

Under the **FAST-TRACK APPROVALS ACT 2024**

In the matter of an application by Wellington International Airport Limited for approvals for the Southern Seawall Renewal Project

By **WELLINGTON INTERNATIONAL AIRPORT LIMITED**  
Applicant

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**JOINT WITNESS STATEMENT**

**MARINE ECOLOGY: PĀUA AND KŌURA / LOBSTER**

9/04/2026

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## INTRODUCTION

1. This joint witness statement relates to expert witness conferencing in relation to marine ecology, and more specifically effects and effects management re pāua / abalone and kōura / lobster.
2. It has been prepared in response to Minute 3 of the Expert Consenting Panel, which recorded:

*[4] **Pāua and lobster / kōura** – there is a difference of opinion between the Applicant’s expert – Dr Meynier and the expert for GWRC – Dr Melidonis regarding the appropriate process to manage the effects on pāua and lobster/kōura. We also note that Ngāti Toa Rangatira as kaitiaki have commented on this matter. We direct that the two experts confer and provide us with a joint witness statement confirming their final positions by **10 April 2026**. We do not consider that such conferencing warrants an independent facilitator unless this is requested.*

3. As directed, the participants in the expert conferencing were:
  - (a) **Dr Laureline Meynier** for the Applicant (WIAL). Dr Meynier prepared:
    - (i) the Bioreserches – Southern Seawall Renewal Project Marine Ecological Impact Assessment, dated 21 July 2025 (**Marine Ecology Assessment**) and included in Part B of the application for the Project;
    - (ii) the Marine Mammal Management Plan, dated 13 October 2025 and included in Part G of the application; and
    - (iii) a statement of evidence in response to comments made under section 53 of the Fast-track Approvals Act 2024 (**FTAA**), including comments by Dr Melidonis in relation to pāua and kōura / lobster.
  - (b) Dr Megan **Melidonis** for Greater Wellington Regional Council (**GWRC**). Dr Melidonis prepared Appendix 4 to Greater Wellington's section 53 FTAA comments, addressing marine ecology matters including pāua and kōura / lobster.

## **CODE OF CONDUCT**

4. This joint witness statements is prepared in accordance with the Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023. Unless stated otherwise, the issues addressed in this joint witness statement are within our area of expertise and we have not omitted to consider material facts known to us that might alter or detract from the opinions we express.

## **PURPOSE AND SCOPE OF CONFERENCING**

5. The purpose of conferencing was to identify, discuss and highlight points of agreement and disagreement between the two marine ecology experts, specifically in terms of:
  - (a) The effects of the Southern Seawall Project on pāua and kōura / lobster; and
  - (b) What (if any) effects management measures are appropriate and necessary to address those effects.
6. Dr Meynier and Dr Melidonis reviewed each other's reports and evidence prior to conferencing.
7. The expert conferencing was held via video conference on the 31/03/2026. Conferencing was not facilitated, and only the two marine ecology experts attended.
8. The following records the agreed issues, areas of disagreement and the reasons, along with any reservations.

## **REFERENCE MATERIAL REVIEWED BY DR MEYNIER AND DR MELIDONIS**

9. Dr Meynier shared a video taken by one of the divers along the toe of the existing seawall during the marine ecological survey in April 2024<sup>1</sup>. The footage showed how pāua and rock lobster use the crevices between the concrete blocks at the toe: these two species exhibit aggregated behaviour and use the cavity system formed by the concrete blocks as refuge habitat.

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<sup>1</sup> The biota identified during the survey are presented in the Marine ecological Impact Assessment. [https://www.fasttrack.govt.nz/\\_data/assets/pdf\\_file/0019/14428/B.11-Bioresearches-Marine-Ecological-Impact-Assessment.pdf](https://www.fasttrack.govt.nz/_data/assets/pdf_file/0019/14428/B.11-Bioresearches-Marine-Ecological-Impact-Assessment.pdf).

