BEFORE THE AUCKLAND UNITARY PLAN INDEPENDENT HEARINGS PANEL

IN THE MATTER	of the Resource Management Act 1991 and the Local Government (Auckland Transitional Provisions) Act 2010
AND	
IN THE MATTER	of the Proposed Auckland Unitary Plan (PAUP), Topic 23 – SEAs and Vegetation Management
AND	
IN THE MATTER	of the submissions and further submissions set out in the Parties and Issues Report

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STATEMENT OF PRIMARY EVIDENCE OF ABIGAIL RUTH SALMOND ON BEHALF OF AUCKLAND COUNCIL

(ECOLOGY – SIGNIFICANT ECOLOGICAL AREAS TERRESTRIAL)

1 JULY 2015

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1. SUMMARY

1.1 It is my overall expert opinion that the process to identify SEAs and subsequently inform the overlay and Appendix 5.1 has been thorough and robust. In the following evidence I demonstrate that best practice methodology and consultation has been applied throughout the process which has resulted in the overlay being continually refined.

1.2 There are a number of submissions that support the SEA overlay and seek to retain the overlay and specific sites. The majority of submissions to the overlay seek amendment or deletion of the SEA on their property specifically. I will demonstrate in my evidence (in conjunction with the Joint Ecologists evidence) that we have reached early agreement with a number of these submitters as we seek to improve the accuracy of the overlay.

1.3 I am confident that the application of the ecological criteria has successfully captured the significant indigenous vegetation and the significant habitats of indigenous fauna of the Auckland region. I acknowledge however that the overlay is not a static document and that continued working relationship with landowners affected by SEAs and the public will result in the continual refinement of the layer.

2. INTRODUCTION

2.1 My name is Abigail Salmond, I am currently employed by the Auckland Council as a Biodiversity specialist in the Biodiversity and Coastal Strategy Team. I have held this position since November 2014. Immediately prior to this I held the position of Specialist in the Natural Heritage Policy Team. I have also held the position of Ecologist in the Biodiversity Operations Team at Auckland Council and was previous employed by the Auckland Regional Council as an ecologist, beginning in 2006.

2.2 I hold a Master of Science (first class honours) with a major in Environmental Science from the University of Auckland. I have 3 years' experience in resource management policy and planning and 7 years' experience as a terrestrial ecologist. I am a member of the New Zealand Plant Conservation Network, The Auckland Botanical Society and member and ex-trustee of the National Wetland trust.

2.3 I have been involved in the Council's identification of Significant Ecological Areas since its inception in 2011 as an ecologist through to the response to feedback and submissions to both the DAUP and PAUP as a Biodiversity Specialist in the Council's policy and strategy team.

2.4 I have been asked to provide evidence for Auckland Council on the development of the SEA overlay for the Proposed Auckland Unitary Plan (PAUP) Topic 023 – SEAs and vegetation management as this relates to SEAs.

2.5 My evidence should be read in conjunction with that of Ms Jennifer Fuller, Ms Marilyn Ford and the Joint Ecologists evidence.

3. CODE OF CONDUCT

3.1 I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note and that I agree to comply with it. I confirm that I have considered all the material facts that I am aware of that might alter or detract from the opinions that I express, and that this evidence is within my area of expertise, except where I state that I am relying on the evidence of another person.

4. SCOPE

4.1 My evidence outlines the process and assumptions used by the Auckland Council to identify the Significant Ecological Areas - Terrestrial (SEA) within the PAUP. The SEAs are identified in Appendix 5.1 of the PAUP and mapped in the GIS.

4.2 In particular this evidence addresses the following matters:

(a) Context and background to the SEA layer

(b) Identification of potential sites

(c) Significance assessment of identified sites

(d) Refining the overlay

(e) Conclusion

(f) Attachments

4.3 My evidence only relates to terrestrial SEA. The evidence of Ms Shona Myers addresses the mapping of Significant Ecological Areas – Marine.

5. CONTEXT AND BACKGROUND TO THE SEA OVERLAY

5.1 The approach adopted by the Auckland Council in the PAUP is to focus the plan provisions on identifying and managing areas of ecological significance that meet a set of identified eligibility criteria. These criteria are included in the PAUP in B4.3.4 and have been the considered in the Topic 010 hearing process. Where relevant I will refer to the evidence and case of the Council in that hearing (including the evidence of Ms Jenny Fuller).

