

In the matter of Application FTA289 Barrytown Mineral Sands Project

Written submission by Westland Petrel Conservation Trust

Dated 27 September 2026

Introduction

1. My name is Denise Howard. I represent the Westland Petrel Conservation Trust (the Trust).
2. The Trust was established in 2016 (Charities Services CC3120).
3. The purpose of the Trust is to promote, support and actively engage in all aspects of the conservation, preservation and protection of the Westland Petrel, its terrestrial and oceanic habitat and ecology through community education and practical action.
4. The Trust is committed to carrying out its Purpose by attaining the following objects:
 - To develop community knowledge and awareness about the Westland Petrel and the natural and human threats to its survival by supporting and promoting educational opportunities and publications or advertising in any media.
 - To support quality management, conservation and research programmes that will enhance the survival of the Westland Petrel on its breeding grounds and at sea.
 - To support and promote the adoption of best practice amongst the West Coast community whereby human activities that may negatively impact on the Westland Petrel are mitigated.
 - To support, promote and provide for the establishment and/or maintenance of facilities and activities that can assist in meeting the Purpose of the Trust.
 - To carry out any other activity consistent with the Trust's Purpose.
5. Trust members have lived on our property at 3770 Coast Road Barrytown since 1985, and have been operating educational tours (Petrel Colony Tours) since 1987 to a sub-colony of the Westland petrel that we discovered on our property.
6. Members of the Trust's work with the Westland petrel has included: locating and mapping the location of nesting burrows; identifying burrow occupancy; artificial burrow construction; conducting population censuses; behavioural studies; identifying landing and launching sites; monitoring for predators and conducting predator/pest control; recovery and relaunch of fallout victims and conducting educational tours.
7. Members of the Trust are familiar with the areas relevant to this application having used the foreshore for recreational purposes on various occasions.

Scope of submission

8. Westland Petrel behaviour will be affected by artificial lighting arising from mining operations close by, as proposed by Tāiko Critical Minerals Ltd on the Barrytown Flats.

Summary and Evidence

9. The Westland petrel *Procellaria westlandica* breeds only on low hills inland from SH6, between the Punakaiki River and Waiwhero Creek from March to December. They dig burrows 1 -2 m in length in the soft soil where they incubate their eggs for 90 days, with both partners taking alternate shifts of 4-20 days. There they also raise their chicks, which usually remain alone in their burrow until their feathers are fully grown ("fledged") in November. The parents fly in singly with food for the chicks every 2-3 days during this period.
10. The species has been totally protected by NZ law (Wildlife Act) since 1953. Today the species numbers about 20,000 individuals, but only about 3000 pairs breed each year with, on average, about a 50% chance of producing a fledged chick, though this is lower when food is short. It is listed as Endangered by the International Union for the Conservation of Nature (IUCN, Switzerland, 2018) and "at risk, naturally uncommon" by the NZ Department of Conservation. They return to shore only to breed and this is the only place in the world that return to.
11. In body and wing shape, the Westland petrel looks like a small albatross, with long wings totalling about 1.2 metres across. They are strong and heavy for petrels, averaging 1.3 kg in weight, with powerful bills and sharp claws. They are fierce and unafraid of humans and must be carefully handled with leather gloves to avoid injury to the handler. Access to the main colonies is forbidden by DOC and any scientists must have a written permit. As with albatrosses, Westland petrels have extreme difficulty in becoming airborne unless they have a raised launch site to take off from, usually trees, steep slopes or cliff tops.
12. However, unlike albatrosses, Westland petrels will normally only fly into and out of their breeding grounds during darkness. If they remain on land during the day, adults stay quietly inside their burrows until nightfall.
13. They migrate into South American waters in summer to moult. Most breeding adults leave their burrows in October and November, the young fledglings a month later (November-December). A few fledglings remain until generally but these are mostly in poor condition and die of starvation. All birds fly individually to South America, both members of each pair separately and the fledglings too. They do not migrate in flocks like some other petrels.

