

**BEFORE A HEARING PANEL
APPOINTED BY TASMAN REGIONAL COUNCIL**

IN THE MATTER

of the Resource Management Act 1991

AND

IN THE MATTER

of an application by Māpua Community Boat Ramp Trust for the construction and operation of a new boat ramp and associated facilities

**EVIDENCE OF DR GRAHAM THOMAS USSHER FOR FRIENDS OF MAPUA
WATERFRONT**

14 November 2024

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SALLY GEPP
BARRISTER

EVIDENCE OF GRAHAM THOMAS USSHER – RECREATION

Executive summary

1. My full name is Dr Graham Thomas Ussher. My evidence provides an assessment of the herpetofauna values of the application area, an assessment of the effects of the proposed boat ramp and associated facilities on lizards and their habitat, and an assessment of those effects in relation to relevant policy instruments.
2. I was commissioned by the Applicant's ecologist in 2022 to undertake a survey of the application area for native lizards. My survey recorded a sizable breeding population of the native northern grass skink. Populations of this species are unusual to find in the Mapua/Ruby Bay area as habitat has been progressively cleared locally over several decades and finds are usually restricted to individual animals. This population is therefore ecologically important in the local area.
3. The Applicant proposes works that will remove nearly 80 % of the available habitat of the northern grass skink population from this location.
4. The loss of this habitat and the likely loss of the skink population as a result will constitute a significant adverse effect on the local population of this native skink. That is contrary to the requirements of the NZ Coastal Policy Statement, which require avoidance of significant adverse effects on habitat that is predominantly indigenous vegetation, and habitats in the coastal environment that are important during the vulnerable life stages of an indigenous species, both of which are the case for the application area and for the skink that inhabits that site.
5. If resource consents are granted, a condition of consent should be included that requires the consent holder to prepare and implement a Lizard Management Plan.

Qualifications and experience

6. I am a Restoration Ecologist and Director of RMA Ecology Limited, a company specialising in ecological effects assessment and management.
7. I hold the qualifications of Bachelor of Science (Zoology; 1993), Master of Science (Conservation Ecology; 1995) and Doctor of Philosophy (Conservation Management; 2000) from the University of Auckland, New Zealand.
8. I have over 30 years' experience in environmental research and consulting with a particular focus on land-based ecology and methods for providing improvements to indigenous biodiversity.
9. I have previously been employed as:

- a. A lecturer in Environmental Science at the University of Auckland (2000-2003).
 - b. Regional ecologist for the (former) Auckland Regional Council (2003 – 2007), with a focus on projects that managed species and ecosystems, and the restoration of Auckland coastal parklands.
 - c. A Principal Ecologist at Tonkin & Taylor Ltd, Environmental and Engineering Consultants, Auckland (2007 – 2016) where I was a senior-level ecologist and helped lead the Ecology team. Over my period of employment at Tonkin & Taylor Ltd I managed, undertook fieldwork, reported on or reviewed in excess of 120 projects involving ecological effects assessments, management and ecological mitigation/restoration in New Zealand spanning small to large scale effects, and covering all aspects of land use.
10. I founded RMA Ecology Ltd in 2016. In my role as Director, I have undertaken approximately 350 projects since 2016 that have involved site assessment, impact evaluation, effects management design (including offsetting), management plan preparation, and construction management, including lizard, fish, and plant salvage, stream reconstruction, and ecological monitoring and reporting.
11. My project experience spans land development, infrastructure, power generation, resource extraction, water management, and roading sectors. My involvement in projects ranges from pre-purchase due diligence, preliminary/concept development design, precinct and private plan change assessments, resource consent applications, and construction supervision, implementation, monitoring, and reporting. Most of my project involvement has been in rural and greenfield sites where ecological values have been diverse, degraded and require specific interpretation in regard to national, regional or district policies around biodiversity classification, and interpretation of scale, significance and management of potential adverse effects.
12. My specific expertise is in the area of lizard and amphibian survey, effects management, and conservation (herpetology). My post-graduate degrees focussed on the conservation of tuatara. I have been interested in native lizards since I was 10 years old, and have worked with native lizards for over 30 years in a professional capacity, including assisting the Department of Conservation (DOC) with species recovery projects, Councils with protection and management planning for herpetofauna, and private industry with surveys, risk assessments, management, salvage and relocation.
13. I am recognised by DOC as a qualified herpetologist, and hold 6 Authorities under the Wildlife Act to undertake survey and/or salvage of native lizards on privately owned land across New Zealand. I also hold a sought-after multi-year salvage and relocation Authority for the Auckland region which is

only granted to a small handful of herpetologists in the private sector that are trusted by DOC. Over my career as an ecologist, I estimate that I have undertaken at least 300 separate lizard surveys or salvage projects.

