Plastic fibres alter microbial activity, reduce nutrient cycling, and increase soil compaction (de Souza Machado et al., 2018). In fertile floodplain soils, this undermines productivity and compromises long-term agricultural viability.
- **Water transport** – Storm and flood events rapidly mobilise microplastics from cleared easements into the Murray and Edward Rivers, with transport downstream into Ramsar wetlands and eventually the Southern Ocean.
- **Food chain accumulation** – Microplastics are ingested by aquatic invertebrates, fish, and waterbirds, entering food webs and bioaccumulating in higher-order predators, including raptors and humans consuming riverine fish and irrigated produce (Campanale et al., 2020).

Microplastic contamination is irreversible. Once fibres infiltrate soil and water, there are no effective remediation methods at scale. The result is a permanent reduction in ecosystem integrity, with direct consequences for both biodiversity and food security.

## 4.2 PFAS and Toxic Chemicals

Perhaps the most alarming contamination risk arises from per- and polyfluoroalkyl substances (PFAS), widely described as “forever chemicals.” PFAS compounds are used in turbine blades, cable sheathing, protective coatings, and lithium-ion battery components (Guelfo et al., 2024). While the Australian government has announced bans on new PFAS use, these laws do nothing to address the wave of imported components from China and India, where disclosure of chemical content is inconsistent and regulatory oversight is minimal. Consequently, every new turbine, solar panel, battery, and transmission cable imported into Australia continues to bring with it an undeclared chemical burden.

Once released, PFAS compounds do not break down in the environment. They persist for decades, resist natural degradation, and bioaccumulate in living organisms. The consequences are catastrophic:

- **Water contamination** – PFAS leaches into groundwater and surface water, binding to sediments and travelling downstream. In the floodplains of the Murray–Darling Basin, this means contamination of irrigation channels, aquifers, and ultimately the drinking water supply for entire communities (Hou et al., 2019).
- **Food chain infiltration** – PFAS bioaccumulates in aquatic organisms, moving from invertebrates to fish, birds, mammals, and humans. Irrigated crops absorb PFAS through water uptake, embedding the chemicals directly into the human food chain (Sunderland et al., 2019).
- **Health impacts** – PFAS exposure is linked to multiple cancers, endocrine disruption, reproductive disorders, and immune suppression. Communities downstream of contaminated sites face multi-generational health risks (Federal Court of Australia, 2023).
- **Wildlife collapse** – Sensitive amphibians such as the Australasian Bittern’s prey base, and mammals including koalas and gliders, face contamination via water and

vegetation. PFAS bioaccumulation accelerates population decline in species already at risk from habitat loss.

Moreover, Australian farmers are already being compelled to confront the risks posed by PFAS-laden infrastructure such as wind turbines and solar panels. The national livestock accreditation body, Integrity Systems, has recently introduced a food safety questionnaire asking producers whether their livestock have access to degrading infrastructure—including wind turbines, transformers, and solar arrays—due to the potential for chemical or physical contamination (Willis, 2025). Where exposure is suspected, farms may be required to disclose and manage access risks. Farmers rightfully fear that such contamination could jeopardise meat grading, consumer trust, and certifications such as organic labels, thereby undermining both domestic credibility and export markets.

International precedent confirms these concerns are grounded in reality. In Michigan, the Grostic Cattle Company’s herd was found to contain PFOS levels up to 1.9 ppb—more than 27 times higher than US drinking water guidelines—following land application of contaminated biosolids (Lathrop GPM, 2025). This prompted a public health advisory on consuming affected beef, and the affected farm was quarantined. Such contamination leads to market exclusions, reputational damage, and potential financial ruin for producers (Lathrop GPM, 2025). In the Australian context, even though PFAS measures remain relatively nascent, the risk to food safety reputation and long-term viability in regions impacted by VNI West cannot be dismissed. Without proactive mitigation, producers in the transmission corridor face a “forever chemical” liability that in some cases could render land and livestock unsellable, persistently contaminated, and excluded from valued food supply chains.

The persistence of PFAS means that contamination introduced by VNI West and associated renewable projects will remain in the Basin’s soils and waters indefinitely. This is not an impact that can be mitigated or offset. It is a permanent toxic legacy.

### 4.3 Water and Soil Contamination

The Riverina floodplains are highly vulnerable to contamination due to their geology and hydrology. Deep clay and silt substrates are prone to waterlogging and salinity, while the flat terrain facilitates rapid overland water flow during flood events (Queensland DESI, 2024b). Transmission construction involving tower foundations, access tracks, and easement clearing will mobilise sediment, salts, and chemical residues into waterways.

Risks include:

- **Sedimentation of wetlands** – Runoff from cleared easements smothers aquatic vegetation and reduces oxygen levels critical to fish and amphibians (Prosser et al., 2001).
- **Toxic mobilisation** – Oils, lubricants, heavy metals, PFAS, and other construction residues are transported into rivers and irrigation networks.
- **Agricultural degradation** – Contaminated water used for irrigation spreads toxins into cropping systems, embedding pollutants into food products and export markets.
- **Cumulative loading** – The Murray–Darling Basin is already heavily impacted by agricultural nutrient runoff (Brodie et al., 2017). Additional industrial pollutants exacerbate ecological collapse, threatening the resilience of the Basin as a whole.

## 4.4 Irreversible Legacy

Unlike vegetation clearing, which may be partially remediated through replanting, contamination from PFAS and microplastics is irreversible. Once present in soils, aquifers, and food chains, they cannot be removed at scale. The Murray–Darling Basin is not a suitable landscape to absorb such toxins. It is a national food bowl, sustaining millions of people through irrigated agriculture, and its contamination has implications for food safety, export security, and public health.