14. These are true ocean birds and for them land is a threat. They return only to breed and do not voluntarily come ashore anywhere except at their Barrytown colonies. They are extremely conservative about breeding places and will not breed anywhere else at all, nor can they be kept in captivity. Their flying ability depends on oil which is secreted by glands at the base of the tail and will die unless they are able to preen their feathers with this oil in very clean salt water. Most preening is done at sea.
15. Westland petrels are fast (averaging 56 km/hour) and powerful flyers and cover vast distances with ease. Tracked adults fly up to 19,034 km across the Pacific and back during their three-month non-breeding period in summer, where they feed off South America and around Cape Horn. During the winter breeding season satellite-tracked adults may travel 2,000 kilometres during one brief feeding trip in NZ waters, sometimes circumnavigating the South Island in the process.
16. The nearest group of Westland petrel burrows to the proposed TCM processing plant & mining site is only **4.2 km**, just **6 minutes' flight** by a slow-flying departing fledgling. The faster adult petrels could cover this very short distance in **3 minutes**.
17. Flying into their colonies at dusk they mostly keep around 20-40 m. above the ground. Departing in the early mornings just before dawn both the adults and fledglings fly fast and low, ranging from only 5 to 20 m. This is the time they most often collide with wires, buildings but rarely trees, especially the fledglings on their first-ever flights. All birds are susceptible to bright lights on or adjacent to their flight paths with extend inland from the Punakaiki river to Waiwhero Creek but in stormy or foggy conditions much further to the south and to the north.
18. Fully feathered fledglings are very difficult to distinguish from adults, even in the hand. Only very experienced workers can do this unless there are still patches of down on the new feathers, most often on the belly. But most departing fledglings have no down and only the slightly lighter and smoother bill differs. But this is a subjective feature and handlers need to be very well-trained to distinguish the fledglings
19. At sea and over land they are most active flying at night (all ages and seasons). Research on other seabirds and on land birds shows that they often navigate by the stars, remarkable as that may seem. Their night vision is acute, but they are easily blinded by bright lights both at sea and ashore. When there are artificial lights, Westland and other petrels often collide with wires and man-made structures, often at speeds causing death or serious injury. Some data on this 'fallout', as it's termed, is given in later sections of this submission.

20. Westland petrels are slow breeders, with a very high annual survival rate (96 % for adults). They mate for life, but may change partners, especially if they fail to breed successfully. But for this reason, population modelling shows that the accidental death of only a small number of adults has a catastrophic effect on the population size, long term. It can take many years for an adult to find another partner. Especially if the dead partner is female. Members of a pair easily recognise each other ashore by smell and distinctive calls. If their partner dies they often never breed again.
21. Young birds first return to the breeding grounds at 5 to 10 years of age, but may take several years before they find a mate and first breed. About half of all fledglings usually survive to breeding age.
22. All petrels and albatrosses lay only one egg per year, although occasionally take a year off from breeding. If lost, eggs or chicks cannot be replaced until the next year. A few Westland petrels live up to 40 years, but studies show that they rarely produce more than three fledglings which survive to breeding age.
23. Human-caused mortality from fisheries, destruction of breeding habitat and any unnatural mortality will normally result in a significant population decline.
24. It took about ten years for the Waiwhero Creek sub-colony that our family manage to recover from a single dog attack in which 12 adults were killed.
25. There is abundant evidence that Westland petrels are mostly attracted to bright lights from near the ground within 20 km of their breeding colonies. Fallout caused by artificial lights, such as streetlights and commercial or domestic residences in the Punakaiki area, has been a recognised problem for decades.
26. Most fallout victims are found by chance discovery or when they are squashed on the road. True fallout numbers are likely to be much higher than those recorded and over the past 30 years must amount to the loss of hundreds of birds.
27. If a comprehensive fallout recovery plan was implemented it would be thwarted, to some degree, by the behaviour of the petrels themselves. This is because after a bird has become grounded, assuming that it is not injured or killed on impact, it will wander off looking for a launch site. At the breeding grounds launch sites are often large leaning trees that enable the birds to climb out above the canopy where the way is clear for them to jump off. However, the likelihood of a fallout victim finding such a launch site in unfamiliar territory is slim. If they do not get airborne during the night, they will then mostly hide under cover during the day and try again the next night, and the next, and so on until they fall victim to predation or die of starvation.