14. I have lived in Mapua for over 8 years. In that time, I have undertaken informal searches for lizards in my own time, or as part of contract work on local land development projects. I occasionally receive photos or specimens of lizards from others in the Mapua community for me to identify (which I do as a qualified expert) and I also lodge records with the National Lizard and Amphibian Database ('Herpetofauna'), the repository of information for herpetologists nationally. As a result, I have a reasonable understanding of the herpetofauna of the Mapua and Ruby Bay local area.

Code of conduct

15. Although this is not an Environment Court hearing, I confirm that I have read the code of conduct for expert witnesses contained in the Environment Court Practice Note 2023. I have complied with the code in preparing this statement of evidence.
16. Unless I state that I am relying on the evidence of another witness, my evidence is within my knowledge and expertise. The data, information, facts and assumptions I have considered in forming my opinions are set out in my evidence below, along with the reasons for the opinions expressed. Where relevant, I have stated why alternative interpretations of data are not supported. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express. I specify the material that I have relied on in support of my opinions. I have described, and identified the person who carried out, any examination, test or other investigation on which I have relied. I have identified the nature and extent of uncertainties in any scientific information and analyses I rely on, and the potential implications of any uncertainty. I have applied any technical terminology used in my evidence according to its generally accepted meaning among experts in my field.
17. Where I consider that my evidence may be incomplete or inaccurate without some qualification, I have included such qualifications. I have identified any knowledge gaps I am aware of, and the potential implications of such gaps. If I consider that my opinion is not firm or concluded because of insufficient research or data or any other reason, I have stated this. I provide an assessment as to my level of confidence, and the likelihood of any outcomes specified, in my conclusions.
18. I was engaged by Robertson Environmental Ltd in 2022 to undertake a lizard survey at the application site. A copy of my survey report is attached to Mr Robertson's evidence.

19. I am a Māpua resident and a submitter in opposition to this application. I am also part of the group Friends of Māpua Waterfront, a group of submitters who have joined together for the purpose of engaging an expert witness (Jenn Benden) and for legal representation. My wife, Elizabeth Ussher, is also a submitter and member of the group. As a result, I acknowledge that I have an interest in the outcome of the application, and to that extent I am not a fully independent witness. However, my evidence is focussed solely on the topic of lizard habitat and effects, and does not address wider issues associated with the proposal. I have sought to provide an objective assessment on this topic, independent of my personal views on the proposal.

Scope of my evidence

20. My evidence covers the following issues:

- a. Existing environment and herpetofauna values.
- b. Potential effects on lizards and lizard habitat.
- c. Assessment in relation to relevant New Zealand Coastal Policy Statement 2010, National Policy Statement for Indigenous Biodiversity 2022 and Tasman Resource Management plan policies.

Hearing documents considered in preparing this evidence

21. In preparing my evidence, I have considered the following documents prepared for this Hearing:

- a. Application documents
 - i. Landscape Master Plan prepared by OBD Ltd, job number 192021, version R4, dated 30 July 2024.
 - ii. Application for Resource Consents for Mapua Boat Ramp and Sea Scout Community Building. Prepared by David Ogilvie Ltd. Version 2 in response to RFI 31.8.23, dated 16 November 2023.
 - iii. F01 Amended plans for engineering design, prepared by David Ogilvie Ltd, job number 42454, rev 10, dated 07/2022.
- b. Section 42A report and attached assessments by Victoria Woodbridge (consultant planner to Council) and Leif Pigott (team leader natural resources TDC)
- c. Applicant's evidence dated 4 November 2024:
 - i. Evidence in chief of Ben Robertson dated 3 November 2024.