5.2 In the notified version of the PAUP, the significance criteria were summarised within Policy 1 of B4.3.4. As addressed in the evidence of Ms Fuller for Topic 010, the Council now proposes including all the five ecological significance criteria (and 20 sub-criteria) within the PAUP. This makes the criteria clear and transparent. It should be noted that the inclusion of this sub-criteria this will not affect the outcome of the overlay. The sub-criteria are part of the original Ecological Significance Criteria as proposed in the Auckland Council Draft document "Criteria for the identification of significant ecological areas in Auckland" (Sawyer and Stanley 2014) however they were not originally included in the summarised version of the criteria in the PAUP. These are the criteria (and sub-criteria) that were used to identify the overlay.

5.3 The full criteria (and sub-criteria) can be found in **Attachment A** of this evidence.

5.4 The PAUP provides for areas of ecological significance that have been evaluated and found to meet the PAUP eligibility criteria to be included in the schedule of Significant Ecological Areas – Terrestrial (SEA schedule). This schedule is contained in Appendix 5.1 of the PAUP. The areas are mapped on the PAUP planning maps and GIS. The Schedule and the maps together form the SEA overlay.

5.5 3360 SEA sites are recorded in the PAUP schedule. Many of these were included in legacy plan schedules and have been carried over, through a translation process, into the current SEA schedule. Additional sites have been added via a process of assessment and consultation. All sites have been through a consultation process. Further details of the translation and consultation processes are provided later in the evidence.

5.6 As outlined by the Council's case in the hearing for Topic 010, it is expected that there are ecologically significant sites throughout the region that have

not yet been identified. Adverse effects on biodiversity values on significant or potentially significant sites that have not, or have not yet, been included in the schedule may be a considered when development occurs on those sites, depending on the resource consents required and their activity status. This will be addressed further in the planning evidence of Marilyn Ford

5.7 There are approximately 692 submissions to the SEA overlay and Appendix 5.1 of the PAUP. I will address general submissions to the overlay in this evidence.

5.8 586 of the submissions were Site specific (submissions which seek the addition, retention, reduction or deletion of an SEA on the property of the submitter) and are addressed in the evidence of Joint Ecologists evidence.

Summary of submissions received on the SEA overlay

5.9 A strong theme in submissions to the overlay is to challenge the accuracy of the overlay as a whole and the methods undertaken to establish it. Some submitters have raised issues with the overall accuracy of the overlay such as the application of the criteria and the robustness of the methodology. Other submitters have raised issues with errors in the mapping accuracy of SEAs in general. Other submitters have raised issues with the lack of field survey, ground truthing and application of the criteria.

5.10 Many submissions support the SEA overlay and seek to have it retained (e.g. Friends of Maungawhau 3772-11 and Le Roys Bush and Little Shoal Bay Management Committee 5585-1). In addition to these general submissions supporting the retention of the overlay, 53 submissions supported retention of the SEA as it related to their property.

5.11 Other submissions seek to increase the overlay particularly where “bush areas around reserves and where groups of properties share native bush across boundaries (Protecting Urban Bush 4652-2) and “to all bush clad sections of properties adjoining reserves where there are significant ecological implications and especially where soil erosion or neighbourhood amenity are an issue” (Birkenhead Residents Association Incorporated 8943-34)

5.12 Many of the submissions to the SEA overlay seek a review of the layer to ensure that identification of SEAs are accurate and consistent (e.g 3085-73 Ngati Whatua Orakei Whai Maia Limited) and that the overlay is confirmed

"on the ground before implementation" (Civic Trust Auckland. 6444-94) Similarly, Better Living Landscapes Limited (7371-54) seeks that the Council "Amend the PAUP by correcting the mapping errors for SEA's [sic]."

5.13 Some submissions refer specifically to the sites which have been carried over from previous plans where information for these sites may be out of date and inaccurate and sites may have be transferred "in error" (e.g. Joseph Investments 4206-3)

5.14 Some submissions seek changes or deletions in general areas e.g. Duncan Stuart (38-3) who seeks an "update maps to reflect current extent of SEA's [sic] in Waitakere Ranges especially rural and farmed areas" and Mahurangi East Residents and Ratepayers Association Incorporated (4142-1) who request that council "Undertake a full review of SEA coverage at Mahurangi East."

