West Coast Penguin Trust
231 Revell Street
Hokitika 7810

**Westland petrels and the proposed Barrytown J.V. Ltd mine**

*Notes provided by Kerry-Jayne Wilson, Trust Scientist and seabird ecologist*

The Westland petrel only breeds in the Paparoa foothills between the Punakaiki River and Waiwhero Creek.

The species is listed as 'endangered' by Birdlife International (2021) and as 'at risk, naturally uncommon' by the Department of Conservation (Robertson et al (2017).

The Westland petrel is the 10th most threatened seabird by fisheries bycatch in New Zealand waters. The level of bycatch while in South American waters remains unknown.

The species faces numerous threats both on land and at sea as listed by Waugh and Wilson (2017).

The attraction to artificial lights is rated as a relatively low threat but with high uncertainty around the numbers of individuals affected each year. Most petrels disorientated by lights will be fledglings on their maiden flight and most have been found between 16 November and 15 January (Wilson 2016). However, a few birds are found downed by lights between March and early November and these will be adults or pre-breeding birds (Wilson 2016).

91 of the 141 recorded downed birds were found at or adjacent to Punakaiki with 21 at or near Greymouth and 23 at or near Westport (Wilson 2016). Data on the numbers of Westland petrels found disorientated by lights has not been collected systematically so these numbers cannot necessarily be attributed to such disorientation; however, we are reasonably confident that there is no other reason for these birds to be found in these areas.

The proposed Tai Poutini Resources Ltd plant would be located north of Canoe Creek and west of State Highway 6, by their estimation 3.6km south of the nearest Westland Petrel colony (Barrytown J.V. Ltd 2021). In this report their ecologist concludes that 'Overall, the assessment of effects lighting, and this proposed mine, may or may not cause the Westland petrel are assessed as low.' This conclusion is based on very selective use of the available information (most of which I am either author or co-author) and shows their ecologist to have limited understanding of petrel biology.

The flaws in his argument are;

1. *Petrels will not be attracted to the processing site lights as the site is 3.6 km from the nearest colony.* There is no basis for 3.6 km to be considered safe. The Punakaiki Tavern is about 3.1 km from the main Scotsman Creek flyway and birds do land there. Petrels are occasionally downed by lights as far away as Greymouth and Westport and they have been found in Hokitika.

2. Fledglings leave the colony throughout the night, not during the predawn departure of most adults. Petrels could be disorientated by the lights at the processing site and/or by vehicles working at the site.

3. Adult petrels are occasionally disorientated by lights; this is more likely on wet, still and/or foggy nights.

4. Neither Punakaiki township nor the proposed processing plant are on the flightpath most fledglings are likely to take when leaving the colony. Yet every year petrels are found downed in the village. It is likely that these birds made it to sea before being disorientated by the town lights. Both the lights of the village and the proposed processing plant are/will be visible from the sea. Thus, I consider the distance from the shoreline to be a more critical measure than the distance from the colony. The proposed processing plant would appear to be less than one kilometre from the shore.

5. The report does not consider the threat that truck movements past the colonies during the night could present. Each year, a number of petrels are found on the highway itself which suggests to me that those birds were brought to ground by vehicle lights. With up to four truck and trailer movements per hour during the night, these vehicle movements must add to the existing threat posed by nocturnal traffic.

6. On page 13 of their report, their ecologist concludes that 'No mitigation for Westland petrels is required due to the assessment of effects on Westland petrels,---'. Required mitigation should be determined by the district and regional authorities not by the applicant. In my opinion appropriate mitigation measures should include: (i) light spill seaward from the processing plant and vehicles working at the plant should be kept to very low levels particularly between 16 November and 15 January; (ii) trucks should not be permitted to drive past the Westland petrel colonies during hours of darkness between 16 November and 15 January.

In conclusion, the Barrytown J.V. Ltd ecologist's report deliberately plays down any threat the proposed operation will present to Westland petrels. In my view the threat posed by this operation is likely to be significantly greater than that suggested by their ecologist. Unfortunately, it is impossible to quantify the additional threat that lights at the processing plant and vehicle lights will pose to the petrels. This threat will be additional to the many threats already faced by these birds. With ongoing losses due to bycatch, the loss of breeding habitat caused by recent storms, destruction of burrows by goats, the major potential threats due to pigs or dogs entering the colonies as well as the multitude of other threats faced by the species, it would be irresponsible for the Grey District Council or the West Coast Regional Council to permit an activity that will add to the existing threats faced by this endemic species. I strongly recommend that Barrytown J.V. Ltd's proposal to mine the Barrytown Flats not be approved.

**References**

Barrytown J.V. Ltd. 2021. Barrytown JV Ltd Desktop Ecological Impact Assessment Barrytown Mineral Sand Mine Barrytown Flats. Published by Tai Poutini Resources.

BirdLife International (2021) Species factsheet: *Procellaria westlandica*. Downloaded from http://www.birdlife.org on 29/05/2021. Recommended citation for factsheets for more than one species: BirdLife International (2021) IUCN Red List for birds. Downloaded from http://www.birdlife.org on 29/05/2021.

Robertson, H.A.; Baird, K.; Dowding, J.E.; Elliott, G.P.; Hitchmough, R.A.; Miskelly, C.M.; McArthur, N.; O'Donnell, C.F.J.; Sagar, P.M.; Scofield, R.P.; Taylor, G.A. 2017: Conservation status of New Zealand birds, 2016. New Zealand Threat Classification Series 19. Department of Conservation, Wellington.

Waugh, S.M.; Wilson, K-J. 2017. Threats and threat status of the Westland petrel *Procellaria westlandica*. Marine Ornithology 45; 195-205.

https://www.westcoastpenguintrust.org.nz/research/?search=&bird%5B%5D=westland-petrel-taiko-bird#

Wilson, K-J. 2016. A review of the biology and ecology and an evaluation of threats to the Westland petrel *Procellaria westlandica*. West Coast Penguin Trust, 46 pp.

https://www.westcoastpenguintrust.org.nz/research/?search=&bird%5B%5D=westland-petrel-taiko-bird#

Kerry-Jayne Wilson
P.O. Box 70,
Charleston 7865.
Phone 034291511.
Kerryjayne1@hotmail.com