Existing environment

22. The application area that includes the southern part of the Mapua Wharf site has been extensively modified over the past several decades. The land was stripped of soil and re-formed as part of the remediation of the Fruitgrowers Chemical Company site in 2008.
23. As a result, all possible habitat that could support lizards was removed during those works. The remediation works also extended into the northern side of 13 Tahī Street, with site photos at that time showing complete clearance of vegetation and earthworks within an approximately 5 m wide strip inside the boundary of that property, apart from a small area of rough grassland near the coastal edge.
24. Subsequent to the completion of the site remediation, landscape planting and structures were installed by Council – with planting completed in late 2013, indicating that existing plantings on the site are around 11 years old.
25. Presumably the small area of habitat at 13 Tahī Street – or some area nearby that once supported sufficient habitat and which has since been cleared as coastal sections along the waterfront have been further developed – supported grass skinks, which then colonised the landscape planting.
26. Plantings within the site comprise mainly native ground cover and low stature plantings, with areas of concentrated exotic tree planting. Native low plantings form a very dense ground cover in places, and covers some structures (such as the coastal boulder wall). Native plant species used for the revegetation comprise a simple mix of native swamp flax (*Phormium tenax*), pohuehue (*Muehlenbeckia sp*) and oioi/ jointed wire rush (*Apodasmia similis*) with occasional trees/ shrubs ngaio (*Myoporum laetum*) and broadleaf (*Griselinia littoralis*). Other native shrubs including occasional karamu (*Coprosma robusta*) and kawakawa (*Piper excelsum*) appear self-introduced.
27. I undertook a survey of lizards of this application area in January 2023 for Robertson Environmental Ltd. That survey report (in draft form) is included as an appendix to the evidence of Ben Robertson.
28. The survey found that the native northern grass skink (*Oligosoma polychroma*) is widespread through the dense plantings from Tahī Street through to the boulder coastal wall within the application area. The northern grass skink is a diurnal (day active) small sized native skink. It is classified as Not Threatened in the DOC Threat Classification lists for reptiles. As with many other ground-dwelling lizards in New Zealand, this species is vulnerable to habitat loss and predation by introduced pest animals. Urban or urbanising areas contribute to loss of skink populations by the removal of habitat during urbanisation, and ongoing 'tidying' of rough grass and weedland areas over time, and through predation by domestic animals – particularly cats. Through my time as a herpetologist, I have

noticed the loss of skink habitat and decline of populations in areas which I have grown up or where I have worked in the Auckland region. It is very likely that similar region-wide patterns of habitat loss and declining lizard populations are occurring within Tasman (and this is also reflected in statements on the status of lizards nationally as published by DOC¹).

29. The total area of skink habitat within the application area is approximately 1,270 m² (my calculations exclude any hard surfaces, hard structures, and landscaped areas that are devoid or have a low cover of ground covering plants). My assessment of what constitutes 'habitat' for northern grass skink at the site is therefore conservatively restricted to refuge habitats, and does not include adjoining areas that the skink may use for foraging or movement routes between patches of refuge vegetation. I did not detect any other species of lizard, although the common native gecko, Raukawa gecko (*Woodworthia maculata*) is also known to occur in the Mapua/Ruby Bay area.
30. 13 Tahi Street adjoins the application area. The owner of that property has worked deliberately over many years since 2008 to improve habitat within parts of the property for wildlife - specifically insects - although, in places, those actions have also provided good quality habitat for the northern grass. From my occasional visits to the property, I estimate that habitat for grass skink covers approximately 99 m² (largely long grass along the boundary with the application area, building and organic materials placed in piles, and habitat creation areas constructed by the owner).
31. Therefore, the total area of habitat for northern grass skinks within the application area and adjoining property is around 1,369 m². Beyond this, the landscape is an effective desert for native lizards, as it comprises mown grass lawns, concrete or gravel driveways, hedge lines and amenity plantings with sparse or no ground cover. I walk the streets and beaches around this part of Mapua several times a week and have noticed the gradual 'tidying' and gentrification of Tahi Street, and the wider areas of previously rough or unkept land around Mapua. Overall, this amounts to a gradual loss of potential grass skink habitat.
32. In other parts of Mapua, I would expect there to be the occasional grass skink. My experience from efforts to tidy my own property in Mapua, and from talking with Mapua residents who have found lizards while

¹ Department of Conservation. 2021. Conservation status of New Zealand reptiles, 2021. Rod Hitchmough, Ben Barr, Carey Knox, Marieke Lettink, Joanne M. Monks, Geoff B. Patterson, James T. Reardon, Dylan van Winkel, Jeremy Rolfe and Pascale Michel. NEW ZEALAND THREAT CLASSIFICATION SERIES 35.

