

PART TWO; pdf

DEFENDERS — OF THE — COAST AND DEMOCRACY

What are we going to do about it?



AUTHOR: Cliff Hall

PART TWO

What's at Stake

Environment, Biodiversity, and the People Who Depend on This Coast

This section asks a harder question than project names and licence maps can answer: what values, habitats and livelihoods could be affected, what is already known, and what still needs to be established before decisions become difficult to reverse?

2.0 Introduction

Every coastline like this one eventually faces the same question: how should its competing values be weighed against each other?

For Ninety Mile Beach and the wider Gippsland coast, those values include wetlands, fishing grounds, migratory routes, Sea Country, local livelihoods, recreation and the public value of an open coast. Some can be counted. Others are harder to price without becoming less real.

An intact natural system is not empty space waiting for another use. Development does not automatically erase its existing values, but those values need to be identified before they can be properly weighed.

This part therefore moves from attachment to evidence. It does not assume that every feared impact will occur. It asks what is already known, what remains uncertain, and what environmental assessment must establish before decisions become difficult to reverse.

Wild enough to be precious, accessible enough to be loved.

2.1 Nature's Wonderland

Gippsland's coast supports a connected temperate marine and wetland system. Kelp forests provide habitat for fish and other marine life; dolphins use coastal waters; whales pass during seasonal migrations; and shorebirds depend on beaches and wetlands that form part of much larger flyways.

The Gippsland Lakes add another layer. They support extensive wetland habitat and a small resident population of Burruran dolphins (*Tursiops australis*), while the dunes and coastal vegetation form the narrow physical barrier between the lakes and Bass Strait.

The point is not that every species or habitat will necessarily be harmed by offshore development. It is that the coast is already ecologically occupied. Any assessment therefore has to examine how construction, operation, cables, vessels, noise and other project activities interact with systems that are already functioning. SOURCE: Australian Government — DCCEEW, Gippsland Lakes Ramsar site; Parks Victoria, Gippsland Lakes Coastal Park.

2.2 People's Playground

This is not an untouched wilderness sealed behind a gate. It is a lived-in coast: fished, surfed, swum, camped beside and returned to by generations of families.

That human use is part of what makes the place important. Beaches, jetties, caravan parks, fishing grounds and small coastal towns support recreation, tourism and everyday community life. The coast's value therefore lies not only in what lives there, but in the long relationship between people and place.

That creates the central challenge for assessment. Environmental protection, existing marine uses, cultural values, recreation and new energy infrastructure all have to be considered together. The question is not

whether people use this coast. They already do. The question is how another large use can be introduced without overlooking what is already there.

2.3 Questions the Assessment Must Answer

Between December 2022 and December 2024, the Commonwealth declared six offshore renewable energy zones around Australia. Gippsland came first, and its projects are among the most advanced. That makes it an important test case: not because every other zone will follow the same path, but because it shows how a national policy becomes a set of project-by-project environmental decisions in a real place.

The Gippsland area was smaller when declared than when first proposed. Its shoreward buffer was increased and waters around Waratah Bay and Wilsons Promontory were removed after consultation and environmental concerns were considered. Feasibility licences were then awarded across the remaining area, and several proponents began surveys, design work and environmental assessment. Some licences have since been returned, underlining the difference between an area being declared suitable for offshore renewable energy and a project actually being built.

The environmental process begins with project information supplied by the proponent and a Commonwealth referral under the Environment Protection and Biodiversity Conservation Act. The Commonwealth then determines what level of assessment is required. That is a normal feature of the statutory process, but it also makes the quality, scope and transparency of the underlying evidence especially important — particularly where several projects may affect the same ecological systems over time.

The material assembled for Gippsland identifies a large number of protected species and marine habitats, alongside whale migration, seabird movement, commercial and recreational fishing and other established uses of the sea. None of that proves offshore wind is incompatible with a healthy ocean. Credible scientific bodies have not established offshore wind construction as a cause of whale deaths, and many individual risks can be **mitigated**. The unresolved issue is cumulative and site-specific: what happens when multiple developments, their cables, vessels and onshore connections are considered together rather than one at a time?

In ELA terminology, "mitigate" means to reduce the severity, extent, or probability of an adverse environmental impact — not eliminate it entirely.

That is the question the consultation process could identify but could not answer. Fishers, tourism operators, Traditional Owners, environmental organisations, shipping interests and others could describe what they valued and what concerned them. The detailed ecological answer, however, depends on baseline studies, project design and cumulative assessment that continue after a zone is declared.

The standard should therefore be simple: the scale of what is proposed should be matched by the scale of what is demonstrated. Where the evidence is strong, say so. Where risks appear manageable, explain how.

Where uncertainty remains, identify it plainly rather than allowing a planning label to stand in for an ecological conclusion.

The changing boundary is itself useful evidence. The area released for consultation was about 27,000 square kilometres; the declared area was about 15,000 square kilometres (1.5 million hectares). The shore buffer was increased from five to ten kilometres and the Waratah Bay / Wilsons Promontory area was removed. Further review also led to the area west of Wilsons Promontory not being progressed for offshore wind.