The legacy is one of permanent decline. Land cannot recover once PFAS infiltrates soils; water cannot be purified once aquifers are contaminated. Unlike oil spills or nutrient overloads, there is no pathway to ecological recovery. To impose such an irreversible chemical burden on one of Australia's most vital agricultural and ecological systems is a dereliction of environmental governance.

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## 5. Climate and Heat Impacts

The VNI West project is framed by the proponent as a climate solution—an enabler of renewable energy integration and a contribution to national emissions reduction targets. Yet the evidence demonstrates the opposite. Transmission corridors of this scale generate measurable local heating, destabilise microclimates, and disrupt hydrological regimes, while also embedding systemic failures in carbon accounting. Rather than mitigating climate change, VNI West contributes to a legacy of ecological heating, carbon leakage, and cumulative climatic stress that undermines regional resilience.

### 5.1 Heat Island and Microclimate Changes

Vegetation clearance for high-voltage transmission easements introduces localised but significant microclimatic disruption. Linear corridors up to 80 metres wide across the Riverina Plains and Murray floodplains remove canopy cover, expose soils, and alter evapotranspiration processes. This triggers the following impacts:

- **Heat island effect** – Research has consistently shown that cleared corridors generate higher surface and air temperatures compared to surrounding intact vegetation, creating measurable heat islands (Zhou et al., 2012). In the Riverina, where summer temperatures are already extreme, the removal of woodland belts exacerbates thermal stress for wildlife, crops, and communities.
- **Loss of thermal belts** – Woodland corridors provide cooling functions and regulate local microclimates. Their removal dismantles these thermal belts, exposing remnant species such as koalas and gliders to heat stress beyond physiological tolerance thresholds (Kearney et al., 2020).
- **Increased flammability** – Cleared easements act as dry, linear fuel breaks that increase fire penetration into remnant woodlands. This heightens wildfire risk in a region already classified as drought- and fire-prone (Laurance et al., 2011).

Even narrow clearings impose disproportionate edge effects. Drying of soil, altered humidity, and increased solar exposure change the microclimatic profile of adjacent habitats. These

impacts extend well beyond the corridor itself, fragmenting ecosystem functions across the Riverina landscape.

## 5.2 Carbon Accounting Failures

The claimed climate benefits of VNI West rest on a narrow operational accounting model that excludes the full lifecycle emissions of infrastructure. Genuine accounting must include:

1. **Extraction** – Mining of bauxite, iron ore, rare earths, and lithium, often in environmentally destructive conditions in developing nations (Moomaw et al., 2019).
2. **Manufacture and transport** – Offshore fabrication in China and India, followed by long-distance shipping, generates enormous embedded emissions, none of which are reported under Australia's carbon accounts.
3. **Construction** – Land clearing and soil disturbance release long-stored carbon from biomass and floodplain soils. These emissions are immediate, irreversible, and unacknowledged in project assessments (Fearnside, 2016).
4. **Operation** – Ongoing vegetation suppression within easements prevents carbon sequestration for the life of the project. These corridors become permanent emissions scars across the landscape.
5. **Decommissioning** – Composite turbine blades, PFAS-contaminated cabling, and concrete tower footings are largely non-recyclable, locking in a waste legacy that is neither costed nor accounted for (Liu and Barlow, 2017).

This selective accounting framework constitutes deliberate emissions misrepresentation. The net benefit is illusory; rather than reducing emissions, VNI West exports them offshore while embedding long-term domestic emissions through land degradation.

## 5.3 Cumulative Climate Impacts

VNI West cannot be assessed in isolation. Its convergence at Dinawan with EnergyConnect and HumeLink represents the creation of an industrial transmission nexus across the Murray–Darling Basin. The cumulative consequences include:

- **Regional heating** – Thousands of hectares of remnant vegetation cleared across three projects generate widespread heat island effects, disrupting regional weather patterns.
- **Rainfall disruption** – Vegetation clearance reduces interception and transpiration, fragmenting rainfall patterns and lowering water availability across the Basin (Brodie et al., 2017).
- **Species stress** – Wildlife populations already pressured by habitat fragmentation are simultaneously exposed to rising heat loads, reducing reproductive success and accelerating decline.
- **Agricultural vulnerability** – Thermal disruption undermines water efficiency in irrigation networks, increases evapotranspiration rates in crops, and compounds drought impacts.

The cumulative heating footprint of these projects is equivalent to the transformation of intact woodlands into industrial deserts. When assessed at landscape scale, the combined effect is a climate liability, not a solution.

## 5.4 Implications for Regional Climate Resilience

The Murray–Darling Basin functions as a national climate buffer. Its wetlands, woodlands, and floodplains regulate water flows, support biodiversity corridors, and stabilise climatic extremes. By imposing linear corridors of permanent clearance, contaminated infrastructure, and embedded emissions, VNI West weakens the resilience of this system. Instead of contributing to climate mitigation, the project drives local climate breakdown while undermining Australia’s international commitments under the Paris Agreement.

The framing of VNI West as a climate-positive project is therefore fundamentally misleading. Its real legacy is one of ecological heating, carbon leakage, and resilience erosion. Climate change cannot be mitigated by projects that destabilise the very landscapes they claim to protect.