Current challenges and future directions in lizard conservation in New Zealand. 2016. RA Hitchmough, LK Adams, JT Reardon and JM Monks. JOURNAL OF THE ROYAL SOCIETY OF NEW ZEALAND, VOL. 46, NO. 1, 29–39

undertaking landscaping works, is that grass skinks in the wider Mapua/ Ruby Bay area are very sparse, with occasional individuals, rather than sizable populations that give confidence around long-term persistence.

33. Since my survey for Robertson Environmental, I have returned to the application area several times - most recently in early November this year - to visually survey habitat for lizards. I have found lizards every time. In my most recent visit, I observed four grass skinks in 10 minutes of searching over a small part of the available habitat for lizards on the site. The four skinks include a gravid (carrying young) female, and at least one subadult, which indicates that there is a breeding population of these lizards at this site. This detection level for time searched is, in my professional experience, a high detection rate and illustrative of a substantial number of lizards, and a healthy population, at this site.

Potential effects on lizards and lizard habitat

34. The application includes the removal of vegetation and existing structures within the application area. I estimate (by GIS analysis, and in conjunction with the Applicant's engineering drawings) that the area of lizard habitat that will be removed is around 1,083 m², which constitutes the loss of 85 % of lizard habitat within the application area). Parts of lizard habitat within the existing swale along the boundary with 13 Tahi Street are not proposed by the applicant to be disturbed.
35. I understand from talking with the owner of 13 Tahi Street that there may be a verbal agreement with the Applicant to resolve occasional flooding within 13 Tahi Street caused by the existing landform within and around the application area. If those works include vegetation removal within the swale along the boundary in the Application area (currently not shown on the engineering drawings as receiving any works), all lizard habitat within the application area will be removed.
36. As currently shown on the application drawings, the loss of habitat within the application area and 13 Tahi Street - which constitutes the extent of habitat that supports the existing population of northern grass skink - amounts to the removal of 79 % of the available habitat for this lizard population.
37. I have reviewed the proposed landscape plans for the site. The proposed planting of small areas within the proposed new carpark and within native coastal planting buffer between the picnic area and boat ramp constitute small, narrow plantings. While these may provide habitat for lizards, it is unlikely that they will be colonised by lizards (e.g. from 13 Tahi Street) or sustain lizards because of the ramp between as a barrier to movement, and the small size proposed plantings.
38. I remain concerned as to the persistence of this local population of northern grass skink with the level of habitat clearance proposed by the applicant.

Loss of 79 % of available habitat is likely to significantly increase the risk of permanent loss of this population as it will restrict any remaining individuals to a narrow strip of habitat along the swale drain and adjoining 13 Tahī Street boundary.

39. In my opinion, there is a high likelihood that the loss of habitat within the application area will lead to a decline in the remainder of the lizard population and eventual local extinction of this population – due to the combined effects of habitat loss, and loss of individuals from the population (assuming that lizard relocation to a distant site is undertaken as is proposed in the evidence of Ben Robertson).
40. In my survey report for Robertson Environmental, I concluded that the overall, the level of effect of the Mapua Boat Ramp construction on this population of northern grass skink, without mitigation/salvage, is likely to be very high and may result in the loss of northern grass skink from this location (including 13 Tahī Street).
41. I then commented that this is unlikely to measurably affect the persistence of northern grass skink locally or within the region (or its overall range). However, a full assessment of effects was not provided, as it did not form part of my scope of work.
42. Mr Roberson does not provide an assessment of effects with respect to the loss of lizard habitat, or to the possible loss of the skink population from this site. However, he does provide an evaluation of the ecological values associated with the presence of lizards within the application area, and assesses the value as 'Low'. (An assessment of effects on lizards is also not addressed in the Council Section 42A report, with the author of that report noting that they lacked appropriate expertise to be able to comment on that matter).
43. A widely used framework in New Zealand for assessing the importance of impacts on ecology values is the EIANZ Impact Assessment Framework². The EIANZ matrix approach, and the guidelines within which it is included, has been developed as a guide for ecologists undertaking effects assessments under the RMA. The EIANZ impact assessment matrix provides a robust, concise and consistent approach to effects assessment, whilst ensuring that individual expert evaluation and opinion is preserved. The matrix approach uses value of ecological feature (threat status) and predicted magnitude of effect (on a local and regional scale, as well as temporal considerations) to produce an anticipated 'level of effect'. The level of effect assists as a guide for informing recommended approaches to managing residual effects such as good practice minimisation, and the circumstances in which biodiversity offsetting, ecological compensation, or