28. Clearly the DOC fallout records (ecological Solutions: *Barrytown Minerals Sand Mine Avian Management Plan* May 2026 (Prepared by Owen Woodward and reviewed by Dr. Gary Bramley) Section 5.1. Figure 4: Records of grounded Tāiko recorded between 2007 and 2022 categorised by month of occurrence (Data from Department of Conservation), (p.22) cannot be used to determine the extent of Westland petrel fallout. Indeed, the records to date do little more than identify that fallout is occurring and that artificial lighting is the cause as the pie diagram gives only a simplistic representation of the Petrel fallout issue, with no tabular reference of collected data to support the graph.
29. Petrel fallout may also be caused by vehicle lights, as indicated by the regular recovery of grounded petrels on the road adjacent to the Nikau Scenic Reserve. This has the major flight path over it but there are today no fixed artificial light sources.
30. We welcome the applicant's decision not to mine at night, which may somewhat reduce fallout problems. This is providing that the lighting regime in practice adheres to the proposed lighting at the processing plant and mining sites, along with the hours of operation, in relation to petrel flight times. We are, however, concerned with the 24hr operation of the Wet Concentration Plant (WCP) and the loadout area (already consented) which means that truck movements will be continuous (i.e. 24hrs per day.)
31. The NZ expert outdoor lighting consultant Mike Geddis has pointed out in his very detailed Expert Witness Report that it is impossible for the EPA Panel to judge the efficacy of the proposed light mitigation measures in the **absence of a detailed Lighting Plan** from the Applicant.
32. Such a plan must be based on extensive research and implemented gradually, long in advance of any mining or construction activity. We consider that the present Application be rejected by the EPA Panel and the Minister until this Plan is fully documented and ready for implementation.
33. The Applicants plan must be based on the published Australian standards, which are the only ones available globally which consider the impact of lighting on wildlife. These standards were extensively updated on 12 May 2026.
34. The Applicant therefore incorrectly states that their application meets Australian guidelines. They used only the superseded 2023 version, as pointed out by Mr Geddis. In our opinion the Application is not yet ready for serious consideration or able to be recommended for approval by the Minister until it is **complete**.
35. Our evidence above shows that the project will likely cause serious and permanent harm to the Westland petrel population. We believe that the Australian guidelines are correct in recommending that any structure [such as the processing plant and associated mine and new roading] must **not** be

situated adjacent to the Westland Petrel Specially Protected Area but at least 20 km distant.

36. A suitable-strategic location exists at the southern end of the Barrytown flats near Seventeen-Mile Bluff. There are no biological hazards and Westland petrels have never been recorded there. Obviously, this would involve a major re-design but that would anyway be necessary to support a compliant Lighting Plan, which will still be required.
37. We provide below a brief summary of the relevant new Australian standard, the title abbreviated being **NLPGW**, with a link provided.
The Application for a Fast-Track approval by Taiko Critical Minerals does not meet the new Australian guidelines, given here:
<https://spacesatnight.com.au/wildlife-lighting/>

Wording copied directly from the NLPGW guidelines, abbreviated as shown, is identified by quote marks.

38. “The NLPGW were developed by the Australian Government under the **Environment Protection and Biodiversity Conservation Act 1999** (EPBC Act) and are administered by the Department of Climate Change, Energy, the Environment and Water (DCCEEW). They apply nationally”.
39. “Unlike AS/NZS 4282, which sets measurable numerical limits on spill light and glare, the NLPGW doesn’t prescribe specific lux or luminance thresholds. Instead, **they establish a five-step environmental impact assessment process that projects must work through when there is potential for artificial light to affect wildlife**. This distinction matters, it means the NLPGW are less about passing a number and more about demonstrating a rigorous process”.
40. “The guidelines apply to **new projects**, lighting upgrades, and situations where there is existing evidence of wildlife being affected by artificial light”.
41. “The NLPGW covers a wide range of fauna, with particular focus on species sensitive to artificial light at night. This includes... seabirds...The wildlife lighting guidelines include **species-specific technical appendices**, which means the assessment approach will differ depending on what’s present or potentially present at or near your site”.
42. “The two frameworks address different problems with overlapping tools. AS/NZS 4282 is about protecting **human amenity** from obtrusive light and it operates through numerical limits on lux, luminance, and sky glow that can be modelled and measured. Compliance is demonstrable through a photometric report and on-site audit”.