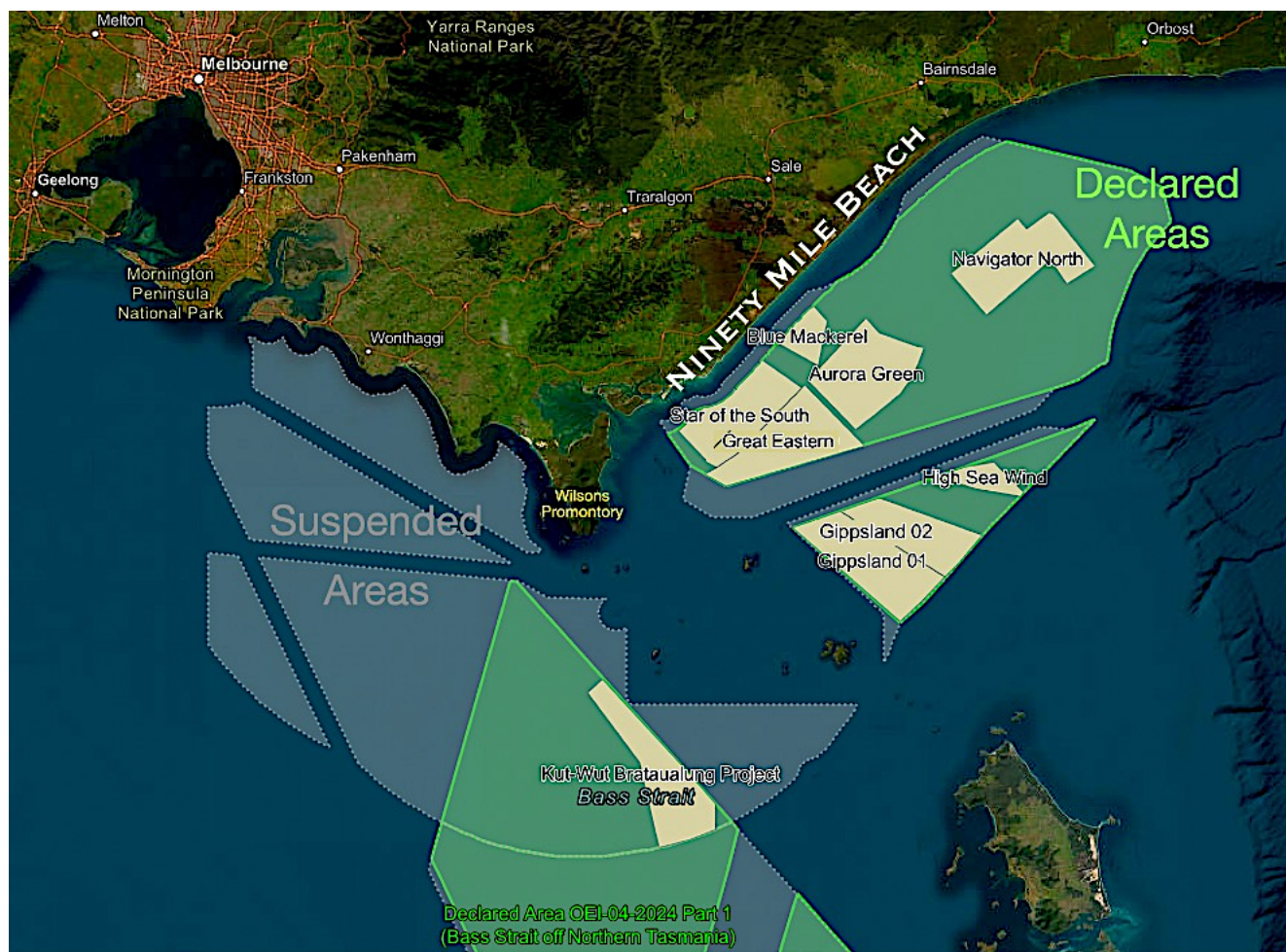


Figure 9: proposed and declared Gippsland offshore renewable energy areas. The reduction in area and increased coastal buffer show that consultation and environmental considerations altered the final boundary.

27,000 km² → 15,000 km²

2.4 Sea Country — An Older Connection

Long before European settlement, Ninety Mile Beach, the Gippsland Lakes and the adjoining coastal waters formed part of Gunaikurnai Country. For the Tatungalung and other Gunaikurnai people, connection to Country extends across land, wetlands and coastal waters. The idea of Sea Country recognises a simple point: the cultural landscape does not stop at the shoreline.

SOURCE: Victorian Government — DEECA, Victoria's Marine Planning Areas; Overview of Values, Uses and Activities in Gippsland's Marine Environment.

That matters here because offshore wind, transmission infrastructure and associated coastal works are being considered within a landscape that already carries cultural values, responsibilities and continuing connections. Those values sit alongside the ecological, fishing, tourism and community interests considered throughout this part of the book.

This book does not attempt to tell Gunaikurnai history or speak on behalf of Traditional Owners. Its purpose here is narrower: to acknowledge that decisions about the Gippsland coast and its offshore waters are also decisions about Sea Country, and that Traditional Owners have their own voice in that process.

2.5 The Fishing Grounds

The Gippsland offshore renewable energy zone overlaps waters used by commercial and recreational fishers, including fleets operating from Lakes Entrance. For those businesses, the central concern is practical:

how construction, safety zones, cabling, navigation and any longer-term displacement might affect access to productive grounds on which livelihoods depend.

My father fished these grounds, and his father before him. Nobody has ever told us, in writing, what we're supposed to do once the turbines go in.— Gippsland coastal community member, public consultation testimony

The Core Conflict: Overlapping Resource Rights

At the heart of the dispute is a genuine overlap between established fishing activity and a new energy industry seeking space in the same waters. Fishing rights do not automatically prevent offshore energy development, and offshore energy licences do not make existing uses disappear. The question is how those uses can coexist, where they cannot, and who carries the cost when access changes. *SOURCE: Australian Government — DCCEEW, Gippsland declared offshore wind area; Offshore Wind Facts.*

Questions the Fishing Industry Is Asking

- **Access to Productive Grounds** — Fishers argue that compensation is not equivalent to continued access to grounds, seasons and seabed features around which vessels and businesses have been built.
- **Marine Effects** — Fishers and industry groups have raised concerns about construction noise, subsea cables, seabed disturbance and possible effects on fish behaviour and habitat. The significance of those effects is species- and site-specific and needs to be established through assessment rather than assumed in advance.
- **Investment and Certainty** — The seafood sector has also raised concern about how new offshore uses will interact with long-standing fishing access, future investment and operational planning. That makes clear rules, navigational evidence and early spatial planning important for both industries.

2.6 Tourism and the Character of the Coast

Fishing and tourism are two sides of the same coin. Towns along Ninety Mile Beach and the wider Gippsland coast depend on both for their economic survival — and both rely on the same thing: a coastline that still looks, and functions, like a working natural environment rather than an industrial one.

Community concern here goes beyond the visual amenity debate that pushed the two New South Wales wind zones further out to sea. It extends to something harder to quantify: the basic character of a coastline people, travel here specifically to experience — open horizon, working beaches, undeveloped ocean. Compromise that character, and both industries built around it are exposed.

The scale of what's at stake is not trivial, and it has grown since the pandemic-era numbers usually cited. Even after the sharp COVID-era downturn, the region recorded 5.7 million visitors in 2020, spending \$1.2

billion; in the year before the pandemic, that was 8.7 million visitors spending \$1.6 billion. By 2024, visitation had climbed past those pre-pandemic levels entirely, with Gippsland recording 8.9 million visitors for the year.

Domestic day-trippers and intrastate overnight visitors — people drawn by the coast, the beaches and the natural attractions rather than by packaged, all-weather indoor experiences — make up the overwhelming majority of that visitation.

This is not a marginal contributor to the regional economy. Gippsland generates \$22.2 billion in gross regional product each year and supports more than 143,000 jobs across the region — figures that place the visitor economy, and the coastal character it depends on, well inside the conversation about the region's economic base rather than at the edges of it.