² EIANZ EciA guidelines. Roper-Lindsay, J., Fuller S.A., Hooson, S., Sanders, M.D., Ussher, G.T. 2018. Ecological impact assessment. EIANZ guidelines for use in New Zealand: terrestrial and freshwater ecosystems. 2nd edition.

project redesign are most appropriate. The EIANZ approach has been developed by New Zealand ecologists (including myself as an author) with the precautionary principle and the effects management hierarchy embedded as fundamental principles.

44. Of relevance to this project, the EIANZ framework recommends³ – as a minimum – the following approaches for level of residual adverse effect:
- a. Where the level of effect is **Low or Very Low**, good practice design, avoidance and mitigation are recommended (such as wildlife salvage and relocation, and vegetation removal outside of the bird breeding season);
 - b. Where the level of effect is **Moderate or High**, the residual level of effect should require a formal biodiversity offset or ecological compensation package to be developed to ensure that net overall effect is no-net-loss or preferably a net-gain.
 - c. Where the level of effect is **Very High**, the project should be redesigned where possible to lessen the level of adverse effects, or a clear net-gain (with a high certainty of outcome) provided.
45. With regard to ecological value associated with the northern grass skink at Mapua Wharf, I disagree with Mr Robertson that the level is Low. This population is of a considerable size (maybe up to 50 individuals) and due to being a breeding population is in stark contrast to the individual records and lack of any similarly sized comparable habitat or population that is known locally. Whereas records from around the Mapua and Ruby Bay area indicate that northern grass skink are sparse, scattered, and comprise individuals, lizards at the application area show clear evidence of sustaining a breeding population – which is unusual locally.
46. The EIANZ guidance is somewhat ambiguous when it comes to assigning value to locally important areas for a species. The two determining factors listed that are most relevant to this situation when assigning values are:
- a. A value of **Moderate**, if the species is locally uncommon in the Ecological District or is a distinctive species; or
 - b. A value of **Low**, if the species is a nationally and locally common indigenous species.
47. For northern grass skink at this local location, the population is distinctive in that none others of this size are known locally or are likely to be present locally. However, the species can be regarded as common at a national level (especially in the Wellington region where the species is ubiquitous and locally abundant).

³ Table 10 and the accompany text of the EIANZ guidelines.

48. For this location, the species is nationally common, but the incidence of a sizable breeding population is not common locally, and is distinctive for this species in this location.
49. Given the uncommon nature of a sizable breeding population such as this locally, in my opinion, the value of this site and this population for northern grass skink should be attributed a 'Moderate' level of value.
50. With regard to magnitude of potential effect of the proposed project on this population, the scale of loss of the population will be Very High or High (in accordance with the EIANZ scoring system), because:
- The project will result in the loss of nearly 80 % of the habitat that supports the local population;
 - Even if lizards from the site are relocated elsewhere (as will be required by DOC under the Wildlife Act) there is no confidence that they will survive, or that the remaining lizards at 13 Tahiti Street will survive the loss of adjoining habitat, in the short term or longer term. It is usual practice in herpetology in New Zealand, that low confidence is attributed to the likely release and persistence of relocated individuals.

That is because there are no studies that demonstrate that relocated animals survive, and that receiving population is not disrupted by released individuals. The salvage and relocation of lizards from this site will result in the permanent loss of a population of northern grass skink, and while some individuals may survive, there is no evidence that a breeding population can be recreated at a new location. No information about potentially suitable relocation sites has been provided by the applicant.