10. Dr Meynier and Dr Melidonis reviewed an animated video (new material not yet presented to Dr Melidonis) prepared by McConnellDowell<sup>2</sup>, which provides an overview of the construction methodology, including the staged rebuilding of the seawall by zones. Construction will start in the deepest area “zone A”, then progress westward toward the Lyall Bay breakwater and finally eastward toward the Eastern Bank remediation area. The construction methodology is relevant to the assessment of effects on pāua and rock lobster.

#### **EFFECTS ON PĀUA AND LOBSTER – MORTALITY**

11. Dr Meynier and Dr Melidonis agree that the existing seawall supports pāua and rock lobster, both of which are keystone species essential for marine biodiversity and ecosystem health. The number of individuals directly affected by the construction cannot be accurately quantified due to the cryptic behaviour of these species which use the spaces between the toe blocks, and the associated safety risks for divers undertaking surveys in this area.
12. Dr Meynier and Dr Melidonis agree that the staged construction of the seawall is likely to reduce effects on rock lobster. It is expected that some lobster individuals using the blocks for refuge will move away from the construction area in response to the disturbance from rock movement and associated noise occurring in the adjacent zones.

#### **EFFECTS ON PĀUA AND LOBSTER – COLONISATION**

13. The south coast of Wellington sustains rock lobster and pāua populations that are relatively stable despite high recreational fishing pressure and poaching (Fisheries NZ 2025a & b).
14. The Taputeranga Marine Reserve located west of Lyall Bay, supports higher density of pāua and larger individuals compared to areas subject to fishing pressure (Lafferriere 2016).
15. Dr Meynier and Dr Melidonis agree that the marine reserve and offshore reef habitats act as reservoirs for rock lobster populations, which may contribute to adjacent areas through natural spillover.

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<sup>2</sup> Video link accessible in the Description of the proposal  
[https://www.fasttrack.govt.nz/\\_data/assets/pdf\\_file/0011/14402/A.02-Description-of-Proposal.pdf](https://www.fasttrack.govt.nz/_data/assets/pdf_file/0011/14402/A.02-Description-of-Proposal.pdf)

16. Pāua are broadcast spawners with pelagic larval stages dispersed by ocean currents. Dr Meynier noted that tidal and wind-generated currents create water movement between the Taputeranga Marine Reserve and Moa Point (Fig 3.11 in Pritchard et al. 2016). During flood tides and prevailing southerly winds (dominant wind direction in the area), water flows from the marine reserve toward Moa Point and northward to the construction area.
17. Dr Meynier considers that there is a high likelihood of recruitment from the pelagic larvae pool and adjacent populations (rock lobster) to the new seawall. Dr Melidonis agrees with this statement on the proviso that conditions within the project footprint are suitable for settlement. If predators such as crabs initially settle in abundance and kelp is slow to recover, this will affect recovery of pāua (Aguirre and McNaught 2011).
18. Dr Melidonis noted the importance of food resources for pāua growth in newly colonised areas. Optimal habitat conditions for pāua development include boulder-type substrates, coralline algae, algal drift supply, and high cover of brown macroalgae such as *Ecklonia* and *Carphophyllum* (Aguirre and McNaught 2011, Laferriere 2016). Following construction, the new seawall will initially lack algal cover, and the rate of pāua colonisation will depend on the development of macroalgal communities on the new seawall. Dr Meynier agrees with this statement.
19. Studies have found that new concrete blocks become bio-receptive (i.e. suitable for colonisation by marine organisms) after approximately one to five months, once the surface pH has decreased to ambient levels, and a biofilm has developed (Gaylarde and Ortega-Morales 2023). Dr Melidonis and Dr Meynier agree that the submerged Cubipods should show evidence of biota development within approximately six months of placement.

## **EFFECTS MANAGEMENT**

20. In relation to the paragraphs 18 and 19, Dr Melidonis highlighted the importance of the post-construction monitoring surveys to assess the biota colonisation on the new seawall, including the presence and abundance of pāua and rock lobster. The need for a robust post-monitoring study, including several surveys through time, is acknowledged by Dr Meynier in her statement of evidence (paragraphs 27 and 28). This will be outlined in a Subtidal Habitat Management Plan.