43. “The NLPGW doesn’t work this way. There are no equivalent numerical thresholds to hit with wildlife lighting design. The framework requires a documented process of scoping, impact prediction, mitigation design, and in many cases post-installation monitoring – and the adequacy of that process is assessed on its merits rather than against a pass/fail table”.
44. “A project that achieves full AS/NZS 4282 compliance will have done some of the right things for wildlife such as controlled spill, managed sky glow, appropriate shielding. But it will **not** have considered species-specific spectral sensitivity, examined the spectral power distribution of specified luminaires, developed a monitoring program, or documented the ecological basis for its mitigation strategy. These are NLPGW requirements that sit entirely outside the AS/NZS 4282 framework”.
45. “In practice, a well-designed lighting scheme that satisfies AS/NZS 4282 (with controlled spill, appropriate shielding, and managed sky glow) might move in the right direction for NLPGW compliance”.
46. “Lower colour temperatures, directional optics, curfew controls, and dimming all feature in both frameworks. But the NLPGW assessment process involves additional steps that go well beyond technical modelling alone. *The most effective approach is to run both assessments concurrently from early in the design process, treating product selection and control strategy as a single decision that needs to satisfy both frameworks simultaneously in achieving wildlife lighting compliance*”.
47. “The NLPGW trigger for a full environmental impact assessment is the presence of important habitat for **listed species within 20 km of a project**. This is not a typo! Marine turtle disorientation from artificial sky glow has been demonstrated at 15-18 km from the light source. **Fledgling seabird mortality from light attraction has been documented at similar distances**”.
48. “Twenty kilometres is a large radius. For projects... anywhere near National Parks and Marine Protected Areas, this threshold is likely to be met more often than experienced project teams expect. The reflex response of ‘*we’re not near any sensitive habitat*’ is frequently wrong – not because the project team is being dismissive, but because the databases and mapping tools needed to properly assess this aren’t part of a standard planning process”.
49. “The practical implication is that the NLPGW screening needs to happen earlier in project development than most teams currently manage. By the time a lighting layout is being reviewed against permit conditions, product selections and infrastructure decisions are often already made. The moment to ask whether the NLPGW apply is when the project first proposes any externally visible artificial light – which, under the wildlife lighting guidelines, is explicitly the threshold”.

50. "The NLPGW are not a single standard, they are a species-specific framework. The guidelines include separate technical appendices for... seabirds... because the biological sensitivity to artificial light varies significantly" [between different animal groups].
51. "Most wildlife is sensitive to short-wavelength blue and violet light, which is why reducing blue content is a consistent recommendation across the guidelines. But sensitivity to longer wavelengths varies by species".
52. "This is why the screening step in the NLPGW five-step process is substantive, not administrative. It's not enough to note that there is native vegetation within 500m and proceed to specify a warm white LED. Understanding which species are present or potentially present, what their sensitivity profiles are, and what activities they are undertaking at different times of the year shapes every downstream decision: product selection, control strategy, operating hours, and monitoring requirements".
53. "NLPGW acknowledges that LED technology now allows for tuneable RGB colour management, and that this has the potential to enable species-specific management of problematic wavelengths. This is more than a footnote – it points to a genuinely different way of thinking about product selection on environmentally sensitive projects wildlife lighting requirements".
54. "A fixed 3000K luminaire running from dusk to dawn represents a blunt instrument. Wildlife activity is not constant, it varies by species, time of night, and by season. A tuneable luminaire that shifts from 2200K at peak wildlife activity hours down to 3000K during lower-risk periods offers a level of spectral control that a fixed CCT product simply cannot provide. Combined with scheduling and dimming controls, it allows a lighting installation to respond to the biological reality of the site rather than defaulting to a static output designed for human convenience".
55. It is very evident that both Taiko Critical Minerals and their Tauranga-based advisors are simply not familiar with modern policies and blind to the inadequacies of the earlier TIGA application, as clearly pointed out in a number of submissions of Feb. 2024 in Greymouth.
56. Insistence by the EPA that they meet their stated guidelines is a reasonable request. It will give the Applicant time to address the inadequacies and evident errors in the NZ DOC data with which they were provided. And it will give the Trust adequate time to present and explain the complexity and critical importance of the petrel collision and fallout data which the current Applicant evidently misunderstands.
57. Their best solution is to employ an expert to advise them. This should be an independent and mature person fully familiar with the surprisingly