51. Combining Values and Magnitude of loss within the EIANZ matrix framework gives a range of outputs, depending on the level of value attributed to this population and the magnitude of long-term effect that will result from the loss of habitat and assumed survival of relocated individuals. This is illustrated in the table below with the shaded cells providing the resultant level of ecological effect for each combination of values and magnitude of impact.

Value ->	Moderate	Low
Magnitude of effect		
Very High	High	Moderate
High	Moderate	Low

52. Of the four outcomes shown in the above table, the outcome of 'Low' level of ecological effect relies upon a level of assessment of value that is not

supported locally, and a magnitude of effect that is predicated on assumptions not supported by current practice. Therefore, in my opinion, a potential level of ecological effect of the proposed project on skink at this cannot feasibly be regarded as Low.

53. The other three outputs are more realistic given what is known of the lizard population at this site. Of these three outputs, a level of impact of 'High' would accord with the precautionary approach and appropriate recognition of uncertainty and lack of detailed information from the application documents with regard to the lizard population at the site and locally. That also more faithfully reflects an effects assessment that aligns with the foundation principle of precautionary evaluation that underpins the Resource Management Act.
54. The EIANZ guidance provides comment on how to interpret the above level of ecological effects into an assessment of the importance of adverse effect under the RMA. I am often asked this as part of the effects that I undertake in my professional work.
55. In my opinion, based on my experience with ecological assessment under the RMA a level of ecological effect that is High or Moderate constitutes a significant adverse effect under the RMA, while an adverse effect that is Low constitutes a minor adverse effect under the RMA.
56. Overall, my opinion is that the works provided for under the application will result in a Moderate or High level of adverse effect on native lizards at the site, which equates to a significant adverse effect under the RMA.

Statutory analysis

57. The proposed Application has relevance under the New Zealand Coastal Policy Statement 2010, National Policy Statement for Indigenous Biodiversity 2022, and Tasman Resource Management plan policies.
58. With regard to the New Zealand Coastal Policy Statement, Policy 11 (b) (replicated below in italics) is relevant:

Policy 11: Indigenous biological diversity (biodiversity)

To protect indigenous biological diversity in the coastal environment:

- b. avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of activities on:*
 - i. areas of predominantly indigenous vegetation in the coastal environment;*
 - ii. habitats in the coastal environment that are important during the vulnerable life stages of indigenous species;*
 - iii. indigenous ecosystems and habitats that are only found in the coastal environment and are particularly vulnerable*

to modification, including estuaries, lagoons, coastal wetlands, dunelands, intertidal zones, rocky reef systems, eelgrass and saltmarsh;

- iv. habitats of indigenous species in the coastal environment that are important for recreational, commercial, traditional or cultural purposes;*
- v. habitats, including areas and routes, important to migratory species; and*
- vi. ecological corridors, and areas important for linking or maintaining biological values identified under this policy.*

59. The New Zealand Coastal Policy Statement applies to the Coastal Environment, which I note from the Tasman Resource Management Plan area maps includes all of the Application area.
60. The population of grass skink at this location resides within predominantly indigenous vegetation, and the habitats support a population that is clearly breeding and relies upon that habitat for all of the life stages of the lizards. As such, I consider that Policies 11(b)(i) and (ii) are engaged.
61. The level of adverse effect that will result on the population of lizards and their essential habitat at this location will be significant. The proposed works are contrary to Policy 11(b)(i) and (ii) to avoid significant adverse effects.
62. With regard to the National Policy Statement on Indigenous Biodiversity, I note that although the policy provides for a pathway of mitigation, offsetting and compensation where significant adverse effects on biodiversity may result, it specifies that the NZCPS prevails where there is conflict between the provisions of the National Policy Statement and the NZCPS, as may be the case here.
63. Therefore, I understand that Policy 11 of NZCPS prevails in that it requires that the adverse effects arising on native lizards at this site from the Application are avoided.

