Fast-track

Te Kāwanatanga o Aotearoa
New Zealand Government

Your Comment on the Southland Wind Farm application

Please include all the contact details listed below with your comments and indicate whether you can receive further communications from us by email at substantive@fastrack.govt.nz

1. Contact Details			
Please ensure that you have authority to comment on the application on behalf of those named on this form.			
Organisation name	Department of Conservation		
First name	Loren		
Last name	Brown		
Postal address	PO Box 10420, Wellington 6140		
Mobile phone		**Work phone**	
Email	fast-track@doc.govt.nz and [redacted]		

2. We will email you draft conditions of consent for your comment			
X	I can receive emails, and my email address is correct	☐	I cannot receive emails, and my postal address is correct

3. Please provide your comments on this application
Please find comments attached

Note: All comments will be made available to the public and the applicant when the Ministry for the Environment proactively releases advice provided to the Minister for the Environment.

Jenni Fitzgerald
Fast-Track Applications Manager

Acting pursuant to delegated authority on behalf of the Director-General of Conservation.

Date: 17/12/2025

Note: A copy of the Instrument of Delegation may be inspected at the Director-General's office at Conservation House / Whare Kaupapa Atawhai, 18/32 Manners Street, Wellington 6011

Comments on a fast-track consenting application

Fast-track Approvals Act 2024 section 53

To: The Expert Panel

From: Department of Conservation

Regarding fast-track project: Southland Wind Farm

Fast track Reference: FTAA-2508-1095

1 Background

1.1 Contact Energy Ltd (Contact) is seeking approvals under the Fast-track Approvals Act 2024 (FTAA) for its Southland Wind Farm (Application). The project was previously declined under the COVID-19 Recovery (Fast-track Consenting) Act 2020 (CFTA). It is located at Slopedown Hill, approximately 50 kms southeast of Invercargill, Southland. The consents sought are non-complying activities under the Proposed Southland Water and Land Plan and Southland District Plan under the Resource Management Act (1991) (RMA).

1.2 The proposed wind farm is a substantial renewable generation project, comprising up to 55 turbines and includes associated roading, hard stands, transmission and substation infrastructure to connect and supply electricity to the national grid via the existing Transpower 220 kilovolt kV Invercargill to Dunedin circuit. This project represents a significant addition to New Zealand's renewable electricity generation capacity at a national level as outlined in the National Policy Statement for Renewable Electricity Generation (2011) (NPS-RG).

1.3 Approvals sought as part of the Application include concessions for an airspace easement and culvert construction under the Conservation Act 1987, wildlife approvals under the Wildlife Act 1953, and complex freshwater fisheries activity approval under the Freshwater Fish Regulations 1983. These approvals were the subject of separate s 51 reports provided to the Expert Panel on 3 December 2025.

1.4 In accordance with sections 53(2)(k) and 53(2)(m)(i) of the Act, the Director-General of Conservation (D-G) has been invited to comment on the substantive application. Statutory delegations are in place for the Department of Conservation (DOC / the Department) to provide commentary on behalf of the D-G.

1.5 DOC has sought input from a range of technical experts to inform the preparation of these comments. These experts and their credentials are listed in **Appendix 2**.

2 The Application Process

2.1 Contact previously sought consents for the project under the CFTA. The consultation between Contact and DOC throughout that process addressed matters/approvals that would otherwise be applied for under the RMA. The consultation contributed to development of the assessment and management of effects and development of the proposed conditions for the project.

2.2 Contact re-engaged with DOC prior to the lodgement of their substantive application under the FTAA. This engagement focussed primarily on resource consent conditions.

2.3 DOC has negotiated various conditions with Contact to address conservation issues associated with the application. There have been a series of frank and robust discussions that have resulted in improvements to conditions to better address identified effects.

2.4 DOC is of the view that this process has been beneficial in terms of the understanding generated between both parties and has, in DOC's opinion, led to improved management and monitoring provisions.

3 Assessment

3.1 DOC is broadly comfortable with the application and the conditions as proposed by Contact but provides comments on a range of matters below.

Bats

3.2 The proposed compensation related to bats proposed in the conditions reflects an intensive effort to ensure that there is a no net loss in the local bat population and addresses residual risks to the bat population caused by blade strike and barotrauma1. This includes a condition to enhance bat populations in the Beresford Range of the Catlins Conservation Park. With regard to bat rotor curtailment, DOC is of the view that Contact's proposed options of both live and modelled curtailment should be retained in the conditions. This is due to the potentially significant effects of blade strike and barotrauma to bats and the potential for improved radar detection technology to avoid strike and barotrauma for bats and birds over the lifespan of the consent, which is best practise in Europe and North America.2

[1] Barotrauma in bats is lung or tissue damage from rapid pressure changes, near wind turbines, where the air pressure drops suddenly as blades spin, causing air in the lungs to expand and burst them (pulmonary barotrauma), leading to internal bleeding and death, often without direct blade contact.
[2] See Dr Christian Voight Presentation: Batlife Europe: Bats and Windfarms

Wetlands

3.3 The Jedburgh Plateau supports a complex mosaic of bog and fen wetlands interspersed with indigenous terrestrial vegetation including indigenous wetland vegetation, shrublands and forest. The combination of mosaic of wetlands, shrublands and forest is rare at its mid-altitude (500-600 m a.s.l) in the Catlins Ecological Region. The Jedburgh Plateau is considered the most extensive occurrence of this vegetation type in the Catlins Ecological Region, with only minor similar areas on the Beresford Range being the Ajax Bog.