considerable relevant seabird scientific literature on avoidance creating light and diesel generator attraction of petrels. A studentship is not appropriate. Currently no DOC scientist can provide a sufficient level of familiarity with the issues. Professional expertise found in Hawaii or Réunion Island, should be sought, or an Australian seabird biologist experienced in this field may be suitable.

58. The light effects of this consented part of the operation cannot be mitigated by the proposed sections 4.3 and 5.2, which state '*...Loading of trucks will be undertaken on the eastern side of the building via roller doors which can be closed when not loading.*' (4.3.1 Fixed Lighting, p18, para. 5, & 5.2.1 Fixed Lighting, p23, para.1). Regardless of what side of the building the trucks are loaded, light spill will occur and will impact the petrels negatively as they fly out from their breeding areas on the east side of the building and can be attracted by the artificial light source to their south.
59. The Avian Management Plan statement '*... on the eastern side of the building via roller doors which can be closed when not loading. These actions are expected to reduce visible light from the processing plant.*' (4.3.1 Fixed Lighting, p18, para. 5, & 5.2.1 Fixed Lighting, p23, para.1) are misleading, given that the birds have an aerial view and amenity directions are irrelevant to them.
60. It would seem appropriate then that to avoid the possibility of fallout all mining and trucking operations be limited to **civil daylight hours** ie. half an hour before sunrise to half an hour after sunset.
61. The use of such words as "minimised", "lowest intensity lighting possible", or "as close to the ground as practicable" provide insufficient detail and certainty by which fallout risk may be avoided. See 5.2 Lighting Management - 5.2.1 Fixed Lighting '*... including but not limited to pointing all fixed lighting downwards, shielding to avoid light spill, screening bunds, and use of the yellow-orange spectrum.*' 5.2.2 Dredge Pond Lighting – *lights will be deployed close to the ground, directed and shielded to avoid light spill as required; The lowest intensity lighting appropriate for the task will be used;*
62. For example, specific conditions need to be applied to the type of shielding, colour temperature and intensity of fixed lighting for all lighting present at the mining and processing plant sites. A light spill of 2 Lux at the boundary for a light source 50 m from that boundary would likely be a very bright light regardless of shielding. To avoid this the conditions should specify a colour temperature of no more than 2000 degrees Kelvin. Indeed, it appears that the 2 Lux condition primarily concerns mitigation of effects on humans in a built environment and should not be used as an indicator of effects on petrels.
63. High Pressure Sodium streetlights at Punakaiki contributed to petrel fallout for many years. Therefore, the use of light in the yellow/orange spectrum – will not on its own avoid petrel fallout potential, as referred to in the ecological

Solutions: *Barrytown Minerals Sand Mine Avian Management Plan* (May 2026 Prepared by Owen Woodward and reviewed by Dr. Gary Bramley) Section 4.3.1 Fixed Lighting – ‘...and the use of the yellow-orange spectrum’ (para. 5 p.18) and again in Section 5.2.1 Fixed Lighting – ‘...and the use of the yellow-orange spectrum’ (p.23, para.1).