Conditions of resource consent

64. If the Hearing panel is of a mind to grant consent, conditions should be included that refer to native lizards. The existing draft condition set currently contains no reference to native lizards.
65. If consent is granted, I recommend that the following be added as conditions. My recommendations relate to the development of a Lizard Management Plan, and the implementation of that plan by a appropriately qualified and permitted herpetologist. While Council may consider that those matters are best addressed by DOC under its obligation under the Wildlife Act, I am aware that standard conditions relating to lizard plans and salvage/ relocation are included in conditions of consent by other Councils where lizards may be present or have been confirmed as present. I

understand that one reason for this is that those Councils have identified through discussions with DOC that the absence of such conditions potentially places Council at risk of liability should works be undertaken that are contrary to the purpose of the Wildlife Act and expose Council to risk of prosecution as an associated party under the Wildlife Act.

66. Conditions that require a Plan, and subsequent salvage, relocation and post-release monitoring are standard in other jurisdictions. They are not onerous, and simply recognise the requirement of an Applicant to undertake due process for the protection of native lizards, as irrespective of the threat classification, all native lizards qualify as Absolutely Protected Species under the Wildlife Act.
67. Such a condition has financial implications for the Applicant's project; however, in my experience this unlikely to be large or onerous. For a relocation project of this nature, the estimated cost of preparing the necessary Lizard Management Plan, making an application to DOC for a Wildlife Act salvage and relocation Authority, undertaking the lizard salvage, setting up a relocation site (usually 7+ years of habitat improvement and pest animal control), and providing compensation to DOC to recognise the lack of protective benefit when an existing population is removed, would amount to around \$80,000 or so, and appears to be a small portion of the overall project cost.
68. A condition of resource should include wording to the effect:

The Consent Holder shall, prior to the commencement of any vegetation removal works, submit and have certified by the [Council], a Lizard Management Plan (LMP) prepared by a suitably qualified and experienced ecologist/herpetologist.

The LMP shall be designed so as to achieve the following two objectives:

- a) The population of northern grass skink present on the site at which vegetation clearance is to occur shall be maintained or enhanced, either on the same site or at an appropriate alternative site; and*
- b) The habitat(s) that northern grass skink are transferred to (either onsite or at an alternative site, as the case may be) will support a viable northern grass skink population.*

The LMP shall address the following (where relevant):

- a) Credentials and contact details of the ecologist/herpetologist who will implement the plan.*
- b) Timing of the implementation of the LMP.*
- c) A description of methodology for survey, trapping and relocation of lizards rescued including but not limited to: salvage protocols, relocation protocols (including method used to identify suitable relocation site(s)), nocturnal and diurnal capture protocols, supervised habitat clearance/transfer protocols, artificial cover object protocols, and opportunistic relocation protocols.*
- d) A description of the relocation site(s); including discussion of:*

- a. *provision for additional refugia, if required e.g. depositing salvaged logs, wood or debris for newly released native skinks that have been rescued;*
 - b. *any protection mechanisms (if required) to ensure the relocation site is maintained (e.g.) covenants, consent notices etc;*
 - c. *any weed and pest management to ensure the relocation site is maintained as appropriate habitat.*
- e) *Monitoring methods, including but not limited to: baseline surveying within the site; baseline surveys outside the site to identify potential release sites for salvaged lizard populations and lizard monitoring sites; ongoing annual surveys to evaluate relocation success; pre/post – relocation surveys; and monitoring of effectiveness of pest control and/or any potential adverse effects on lizards associated with pest control;*
- f) *A post-vegetation clearance search for remaining lizards.*

Advice Note:

All native lizards are absolutely protected under the Wildlife Act 1953 under which it is an offence to disturb, harm, or remove them without a permit from the Minister of Conservation. For further information on lizards that are protected under the Wildlife Act and determination of a suitable new habitat please contact the [Council contact].

Department of Conservation restricts lizard capture, handling and relocation to between the months of October to April.

Conclusion

65. The Applicant proposes works that will remove nearly 80% of the available habitat of a population of northern grass skink from the Mapua Wharf area at Mapua for the construction of a proposed boat ramp.
66. The loss of skink habitat and the likely loss of the skink population as a result effect will constitute a significant adverse effect on the local population of this native skink, which is contrary to the NZ Coastal Policy Statement.
67. Despite this, if consents are granted, a condition of consent should be included that requires the consent holder to prepare and implement a Lizard Management Plan.



Dr Graham Thomas Ussher

14 November 2024