East Gippsland's own numbers illustrate how directly coastal tourism drives that base: 2023 was the shire's highest-recorded visitor year on record, with 1.71 million visitors contributing an estimated \$634 million to the local economy — growth attributed specifically to the return of day-trippers and overnight visitors drawn by the coast itself.

That visitor base is also overwhelmingly small-business territory. Of the roughly 3,100 tourism businesses operating across the Gippsland region, over three-quarters employ four people or fewer, and nearly 40 per cent are sole traders. These are not large operators with the balance sheets to absorb a downturn in visitation or a shift in how a destination is perceived — they are the caravan parks, cafes, tackle shops, charter operators and short-stay accommodation providers that make up the fabric of coastal towns. A change in the character of the coast is, for these businesses, a change in their core product.

The natural attractions driving this are specific and well documented: Phillip Island, Wilsons Promontory and Lakes Entrance are named among the region's key drawcards, and the broader Gippsland coastline is described as home to significant marine and coastal assets — from the Ninety Mile Beach Marine National Park itself to Corner Inlet, the Gippsland Lakes Coastal Park, and a chain of marine national parks running along the same stretch of coast now under consideration for offshore wind infrastructure. These are not incidental scenic backdrops; they are the reason the region attracts the volume of day-trip and overnight visitation it does, and they sit directly adjacent to, or within view of, the proposed development zones.

There is also a sustainability argument here that goes beyond visitor numbers. Gippsland's tourism strategy frames the visitor economy explicitly as the region's answer to industries in structural decline — a way of building new, durable local jobs as the region's traditional energy and resource sectors change. That framing matters for how this book weighs offshore wind: it is not a case of new industry versus no industry, but of one transitioning industry potentially reshaping the coastal conditions that a second, already-growing industry depends on to keep transitioning successfully.

The region's own tourism strategy is explicit about the scale of ambition riding on this. Gippsland's *Towards 2030* destination management plan — drawn up years before any offshore wind proposal existed — sets a target of growing the visitor economy into a \$1.5 billion industry employing 16,000 people by 2030, built substantially on international and interstate visitor recovery and a domestic coastal experience positioned to capture travellers substituting overseas holidays. That target, and the pre-COVID growth trajectory it was built on, has already been exceeded once by 2024's visitor numbers.

Whether it can be sustained now depends on the coast retaining exactly the qualities the community is warning could be put at risk — which means an offshore wind decision made in the next few years will land squarely inside the runway of a target, Gippsland set for itself well before the question was ever on the table. *SOURCE: Victorian Government — Regional Development Victoria, Gippsland Regional Economic Development Strategy and Gippsland regional profile; data sourced from Tourism Research Australia.*

2.7 The Humpback Highway

Tens of thousands of humpback whales and other species move along Australia's east coast each year between tropical breeding waters and Southern Ocean feeding grounds. Gippsland and Bass Strait sit within the broader southern part of that migratory system, making whale movement one of the most visible environmental questions raised by offshore development.

Humpback whales were officially removed from Australia's threatened species list in February 2022 following a substantial population recovery, but they remain protected as a migratory species and a Matter of National Environmental Significance under the EPBC Act 1999.

Whales are protected under Commonwealth law and Australian waters form part of the Australian Whale Sanctuary. The relevant assessment question is therefore not whether turbines and whales can ever coexist, but how construction noise, vessel traffic, habitat use and cumulative disturbance will be managed in places whales migrate, rest or feed.

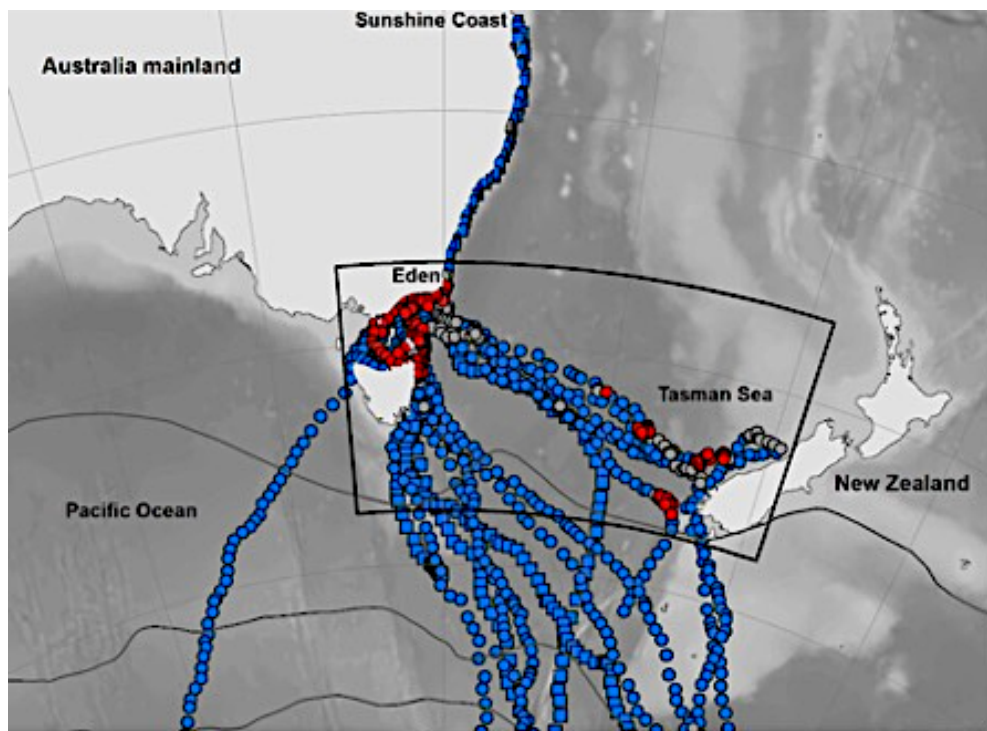


Figure 10: detail inset of the temperate foraging zone (adapted from Andrews-Goff et al. 2018), showing the concentration of feeding and resting behaviour between Eden, NSW and northeast Tasmania.