3.4 Under the National Policy Statement for Indigenous Biodiversity (NPS-IB), the Jedburgh Plateau ecosystem meets the criteria for irreplaceability because of its uniqueness and contribution to Southland region's biodiversity. It also meets the vulnerability definition due to its susceptibility to land-use change (e.g., farming, forestry, infrastructure). Other wetlands on Plateau at similar altitudes have already been highly modified, highlighting its fragility.

3.5 The wetlands are likely to be sensitive to hydrological alterations, such as drainage or infrastructure development e.g., roading and concrete platforms for wind turbines. Changes in water flow could degrade the bog and fen systems, which rely on specific water tables and nutrient regimes. Cumulative effects from land-use changes in the Catlins and Southland regions further increase the risk of losing these ecosystems, which are already under pressure from historical wetland loss.

3.6 DOC acknowledges that the wetlands are not in a 100% natural state given the long history of history of indigenous vegetation clearance through burning, felling, and grazing. Stock still graze the Plateau in the winter months and sheep graze during the summer months. This grazing along with pressures from feral animals, pose ongoing pressure to the wetlands and indigenous vegetation.

3.7 Wildland Consultants Limited have undertaken extensive field work at the Southland Wind Farm site commencing in 2022 with the mapping of the vegetation using 10 m x10 m RECCE plots, and 2 m x 2 m wetland delineation plots, and wetlands mapping using desktop analysis. Monitoring of wetland delineation plots occurred again in March – April 2023, October 2023, March 2024, and April 2025. The wetland monitoring methods used follow the protocol outlined in the Wetland Delineation Protocol developed by Ministry for the Environment (MFE) in 2022. These include a dominance test of the vegetation to determine whether a site is a wetland by testing whether plant species are obligate species, facultative species, or facultative species[3]. Soil and hydrology monitoring was undertaken when vegetation data was insufficient.

3.8 The extent of wetland vegetation across the proposed Southland Wind Farm site (Jedburgh Plateau and Port Blakely Forest) is c. 178 hectares, comprising of 102 ha of fen, 11.7 ha of natural bog, 17.0 ha of induced bog, 0.7 ha of copper tussock - rautahi marsh, 0.2 ha of

[3] Ministry for the Environment. (2022). *Wetland delineation protocols*. Wellington: New Zealand Government. Retrieved from https://environment.govt.nz/publications/wetland-delineation-protocols/

copper tussock - rautahi swamp and 1.7 ha of mānuka - inaka - copper tussock marsh. And 43.8 hectare of copper tussock – rautahi marsh (on the Port Blakely Forest Property)[4]. Most of the wetlands are on the Jedburgh Plateau, with 99.2 ha of fen and 28.1 ha of bog wetlands. Wildlands Consultancy Ltd have differentiated between natural (11.1 ha) and induced (17 ha) bog wetlands in their November 2025 report[5]. The wetland delineation plots show the water table <30 cm, saturated soils, organic/peaty layers. Wildlands Consultancy Ltd says that the bog and fen wetlands on Jedburgh Plateau are not peat-based wetland which can take millions of years to form but are the product of shallow underlying geology approximately 1 m below the surface which traps rainfall and other moisture.

3.9 Additional mapping work using high resolution photos take in 2025 has provided additional ecological information and has assisting with more detailed mapping of wetlands on the Jedburgh Plateau.

3.10 The National Statement for Freshwater Management (NPS-FM) requires councils to avoid any further loss or degradation of wetlands and streams, and to map and restore wetlands. Policy 3.22 clearly outlines that natural inland wetlands and indigenous vegetation areas are irreplaceable. Therefore, avoidance is key and offsetting or biodiversity compensation is not seen as appropriate.

3.11 Policy 3.23 of the NPS-FM requires regional councils (in this case Environment Southland) to map all natural inland wetlands and monitor their extent and condition over time. The purpose is to ensure that: No further loss of wetland extent occurs (as reinforced by Policy 6 of the NPS-FM). Wetland values are protected, and restoration is promoted. Monitoring data informs planning, consent decisions, and cumulative effects management[6].

3.12 This Policy is highly relevant for the Jedburgh Plateau wetlands because, they represent a rare and irreplaceable ecosystem at mid-altitude in Southland. Their hydrological integrity is critical; any infrastructure or drainage changes (such as roading and or construction of hard surfaces for wind turbines) could cause irreversible degradation. And mapping and monitoring will provide a baseline for detecting changes and enforcing conditions to prevent any further wetland loss.

3.13 The construction of roads and concrete platforms on the Jedburgh Plateau wetlands, will involve the loss of 2.03 ha of wetlands across the whole Southland Wind Farm site. Comprising of 1.08 ha of fen (on Jedburgh Plateau), 0.94 ha of bog (on Jedburgh Plateau) and 0.01 ha of copper tussock/ rautahi marsh (on the Project site). Regarding the bog

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[4] The common name rautahi is used for four indigenous Carex species, *Carex coriacea*; Not Threatened, *Carex geminata*; Not Threatened, *Carex lessoniana* and *Carex ternaria*; At Risk – Declining. The common name inaka can be used for up to nine indigenous Dracophyllum species, in the Southland Windfarm site *Dracophyllum longifolium* is the only species recorded.

[5] Wildland Consultants Ltd. (2025, November 10). *Wetlands at Southland Wind Farm: Summary of values, impacts, and proposed compensation measures*. Auckland, New Zealand: Wildland Consultants Ltd.