21. Dr Melidonis requested that measures of ecological recovery success are included in the Subtidal Habitat Management Plan as an indication of whether the affected area is recovering as expected. If results show that recovery is not taking place within the specified timeframe, remediation actions may be appropriate. For instance, the kelp restoration demonstrated by the “Love Rimurimu” project<sup>3</sup> in Wellington Harbour.
22. Dr Meynier noted that kelp restoration is largely confined to sheltered sites within the Wellington Harbour, and primarily focuses on the Giant kelp (*Macrocystis*), which is not present within the southern seawall construction footprint. Furthermore, the new seawall will be fringed by natural reef areas already supporting brown macroalgae, which will act as a source of recruitment for algal colonisation on the new concrete blocks. Based on these considerations, Dr Melidonis agrees that kelp restoration may not be necessary to accelerate macroalgal recruitment on the new seawall. However, if monitoring shows that the affected area is not recovering as expected, Dr Melidonis recommends that monitoring should continue until the area within the construction footprint demonstrates an ecological state similar to that of the existing seawall.
23. To accelerate the colonisation of macroalgae on the new seawall blocks, and thereby provide suitable conditions for pāua settlement, Dr Melidonis proposed maximising the re-use of existing concrete blocks in the construction of the new seawall. These blocks are already conditioned for the settlement of marine flora and fauna and, provided they are not completely covered by the new Cubipod layer, may act as “seeding” sources of biota for the colonisation of the new structure. Dr Meynier agrees on the benefits of re-using existing concrete blocks that are already colonised by marine organisms.
24. Dr Melidonis and Dr Meynier were supportive of including the reuse of existing concrete blocks in the construction methodology, subject to input from the construction team on how this could be implemented.
25. The construction methodology was then discussed between Dr Meynier and the senior project director Jennifer Hart (Beca Ltd) to assess the feasibility of using the existing concrete blocks as “seeding” material. This information was subsequently shared with Dr Melidonis and is summarised below.

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<sup>3</sup> <https://www.loverimurimu.org/>

26. The existing seawall will be fully covered by a layer of rock (“underlayer”), followed by a layer of Cubipods, and existing concrete blocks will not be removed or relocated. However, due to the staged construction of the seawall by zones, sections of the existing concrete blocks will remain exposed adjacent to newly constructed areas for several months before being covered. During this period, these blocks may act as temporary “seeding” sources of biota.
27. Dr Melidonis reviewed paragraphs 37 and 38 of Dr Meynier’s statement of evidence regarding the potential relocation of pāua and rock lobster prior to construction. Considering the health and safety risks associated with the collection of pāua from the seawall, Dr Melidonis acknowledges that successful translocation of pāua and rock lobster would be difficult to implement for the Project.
28. Dr Melidonis and Dr Meynier agree that translocation of pāua and rock lobster should not be included in the conditions, and that the proposed Condition ECO.79 should be withdrawn.

## REFERENCES

29. The statements outlined above are based on our professional expertise and the literature referenced below:

Aguirre and McNaught (2011). Habitat modification affects recruitment of abalone in central New Zealand. *Marine Biology* 158(3): 505-513.

Gaylarde and Ortega-Morales (2023). Biodeterioration and chemical corrosion of concrete in the marine environment: too complex for prediction. *Microorganisms* 11:2438.

Laferriere (2016). Examining the ecological complexities of blackfoot pāua demography and habitat requirements in the scope of marine reserve protection. PhD thesis, Victoria University of Wellington. 171p

Fisheries NZ (2025a). Fisheries Assessment Plenary May 2025. PAU chapter (pāua) <https://fs.fish.govt.nz/Page.aspx?pk=113&dk=26050>

Fisheries NZ (2025b). Fisheries Assessment Plenary May 2025. CRA chapter (Red Rock Lobster) <https://fs.fish.govt.nz/Page.aspx?pk=113&dk=26180>

Pritchard *et al.* (2016). Wellington Airport Runway Extension. Technical report on Coastal Hydrodynamics and Sediment Processes in Lyall Bay. Prepared by NIWA for WIAL.

Date: 9 April 2026



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**Dr Laureline Meynier**



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**Dr Megan Melidonis**