



NEW ZEALAND
**PENGUIN
INITIATIVE**

SUPPORTING A FUTURE WITH HEALTHY & RESILIENT
PENGUIN POPULATIONS

NZPI Background

- ❑ Established in 2019- privately funded T/Gear Charitable Trust
- ❑ Provide professional support and resources to community groups/individuals involved with monitoring/protecting penguins, and their habitats
- ❑ Groups contribute to national database- to enhance knowledge and improve conservation outcomes for penguins in NZ
- ❑ Made up of Community Programme Manager, Programme Director and Science Advisor

Opposition to TiGa Minerals & Metals Barrytown Flats Mineral Sand Mining Application

- **Potential threat to little penguin/kororā**
- **Potential adverse environmental effects**

- 1. Insufficient/Inadequate survey methods to detect presence and use of site/surrounding habitat by kororā**
- 2. Proposed management strategy does not adequately consider kororā biology & behaviour**
- 3. Potential for habitat use by kororā**
- 4. Current vulnerability of kororā colonies and climate change**
- 5. Lack of information and certainty to avoid risk of harm**

Current Status of Kororā/Little Penguins

Point 4- Current vulnerability of kororā colonies in NZ and climate change

Land & Sea-Based Threats

- Predation
- Dog/Cat Attacks
- Coastal Development
 - Rubbish
 - Erosion
 - Disturbance
- Land Management
- Fishing Practices
- Watercraft Strikes
- Competition (Introduced Pests)
 - Fishing Practices
 - Starvation/Disease

At Risk- Declining

Lack of Nationwide Population Knowledge

Every New Colony Monitored = More Threats Identified

Climate Change

- **Increased Sea Surface Temperatures**-Starvation Events
- **Increased Storm Events**-Challenging Ocean Conditions
- **Rising Sea Level/Tidal Inundation**- Habitat Loss

Kororā Biology

Point 2- Proposed management strategy does not adequately consider kororā biology & behaviour

- ❑ Present on land year-round; less observed during April-June
 - **April-June: Pre-Breeding/Pair-Bonding**
 - **June-Feb: Breeding**
 - **Dec-April: Post-Breeding & Moulting (2-3 weeks stuck on land)**

- ❑ Opportunistic nest site selection in a variety of habitats, colonies small-large

- ❑ Faithful to their nest sites

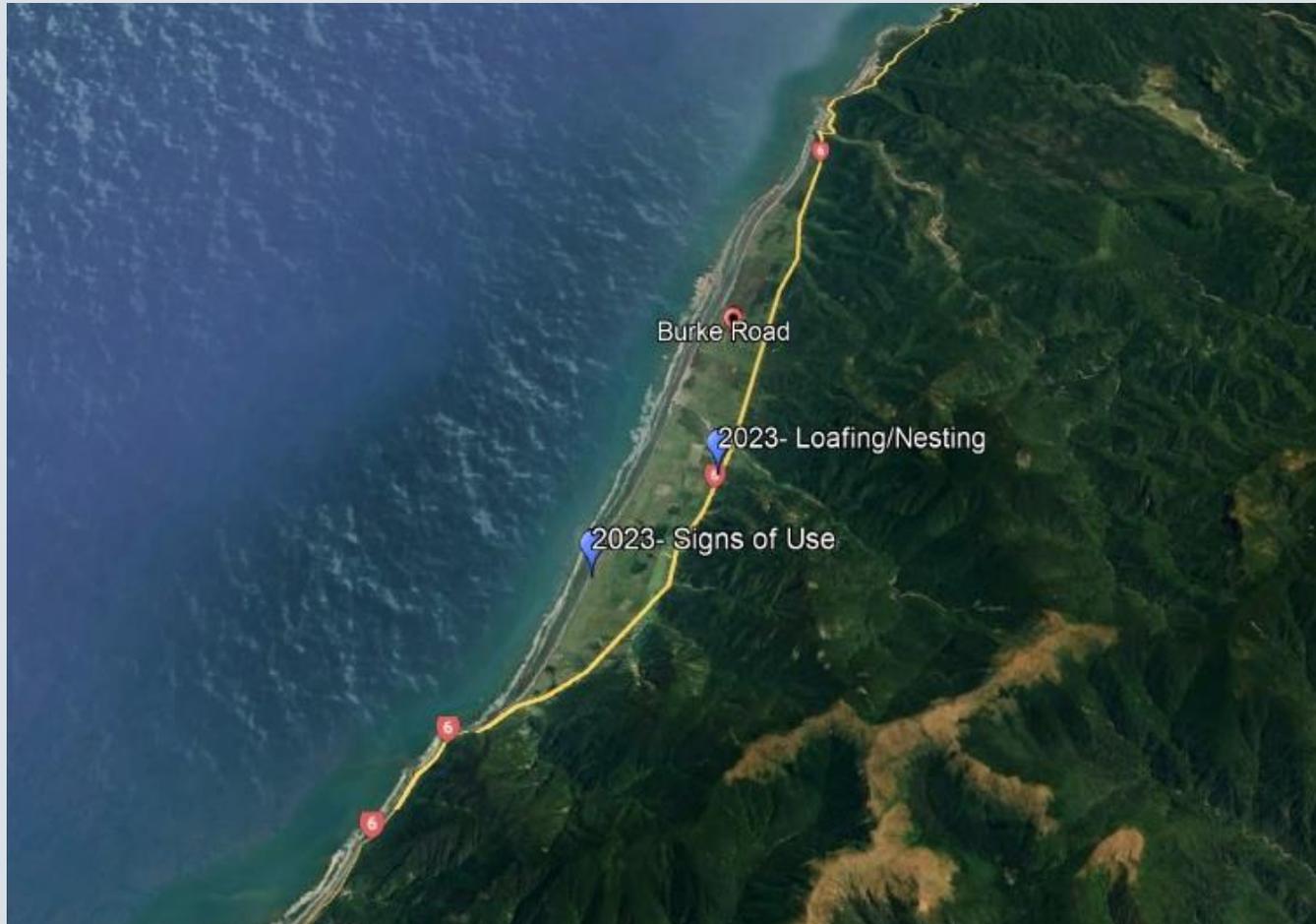
- ❑ Faithful to their pathways

- ❑ Long-lived in favourable conditions

- ❑ Low juvenile recruitment= breeding adults are important for sustaining a population