[6] Ministry for the Environment. (2020). *National Policy Statement for Freshwater Management 2020*. New Zealand Government. Retrieved from https://environment.govt.nz/acts-and-regulations/national-policy-statements/national-policy-statement-freshwater-management/

wetlands, Wildlands Consultancy Ltd have split them into natural versus induced, with 0.3 ha of natural and 0.64 ha of induced bog wetlands. They then go onto explain that natural bog wetlands are ecologically more significant that the induced bog wetlands and given time (and protection) the induced wetlands will transition to shrubland then forests.

3.14 DOC agrees that natural bog wetlands are likely to have a great diversity of species, communities, and habitats than induced wetlands on the Jedburgh Plateau, especially given the continual grazing pressure from farm stock (cattle and sheep) and the impacts of deer, pigs, and possum. Removal of these pressures along with being in proximity to shrublands and forests for seed source may promote vegetation succession. With the removal of grazing / browsing pressures from cattle, sheep, and deer there will likely be an influx of woody and herbaceous weed species which have been suppressed until that point. Weed control, especially of woody weeds and invasive herbaceous species is vital in protecting the wetlands ecological integrity and function.

3.15 DOC is of the view that the effects of wetland fragmentation and impacts on the hydrology need to be assessed comprehensively to effectively understand the long-term impacts of these changes on the wetland ecosystems. As mentioned above, the development of roads and concrete platforms for wind turbines will lead to direct loss of wetland extent and connectivity. Fragmented ecosystems, especially small, isolated areas of indigenous vegetation or wetlands are incredibly vulnerable to "edge effects" such as drying out, temperature fluxes, weed ingress, erosion, reduction in habitat for indigenous fauna and opening areas up for mammalian predators such as feral cats and mustelids, which can result in a greater loss of wetland habitat than predicted[7].

3.16 In addition, changes in hydrology such as changes in water flow patterns, in the water table and soil moisture due to roading or construction of concrete platforms can lead to an increase in edge effects on fragmented wetland ecosystems including drying out areas, erosion of edges and promotion of weed invasion which may out compete native species. DOC is of the view that if the Application is to be granted, the long-term effects of fragmentation and changes in hydrology on the Jedburgh Plateau wetlands needs effective monitoring.

3.17 In addition, the effects of the operational Wind Farm on indigenous vegetation (shrublands and forests) and the wetlands needs to be monitored long term. The wake of wind turbines can change downward temperatures, humidity, and impact on vegetation growth patterns. These changes can affect species composition and ecosystem function over time[8]. This is of particular concern for the wetland ecosystems present on Jedburgh Plateau.

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[7] Robertson, H. A., Ausseil, A.-G., Rance, B., Betts, H., & Pomeroy, E. (2018). *Loss of wetlands since 1990 in Southland, New Zealand*. New Zealand Journal of Ecology. Retrieved from https://www.jstor.org/stable/26775029

[8] U.S. Geological Survey. (2022, September 26). *Wind turbine wakes can impact downwind vegetation.* U.S. Geological Survey National News Release. Retrieved from https://www.usgs.gov/news/national-news-release/wind-turbine-wakes-can-impact-downwind-vegetation

3.18 In general, DOC is satisfied with the ecological assessment of values and effects undertaken by the Applicants' ecologist Wildlands Consultancy Ltd because additional data collected from wetland monitoring has improved the mapping of the wetlands and therefore the understanding of the effects of the activity on these values. The proposed biodiversity compensation actions will be beneficial for the wetland, shrubland and forest ecosystems given its current state which is grazing by cattle and sheep, browsing and pressures from feral deer, pigs and possum, weeds, and mammalian predators.

3.19 DOC stresses the need for ongoing wetland monitoring and reporting to understand any changes to the vegetation and / or hydrology on the Jedburgh Plateau should the Hearing Panel be minded to grant consent. This is particularly important post development of the Wind Farm when it is operational, to measure the short term and long-term effects.

Significant natural vegetation

3.20 The indigenous vegetation on Jedburgh Plateau includes Southern rātā–kāmahi, pāhautea forest, mānuka/tauhinu/inaka mosaics and wetlands; Fen, bog, copper tussock–rautahi marsh, mānuka-inaka/copper tussock marsh. There are also areas of wilding pines, exotic grassland, gorse, and broom shrubland present on the Plateau. Wildlands Consultancy has used the Environmental Institute of Australia and New Zealand (EIANZ) to assess ecological value instead of ecological significance.

3.21 The ecological value they have given to the vegetation types are Very High for Southern rātā–kāmahi forest, pāhautea forest, fen and bog wetlands, copper tussock–rautahi marsh, High for Mānuka/copper tussock grassland/shrubland, mānuka-inaka/copper tussock marsh, Moderate for mānuka scrub, inaka scrub, wilding conifer/copper tussock and Low/Negligible for exotic grasslands, gorse scrub, broom shrubland.

3.22 These vegetation types are ecologically significant for the Catlins and Southland and meet the criteria in the NPS-IB including, representativeness, diversity and pattern, rarity and distinctiveness, ecological context. In addition, the Southwest corner of the Plateau has an area identified as a threatened environment under the Threatened Environments Classification with <10% indigenous cover remaining, there will be eight wind turbines and roads constructed in this threatened environment, potentially leading to further indigenous vegetation cover loss.