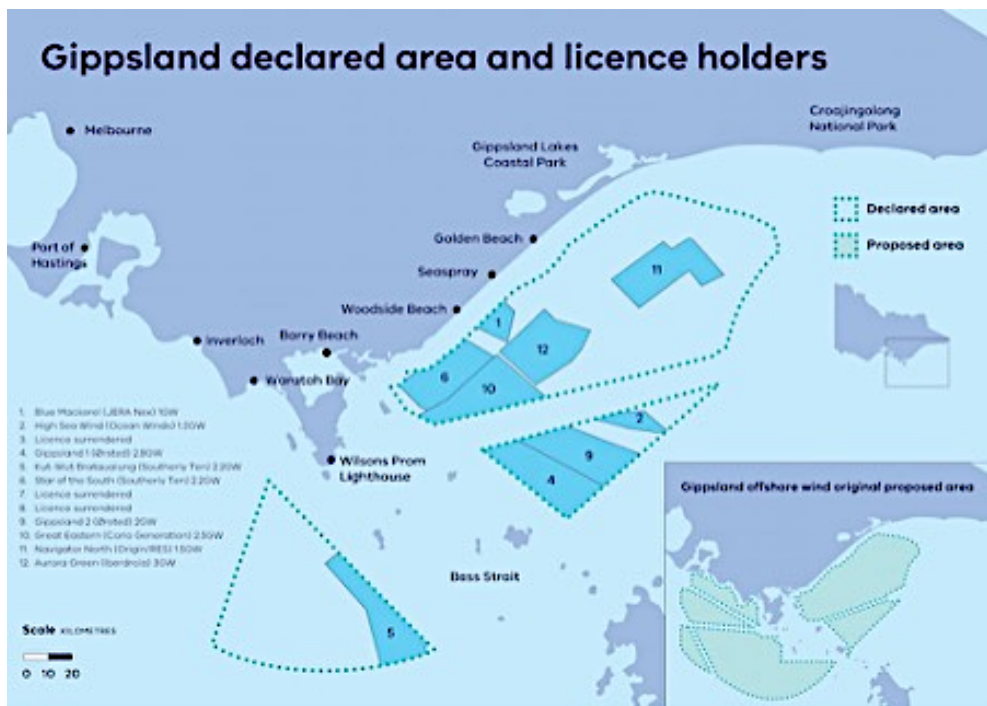


Figure 11: The map is drawn from Victorian state government data.

Bass Strait Isn't Just a Migration Corridor

Satellite tracking has complicated the old picture of humpbacks simply passing through Bass Strait on the way south. Research has recorded whales stopping to feed for extended periods in the region, showing that some of these waters can function as habitat as well as a route between habitats.

That distinction matters. A corridor asks mainly whether animals can pass through. Feeding and resting habitat asks additional questions about noise, vessel activity, prey, disturbance and the amount of space available around development. Those questions are assessable, but they require local evidence.

The discovery is also a useful warning against pretending the marine environment is already fully understood. Our knowledge of how large animals use Bass Strait is still developing at the same time as proposals for a new industry are developing alongside it.

Humpbacks are not the only marine mammals using these waters. Southern right whales and other species, dolphins and seals are also part of the wider ecological picture. Detailed species lists belong in the Evidence Locker; the point here is simpler: this is an occupied sea, and assessment must begin from that fact.

2.8 The Flyway Between Two Wetlands and Beyond

The word *flyway* can be misleading if imagined as a single aerial highway. It is better understood as a vast network of breeding grounds, feeding areas, wetlands and stopover sites used by different species at different stages of their migrations. Gippsland Lakes and Corner Inlet form part of that much larger international system.

The East Asian–Australasian Flyway is one of the world's great migratory bird routes. Gippsland's coast sits within that much larger system, while the Gippsland Lakes and Corner Inlet provide internationally

recognised wetland habitat used by resident and migratory birds. That combination makes bird movement a regional question rather than a single-project question.

Offshore wind introduces several well-recognised risk pathways for birds: collision, avoidance or barrier effects, and displacement from habitat. Large modern turbines also sweep a very large rotor area, so species, flight height, weather, season and migration timing matter. Overseas projects use measures such as targeted shutdowns during high-risk movement periods, but the need for such measures in Gippsland depends on local baseline data and monitoring.

The Flyway Crosses the Project Area

The preliminary marine ecology assessment for Blue Mackerel North adds an important piece of local evidence to that broader picture. It identifies an alternative migration route between mainland south-east Australia and Tasmania, which is used by some birds travelling south to breeding grounds in spring and returning north in autumn. Significantly, the report states that this flyway passes through the offshore project assessment area.

The assessment identifies two Critically Endangered and five Endangered shorebird species that may, are likely to, or are known to occur within the offshore assessment area. It specifically notes that Eastern Curlew, Curlew Sandpiper, Bar-tailed Godwit and Black-tailed Godwit may migrate across Bass Strait, while birds moving south from places such as the Gippsland Lakes and Ninety Mile Beach towards Corner Inlet or Wilsons Promontory may also traverse the project area.

That does not establish that turbines will cause a population-level impact. The report itself distinguishes between potential exposure and demonstrated consequence. But it does identify a direct pathway that now has to be measured: birds moving between internationally important wetlands and across Bass Strait may pass through the same airspace proposed for offshore turbines.

For that reason, the proponent's assessment proposes baseline surveys of species presence and flight height, followed by collision-risk assessment and modelling. In other words, the important question is no longer simply whether a flyway exists somewhere in the wider region. For at least some threatened shorebirds, the project assessment itself recognises that the route may cross the offshore development area.

More Than Collision

The same preliminary assessment also identifies other bird-related pathways. Underwater noise may alter feeding behaviour in diving and foraging seabirds, although the report considers population-level effects unlikely in the circumstances assessed. Artificial light is another recognised pathway: nocturnally active petrels, shearwaters, albatrosses, noddies, terns and some penguins can be attracted to offshore lighting, with fledglings particularly susceptible. The report notes that fledglings can be affected by lights up to 15 kilometres away.

Again, the value of this evidence is not that it predicts an outcome.

It shows what must be investigated. Collision, barrier effects, displacement, artificial light and changes affecting foraging birds are not abstract concerns imported from another coastline; they are pathways identified within the project's own preliminary ecological assessment.