5.15 Some submissions consider that the consultation process with landowners was lacking and seek further discussion and liaison prior to implementation of the overlay (e.g. Josephine Tong 7595-3 and Danny Selak 7659-3).

5.16 The general themes raised in these submissions are addressed in the balance of this evidence. Specific submissions are generally not referred to.

Overview of the development of the SEA overlay

5.17 The methodology and consultation undertaken to implement the SEA criteria to develop the SEA Overlay involved three main stages:.

(a) *Stage one*: The review of existing significant sites (from previous legacy council plans) and the identification of potential new sites. The assessment of the criteria against all sites using both spatial analysis (computer run assessment) and manual assessment to result in a preliminary list of proposed SEAs to include in the Draft Auckland Unitary Plan (DAUP)

(b) *Stage two*: Consultation and amendments as part of the DAUP process;

(c) *Stage three*: Consultation and amendments as part of the PAUP process.

5.18 Each of these steps is outlined below.

6. IDENTIFICATION OF POTENTIAL SITES

6.1 The first part of the process took place in early 2011 and involved site selection and mapping review of existing scheduled and covenanted sites. The starting premise was that these sites had already been through a rigorous assessment/identification process in order to be included in one of the legacy plans or through the covenanting process and the Council could be confident that we had enough information to assess it against the significance criteria. This included:

(a) Sites identified as significant in previous District Plan schedules;

- *Auckland City Council Plan Change 88 Sites*
- *Rodney District Plan Significant Natural Areas*

(b) Sites identified in the Proposed Auckland Regional Policy Statement Draft Significant Natural heritage Areas Schedule; and

(c) Areas subject to Queen Elizabeth II National Trust, Department of Conservation and Nga Whenua Rahui Covenants.

6.2 The “mapping review” used the Auckland Council Geographic Information System (GIS) known as ArcView. ArcView provides a spatial perspective (bird’s eye view) by using aerial photography as a base layer to which additional information layers can be added in a spatial context. This information can include the location of a boundary of a site or property and if a site or property is included within an existing schedule or covenant.

6.3 The boundaries of the sites identified through the first phase analysis were checked for accuracy, the level of information detail and confidence in the site in order to be put forward for assessment against the criteria. A further assessment was made as to whether the sites needed review or resurvey to confirm or remove from the selection process. If the site was assessed as having adequate information it was added to the list of sites for assessment against the significance criteria.

6.4 This was followed by the “gap analysis” part of the process, which was intended to identify all potential areas of ecological significance that had not been captured in the above process of reviewing already known potential sites.

6.5 During the gap analysis process, potential areas were identified spatially (once again using the Council's GIS) using systematic examination, by highly qualified Council ecologists, of the most recent aerial photography of the region by 5km grid square at a scale of 1:1,000 within the MUL and 1:2,500 in the Rural Zone. Each of these ecologists were familiar with the general ecology of the spatial area they were assessing, had the ability to identify dominant vegetation from aerial photography and many had been involved in previous significance assessments using this method.

6.6 Identification was of indigenous or predominantly (>50%) indigenous vegetation. Areas of exotic or predominantly exotic vegetation can contribute to the ecological significance of an area as a buffer (including riparian), as an extension of an area as habitat (of flora and fauna), or in isolation as habitat, therefore where this type of vegetation was contiguous with predominantly indigenous vegetation, it was included as a potential SEA.

6.7 During this gap analysis process, regard was also given to the Draft Ecological significance Criteria which were in the process of being finalised. This meant for example that the ecosystem type, ecosystem diversity (more than one ecosystem present at a potential site) and potential of a site as a stepping stone, corridor or buffer was considered during the gap analysis. Ecologists were also able to apply their personal knowledge to the species based criteria as qualified botanists, herpetologists and ornithologists.

6.8 Once a potential area was identified by the ecologist, this was captured using a hand digitised polygon (shape) using GIS, and allocated a confidence code to indicate the level of information available for a site to determine its priority for survey.

6.9 To allow for relatively rapid assessment of gaps in the SEA layer a GIS information overlay was used which identified all sites from existing schedules but also contained information from a number of other sources, this included:

(a) Legacy council field reports and survey information;

(b) Information from legacy regional plans;

(c) Information from national agencies such as Department of Conservation (DoC) and the National Institute of Water and Atmospheric research (NIWA) and;

(d) Regional environmental data such as the Land Environments New Zealand (LENZ) Threatened environments and Geopreservation sites.