Biodiversity compensation and offsetting

3.23 Based on the current layout and design of the Southland Wind Farm there will be 2.03 hectares of wetlands (1.08 ha fen, 0.94 ha bog) lost, representing ~1.6% of Jedburgh Plateau wetlands. The proposed compensation and enhancement actions will take place off site at Davidsons Road and on the Jedburgh Plateau.

3.24 Offsite biodiversity compensation proposed includes the restoration of 5.1 ha of exotic grassland to copper tussock-rautahi marsh and enhancement of 6.7 ha existing marsh at the Davidson Road site (total 11.8ha under permanent protection). These restoration sites will be fenced from stock, have hydrological alteration (drain removal) to allow natural hydrology, pest plant and animal control and be protected permanently.

3.25 Onsite offsetting proposed includes pest control across 1,400 ha, fencing of 245 ha Ecological Enhancement Area, and intensive predator control in a 55 ha Fauna Enhancement Area. Onsite biodiversity compensation; aerial and ground-based control of mammalian pest species such as deer, possum, rats, stoats and potentially pigs and hare across a range of ecosystems over approx. 1400 ha. A 245 ha Ecological Enhancement Area within the Pest Control Area which will be fenced off to exclude stock, pigs and deer and protected in perpetuity. This includes 18.2 ha of fen wetlands and 2.3 ha of natural bog wetlands. Targeted deer and pig control will be undertaken one 6 monthly basis (spring and late summer) for two years, then no less than every three years for the life of the Wind Farm. Intensive ground-based pest animal control within a c.55 ha Plateau Fauna Enhancement Area targeting rodents and mustelids. This Plateau Fauna Enhancement Area includes fen wetlands (13.2 ha) and induced bog wetlands (1.3 ha). There is a total of 530 ha of wetlands on the Jedburgh Plateau, of which 245 ha will be protected via the Ecological Enhancement Area and 55 ha through the Plateau Fauna Enhancement Area. While the remaining 230 ha will likely benefit from deer and pig control, the landowner will continue to graze 300 head of cattle for three months each winter (Jun-Aug) and sheep in summer within the remaining wetland complex. It is widely known that grazing stock particularly cattle in wetlands leads to increased pugging, sedimentation, fragmentation of fragile plant communities, increased nutrient loading, spread of weed seeds and a decline in wetland ecosystem function and health. The long-term impact of grazing wetlands includes a loss of indigenous plant species diversity leading to a decline in indigenous plant community composition and wetland function. In addition, disturbed ecosystems with open soils favour exotic plant species (grasses, herbaceous weed species and woody weed species) which thrive in these habitats resulting in an increase in exotic plant dominance.

Feral cats

3.26 DOC is of the view that the proposed conditions still require some improvement to adequately address lizard predation by cats. Cats are solitary and have large territories (approximately 200 ha) and are likely to be throughout the wetlands and forests within the site (noting that feral cats were detected during field surveys – see H05. – Technical assessment 5 – Terrestrial and Wetland Ecology). Control using SA2 cat traps is required. Additional cat control should also be undertaken in the three lizard release sites, in areas where green skinks are found, and in the copper tussock enhancement and skink protection area (should lizards be released there).

3.27 Initial conversations with Contact indicate they are willing to improve their cat control measures, however DOC would like to see changes to the consent conditions to reflect what has been discussed.

3.28 Feral cats are skilled hunters that can make up to 10-20 kills per day and are known to kill native birds, bats, lizards and invertebrates. DOC strongly recommend that an extension of the areas to control feral cats are added to protect lizards. Feral cats have recently (21st November 2025) been included in the Predator free 2050 national pest eradication target9.

3.29 Cats can be controlled via aerial or ground-based hunting, trapping or kill trapping. Live capture trapping in cages can also be used to prevent the accidental killing of domestic cats.

Avifauna[10]

3.30 Contact have recently provided a report summarising the avifauna survey results for 2024-2025 (November 2025). However, DOC is of the view there are still issues associated with 1) the timing of the surveys for migratory birds in particular; 2) concern about the potential effect on sooty shearwater / tītī flying into the blade swept area on migration; and 3) the need for ongoing compliance monitoring of species vulnerable to strike due to flying in the rotor swept area.

3.31 The Applicant's ecologists have undertaken further bird studies in the report dated November 2025 and have now undertaken studies in all seasons at the site. They have surveyed several species and sites within the wind farm footprint, including transmission lines. Studes have included five-minute bird counts, flight height surveys (of proposed wind tower sites and transmission lines), falcon surveys, playback of wetland bird calls and acoustic recorders.

Seasonal migration

3.32 DOC is of the view that the Applicant has undertaken a thorough and detailed study for birds at the site. DOC's technical advice is that there is substantial information now known for resident birds at the site. Despite this, however, there are still some gaps and potential gaps in the studies, mainly for birds that use the site intermittently or annually, and potentially for migratory birds that never land at the site but may pass through the airspace of the wind farm at night.

3.33 The recent bird surveys were undertaken in the months of November, February, May, and August. While this gives an understanding of seasonal variation, there are potentially

[9] Department of Conservation. (2025, November 21). *Feral cats to be added to Predator Free 2050*. New Zealand Government. Retrieved from https://www.doc.govt.nz/news/media-releases/2025-media-releases/feral-cats-to-be-added-to-predator-free-2050/

[10] Reference: Newman, J., Scott, D., Bragg, C., McKechnie, S., Moler, H., Fletcher D. Estimating regional population size and annual harvest intensity of the sooty shearwater in New Zealand. *New Zealand Journal of Zoology*, 2009, 36: 307-323.

significant bird movements through the wind farm that occur between these surveys. The South Island Pied Oystercatcher (SIPO), for example, mainly breeds in inland South Island waterways during late winter and early spring. Once chicks fledge, birds fly to multiple estuarine and shoreline sites across Aotearoa/New Zealand, including to the North Island and to Southland. A DOC study on the dispersal times of birds that fly to the North Island has demonstrated peak flight months of January when flying north and July when flying south (Fig 1).