64. The Avian Management Plan at 5.3.1– Detecting Grounded Tăiko makes conflicting/contradictory statements re the mining operation hours. It states that *‘Mining will only take place during daylight hours, year-round within the SB and so lighting activity presents a low risk of grounding for Tăiko. The most likely location for the Tăiko to be grounded is near any area where lights are being used (the processing plant and the load out area, the internal road within the site and along State Highway 6.)’*
65. If *‘mining will only take place during daylight hours’* (Avian Management Plan 5.3.1 – p.23, para.5), then there is no need for the lighting to be on at *‘the processing plant and the load out area, the internal road within the site and along State Highway 6.’*(Avian Management Plan 5.3.1 – (p.24, para.1) and 5.2.2 Dredge Pond Lighting. If the dredge pond was adequately fenced to Health and Safety standards, the area would not require lighting for *‘health and safety reasons ...’* 5.2.2 (p23, para.2).
66. The Avian Management Plan at 5.3.1– Detecting Grounded Tăiko states (p24, para. 8) *‘Live birds seen on the road at any time day/night, should be reported to 0800 DOC HOT (0800 362 468) as soon as possible.’* This is an impractical solution for the wellbeing/survival of the grounded tăiko as the bird needs to be immediately retrieved from the road to prevent it from wandering off and not being located at a later time, or worse, struck by a vehicle. For this solution to succeed, all mining vehicles, (including workers vehicles, if p.22, para.5, is to be genuinely applied to the Detecting Grounded Tăiko policy 5.3.1) should carry the appropriate equipment for rescuing a bird, i.e. leather gloves, secure pet box and a towel/or similar cloth to put over the bird when relocating into pet box. Please note *‘a sturdy net’* is not the appropriate equipment for *‘catching grounded birds’*, indeed it is more likely to harm the bird.
67. The above paragraph also applies to the Avian Management Plan 5.3.1, (p24, para. 5) *‘All trucking and other contractors and staff leaving the site at night (including those travelling to and from work past the colony) are required to report any vehicle strike of birds, as well as near misses to the Mine Manager as soon as practicable.’*
In the case of *‘near misses’* the vehicle should immediately stop and rescue the grounded bird, following the prescribed rescue procedure.
68. The Avian Management Plan at 5.3.2 – Accidental Discovery Protocol for Grounded Tăiko – also offers scenarios that do not support a positive outcome for a grounded bird. 5.3.2 (p. 24, para. 2) *‘In the event that a live grounded tăiko is discovered within the site, a person with the appropriate qualifications*

and permits will catch the bird, place...” Again, this is an impractical solution for the wellbeing/survival of the grounded tāiko as the bird needs to be immediately retrieved from where it has been found, in order to prevent it from wandering off and not being located at a later time, or worse, struck by an on-site vehicle.

69. The Avian Management Plan at 5.3.2 – Accidental Discovery Protocol for Grounded Tāiko – ‘5.3.2 (p.24, para. 2) *‘...and call the Department of Conservation line 0800 DOC HOT (0800 362 468) as soon as possible for advice on care and relocation.’* This knowledge should already be known by all mining personal and a manual, located in a central, known location be consulted, if necessary.
70. The Avian Management Plan at 5.3.2 – Accidental Discovery Protocol for Grounded Tāiko – ‘5.3.2 (p.24, para. 2), *‘...If the bird is to be transferred to a care facility, it should be moved as quickly as practicable to the local (Māwhera/Greymouth Department of Conservation office (or as advised by the DOC hot line.’*

This procedure is unnecessary, as there are pet boxes stored behind the Punangairi (Punakaiki information centre) for the placement, at any time, of downed petrels, and it is closer to the mining operation than the Greymouth DOC offices which do not have a 24-hour collection point for birds.

71. Section 5.3.3 (p.26, para.2) *‘If, after any necessary amendments to the site management and this management plan are implemented, a second bird (alive or dead) is found within 50m of the dredge pond or WCP and load out area within four weeks of the first finding, operations and use of external lights at the pond and processing plant will cease.* This procedure is dependent on actually finding the second petrel, which may have been grounded for some days and has been wandering about trying to find a launch site. One fallout victim should provide sufficient alarm that there is a problem and likely that other such victims have not been found because of a lack of search effort, and a black bird is hard to see at night, or because of their habit of hiding up during the day after failing to get airborne again after fallout.
72. Similarly, the provision in *Section 5.3.3 Discovery of a Dead Tāiko* (p. 25-26) fails to recognise that the petrels fly in or out of the breeding grounds at any time during darkness. Night time operations and the use of external lighting should cease from the moment of a fallout discovery and if the cause cannot be discovered then all night-time operations should cease permanently. This should apply to the recovery of one petrel, not wait until a second bird is found.
73. The procedure for dealing with dead Westland petrels found within 50 metres of the pit or processing plant (5.3.3), is flawed as it is not based on petrel

behaviour. An uninjured bird may walk considerably further than 50 metres from a fallout site, say at the processing plant, but if found 60 metres from the plant a lesser procedure will be implemented other than suspending operations. It should be recognised that fallout anywhere within the operating area is highly likely to have been caused by unsuitable plant lighting. All operations should then be suspended until the source is identified and remedied.