A full list of the overlay information used can be found in **Attachment B** to this evidence.

6.10 Once this information was laid over the most recent aerial photography held by Council, it allowed for not only the rapid identification of gaps in the potential significance layer but also the ability to use existing information about these sites to determine their priority for survey. This also meant that where exiting information the confirmation as a site as non-significant it could be excluded from further assessment. It also enabled the confirmation of boundaries for existing sites.

6.11 Internal staff and external experts with local knowledge were interviewed and asked to contribute to the identification of potential sites.

6.12 Once this digitising process was complete, there were two categories of potential SEA;

(a) Sites with a high level of confidence in the level of information available and their potential significance that they could be carried through to the assessment process, and

(b) Gap analysis “survey sites” where sites had been prioritised for survey as there was no, or little, information about the sites.

6.13 Where sites were prioritised for survey, the relevant landowners (~3000) were identified and contacted to obtain permission for survey and also to provide information on the SEA identification process as part of the DAUP. This process is addressed in more detail in the consultation section of this evidence.

6.14 As a result of these letters, 2000 properties were surveyed by a team of 15+ ecologists during the 6 month period from 2011-2012. Only properties where permission was obtained from the landowner were surveyed. 1000 properties were not surveyed as the landowners either refused entry or did not respond. In some cases, some information about the proposed SEA (e.g. ecosystem type or dominant vegetation) on these properties was able to be obtained from a vantage point near the property.

6.15 Ecological field surveys of potential sites were carried out using methods based on best practice (i.e. based on proven reliable and robust data collection techniques used by most ecologists) rapid field assessment methods and modified to reflect the draft ecological significance criteria. The intention of the rapid field assessment is to facilitate standardised and comprehensive data to be rapidly collected about a site's biodiversity values and condition. The intention was also to make it as comparable as possible with other existing datasets. The survey data collected includes:

(a) A description of the site in a landscape context;

(b) A vegetation description for each ecosystem type;

(c) Fauna values;

(d) Any threatened species identified during the survey; and

(e) A description of the threats (weeds, animal pests, stock access etc).

6.16 The surveyors also identified each ecosystem type on an aerial image which was then digitised and contributed to a map of current extent of each ecosystem type across the region. This allowed the collection of a level of information to determine the extent of each ecosystem type across the region and, in turn, allow identification of areas of rare or scare ecosystem types, which was one of the significance criteria.

7. SIGNIFICANCE ASSESSMENT OF IDENTIFIED SITES

7.1 Following the above process of identifying sites through review of existing sites, gap analysis desktop assessment and field survey, all sites that were assessed as having potential as an SEA were assessed against the 5 significance criteria as summarised within Policy 1 of B4.3.4 of the PAUP and in full in **Attachment A** to this evidence. This process is detailed below in two main phases:

(a) Assessment of all sites against several criteria using computer driven spatial analysis; and

(b) Then manual assessment of sites against the remaining criteria.

7.2 The spatial assessment technique involved the automated, computer driven assessment of all sites against GIS ecological information layers including ecosystem types and threatened species data (detailed in full below). As a

computer driven assessment this is largely an objective process which removes “selector bias” from the process, although there is invariably some subjectivity around the information informing the database.

7.3 The second technique applied was the manual assessment of sites against the more “qualitative” criteria by qualified ecologists.

Spatial analysis

7.4 Criteria assessed using spatial analysis were:

(a) Criterion 1a which relates to the level of representativeness (refer to Attachment A of this evidence for full explanation of this Criteria) of a site;

(b) Criteria 2a, b, c, e which relate to the significance of a site as a result of the presence of a threatened species or ecosystem or the type of land environment;

(c) Criterion 3a which relates to the presence of multiple ecosystem types;

(d) Criterion 4b which relates to vegetative buffers of SEAs; and

(e) Criteria 5a, b, c, d, and g which relate to the uniqueness of a site due to the presence of endemic or near endemic ecosystems or species, or species that are unique for other reasons.

Ecosystem based criteria

7.5 Data required for spatial assessment of Criterion 1a had to allow for the comparison of the *curren*t extent of indigenous terrestrial ecosystems of Auckland to the original or *natural* extent to determine 10% of the original extent (per ecological district) where it still exists. ‘‘Natural extent” means a combination of our understanding of pre-human diversity, distribution and extent of ecosystems in Auckland and what we would expect this to be, given past and current environmental drivers.