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## 6. Noise, Vibration, and Human Health Impacts

The VNI West project introduces significant acoustic and vibration stressors into rural environments already hosting fragile ecological and community systems. These stressors include audible noise, low-frequency noise and infrasound, corona discharge and tonal hum from high-voltage equipment, and ground-borne vibration from both construction and operation. The scientific evidence demonstrates clear risks to human health, livestock, and wildlife. When considered cumulatively with HumeLink and EnergyConnect, the scale of impact is unprecedented, representing a systemic failure to protect health, biodiversity, and agricultural productivity.

### 6.1 Human Health: Sleep, Stress and Cardiovascular Risk

Environmental noise is well established as a driver of sleep disturbance, annoyance, and long-term health effects. The World Health Organization (2018) recommends limiting wind turbine noise to below 45 dB Lden to protect human health, with night-time levels above 40 dB associated with measurable risks of sleep disturbance, stress physiology, and cardiovascular outcomes.

The Health Canada study of over 1,200 residents exposed to wind turbine noise demonstrated significant associations with noise annoyance and self-reported sleep disturbance, confirming that chronic exposure generates a measurable health burden (Health Canada, 2014). Long-term annoyance is not benign; it has been directly linked to stress hormone dysregulation, hypertension, and reduced wellbeing (Schmidt and Klokke, 2014). Rural residents near turbine and transmission corridors are disproportionately vulnerable because of the very low background sound levels at night, which magnify perception and intrusion.

### 6.2 Low-Frequency Noise, Infrasound and Amplitude Modulation

Low-frequency noise and infrasound are characteristic features of wind farm and transmission-related noise. Research has shown that low-frequency components propagate much further than mid- or high-frequency sounds, particularly under stable night-time

atmospheric conditions (Hansen et al., 2012; Zajamšek et al., 2016). These components are frequently detectable inside homes, even kilometres from source.

Amplitude modulation—often described as “swish” or “thump”—increases perceptual loudness and annoyance, even when overall decibel levels are relatively modest. This quality is particularly intrusive at night when background levels are low (Nguyen et al., 2019). The World Health Organization (2018) recognises amplitude modulation as a significant contributor to adverse health outcomes.

### **6.3 Ground-Borne Vibration**

Modern turbines and substations generate detectable ground-borne vibration. Seismological monitoring has confirmed turbine-induced ground motions extending up to 1–3 km under certain geological conditions (Styles et al., 2005). Health Canada’s acoustic survey also identified measurable vibration components within several hundred metres of turbines (Health Canada, 2014).

While often argued to be below thresholds of conscious perception, these vibrations can couple with buildings, water tanks, and infrastructure, amplifying low-frequency resonance and contributing to sleep disturbance. Sensitive receptors—including aged-care facilities, stud farms, and dairies—face heightened risks due to structural coupling and animal sensitivity.

### **6.4 Transmission-Line Noise**

High-voltage lines are themselves significant noise sources. Corona discharge, particularly under humid or wet conditions, produces a persistent crackling or hissing sound (Farrell et al., 2014). Tonal hum from substations and transformers adds further acoustic burden. In rural areas where ambient sound levels are very low, corona and transformer noise becomes a chronic nuisance, especially at night. With multiple 500 kV lines converging at Dinawan, corona and tonal noise impacts will be magnified and unavoidable.

### **6.5 Wildlife and Livestock**

Noise and vibration are not solely human health concerns. Wildlife and livestock are acutely sensitive to acoustic stress. Experimental studies demonstrate that industrial noise increases glucocorticoid levels in birds, reduces reproductive success, and alters species assemblages (Kleist et al., 2018; Francis et al., 2011). Nocturnal predators such as owls experience hunting failure in noisy environments (Mason et al., 2016), while bats exhibit reduced activity and impaired echolocation in noise-polluted areas (Bunkley et al., 2015).

Livestock exposed to chronic low-frequency noise demonstrate behavioural stress responses, reduced milk yield, and altered feeding patterns (Algers and Jensen, 1985). In the Riverina, where dairying and intensive agriculture are central to livelihoods, the cumulative exposure of herds to transmission and turbine noise represents a serious risk to productivity and animal welfare.

## 6.6 Cumulative Impact

Noise and vibration impacts must be assessed cumulatively, not project by project. The convergence of VNI West, HumeLink, and Energy Connect at Dinawan creates overlapping noise fields, compounding exposure for rural communities and wildlife across hundreds of kilometres. Without conservative setbacks and enforceable night-time limits, the combined acoustic footprint will result in widespread health burdens, ecological disruption, and agricultural losses inconsistent with the objectives of the EPBC Act.

In conclusion, the noise and vibration impacts of VNI West extend far beyond simple nuisance. They represent a multi-dimensional health burden for rural communities, a stressor that undermines livestock productivity, and an ecological disruptor that threatens the survival of acoustically sensitive wildlife. The cumulative footprint, once VNI West is combined with HumeLink and Energy Connect, will create an unprecedented corridor of chronic acoustic and vibrational disturbance across the Riverina. These impacts cannot be mitigated by cosmetic conditions or compliance modelling; they are systemic, long-term, and incompatible with both human health standards and biodiversity protection obligations under the EPBC Act.

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## 7. Cumulative Impacts

Cumulative impact is the defining risk of the VNI West proposal. The interconnector does not occur in a vacuum. It converges at Dinawan with HumeLink and EnergyConnect, and it enables multiple large renewable energy projects that together impose linear clearance, noise, vibration, toxic contamination, hydrological disruption, and wildlife mortality across a broad swathe of the Murray–Darling Basin. International experience demonstrates that when energy corridors and generation clusters are assessed project by project, governments consistently underestimate system-level effects, particularly for habitat fragmentation, collision mortality, chemical burden, and chronic acoustic exposure (DSEWPac, 2011; Haddad et al., 2015; Thaxter et al., 2017).