3.34 Unfortunately, the months when surveys were undertaken at this site (including to detect SIPO) were during months when little migration occurs to North Island sites. DOC considers it is highly likely that a similar pattern of migration time occurs for birds flying to Southland, where some flight paths may intersect with the proposed wind farm. Therefore, based on that view, the migratory information compiled by the applicant for SIPO is unreliable.

3.35 In addition, as the Applicant has discovered this site is also used by SIPO to breed, DOC now considers the development of a wind farm poses more risk to this species, as instead of only being transitory, some pairs are likely to be resident for 2-3 months while breeding.

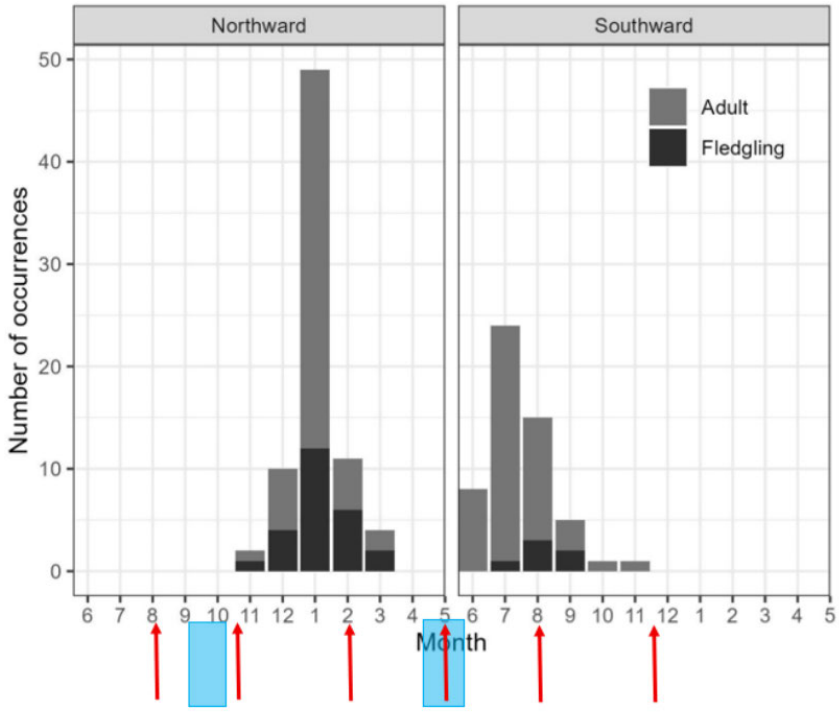


Fig.1 Months of the year that SIPO migrate from the South Island to the North Island ('Northward') and from the North Island to the South Island ('Southward'). Red arrows indicate when the applicant undertook SIPO surveys. Blue bars indicate when sooty shearwater are most likely to pass through the site on initial return to breeding grounds (Sept/Oct) and northward dispersal (April/May) following breeding.

Nocturnal migratory birds

3.36 If migratory birds (such as the sooty shearwater) are not calling as they pass over the recorders placed out at the proposed turbine sites then they cannot be detected using these methods.

3.37 Sooty shearwater is considered by DOC to possibly be the species with the potential for the greatest number of birds that could pass through the site – they have an estimated population on the islands around Stewart Island / Rakiura of approximately 9 million adults (Newman et al., 2009). If even part of their flight path intersects with the proposed wind farm, and their flight height is within the rotor strike zone at this site, a wind farm has the potential to cause mortality of many birds.

3.38 Adult sooty shearwater return to colonies in Sept/Oct from the north, then lay eggs in late Nov/early Dec. Chicks fledge late April to mid-May (see Fig. 1), and adults and fledged chicks travel north.

3.39 Sooty shearwater are unlikely to call during these flights and given the fine detail of their migratory flight paths and flight heights are unknown in this location, it is uncertain to what extent they may be affected by the proposed wind farm, should it be constructed. Undertaking mortality surveys during these periods, particularly during the first few years of operation of a consented wind farm, will be essential in determining any impact of the wind farm on this species.

Flight heights

3.40 Several diurnal species were seen flying within estimated rotor swept area (30-220m above the ground) at the proposed turbines. SIPO (At Risk – Declining) was the only threatened species observed flying in the strike zone (approx. 35% of flights), but of concern were 100% (n=9) of tui flights seen were in this zone, nearly 70% of kahu/swamp harrier, 50% of kererū and nearly 30% of observed korimako/bellbird flights. DOC's technical advice recommends monitoring for these species in particular, would be prudent.

Invertebrates

3.41 DOC is of the view that the proposed conditions adequately address terrestrial invertebrates.

4 Conditions

4.1 See **Appendix 1** for the recommended changes to Contact's proposed conditions in strikeout and redline. These recommended changes address DOC's assessment in section 3 above.

5 Conclusion

5.1 DOC has been intensively involved with this project under both the previous CFTA process and the FTAA. Contact has committed substantial resources to liaise with key DOC staff on this Application to address the environmental issues associated with it. As discussed above,

DOC is generally comfortable with the Application and is of the view that Contact has been diligent in addressing the environmental effects of this proposal.