7.6 The historic (natural) extent of Auckland’s original ecosystems has been modelled on historic vegetation spatial datasets (LENZ and NHF Pre-people) and categories were directly matched where possible. For ecosystem types where direct matching was not possible, climate, geography, geology and soil characteristics were used as

determinants. For ecosystem types where environmental parameters are less specific, current-extent maps were used, and the associated geographical, geological and soil drivers for the sites mapped as a particular ecosystem type were used to extrapolate across the landscape. Historic mapping was cross-referenced with written accounts of original vegetation cover in the Department of Conservation's Protected Natural Area Programme reports and other ecological district-wide survey reports. Historic mapping compiled for Awhitu and Manukau ecological districts by Landcare in 2000 was also used. For full details on the methodology used see Singers (2014) *A potential Ecosystem Map of Auckland,* also attached to this evidence (**Attachment D**).

7.7 The process of mapping the current extent of Auckland's terrestrial and freshwater ecosystems has involved collating data and information from a variety of sources. For example, all terrestrial ecosystem data from past ecological surveys, held by Legacy councils, was aggregated; numerous publications that documented the state of indigenous vegetation in Auckland were collated, including the Department of Conservation's Protected Natural Area Programme survey reports and research papers for sites throughout the region. Ecological surveys carried out to potential SEAs as detailed below assisted in filling knowledge gaps and to updating some of the existing data. The resulting data was used to inform the mapping of ecosystems. This is the first time that the ecosystems of the Auckland Region had been determined on a regional scale using consistent methodology.

7.8 The ecosystem classification follows that described in 'Indigenous terrestrial and freshwater ecosystems of Auckland' Singers et al (in press, December 2013) **Attachment E.**

7.9 This ecosystem layer was applied in the assessment of a number of the sites against a number of the criteria as follows:

(a) The current ecosystem layer was used to assess sites against sub-criterion 3a where a potential SEA site contained more than one ecosystem type to achieve ecosystem diversity.

(b) The current ecosystem layer was used to assess sites against sub-criterion 5b to determine the presence of an endemic ecosystem. Other parts of 5b were manually assessed.

7.10 Assessment against the threatened ecosystems criterion required an assessment against the Auckland indigenous ecosystems layer as described above. Each of these ecosystems was then allocated a threat status. The threat status of ecosystems was determined through a series of expert workshops with regional and national experts where factors such as original and current extent, ability or expectation of an ecosystem to persist in the future, and a number of other influences were considered.

Species based criteria

7.11 Data to assess these criteria had to allow for the identification of the spatial distribution of threatened and rare species at both a national and regional level.

7.12 Spatial data on the location of threatened species was taken from existing national and regional databases. All these sources were determined to provide reliable, up to date and robust data. Sources of this information are listed below. These data were also used to determine species locations to identify sites meeting criteria 5a, c, d and g.

- Auckland Council survey data (bats);
- Records from Auckland Council (RIMU) regional wetland and forest plot monitoring programme and Kaipara Otamatea Ecological Survey (Birds);
- E-bird records;
- Expert corrected records (this is where a technical expert determined the likely location of an existing species data point);
- DOC Bioweb (Herpetofauna);
- NIWA Freshwater Fish Database (Fish);
- DOC Bioweb (plants);
- NZPCN (plants);
- Hunua PNA survey (plants);
- Auckland Museum Herbarium records (plants);
- Expert input (Lichen)

7.13 To ensure that only relevant data was utilised, out of date records from all data sources were excluded from analysis. This excluded all records that were more than 50 years old. This more cautious approach was decided on by technical experts based on the robustness of the data collection methods used the frequency at which this information is collected, and the

potential of a species to persist in the environment due to potential modification of habitat. It recognises that the older the record the less likely the species is to persist at a location as a result of environmental factors. Notwithstanding this, an analysis of threatened species records used to inform the overlay show that 64% of records used are less than 20 years old, and 75% less than 30 years old. Only 2 % are 40-50 year old records.

7.14 Each data point representing the existence of a threatened species was then extended using a 100m buffer to account for the nature of the original data. Before GPS devices were widely available for field data collection, observations were recorded using the coordinates of a topographic map grid. Using this method, points could only be recorded to a 100m resolution, so a buffer of 100m around each point recognises that the actual location of that observation could have been made anywhere within that buffer zone. This buffer also recognises the ecology of species. All species used for assessing SEA status can move or disperse within a 100m radius and would also require the habitat surrounding the observation point to be maintained for their survival at that site.