### 7.1 What “cumulative” means in this corridor

For VNI West, cumulative impact arises from the **additive and synergistic** interaction of:

- **Multiple linear easements** for 500 kV and 330 kV lines clearing continuous corridors across remnant woodlands and floodplains.
- **Substation nodes** that aggregate corona, tonal hum, lighting, and maintenance traffic.
- **Enabled generation** (wind, solar, batteries) whose construction and operation add PFAS, microplastics, heavy vehicle traffic, and new collision and noise fields.
- **Temporal stacking** where construction seasons, maintenance, and operation overlap for years, not months, compounding stress on people, wildlife, soil, and water (Hansen et al., 2012; Laurance et al., 2011).

## 7.2 Landscape fragmentation and biodiversity collapse

Linear infrastructure is a primary driver of **edge effects**, population isolation, and eventual local extinction in fragmented landscapes. Fragmentation reduces effective habitat size, interrupts dispersal, alters predator–prey dynamics, and exposes interior-dependent species to heat and desiccation along edges (Haddad et al., 2015; Lindenmayer et al., 2013). In the Riverina, north–south woodland and riparian corridors are already narrow. Successive 60–80 m transmission clearances sever canopy continuity and reduce hollow-bearing tree density that is critical for Superb Parrot, Barking Owl, Squirrel Glider and koala metapopulations (Robinson et al., 2021). When combined with additional wind farm roads, pads, and laydown areas, the **effective loss** of habitat greatly exceeds the mapped footprint.

**International case studies** confirm this mechanism:

- **Smøla, Norway:** Long-term monitoring documented high white-tailed sea eagle mortality at a coastal wind complex, with displacement and demographic impacts persisting despite mitigation (Dahl et al., 2012; May et al., 2013).
- **Altamont Pass, USA:** Decades of evidence show persistent raptor mortality, especially golden eagles, from dense turbine arrays in a fragmented grassland–agricultural matrix (Smallwood and Thelander, 2008; Smallwood, 2013).
- **Tarifa, Spain:** Vulture and stork collisions increased where wind farms intersect major migration funnels, demonstrating cumulative flyway risk when multiple projects occupy the same corridor (Barrios and Rodríguez, 2004).
- **Woolnorth and Musselroe, Australia:** Documented fatalities of Wedge-tailed Eagles highlight ongoing raptor vulnerability in Tasmanian wind clusters (Smales et al., 2013).

## 7.3 Hydrological and geomorphic loading

Each clearance and access track increases runoff, sediment mobilisation, and channel incision on floodplains with dispersive clays. Repeated works across multiple projects produce **basin-scale** increases in fine sediment and nutrient loads, degrading wetland oxygen regimes and smothering aquatic vegetation. These pressures stack on top of existing agricultural runoff in the Murray–Darling Basin, eroding system resilience (Prosser et al., 2001; Brodie et al., 2017). Cumulative bank disturbance, culverts and causeways for construction traffic also modify overbank flows, fragment floodplain wetlands, and disrupt breeding cues for waterbirds such as the Australasian Bittern (Kingsford et al., 2010).

## 7.4 Chemical burden: PFAS, microplastics and forever-contamination

PFAS used in imported blades, cable sheathing and battery components persists and **bioaccumulates** in soils, aquifers and biota (Sunderland et al., 2019; Guelfo et al., 2024). Even where new domestic uses are restricted, imported components from jurisdictions with limited disclosure continue to introduce PFAS into Australian landscapes. Multiple projects across one corridor multiply the **mass loading** of PFAS and microplastics. Flood events then spread contaminants through irrigation networks and into food systems. International incidents, such as PFAS-contaminated beef supply chains in the United States, show that once livestock are exposed, market access and consumer confidence are jeopardised for years (Lathrop GPM, 2025). Emerging Australian supply-chain controls require producers to declare exposure risks from degrading infrastructure, with implications for meat grading and



organic status, underscoring the **agri-food** consequences of corridor-wide contamination (Willis, 2025).

## 7.5 Collision, barrier and airspace effects across projects

Bird and bat mortality increases with **turbine density**, hub height and rotor diameter, and with siting in migration corridors or ridge and watercourse alignments that channel flight paths. Meta-analyses show that the **cumulative** number of structures, rather than any single project, best predicts mortality risk at population scales (Thaxter et al., 2017; Northrup and Wittemyer, 2013). Transmission lines add further **barrier effects** and electrocution risk for large soaring birds, compounding turbine impacts along the same routes (Bernardino et al., 2018; Prinsen et al., 2011). In wetland landscapes, stacked risks include disturbed foraging acoustics for bats, increased predation at edges, and reduced recruitment in colonial waterbirds.

## 7.6 Acoustic stacking: night-time health and ecological disturbance

Simultaneous operation of multiple wind facilities, substations and 500 kV lines generates **overlapping noise fields** with enhanced low-frequency components and amplitude modulation that propagate under stable night atmospheres. This stacking increases the spatial extent and prevalence of sleep disturbance, high annoyance, and stress physiology in residents, and it masks acoustic hunting cues for owls and bats across larger areas than single-project modelling predicts (WHO, 2018; Zajamšek et al., 2016; Bunkley et al., 2015; Mason et al., 2016). Corona noise and transformer tonals from clustered substations add a persistent base noise, making quiet rural soundscapes effectively unattainable.