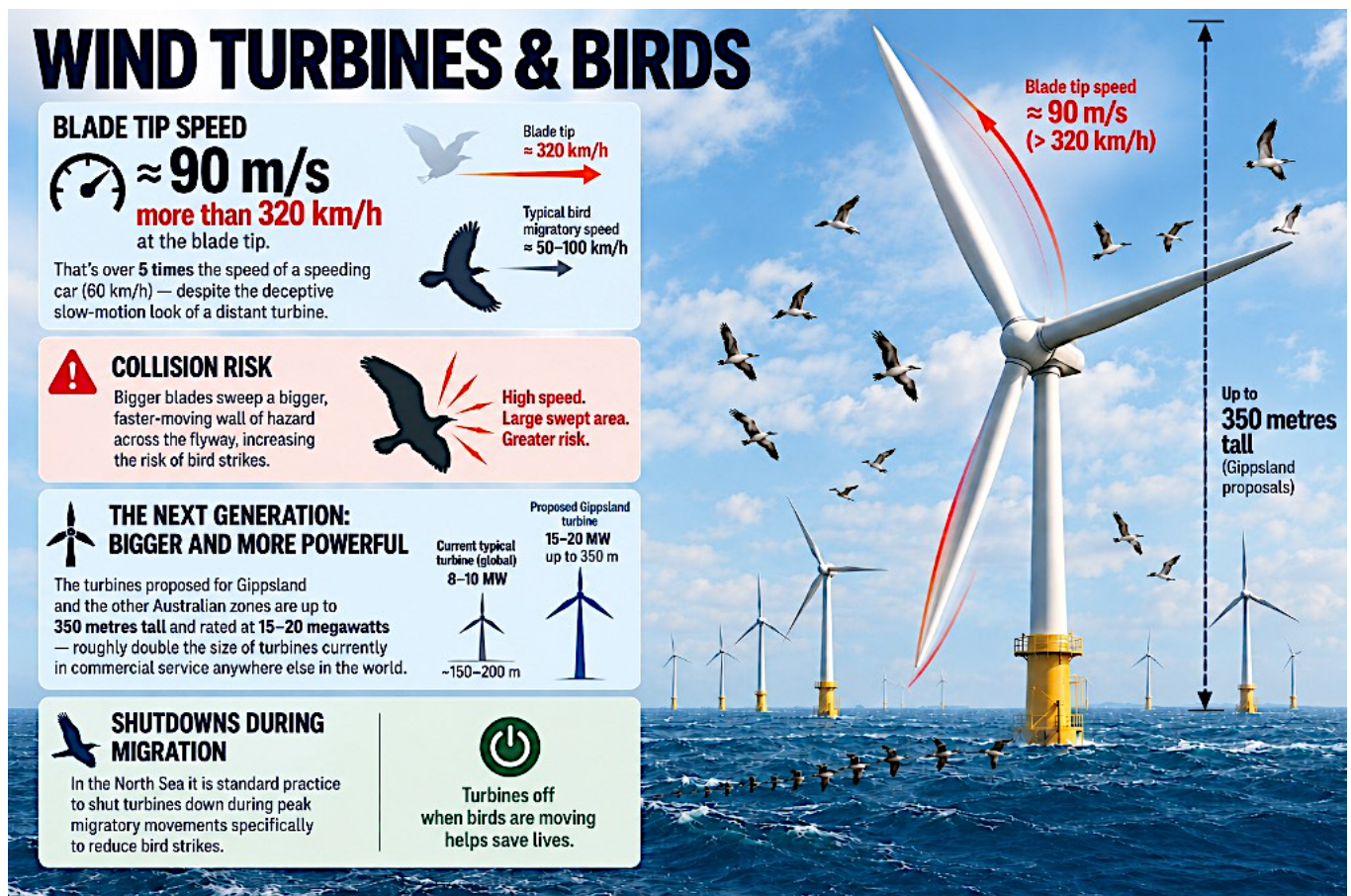


Figure 12: the lazy, slow-motion rotation of large wind turbines is a perceptual illusion caused by their massive scale and distance. While the rotor might look like it's barely crawling at just 10 to 15 revolutions per minute, the tips of those blades are frequently slicing through the air at 90 metres per second — over 320 kilometres per hour.

Gippsland hosts two wetlands of international importance under the Ramsar Convention: the Gippsland Lakes and Corner Inlet. Their ecological character depends on more than the lines drawn around them on a map. Birds move between wetlands and offshore waters; water, sediment and nutrients move across boundaries; and many species use different habitats at different stages of their life cycle.

Under the EPBC framework, actions with a likely significant impact on the ecological character of a Ramsar wetland require assessment even when the action occurs outside the listed boundary. That does not mean offshore development will necessarily cause such an impact. It means the connection has to be examined where a credible pathway exists.

The relevant risk pathways can be separated into a few practical questions.

Collision Risk

For species whose flight heights and routes overlap turbine rotor zones, collision risk is a recognised consideration. The scale of that risk varies sharply by species, season, weather and behaviour, which is why pre-construction movement data matters more than a generic assumption that all birds face the same exposure.

Barrier Effect

A separate issue is the barrier effect: some birds avoid turbine arrays and divert around them. The biological consequence depends on how often that detour occurs and how much additional energy it costs during

migration or repeated travel between roosting and feeding areas. Again, the mechanism is known; its Gippsland significance is a site-specific question.

Feeding Grounds

Wetlands depend on stable feeding habitat, water quality and ecological processes. Offshore wind can alter currents and sediment locally, but whether changes from a particular array would propagate far enough to affect a Ramsar wetland cannot be assumed from overseas modelling alone. That pathway needs local hydrodynamic and ecological assessment.

Displacement

Some bird species avoid operating wind farms, effectively losing access to otherwise intact habitat. Others show little response. The wide variation between species is precisely why local baseline data is essential before displacement can be estimated with confidence.

Rookeries

Birds are not the only colonial species using this coast. Australian fur seals breed on islands around Wilsons Promontory and elsewhere in eastern Gippsland, then forage across surrounding waters. Their presence adds another layer to the spatial question: where animals breed, where they feed, and how those areas overlap project footprints and vessel routes.

None of these pathways, alone or together, demonstrates that offshore wind and the Ramsar wetlands cannot coexist. They do demonstrate why an internationally important wetland cannot be treated as background scenery. Known mechanisms should be tested against Gippsland conditions, and uncertainty should remain visible until that work is done.

SOURCE: Australian Government — DCCEEW, Gippsland Lakes and Corner Inlet Ramsar sites; East Asian–Australasian Flyway; Impacts on Birds from Offshore Wind Farms in Australia.