7.15 As part of the spatial analysis, threatened species data points which were nearby (within ~200m of the SEA) were also mapped. These data points were manually analyzed by a relevant expert. Decisions were made on a case by case basis considering existing vegetation cover on site and nearby vegetation such as corridors, age of record, accuracy of record and experts knowledge of that species within that environment. Points which the expert decided should be associated with a SEA were included within an SEA, either by extending an existing SEA or creating a new one. Some points were deleted based on expert's opinion.

7.16 For assessment against sub-criterion 2c the LENZ (category 4) Threatened Environment Classification spatial information layer was applied. Threatened Environment Classification is a combination of three national databases: Land Environments New Zealand (LENZ), classes Land Cover Database (LCDB) and the protected areas network (reflecting areas legally protected for the purpose of natural heritage protection). The classification combines this information into a simple and practical GIS tool. 'Threatened environments' (categories 1 to 5, where category one is the least threatened environment) are those in which much indigenous vegetation has been cleared and/or only a small proportion of what remains is legally protected. This allowed a spatial enquiry to select all SEA sites that were in

a threatened environment of Category 4 (where less than 20% of indigenous vegetation remains) or more.

7.17 For assessment against sub-criterion 4b to determine where a site acted as a buffer to an existing SEA, a spatial enquiry was run to determine sites that were adjacent to or shared a boundary with SEAs. This was the final spatial analysis to be applied to avoid selecting sites that had already been identified as SEAs.

7.18 Of the sites that met the criteria as a result of the spatial analysis a random 5% sample of these sites was manually assessed against the spatial analysis significance criteria to verify that they were eligible and that the spatial analysis was accurate.

7.19 The outcome of this random assessment indicated that all sites had been appropriately evaluated and as a result the spatial analysis process was an accurate and robust method of assessing significance.

Manual assessment

7.20 Criterion that were manually assessed by technical experts were:

(a) Criterion 3b and c which relate to the expected ecosystem diversity or typical species richness of a site;

(b) Criterion 4c which relates to the value of a site as a stepping stone; and

(c) Criterion 5e and f which relate to the uniqueness or distinctiveness of a site.

7.21 Potential SEA sites were assessed against each of these five criteria by both internal and external expert ecologists, with extensive relevant skills and experienced in this method of assessment.

7.22 Manual assessments were usually carried out by ecologists where they had a level of ecological knowledge about the spatial area. The ecologists assessed the site against the criteria above using existing information about the site and their own technical expertise. Existing information included previous ecological survey information and information from legacy council plans and document.

7.23 When manually assessing sites against the five criteria, ecologists referred to “manual assessment guidance notes” provided to ensure that criteria were applied consistently. These can be found in full in **Attachment C** to this evidence.

7.24 All sites that were manually assessed by an ecologist were subsequently peer reviewed. Where any doubt existed in the assessment or review process, the site was allocated to a relevant technical expert for further review and final decision making.

7.25 At all steps during the assessment process the qualifier “Data Deficient” was used when it was the assessor’s opinion that the level of information about the site was insufficient to assess the significance of a site accurately. In the final stages of the process, all “Data Deficient” sites were re-assessed by an expert ecologist with an extensive knowledge of the ecology of the Auckland region and experience in this method of determining significance, who made the final decision on the status of these sites. Any sites that remained Data Deficient following expert review was excluded from the Draft SEA overlay.

7.26 Due to the requirement of a site having to meet just one of the significance criteria to qualify as significant, potential sites that had not met any of the spatial assessment criteria were prioritised for manual assessment. Sites were then prioritised depending on the number of spatial criteria they had met (i.e. sites that had met only one spatial analysis criteria were the first priority for manual assessment) and were “backfilled” with other criteria met as time allowed.

7.27 It is important to note here that not all proposed SEA sites have been manually assessed against the criteria, and as a result the criteria currently indicated for each site are a minimum and many sites will actually satisfy other criteria against which they have not yet been assessed.

7.28 The final step in the assessment process was a peer review of all proposed SEAs in the region in targeted expert internal and external workshops. Experts reviewed all proposed sites for any obvious outliers to ensure that no obviously inappropriate sites had been included and no known areas of significance had been excluded.