## 7.7 Social and agricultural compounding

Cumulative easements and nodes transform farming districts into industrial precincts. Repeated surveying, access and vegetation suppression degrade productivity and amenity, while property blight and uncertainty undermine investment and intergenerational succession. Where livestock and irrigated crops interface with PFAS and microplastics risks, producers face long-tail liabilities that insurance and offsets cannot meaningfully address. International literature on rural energy corridors shows that once **thresholds** of project density are crossed, community acceptance falls sharply and conflict escalates (Groth and Vogt, 2014). This is not a series of isolated inconveniences but a **structural shift** in land use patterns.

## 7.8 National and international case studies (synthesis)

- **Smøla, Norway:** Persistent raptor mortality and displacement at a coastal wind complex despite mitigation, evidencing population-level risk where projects occupy key territories (Dahl et al., 2012; May et al., 2013).
- **Altamont Pass, USA:** Long-term raptor mortality and demographic concern for golden eagles from high turbine densities in a migration and foraging landscape, demonstrating cumulative attrition over decades (Smallwood and Thelander, 2008; Smallwood, 2013).
- **Tarifa, Spain:** Elevated vulture and stork collisions at a Mediterranean migration choke point, illustrating that corridor siting multiplies risk across many projects simultaneously (Barrios and Rodríguez, 2004).

- **Tasmania, Australia:** Wedge-tailed Eagle fatalities within wind clusters confirm endemic raptor vulnerability in fragmented forest–farmland mosaics (Smales et al., 2013).
- **Rural health, multiple jurisdictions:** WHO guidelines identify wind turbine noise as a health-relevant environmental source requiring conservative limits, particularly at night, which has direct cumulative implications for clustered projects in quiet rural regions (WHO, 2018).
- **Agri-food contamination:** PFAS incidents in North America and emerging Australian supply-chain controls show that chemical exposure can precipitate quarantines, loss of organic certification and downgraded meat grading, with long-term market consequences (Sunderland et al., 2019; Lathrop GPM, 2025; Willis, 2025).

## 7.9 Conclusion on cumulative impact

Taken together, VNI West, HumeLink and Energy Connect create a **continuous industrial axis** through the Riverina and Murray floodplains. The combined effects on habitat connectivity, collision mortality, hydrology, chemical burden, acoustic environment and agricultural viability are **additive, synergistic and permanent**. No single-project mitigation plan can address system-level risks of this magnitude. A regional, whole-of-network cumulative assessment is therefore essential, applying the precautionary principle to prevent

## 8. Community, Cultural, and Social Impacts

While the proponent frames VNI West as essential “infrastructure for the greater good,” the

communities, cultural landscapes, and social systems along its route will bear the greatest costs. The Riverina region is not only an agricultural powerhouse but also a network of towns, heritage landscapes, and First Nations Country with deep cultural and historical meaning. The cumulative impacts of VNI West, HumeLink, and Energy Connect are not limited to biodiversity and hydrology: they threaten the wellbeing, cohesion, and resilience of irreversible ecological decline, public health burdens, and the erosion of Australia’s food security.

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rural populations and cultural values.

### 8.1 Cultural Heritage and Indigenous Values

The Murray and Edward rivers are living cultural landscapes, with evidence of occupation by First Nations peoples for tens of thousands of years. Scar trees, burial sites, and ceremonial places remain across the floodplains, often adjacent to watercourses and remnant forests (NSW OEH, 2018). Transmission corridors that impose linear clearance and heavy machinery across these landscapes create an ongoing risk of direct and indirect damage.

Further, First Nations groups have consistently raised concerns that consultation processes under current State Significant Infrastructure frameworks are rushed, proponent-led, and do not constitute **free, prior, and informed consent** as required under the UN Declaration on

the Rights of Indigenous Peoples (United Nations, 2007). Where projects proceed without genuine cultural impact assessment, they risk compounding the legacies of dispossession and cultural erasure.

## 8.2 Rural Landholders and Agricultural Values

Landholders along the VNI West route face the involuntary acquisition or sterilisation of productive farmland for easements. Easements of 60–80 metres wide impose permanent restrictions on cropping, forestry, and infrastructure, while soil compaction and drainage changes from access tracks reduce yields in adjoining paddocks (Powerlink Queensland, 2023). These changes degrade both the **use value** and **capital value** of land, with ripple effects across rural economies.

The imposition of industrial corridors undermines **property rights**, creating stress, anger, and a sense of dispossession among landholders. Studies from the United States confirm that large-scale transmission projects depress nearby property values and trigger prolonged community conflict when landowners perceive that they are carrying disproportionate costs for urban energy consumers (Slattery et al., 2012; Pasqualetti, 2011). In Australia, farmers are additionally exposed to market risks: where contamination from PFAS or microplastics is suspected, organic accreditation and premium branding may be withdrawn, undermining decades of investment in reputation (Willis, 2025).

## 8.3 Community Amenity and Wellbeing

The visual intrusion of 80-metre-wide clearances and 70-metre-tall towers is profound in the Riverina's flat agricultural landscapes. Amenity is further degraded by noise (corona discharge, transformer hum), heavy vehicle traffic, and lighting at substations. Research shows that visual and acoustic intrusion from industrial infrastructure in rural areas contributes to increased stress, mental health decline, and reduced sense of place (Groth and Vogt, 2014; Krogh, 2011).

Cumulative stress is compounded by **procedural injustice**: community members often describe consultation processes as opaque, rushed, and dismissive of local knowledge (Ellis et al., 2007). This lack of procedural fairness erodes trust in government, polarises communities, and creates lasting social conflict. Case studies from Denmark and Germany demonstrate that when communities are excluded from genuine planning, resistance hardens and social licence collapses (Toke et al., 2008; Wolsink, 2012).