74. The precautionary principle should apply. It should be assumed that the estimated fallout numbers are not “underestimated,” but in reality, likely to be significantly higher than previously recorded. This reasoning should also be applied to any estimate of fallout numbers at the mine and processing sites.

75. In recognition of the fallout problem created by streetlights at Punakaiki, in 2020 the New Zealand Transport Agency (NZTA) instructed that all streetlights in the Punakaiki area be turned off for the petrel fledging stage from early November to early January. This was a first for New Zealand and recognition of the Westland petrel as an outstanding wildlife feature that needed special management.

76. The Department of Conservation fallout records reveal fallout as increasing number of cases over the years. This is not a result of a larger population. The 2020-21 season was the highest at 57 birds, nearly double the previous season. Significantly 29 were picked up in Greymouth, 12 more than were recovered at Punakaiki. There is no doubt the petrels have benefitted from the streetlights being turned off at Punakaiki. There may be a number of reasons why 2020-21 was a record year, such as a particularly productive breeding season.

However, breeding success at the Waiwhero sub-colony indicates that the previous three years produced consistently about the same number of fledglings. The Trust suggests the reason for the increase was because of the extensive publicity generated by fallout mitigation of turning off the streetlights at Punakaiki. The public who may have previously not acted when they saw these black seagull looking birds on the road, realised that they were something special and took greater efforts to recover them. The Trust maintains that this provides further evidence that the fallout mortality problem is much greater than has been recognised to date and should be acted on accordingly by the applicants.

77. Section 3 of the Wildlife Act 1953 specifies that all wildlife is absolutely protected unless otherwise specified.

78. However, the Avian Management Plan (AMP) appears to contravene that Act. At 5.2.2 Dredge Pond Lighting (p.23, para.3) it states *‘While the possibility remains that Tāiko might be grounded by lighting at the pit this risk is considered very low.’* The Trust maintain that such is not the case, that fallout may be much higher than anticipated due to the dredge pond lighting.

Elsewhere, eg. at 5.2.3 Vehicles within the Site (p23, para.4) it refers to detecting grounded Taiko, which indicates that fallout is expected.

79. This is also inconsistent with the New Zealand Coastal Policy Statement (2010) Policy 11 (a) where such activities are required to “avoid adverse effects of activities on: (i) indigenous taxa that are listed as threatened or at risk in the New Zealand threat classification system”, which includes the Westland petrel. Therefore, the lighting regime at the loading/processing plants and mine pit must “avoid” any fallout, which means that it must be designed in such a way that it will categorically not contribute to fallout. However, the AMP does not demonstrate confidence that this will be the case. It is not appropriate that the AMP be modified when it is found to be lacking, but must be fully compliant with the Coastal Policy Statement from the start.

Conclusion:

The Barrytown Mineral Sand Mine Avian Management Plan provided by Ecological Solutions for Tāiko Critical Minerals Ltd Application FTA289 Barrytown Mineral Sands Project is predicated on an out-dated Australian lighting guideline. The Fast-track Application is inappropriate because it does not meet the current Australian Standards, as they incorrectly claim.

The new Australian guidelines (12 May 2026) offer far greater protection for the Westland petrel and were available for Ecological Solutions to apply to their Barrytown Mineral Sands Mine Avian Management Plan.

The Avian Management Plan of TCM Ltd fails to provide certainty that the mining, processing and trucking operation will not create a fallout problem and therefore impact negatively on the Westland petrel/ Tāiko. In the absence of specific mitigation clauses which address our concerns we request that the application be declined.

Westland Petrel Conservation Trust

Denise Howard