5.2 DOC is of the view that:

5.2.1 the proposed conditions adequately address the adverse effects of this proposal on bats and terrestrial invertebrates for the reasons outlined in section 3 above;

5.2.2 the proposed conditions relating to avifauna still require some refinement to address migratory birds and bird strike; and

5.2.3 the proposed cat control requires expansion using SA2 traps to adequately protect lizards in areas where they are to be released, and in areas where green skinks are found.

5.3 Regarding wetlands, DOC considers the wetland mapping is adequate after the extra work done by Wildlands as outlined in their 10th November 2025 memorandum. A key question for the Panel is whether the direct and cumulative hydrological effects on the natural value and vulnerability of the 1.6% of the Jedburgh Plateau wetlands directly affected are appropriate after considering the associated conditions and compensation proposed and relevant Policies C1 and C2 of the NPS-RG.

5.4 If the Panel is minded to grant the Application, DOC would recommend a robust mapping and hydrological monitoring programme as outlined in the Wildlands 10 November 2025 memorandum to ensure that any cumulative effects of the proposal on the wetlands can be managed. This component will need to focus on wetland fragmentation and hydrological alterations caused by the wind farm development and on any changes caused by the wind turbines on the wetland vegetation to ensure the health of the wetland can be measured and sustained (together with all other management conditions). In light of this, amendments to condition EC11B have been proposed.

Appendix 1 - Conditions

Condition number	Proposed conditions with recommended changes	DOC comments on proposed conditions
CM27	During the construction of the Southland Wind Farm and for the first five years during its operation, and every five years thereafter, the Consent Holder shall provide an annual report summarising the status of construction and/or operational activities for the period 1st July – 30th June on the Project Site, and any associated monitoring requirements, to the District and Regional Councils and to Te Ao Marama Inc. (on behalf of Ngā Rūnaka ki Murihiku) by 30th September each year. The annual report shall include, but not be limited to: a) All aspects of performance of the CEMP, TEMP and any other management plans required by this consent; b) A summary of all construction related activities undertaken, c) A summary of compliance with the conditions of this consent; and any incidents of non-compliance; d) Results of any water quality monitoring required during the construction as set out in the EMP and/or ESCP; e) Results of any rehabilitation undertaken during the construction period; f) The extent to which the requirements of the Habitat Restoration and Enhancement Plan are achieved; and g) Record of any complaints received and responses.	Verification of terms of condition
EC11B	The Consent Holder shall engage a Suitably Qualified and Experienced Person to undertake monitoring of wetlands near to the Project Footprint prior to construction, during construction and post construction in accordance with the following: a) Plots shall be established within 20m of the turbine platforms and roads in the following locations, subject to the final Project Footprint design:	Long term monitoring required to detect changes in vegetation type, extent and hydrological alterations.

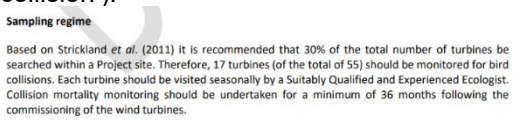
	(i) Two (2) plots in fen adjacent to JED-22; (ii) Two (2) plots in fen and two (2) plots in bog wetland adjacent to JED-23; (iii) Two (2) plots in fen and two (2) plots in bog wetland adjacent to JED-24; (iv) Two (2) plots in fen wetland to the south of the road that connects JED-26 to the wind farm substation; (v) Two (2) plots in fen and two (2) plots in bog wetland to the west of JED-29; and (vi) Two (2) plots in marsh wetland immediately south of MAT-14. b) Any plots established in fen wetland shall be located on the lower slope/downstream side of the structure. c) Monitoring shall be completed in accordance with the methods based on Clarkson (2004) and MfE(2022)[11] as outlined in the VMP to manage the potential long-term effects of construction activities on these wetlands, including changes to wetland plant community area and extent and changes in wetland hydrology caused by fragmentation and the effect of wind turbine wake. This shall include taking a photographic record of the plots listed in clause (i)-(vi) prior to the commencement of construction activities for the Southland Wind Farm and comparing this against new photographic images taken on an annual basis thereafter. d) ~~Wetland monitoring shall cease two (2) years following the completion of the construction of the Southland Wind Farm.~~	Changes are required to the VMP to reflect DOC's proposed changes to this condition. Regarding d) a similar framework to condition EC37 is required to have a pre impact, initial impact, and long term trend

[11] Clarkson, B. R., Sorrell, B. K., Reeves, P. N., Champion, P. D., Partridge, T. R., & Clarkson, B. D. (2004). *Handbook for monitoring wetland condition* (Revised ed.). Coordinated Monitoring of New Zealand Wetlands. Ministry for the Environment Sustainable Management Fund Project (5105).