## 8.4 Tourism and Regional Identity

The Riverina and Murray regions are built not only on farming but also on tourism linked to open landscapes, cultural heritage, and nature-based attractions. Towering transmission lines and cleared easements fragment these visual and cultural landscapes, undermining the appeal of rural tourism, heritage trails, and river recreation (Torres-Sibille et al., 2009).

International examples confirm that industrial energy corridors reduce tourism appeal. In Scotland, opposition to transmission projects has consistently cited damage to landscapes critical for tourism, particularly in highland areas where scenic values underpin the economy (Jones and Eiser, 2010). For the Riverina, the industrialisation of landscapes through

successive energy corridors risks erasing regional identity, replacing diverse cultural and economic values with a narrow “transit” function for energy exports.

## **8.5 Fire Risk and Community Safety**

Transmission corridors are well-documented ignition sources for catastrophic bushfires. High-voltage lines can fail under strong winds or extreme heat, causing arcing, conductor clashing, or tower collapse. The Black Saturday Royal Commission in Victoria found that five of the most destructive fires in February 2009—including the Kilmore East fire which killed 119 people—were ignited by electrical infrastructure failures (Teague et al., 2010). The parallels for VNI West are stark: the Riverina and Murray plains are drought-prone, with summer conditions that replicate the fire weather drivers of Victoria’s worst disasters.

The clearing of wide easements through remnant woodlands and farmland also increases flammability. Easements create linear fuel corridors where invasive grasses dominate, and these burn with high intensity. The result is a double burden: increased ignition probability from electrical failure, and enhanced fire spread along uncleared access tracks and grass-dominated strips (Laurance et al., 2011).

For farming communities, the risk is existential. Fires started by high-voltage lines can wipe out entire properties, destroy livestock, and threaten lives. Livestock losses during Black Saturday exceeded 11,000 head, and many families never recovered economically or psychologically (Victorian Bushfires Royal Commission, 2010). Unlike urban communities, rural residents often remain on-site to defend properties, exposing them to lethal risk when fires are ignited by transmission failures.

Furthermore, firefighting near high-voltage lines is restricted for safety reasons. Aerial water bombing cannot occur directly above live transmission, and ground crews must observe exclusion zones, delaying suppression and allowing fires to escalate. This exposes communities to disproportionate danger, effectively turning rural towns and farms into frontline sacrifice zones for energy infrastructure servicing distant cities.

In the context of cumulative projects—VNI West, HumeLink, and Energy Connect—the scale of potential ignition is unprecedented. Thousands of kilometres of high-voltage lines intersect drought-prone farmland, remnant forest, and rural communities. Every summer season represents a new cycle of catastrophic risk that communities must bear indefinitely.

In conclusion, the social and cultural consequences of VNI West are as profound as its ecological and hydrological impacts. The project threatens to displace farmers from productive land, erode Indigenous cultural values, fracture rural communities, and compromise food security through chemical contamination and organic certification risks. The visual industrialisation of landscapes undermines regional identity and tourism, while the catastrophic fire risk exposes families, livestock, and entire towns to dangers beyond their control. These are not abstract or temporary impacts: they are lived realities that will persist for generations. Proceeding with VNI West without full recognition of these cumulative burdens is incompatible with principles of social justice, cultural respect, and community safety.

## 9. Legal and Regulatory Breaches

The Victoria–NSW Interconnector West (VNI West) project represents a flagrant and multi-dimensional breach of Australian environmental law, Indigenous rights instruments, and administrative law principles. The project not only violates statutory obligations under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act), but also reflects procedural failures under the New South Wales State Significant Infrastructure (SSI) framework, contravenes Australia’s international environmental treaty obligations, and exposes deep systemic vulnerabilities that undermine the very rule of law.

### 9.1 Breach of Sections 18 and 18A of the EPBC Act – Significant Impacts on MNES

Sections 18 and 18A of the EPBC Act prohibit actions that have, will have, or are likely to have a significant impact on Matters of National Environmental Significance (MNES), including listed threatened species and ecological communities. The VNI West proposal threatens habitat for critically endangered species such as the Swift Parrot (*Lathamus discolor*), Regent Honeyeater (*Anthochaera phrygia*), Superb Parrot (*Polytelis swainsonii*), and Southern Greater Glider (*Petauroides volans*), all of which are dependent on floodplain woodlands and remnant corridors intersected by the project (BirdLife Australia, 2023; Robinson et al., 2021). These impacts meet the statutory threshold for significance and thus constitute unlawful interference under sections 18 and 18A.

The legal obligation to consider indirect and cumulative impacts is well established by case law. In *Minister for the Environment and Heritage v Queensland Conservation Council Inc* [2004] FCAFC 190, the Full Federal Court confirmed that environmental assessments must extend to consequences “reasonably foreseeable” from the proposed action. The VNI West project fails to assess system-wide impacts from concurrent projects including HumeLink and Energy Connect, rendering it in breach of this foundational precedent.

### 9.2 Breach of Section 74(3) – Incomplete and Misleading Referral

Section 74(3) of the EPBC Act requires referrals to be accurate and comprehensive. The VNI West referral failed to disclose significant cumulative impacts associated with adjacent energy projects, and did not acknowledge contamination risks from PFAS and microplastics, despite emerging evidence of their ecological and health effects (Guelfo et al., 2024; Campanale et al., 2020). The proponent’s failure to engage in free, prior, and informed consultation with First Nations custodians is also contrary to the procedural principles underpinning this section and violates Australia’s obligations under the *United Nations Declaration on the Rights of Indigenous Peoples* (United Nations, 2007).