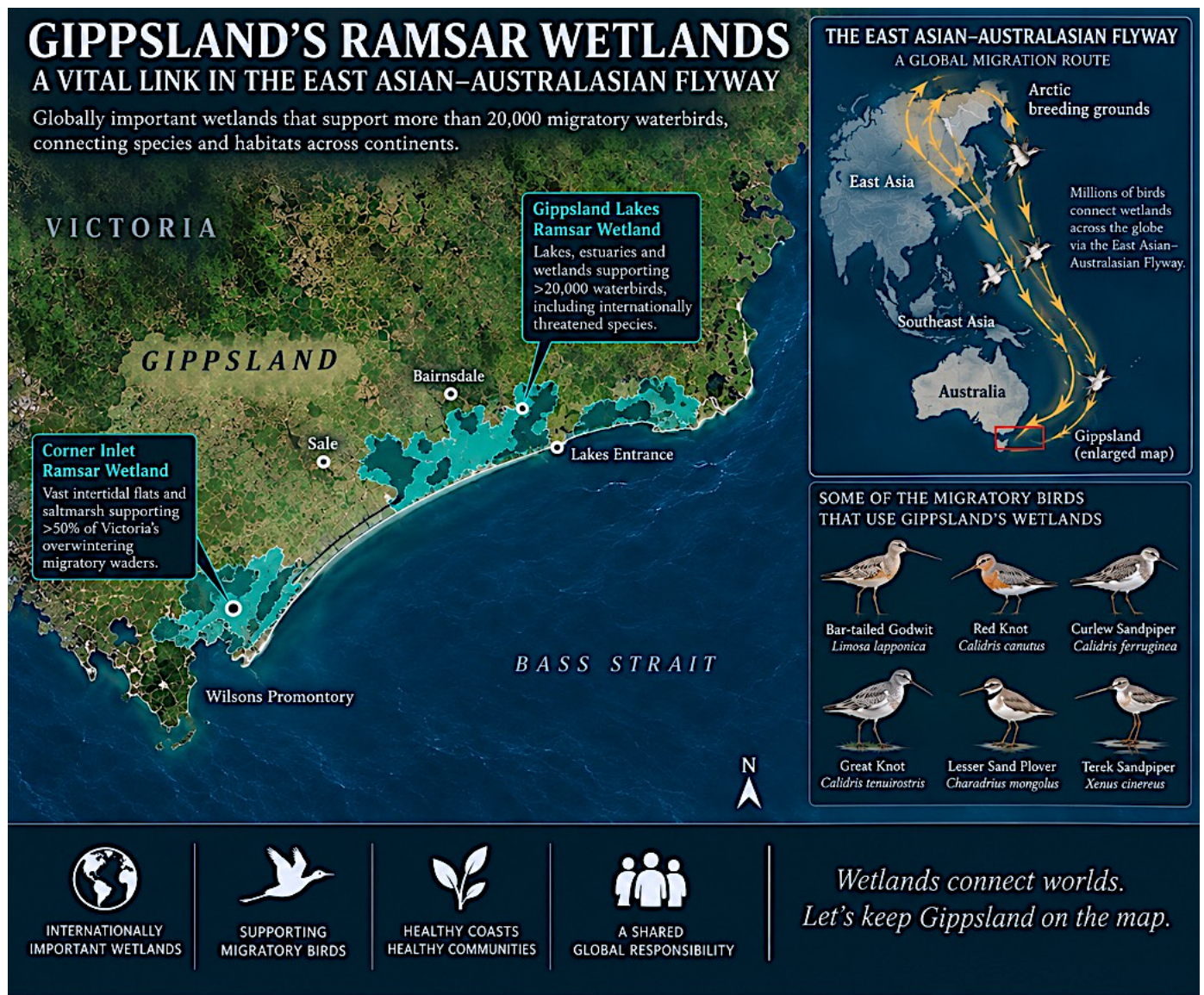


Figure 13: the Gippsland Lakes Ramsar Site and the Corner Inlet Ramsar Site are two internationally significant, Ramsar-listed wetland complexes located within the Gippsland region of Victoria, Australia.

2.9 Beneath the Surface

The least visible part of an offshore wind farm may be the part most readers find hardest to imagine. Above the water stands the turbine. Below it is the infrastructure that holds it there and connects it to the electricity network.

For fixed-bottom turbines, that begins with foundations installed into or onto the seabed. Between turbines, subsea cables carry electricity through the array before export cables take it towards shore. None of this makes offshore wind inherently incompatible with the marine environment. But it does mean that the environmental footprint does not end at the waterline — or at the turbine tower.

Construction can disturb seabed habitat through foundation installation and cable trenching. How significant that disturbance becomes depends on what is actually there: sediment, reefs, sponge gardens, spawning habitat and the ability of disturbed areas to recover.

That is why the seabed matters.

It isn't simply the floor on which an offshore wind farm is built.

It is habitat.

Sediment provides a useful example of the difference between a known mechanism and an uncertain local outcome. Construction and turbine structures can alter sediment movement and turbidity. What cannot be imported directly from North Sea modelling is the magnitude, direction and ecological consequence of those changes in Gippsland. That requires local hydrodynamic modelling tested against observations.