Ministry for the Environment. (2022). *Wetland delineation protocols*. Wellington: New Zealand Government.

	d) Wetland monitoring as required under condition EC11B (c) shall occur as follows: e) Prior to the construction of any Southland Wind farm infrastructure outlined in Conditon11B a (i-vi), and f) Following the commissioning of the first wind turbine at the Southland Wind Farm, wetland monitoring shall occur for a minimum of three (3) years, and g) Once following the commissioning of all wind turbines at the Southland Wind Farm if completed after b) above; and d) Thereafter, wetland monitoring shall occur every five (5) years following the commissioning of the first wind turbine outlined in conditon11B a (i-vi), for the duration of the operation of the Southland Wind Farm. The results of this monitoring shall be provided to the Regional Council with the annual reporting required by Condition CM27.	
EC36	a) For three (3) years following the commencement of the commissioning of wind turbines, the Consent Holder shall undertake post-construction avifauna monitoring seasonally in accordance with condition EC37 and the methods outlined in the AMP to provide data on the effects of the construction and operation of the Southland Wind Farm on bird ecology and behaviour. The post-construction monitoring shall replicate the pre-construction monitoring and include: (i) Completing five-minute bird count surveys across Jedburgh Station and Matariki Forest, including areas of pine forest, exotic scrub and shrubland, indigenous broadleaved forest and scrub and mānuka/copper tussock grassland habitats; (ii) Completing fixed point surveys for kārearea/eastern falcon and kererū; (iii) Bioacoustics monitoring surveys to detect cryptic birds and	

	nocturnal species within the Project Site; and (iv) Fixed-point and bioacoustics monitoring surveys at wind turbine locations and along the transmission line route. b) In addition to the above, playback call monitoring for mātāta / South Island fernbird shall be completed within the Project Site annually between January and February, and additional bioacoustics monitoring surveys shall be completed within the Project Site that coincide with the timing of migration for identified bird species, as outlined in condition 37A and the AMP. ***Advice note:*** *This is a specific post-construction monitoring regime for fernbird and migratory birds which does not precisely replicate the pre-construction monitoring requirements.* c) Following the completion of the first three (3) years of seasonal avifauna monitoring, the Consent Holder shall undertake post-construction avifauna monitoring, every five (5) years thereafter for the life of the Project, in accordance with the methods outlined in the AMP. The Consent Holder shall engage a Suitably Qualified and Experienced Person to prepare an annual compliance monitoring report in accordance with the requirements of the AMP outlining the results of the post-construction avifauna monitoring surveys. The Consent Holder shall provide this report to the District Council and Department of Conservation (Invercargill Office) by 30 September for at least three (3) years following the commissioning of wind turbines at the Southland Wind Farm, and every five (5) years thereafter.	
EC37	The Consent Holder shall engage a Suitably Qualified and Experienced Person to complete collision mortality monitoring in accordance with the methods outlined in the AMP. The collision mortality monitoring shall be undertaken as follows: h) Following the commissioning of the first wind turbine at the	Consequential changes required to the AMP. Section 7.2 of the AMP includes monitoring during the construction period: 7.2 Collision mortality monitoring **Overview** Bird collision monitoring will begin following the commencement of the operation of the first wind turbine and be completed on a seasonal basis for a minimum of three years following the commissioning of the final wind turbine, and every five years thereafter (during each season) for the duration of the operation of the Southland Wind Farm (in accordance with Condition EC37). This monitoring is required to validate (and update) the original bird collision model prepared for the proposed wind farm. It will also be measured against the Compensation Trigger for the individual species listed in Condition EC37B.

	Southland Wind Farm, collision monitoring shall occur quarterly (during each season) for a minimum of three (3) years, and i) Quarterly following the commissioning of all wind turbines at the Southland Wind Farm; and, j) Thereafter, collision monitoring shall occur quarterly every five (5) years (during each season of that year), following the date of the commissioning of the first wind turbine at the Southland Wind Farm for the duration of the operation of the Southland Wind Farm.	Section 7.2 also discusses sampling regime. The sampling regime should be roughly 30% of commissioned turbines at all times during the construction of the windfarm (i.e. worst-case scenario is that they build 38 over 3 years with no collision monitoring, and then only start to monitor the last 17 commissioned turbines). DOC is of the view that a minimum of 20% of commissioned turbines at any time during WF construction should be sufficient to give them enough wiggle room to get to 30% upon final commissioning. Contact do not state which turbines are to be surveyed for collision monitoring so we cannot be sure that a suitable sample of turbines within the diversity of habitats, differing altitudes, and some of those adjacent to the escarpment will be searched. DOC is of the view this needs to be stated in the Conditions which turbines will be searched, or provide a greater level of certainty (e.g. show in a diagram '1 of these 3 turbines will be searched for bird collision').  **Sampling regime** Based on Strickland *et al.* (2011) it is recommended that 30% of the total number of turbines be searched within a Project site. Therefore, 17 turbines (of the total of 55) should be monitored for bird collisions. Each turbine should be visited seasonally by a Suitably Qualified and Experienced Ecologist. Collision mortality monitoring should be undertaken for a minimum of 36 months following the commissioning of the wind turbines. h) i) and j) are all needed as: h) will pick up any initial collision mortality and i) is required to baseline any full effect of collision mortality once all turbines are operational. j) will provide ongoing monitoring of collision mortality for the life of the project.
EC37A	The AMP shall include a description of the methods to be adopted for recording the frequency of collisions with wind turbines or the transmission line resulting in mortality for all bird species. These methods shall define a search area relative to the height and rotor span of the wind turbines and include the following: a) A data collection and analysis regime to record the frequency of bird collisions with wind turbines or the transmission line including the timing, location and duration of monitoring at a statistically derived number of wind turbines and sections of the transmission line;	

	b) Identification of search areas across the Wind Farm Site, representing a range of habitat types and elevations; c) Methods for bird collision monitoring, including consideration of the use of drones and suitably trained dogs for carcass searching; d) Methods to ensure that the data collection and analysis regime provides a reliable estimate of bird strike mortality and a range of environmental conditions at wind turbines is obtained, while accounting for seasonal variations; such as sooty shearwater/tītī in September/October and April/May and South Island pied oystercatcher /tōrea in January and July/August; e) Calculation of the probability of bird carcass loss to scavengers, decomposition and other causes, taking into account temporal, environmental and other sources of variation; f) Calculation of the probability of carcass detection by searchers, which may include searching assisted by suitably trained dogs, taking into account temporal, environmental, searcher identity and other sources of variation; g) Methods to accurately record the condition (partial carcass, entire carcass or feather spot) and probable cause of death; h) Methods for the reporting of bird strike and mortality; and Methods to record, and electronically store, audit and backup data.	