### 9.3 Breach of Section 82 – Failure to Require Independent Environmental Impact Statement

Section 82 empowers the Commonwealth Minister to require an independent Environmental Impact Statement (EIS) where a proposal warrants detailed assessment. Given the scale, complexity, and controversy of VNI West—including impacts on Ramsar wetlands,

endangered fauna, and chemical contamination pathways—failure to invoke section 82 represents a dereliction of statutory duty. The decision to rely on proponent-led State processes undermines the independence required for meaningful environmental assessment and fails to apply the precautionary principle in section 391 of the Act.

#### **9.4 Breach of Section 145 – Revocable Approval Based on Material Misrepresentation**

Section 145 of the EPBC Act mandates that an approval must be revoked if it was granted based on information that was materially false or misleading. The VNI West referral characterises the project as a climate solution, but fails to disclose embedded lifecycle emissions from construction, manufacturing, and decommissioning (Fearnside, 2016; Liu and Barlow, 2017). Further, the omission of PFAS-related risks and collision hazards for migratory species constitutes material non-disclosure. These misrepresentations warrant immediate revocation under section 145.

#### **9.5 Breach of International Environmental Treaty Obligations**

The project threatens habitat and wetlands protected under Australia’s obligations to the Ramsar Convention, JAMBA, CAMBA, and ROKAMBA agreements. Impacts on migratory birds and wetland systems such as the Barmah–Millewa Forest have not been adequately assessed or mitigated, placing Australia in breach of its treaty commitments (Kingsford et al., 2010; BirdLife Australia, 2021). The project also undermines Australia’s Nationally Determined Contributions under the Paris Agreement by misrepresenting carbon accounting and facilitating systemic land degradation (Moomaw et al., 2019).

#### **9.6 Failure of the NSW State Significant Infrastructure Framework**

Despite being declared Critical SSI, the VNI West assessment process exhibits severe procedural deficits. Cumulative impacts across transmission and renewable energy developments are not adequately evaluated, in contravention of the standard set in *Gray v Minister for Planning* [2006] NSWLEC 720, where the Land and Environment Court held that EIS must consider broader systemic effects. The absence of independent scrutiny and genuine community participation undermines the integrity of the SSI framework.

#### **9.7 Administrative and Constitutional Law Vulnerabilities**

The approval process demonstrates serious vulnerabilities under administrative law. The Commonwealth’s failure to consider relevant considerations (cumulative impacts, fire risk, contamination, and Indigenous rights), exercise of power for improper purposes (accelerated approvals), and legal unreasonableness all raise grounds for judicial review under the *Administrative Decisions (Judicial Review) Act 1977* (Cth) and section 75(v) of the Constitution.

#### **9.8 Structural Legislative Risk – Impending Weakening of the EPBC Act**

It must be further noted that this project has been proposed and advanced during a time when the Australian Government is actively considering **amendments to the Environment Protection and Biodiversity Conservation Act 1999 (Cth)**. Proposed reforms under the

**Nature Positive Plan** and other legislative agendas signal a shift toward deregulated “streamlined” approvals. If implemented, these reforms would likely diminish or eliminate critical safeguards under **ss. 18, 18A, 74(3), 82, and 145**, which are already being bypassed in the VNI West process.

This project stands as **exhibit A** for why the EPBC Act must not be watered down. Despite the existing statutory protections, VNI West is proceeding via a **proponent-driven, bilateral process that evades transparency, cumulative impact assessment, and independent scrutiny**. It highlights an emerging trend: **governments cannot be trusted to act in good faith under the current legislation, let alone with a weakened version**.

Were the EPBC Act to be amended in line with current proposals—such as removing mandatory independent EIS pathways, weakening revocation powers under s.145, or eliminating enforceable consultation rights—then projects like VNI West would proceed with impunity. There would be no legal firewall left. The destruction of habitat, the contamination of food-producing land, and the undermining of Indigenous rights would no longer even require a fig leaf of compliance.

The public interest demands not only the full enforcement of the **existing Act**, but the **retention and strengthening of its procedural and substantive powers**. To do otherwise would be to open the floodgates to unregulated industrial colonisation of Australia’s most ecologically and culturally significant landscapes.

## 9.9 Legal Precedent for Revocation or Judicial Intervention

Multiple judicial and quasi-judicial precedents support immediate intervention, revocation, or suspension of the VNI West project due to legal non-compliance, procedural irregularity, and systemic omission of relevant considerations. The following cases and findings provide the legal scaffolding to halt the project:

### (1) Minister for the Environment v Queensland Conservation Council (2004)

*Precedent:* Significant indirect and cumulative impacts must be considered under the EPBC Act (*Minister for the Environment and Heritage v Queensland Conservation Council Inc* [2004] FCAFC 190).

*Application:* VNI West fails to assess cumulative impacts with EnergyConnect and HumeLink, rendering the referral and approval process deficient.

### (2) Gray v Minister for Planning (2006)

*Precedent:* Full lifecycle environmental effects must be addressed in an environmental impact statement (*Gray v Minister for Planning* [2006] NSWLEC 720).

*Application:* VNI West's EIS omits lifecycle emissions, carbon leakage, and PFAS contamination.

### (3) Sharma v Minister for the Environment (2021)

*Precedent:* While overturned on appeal, the Federal Court initially recognised a public duty of care to avoid foreseeable climate harm (*Sharma v Minister for the Environment* [2021] FCA 560).

*Application:* VNI West imposes foreseeable ecological and climatic risks to future generations, potentially triggering public interest litigation.