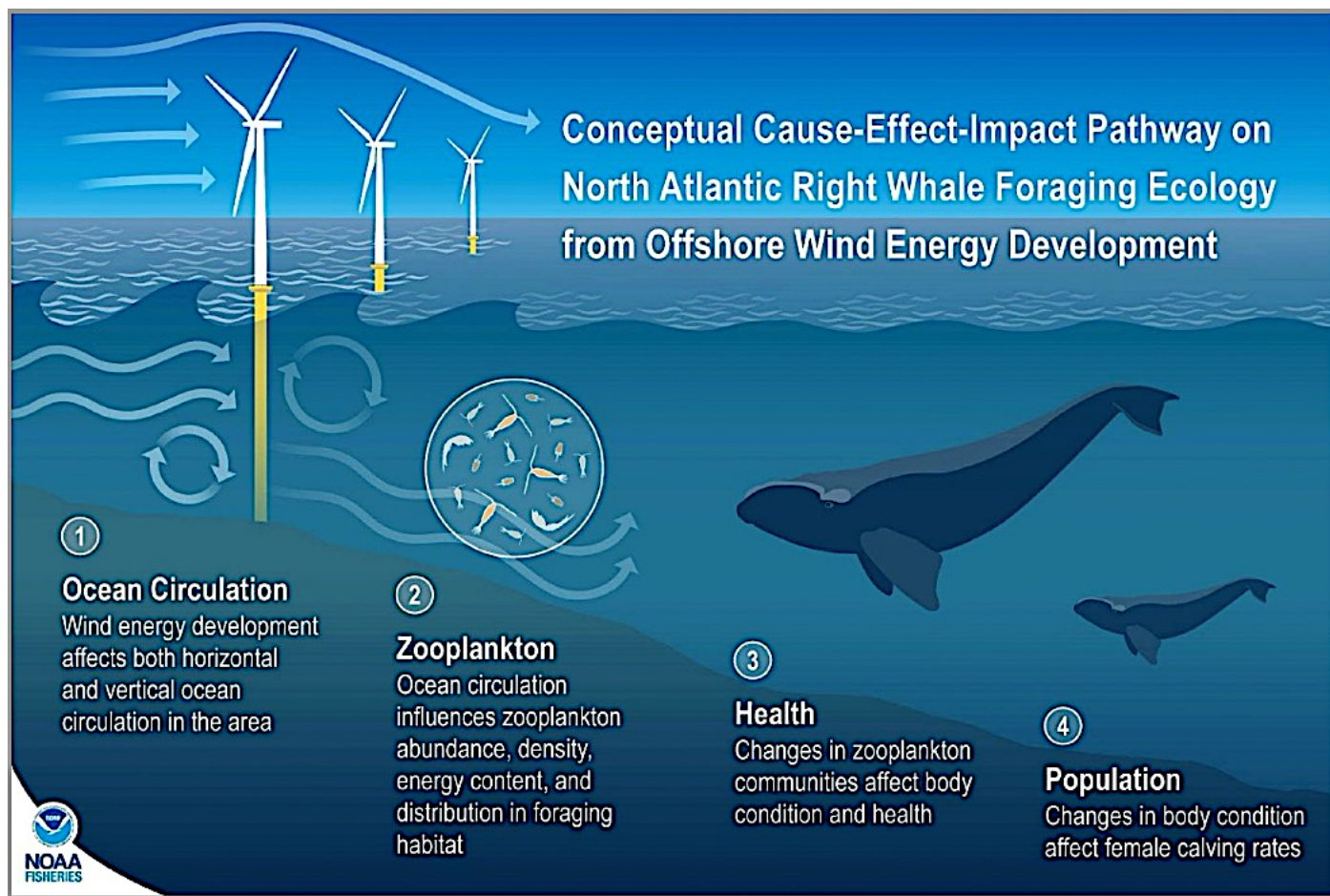


Figure 14: NOAA Fisheries graphic illustrating the range of ways offshore wind infrastructure can interact with marine biodiversity.

Operating arrays can also modify currents, turbulence and the exchange of heat, nutrients and oxygen in the water column. Overseas modelling shows that these effects can be measurable, but their size varies with turbine spacing, foundation type, water depth and local oceanography.

The evidence therefore supports neither complacency nor catastrophe. It supports measurement.

The key mechanisms identified in the literature include turbine and atmospheric wakes, changes to sediment transport, mixing and stratification, and local effects on benthic habitat. Their relevance to Gippsland should be tested locally and cumulatively rather than assumed from another sea.

Some of that knowledge is still being assembled. The Australian Government has commissioned Geoscience Australia to improve mapping of seabed features and benthic habitats across Bass Strait, including the Gippsland offshore wind area. The work is intended to help identify sensitive habitats and improve future environmental assessments.

In other words, some of the questions about what lies beneath the proposed development area are not questions already answered. They are questions government research is still working to answer.

The evidence does not say the ocean cannot host this industry. It says the ocean responds to it in ways that do not stop at the edge of a turbine. That is why project footprints and zone-wide cumulative effects need to be considered together. *SOURCE: Australian Government — DCCEEW, Key Environmental Factors for Offshore Windfarm Environmental Impact Assessment; Renewables Environmental Research Initiative; Bass Strait seabed mapping project.*

2.10 Underwater Noise — Loud Construction, Persistent Operation

Offshore wind produces different kinds of underwater sound across survey, construction, operation and decommissioning. The distinction matters because the loudest phase is not the longest one.

Construction: Loud, but Bounded

Pile driving for fixed foundations can generate intense impulsive sound capable of affecting marine animals at close range. The effect varies by species, distance and exposure, and established mitigation tools — including ramp-up procedures and noise-reduction systems — can reduce risk during the construction window.

Construction is temporary, even when it lasts across several seasons of a large project. That makes timing, exclusion distances, shutdown protocols and monitoring practical tools: the disturbance has a beginning and an end.

Operation: Quieter, but Persistent

Operating turbines produce lower-level continuous sound, while maintenance adds recurring vessel noise. Those sound levels are far below pile driving, but exposure continues for the operating life of the project, which is expected to be around thirty years. The ecological importance depends on frequency, species hearing ranges, distance and whether the sound masks communication or changes behaviour.

Operational noise is harder to mitigate at source than a short construction event, which makes baseline acoustic conditions and long-term monitoring particularly important.

There is also a scale issue. Much of the operating evidence comes from smaller turbine generations and established overseas arrays. Larger machines can be modelled, but modelling should be checked against measurements as projects move from design to operation.

What Long-Term Exposure Means

Research to date does not provide one answer across all marine species. Some studies report behavioural or communication effects in particular fish and invertebrates; others find little response. That mixed evidence is not a reason to declare harm or dismiss it. It is a reason to monitor species that actually occur in the project area over the timescales they will actually be exposed.

The useful distinction is therefore simple: construction noise is intense but temporary; operational noise is quieter but persistent. Both can be assessed, and both deserve mitigation and monitoring proportionate to the evidence.

