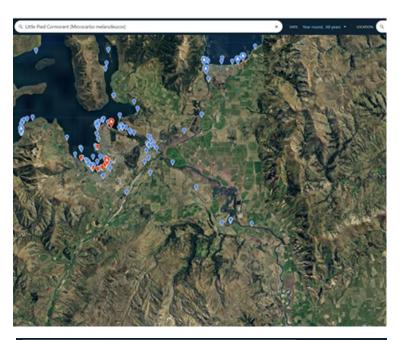
Regarding avifauna. No detail has been provided on species presence, and threat status.

Effects on Avifauna (Paragraphs 20 – 21):

- 1. Needs to state NATIVE / INDIGENOUS birds, not endemic birds (two different things).
- 2. Avoidance of the most likely nesting areas has already been shown (through the dredging exclusion zones).
- 3. Yes, identifying the likely gravel areas (beaches) that species would breed is appropriate, but there is no allowance for native birds that use the trees for nesting, e.g. shags (please refer to the snip below for observations in the area)
- 4. 250m exclusion zone is excessive. For example, on construction sites with dotterels we have a 50m exclusion zone; and a 45 m Flight Initiated Disturbance (FID) zone was calculated for at risk or threatened coastal birds for Northport.



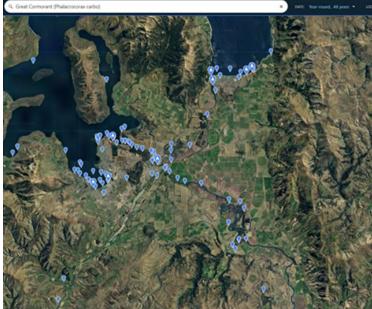


Figure 1. Shag records eBird

## Comments on the condition of consent regarding Avifauna

Consent condition 17

CC 17 e, re birds – need to be a separate condition of consent, not included under fish entrainment.

CC17 e. - remove Australasian crested grebe as they only nest in lakes, not river beds and outwashes

This is a very specific list and should be verified if it is to protect all indigenous birds.

Note – Southern black backed gull is only one of few native birds NOT protected under the wildlife act, and is managed, so could be excluded from this list.

I don't think added the pest traps are necessary (a nice to have), particularly if they are avoiding the breeding grounds, and therefore effects are negligible.

250m exclusion zone is very large. NZTA uses 50m and Northport has a 45m zone based on the considerable literature on the highest mean flight initiation distance for Threatened or At-Risk NZ birds.

In accordance with the zone proposed by the applicant the condition should include:

- 1. Following the breeding native bird survey(s), a suitably qualified and experienced ecologist must report that either:
  - a. no breeding native birds are identified from the survey and works may proceed; or
  - b. breeding native birds are identified, and therefore a 250 m works exclusion zone shall apply, within which no works are to occur until such time that a suitably qualified and experienced ecologist has confirmed that any nests have failed, or chicks have naturally fledged the natal site.

Yours sincerely,

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Bioresearches

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