#### **(4) EPBC Act Section 145**

*Precedent:* Approvals based on misleading or omitted information must be revoked under s.145 EPBC Act.

*Application:* VNI West's approval was granted in the absence of disclosure on PFAS, fire risk, lifecycle emissions, and cumulative landscape fragmentation.

#### **(5) Black Saturday Royal Commission**

*Precedent:* Transmission infrastructure was a key ignition source in the 2009 Victorian bushfires (*Teague et al., 2010*).

*Application:* VNI West traverses high-risk fire-prone areas and creates linear flammable corridors, a risk not adequately mitigated.

#### **(6) UNDRIP and Indigenous Consent**

*Precedent:* Projects affecting Indigenous lands must obtain free, prior, and informed consent (*United Nations, 2007*).

*Application:* Consultation has not met international or procedural standards, placing the project in breach of ethical and legal norms.

#### **Conclusion:**

These precedents collectively demonstrate that the VNI West project is not only environmentally destructive but also legally unsound. Courts and regulatory authorities have both the precedent and the obligation to act in response.

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## **10. Recommendations**

In light of the above breaches and systemic failures, the following legal and regulatory remedies are urgently recommended:

- 1. Immediate Revocation of Approval under Section 145 of the EPBC Act**
  - On the basis that material information was withheld or misrepresented, including climate impacts, PFAS risk, and cumulative environmental effects.
- 2. Mandatory Independent Environmental Impact Statement under Section 82**
  - To ensure proper assessment beyond the compromised bilateral process, with full ecological, hydrological, fire, contamination, and social impact modelling.
- 3. Extended Consultation and Re-referral under Section 74(3)**
  - Including a new public consultation round that meets international standards of free, prior, and informed consent (UNDRIP).
- 4. Cumulative Environmental Impact Assessment**
  - A regional EIS covering VNI West, HumeLink, EnergyConnect, and associated renewable generation infrastructure.
- 5. PFAS and Toxic Substance Prohibition**
  - Immediate ban on the use and import of PFAS-containing materials for all associated infrastructure, enforced through conditional approvals and audit mechanisms.
- 6. Lifecycle Carbon Emissions Accounting**
  - Full cradle-to-grave analysis of emissions from material extraction, manufacturing, transportation, land-clearing, operation, and decommissioning.
- 7. Statutory Duty of Care Recognition**



- Enshrine public duty to protect future generations from foreseeable harm, consistent with the findings of *Sharma v Minister for the Environment* [2021] FCA 560.
  - 8. **Legal and Financial Liability for Fire Risk**
    - Formal modelling of transmission-related fire hazards, referencing findings from the Black Saturday Royal Commission (Teague et al., 2010).
  - 9. **Independent Review of NSW SSI Processes**
    - Judicial or parliamentary inquiry into the adequacy and independence of the Critical SSI pathway, particularly for projects with federal environmental triggers.
  - 10. **Statutory Safeguards for Agricultural Producers**
    - Introduce legislative protections to preserve food safety, market integrity, and organic accreditation for landholders in affected corridors.
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## 11. Conclusion

The Victoria–NSW Interconnector West (VNI West) is not simply a flawed infrastructure proposal—it is a structural legal failure. It reflects a deeper malaise within Australia’s environmental governance: a wilful refusal to enforce the very laws that exist to protect our ecological heritage, cultural identity, and intergenerational future. This submission has established, with clarity and evidence, that the project violates multiple provisions of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth), including sections 18, 18A, 74(3), 82 and 145, and fails to meet the legal and procedural standards set by administrative law, constitutional principles, and international treaty obligations.

The breaches are not abstract—they are material and devastating. Matters of National Environmental Significance have been disregarded. Cultural heritage has been bypassed. Contamination and fire risk have been concealed. Climate accounting has been falsified through omission. The approval process itself is based on a foundation of misrepresentation and procedural evasion, and thus cannot lawfully stand.

The environmental, social and legal consequences of permitting this project to proceed are profound. Once the habitat is cleared, the water tables disrupted, the PFAS legacy entrenched, and the fire corridors established, no legal remedy will be sufficient. Irreversible harm will have been authorised in direct violation of the law. The rule of law, if it is to have any meaning, must prevent this outcome—not ratify it.

And what are we leaving behind for future generations? A scorched and fragmented landscape, stripped of its native species. Contaminated soils, leaching synthetic chemicals for centuries. Disconnected ecosystems that once sustained balance. Indigenous cultural sites desecrated, and farming families displaced. All authorised under a hollow promise of climate progress, while the true costs—ecological, cultural, human—are concealed, denied, and deferred.

The role of the *EPBC Act 1999* has never been more critical. Yet rather than enforce its protections, the Commonwealth Government is now proposing to weaken or repeal them under the banner of so-called “Nature Positive” reform. Let this be plainly stated: no government that refuses to enforce the current legislation can be trusted to amend it. To do so

while allowing projects like VNI West to proceed is not reform—it is environmental vandalism by statute.

The stakes are generational. What is being decided is not just a corridor or a route, but the credibility of Australia's environmental law and its ability to protect the living systems that future generations depend on. If the Commonwealth cannot uphold the law in the face of industrial pressure today, it will have no moral or legal ground left tomorrow.

The Minister must act. Not only to halt VNI West in its current unlawful form, but to abandon any proposal to weaken the *EPBC Act*. The rule of law, the integrity of our institutions, and the fate of Australia's most vulnerable ecosystems demand nothing less. This is not a moment for compromise—it is a moment for legal courage.

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