7.29 All remaining sites were put forward for inclusion in the DAUP.

Outcome for inclusion in DAUP

7.30 As a result of the above process 3523 SEAs were included in the DAUP. To coincide with the DAUP release, the Council put several mechanisms in place to manage landowner response and enquiry around SEAs. This will be addressed in the following section of this evidence. Landowners who had a proposed SEA on their property were notified prior to release of the Draft.

8. REFINING THE OVERLAY

DAUP feedback process

8.1 The Council received 1400 pieces of feedback to the SEA overlay and associated provisions in the DAUP. The response to this feedback is detailed on the consultation section of this evidence. As a result of this feedback 90 boundary amendments were made to the Draft SEA overlay and three proposed SEA sites deleted entirely. Examples of modifications were where landowner feedback identified that an SEA on their property included a current forestry operation or open pasture, a swimming pool, driveway or house, or existing planted or garden area.

8.2 A further 1485 boundary amendments were made as a result of internal feedback with 160 sites being deleted entirely. The majority of these were where an overlap of terrestrial SEA sites and Marine SEA sites at Mean High Water Springs had resulted in a number of small slivers that could be deleted

8.3 3360 sites were proposed for inclusion in the PAUP overlay.

PAUP submission review process

8.4 The Council received 691 submissions to the SEA overlay and Appendix 5.1.

8.5 General submissions to the overlay and the methods applied to develop the overlay are addressed in this evidence.

8.6 The process of responding to site specific evidence is addressed in the joint ecologist's evidence.

Consultation and responsiveness

8.7 During the development of the SEA overlay and related provisions it was important for Council to consult with, and provide reasonable opportunity for

the input from, landowners whose properties would be affected by the proposed plan. This approach was consistent with relevant national guidance on biodiversity, in particular Policy 8a of Proposed NPS on Indigenous Biodiversity (2011) but also general best practise consultation. Due to the level of complexity involved in the development of the SEA overlay and the high profile nature of the provisions, the Council had a genuine desire to utilise the knowledge of landowners and to build and foster ongoing relationships with the affected community.

8.8 There were three major phases of consultation and engagement:

(a) Initial contact prior to survey;

(b) Consultation as a result of feedback to the DAUP; and

(c) Direct discussion with submitters as a result of submissions to the PAUP.

Initial contact prior to survey

8.9 As detailed previously, 3000 landowners were contacted during the initial SEA identification phase. These were landowners who were affected by sites which had been identified as potential SEAs but required more information to be collected in the form of a field survey. Although this did not include all landowners affected by potential SEAs, it was seen as a valuable opportunity to connect with landowners about their potentially significant site, make them aware of the Unitary Plan process, and direct them to support or further information if required. Letters sent to landowners seeking permission to visit their property also contained information about the process, contact names and details for support and a form they could return with their permission indicating their interest in further support and information from the Council.

8.10 Through this process, 509 landowners indicated (either via the consent form and/or in conversations with staff during the survey site visit) that they would like to receive more information. This provided an ideal opportunity for Council (and the Biodiversity Team specifically) to proactively respond to landowner interest and to work in partnership to facilitate stewardship, active management, restoration and the protection of biodiversity on private land across Ecological Districts and ecosystem and land-use types in the Region.

8.11 Support offered to these respondents included an introductory letter, an invitation to have a Council Biodiversity advisor to visit the property and discuss relevant support and funding opportunities, completed datasheet form the SEA survey of the property and any relevant factsheets.

DAUP phase

8.12 3523 SEAs were included in the DAUP which was released in March 2013.

8.13 Auckland Council held extensive, 11-week informal engagement on the draft Auckland Unitary Plan from mid-March to the end of May 2013.

8.14 The Council's approach was to contact all landowners affected by the SEA overlay and seek feedback on both the overlay and the associated provisions prior to the release of the Draft. Council approached all 6000+ affected landowners directly via mail with information to ensure full engagement about what SEAs mean and how to gain further information.

8.15 The intention of this approach was to:

(a) Ensure that all landowners of SEAs were advised of the existence of the SEA prior to formal statutory phases of the Unitary Plan;

(b) Inform landowners of the reasons and implications of the overlay; and

(c) Invite feedback to the Council regarding any errors in the mapping that occurred.

8.16 The process also helped Council staff gauge community feeling on the appropriateness of the overlay and the provisions proposed to apply to the overlay.