Appendix 2 - Technical expert credentials

Principal Science Advisor – Dr Colin F J O'Donnell (ONZM)

Is employed as Principal Science Advisor (Ecosystems and Species) with the Department of Conservation (hereafter termed DOC) Biodiversity Group based at 161 Cashel Street, Christchurch. He was awarded a BSc (Honours) in Zoology from Canterbury University (1980) and a PhD in Zoology from Otago University (1999).

Colin has considerable experience relevant to assessing this Application including working with bats in New Zealand and internationally for over 25 years, and on numerous significance and consent assessments for 35 years. His job includes a wide range of work areas largely focused on researching forest birds, lizards, bats, wetland birds, the impacts of predators on them, and developing conservation management prescriptions, particularly for predator control, to reverse population declines.

Colin has published >170 peer reviewed scientific papers, book chapters, best practice reports and management reports in a wide range of national and international media related to the conservation and management of New Zealand wildlife. More recently Colin has been involved in studies of bats since 1992 when he began research projects for DOC looking at factors which had caused the decline of bats and developed and tested management prescriptions for reversing their declines.

Colin was involved in developing the first NZ bat recovery plan and subsequently became Leader of the NZ Bat Recovery Group. Colin has been involved in research projects on bats throughout New Zealand, which include designing automatic ways of recording bat activity, identifying sites of significance for bats, running intensive multi-year research projects in Waikato, Canterbury and Fiordland, and supervising numerous student theses throughout New Zealand, including bat studies in the Waikato region.

Colin has also been a member of a steering group overseeing the New Zealand Transport Agency's (NZTA) Bats and Roads Research Programme, published as "Effects of land transport activities on New Zealand's endemic at populations: reviews of ecological and regulatory literature" NZ Transport Agency research report 623. He recently was a co-author of the "Conservation status of bats in Aotearoa New Zealand" (2022).

Colin has also undertaken research on bats in the UK and Germany and assisted on bat projects in the Americas, Asia, Australia, and Europe.
Colin has evaluated the significance of wildlife communities and potential impacts of development schemes in numerous cases including proposed roading, irrigation, and power schemes.

Senior Technical Advisor (fauna) – Dr Rhys Burns

Dr Rhys Burns has been employed at the Department of Conservation for 26 years in Terrestrial biodiversity management and 21 years as a terrestrial advisor.

Rhys is the leader of the Kōkako Recovery Group, Weka Recovery Group, and member of the Native Frog Recovery Group.

Rhys has been an expert witness for DOC in terrestrial biodiversity at Council-level Hearings (e.g. Mt Messenger Road Bypass and Kaiwaikawe wind farm); and Environment Court (Waste Management NZ – Dome Valley).

Rhys has a PhD and BSc (Hons) (Biochemistry) from the University of Otago.

Technical Advisor – Juzah Zammit-Ross

Juzah is employed by the Department of Conservation (DOC) as a Technical Advisor – Ecology in the Flora and Ecosystem Team and has been in that role since 2019.

Juzah has worked for Department of Conservation since March 2012 in a range of roles including, her current role (outlined above), Technical Advisor Island Biosecurity (6-month secondment) based in Geraldine, Biodiversity Ranger – O Tu Wharekai wetland (2 years) based in Geraldine, Biodiversity Ranger Southern Islands (1 year), Assistant Project Coordinator for the Antipodes Islands Mouse Eradication (1.5 years) based in Invercargill and Threatened Plants and Island Restoration Ranger on the Chatham Islands for 2.5 years. Before that Juzah worked for Greater Wellington Regional Council as Community Environmental Projects Coordinator for 2 years based in Wellington, Habitat Restorations Services as a field ranger for 2 years based in Christchurch and for Department of Conservation on the Chatham Islands as a temporary ranger on the Chatham Islands on four 3–4-week contracts over the summer months while at the University of Canterbury.

Juzah has experience with island, dune and wetland restoration work, indigenous vegetation monitoring, threatened plants surveys, threatened plant ex-situ conservation, lizard surveys for Threatened – Nationally Critical species Scree skink, Kapitia skink and Southland green skink), weed management, animal pest trapping, monitoring, and handling of seabirds and braided river birds.

In my current role Juzah provides technical advice on threatened plant conservation, lizard salvage (subdivisions, cycleways, ski fields, wind farms), ecological assessments, RMA consents, proving technical input into the partial review of the Otago Conservation Management Strategy (CMS), providing ecological input into District Plans, Concessions, Crown Pastoral Lease consent applications, writing ecological reports for Stewardship Land review work and leading Stewardship Land review work for Southland and Otago. In addition, Juzah is the technical lead for developing conservation work plans (Outcome Plans) for Threatened - Nationally Critical threatened plant species under the Departments Biodiversity Planning Approach.

Juzah's qualifications are a Post Graduate Diploma of Science major Ecology, 2008, University of Canterbury and Bachelor of Science major Ecology, 2005, University of Canterbury.