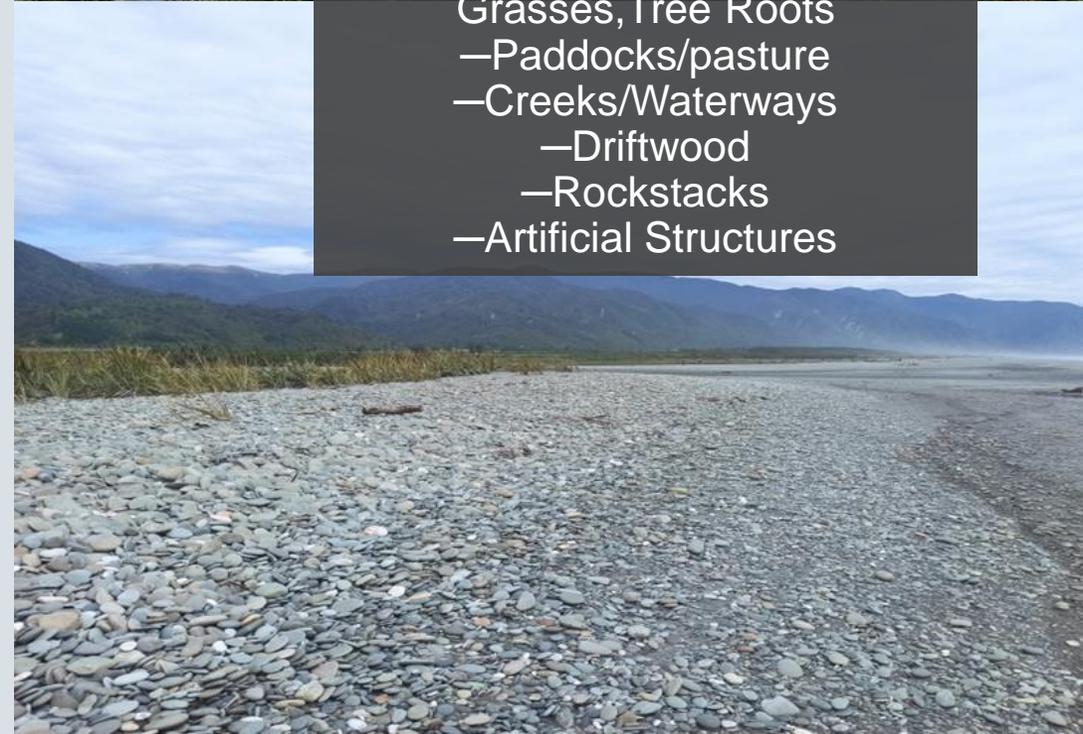
Barrytown/Pakiroa Beach Kororā/Little Penguins

Point 3- Potential for habitat use of site & surrounding habitat



Coastal habitat available for Kororā

- Coastal Vegetation e.g., Flax, Grasses, Tree Roots
- Paddocks/pasture
- Creeks/Waterways
 - Driftwood
 - Rockstacks
- Artificial Structures



Similar Kororā Habitat Examples- Coastal Vegetation & Pasture



Flax Burrow



Pasture Burrow
(Helps Pōhatu Conservation Trust)

**21% of all nests found
on Banks Peninsula in
2020-2022 were in
pasture**

*(Helps Pōhatu Conservation Trust,
unpubl. data)*

Survey Techniques

Point 1. Insufficient monitoring to detect presence/activity

- **Acoustic Recorders-** Reliant upon birds being present and calling at the time of surveys
- **Burrow Searches-** Difficult habitat to locate kororā tracks and burrows by external cues
- **Annual Footprint Surveys-** Insufficient to determine year-round habitat use of kororā

Pakiroa Beach Avian Footprints Example



Potential Adverse Effects- Reduced Productivity &/Or Survival

Point 5. Lack of information and certainty to avoid risk of harm

Disturbance/Habitat Loss

Direct Harm

Displacement

**Potential contribution of emissions to
climate related impacts**

Risk Assessment & Mitigation Methods

- Undertaking works has potential to cause harm year-round
- Provision of nest boxes
- Coastal erosion and destruction of burrows
- Live and deceased bird management

Support for Proposed Management

- Daytime trucking hours- Year-round**
- Engagement of experienced seabird professionals for on-going surveys**
- Increased site buffer**
- Provision of nest boxes in coastal vegetation- *by a professional**
- Pest control to reduce predation and support wider biodiversity**

Recommendations of Requirements

- ❑ Confirm presence/absence of kororā at site/surrounds with comprehensive survey methods

- ❑ Management plan is prepared based on comprehensive survey work by experienced professionals

- ❑ Mitigation methods address all life stages of kororā, particularly vulnerable moulting birds (Dec-April) and includes:
 - Clear response for live kororā found on site or near site
 - Deceased kororā found; on site and surrounding habitat are reported and transferred to DOC, and used to assess impacts/inform ongoing management