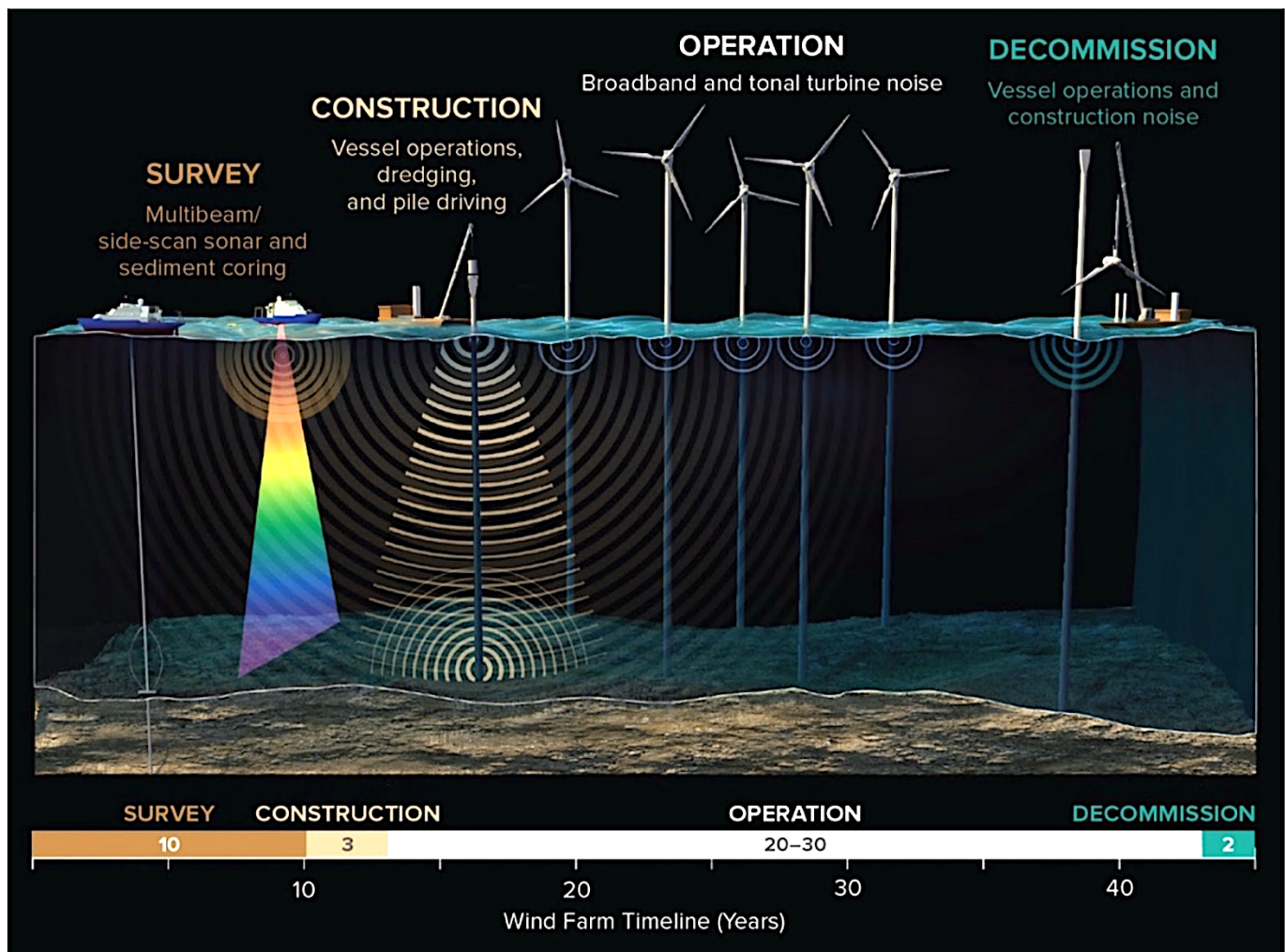


Figure 15: the acoustic life of an offshore wind farm across all four project phases — site survey, construction, operation and decommissioning — showing operation as the dominant share of a 40–50-year timeline. Adapted from Mooney, Andersson and Stanley (2020), *Oceanography* 33(4), an open-access work published under a Creative Commons Attribution 4.0 licence.

The loudest sounds may occur during construction, particularly where pile driving is required. But construction noise is only part of the question.

Operating turbines, maintenance vessels and other offshore activities can also contribute continuous sound to the marine environment. Those sounds may be less intense than pile driving, but they can persist across the operational life of a project.

That distinction matters. A short, intense sound and a lower-level sound repeated or maintained over many years are different environmental questions. Australian Government assessments acknowledge that the longer-term significance of increasing anthropogenic noise from large-scale offshore renewable energy remains uncertain.

The question, therefore, is not simply **how loud is it?**

It is also **how long does it last, how often does it occur, what else is making noise at the same time, and which species are there to hear it?**

SOURCE: Australian Government — DCCEEW, Key Environmental Factors for Offshore Windfarm Environmental Impact Assessment; Australia State of the Environment 2021 — Marine; National Recovery Plan for the Southern Right Whale.

2.11 The Precautionary Principle — Evidence First, Commitment Second

None of the preceding chapters establishes that offshore wind and a healthy ocean are automatically incompatible. What they establish is a set of known mechanisms, local values and unanswered site-specific questions. The precautionary principle matters precisely in that space: uncertainty is not proof of harm, but neither is it a reason to postpone the evidence needed to avoid serious or irreversible harm.

The government's own zone-design decisions show precaution and consultation operating in practice. Proposed areas have been reduced, moved further offshore or redrawn around environmental and community concerns in several regions, including Gippsland. Those changes demonstrate that the boundaries were not immutable and that environmental considerations could alter the design.

They do not demonstrate that every concern raised was correct, nor that every concern remaining inside the final boundary is unresolved. They demonstrate something more useful: the line on a map is the beginning of environmental judgement, not the end of it.

The practical questions Part Two leaves on the table are therefore straightforward:

- Are site-specific ecological baselines sufficiently complete before irreversible construction decisions are made?
- Are cumulative effects assessed across neighbouring projects and connected infrastructure, rather than only one proposal at a time?
- Are impacts on commercial and recreational fishing, tourism and other established uses described with enough specificity for affected communities to understand what changes in practice?
- Where migratory corridors, breeding or foraging habitat, reefs, wetlands or other sensitive systems may be affected, is the evidence strong enough to show how risk will be avoided, reduced and monitored?

These are not arguments for assuming the worst. They are arguments for getting the sequence right: identify the values, establish the baseline, test the pathways, examine cumulative effects, and then make the decision with the uncertainty visible.

Evidence first, commitment second. That principle does not obstruct an energy transition. It is how a transition earns the confidence that its environmental gains are not being purchased with avoidable losses somewhere else.

The precautionary principle is sometimes misunderstood as an instruction to stop whenever uncertainty exists. It is not.

Uncertainty alone does not establish environmental harm. But neither does uncertainty make a potential risk disappear.

Under the Commonwealth's own environmental law, where there is a threat of serious or irreversible environmental damage, a lack of full scientific certainty is not a reason to postpone measures intended to prevent that damage.

That distinction matters here. The task of environmental assessment is not to prove that nothing could possibly go wrong. It is to identify the risks, establish what is known, acknowledge what remains uncertain, and decide whether those risks can be avoided, mitigated or managed to an acceptable level. *SOURCE: Australian Government — Environment Protection and Biodiversity Conservation Act 1999, sections 3A and 391; DCCEEW, Key Environmental Factors for Offshore Windfarm Environmental Impact Assessment.*

2.12 What Is at Stake

Part Two began with a simple question: what is at stake? The answer is not one species, one industry or one view from the beach. It is a connected coast — wetlands and flyways, fishing grounds and small businesses, Sea Country and seabed, whales moving through Bass Strait and families returning to the same stretch of sand generation after generation.

None of that decides the offshore wind question by itself. Nor should it. The point of identifying what is valuable is not to declare development impossible; it is to make sure the decision is made with a clear understanding of what could change, what can be mitigated, what remains uncertain and what may be difficult to restore once lost.

That is why the sequence matters. First understand the place. Then understand the proposal. Only then can the two be weighed against each other with any confidence.

Part One introduced the people who stood up for this coast. Part Two has shown what they believe is worth protecting.

Now we turn from the coast to the projects themselves — who proposes to build them, where they would go, how large they may become, and what the licence maps actually put on the water.
That is where Part Three begins.

END OF PART TWO of SIX