8.17 The information supplied to affected landowners consisted of:

(a) Letters to landowners advising them of the identification of a proposed SEA on their property;

(b) A link to the DAUP viewer;

(c) Information on the process of the DAUP and its implications for them; and

(d) A letter with information on how to provide feedback, a number to call with queries and a FAQ brochure.

8.18 Subsequent meetings were also needed with concerned individuals and landowner groups and various land management and environment sectors to give people a chance to express their views in person, and to respond to specific issues arising. These meetings were held with many community groups, government agencies, Council panels, and political working parties. One meeting solely on the SEA topic was held for 250 affected landowners in Birkenhead.

8.19 Finally, once the engagement process had formally closed a Biodiversity Reference Group was formed representing a cross section of landowners, agencies, landowner groups throughout Auckland and numbering approximately 70 people. This group met to review SEAs and the provisions and to seek advice about how to improve them and provided a vehicle for consolidating the council's approach to SEAs. This provided a final opportunity to reflect on the feedback received during the informal engagement period and consider, with the community and stakeholder groups, what final changes should be made to the plan

8.20 As a result of this feedback phase 1575 amendments were made to the SEA overlay and 163 sites deleted (as specified above).

8.21 As a result of this process council identified landowners that wanted biodiversity and Biosecurity management advice for their SEA. More than 500 landowners indicated an interest in more information and support and this is part of an ongoing process by the Biodiversity Operations Team to contact these landowners to provide them with information and resources to help them.

PAUP phase

8.22 The Proposed Auckland Unitary Plan was notified in November 2014 and included the SEA overlay and associated provisions. As in the DAUP, all affected landowners were informed prior to notification that their properties were affected by the overlay.

8.23 This was one of the few topics that Council notified all affected landowners of the implications of the proposed provisions. The Council was not statutorily required to do so but it acknowledged the SEA provisions were controversial and sought to encourage full participation in the submission process to the PAUP. The intended outcome was that this would assist in

further refinement and increased accuracy of the layer, but also form the basis of ongoing relationship with landowners and the community.

8.24 Detail on site specific submission to the PAUP and the level of council response and consultation is detailed in the evidence of Ms Webb.

8.25 Notwithstanding this, it is important to note that the council recognised the opportunity presented by the site specific submissions to continue refinement of the overlay.

8.26 Private land has a vital role in the protection of Auckland's (and New Zealand's) indigenous biodiversity and the need to work with private landowners has been recognised for a long time. As such, Council's Biodiversity Team will to continue to support SEA landowners with biodiversity protection and restoration advice and support where requested and practicable through their engagement work with private landowners.

8.27 The purpose of the SEA landowner liaison project is to actively engage with targeted landowners to advocate and support the voluntary protection and stewardship of natural areas on private land which have been surveyed (or previously assessed) as part of recent Unitary Plan schedule development processes.

9. CONCLUSION

9.1 There were a number of submissions to the SEA overlay and Appendix 5.1. of the PAUP. Many submissions sought to retain or add to the overlay. A strong theme in submissions to the overlay is to challenge the accuracy of the overlay as a whole and the methods undertaken to establish it. Some submitters have raised issues with the overall accuracy of the overlay such as the application of the criteria and the robustness of the methodology. Other submitters have raised issues with errors in the mapping accuracy of SEAs in general. Other submitters have raised issues with the lack of field survey, ground truthing and application of the criteria. Some submissions consider that the consultation process with landowners was lacking and seek further discussion and liaison prior to implementation of the overlay

9.2 I feel in my evidence I have demonstrated that the Council has used a sound and transparent process to successfully identify the significant biodiversity assets of the Auckland Region. Subsequently the SEA overlay is appropriate and robust and best practice methodology has been applied throughout the process.

9.3 Due to the level of complexity involved in the development of the SEA overlay and the high profile nature of the provisions, the Council had a genuine desire to utilise the knowledge of landowners and to build and foster ongoing relationships with the affected community. I feel that I have demonstrated that Council has entered in to best practise consultation and response with affected parties and the wider public throughout all phases of the development of the overlay, thus developing relationships and enabling the ongoing refinement of the overlay

ATTACHMENT A

SIGNIFICANT ECOLOGICAL AREAS_TERRESTRIAL CRITERIA

[Add to the start of Part 5 Appendix 3.1. Note this text replaces and expands upon Policy 4.3.4 .1 of the PAUP as notified]

ATTACHMENT B

INFORMATION LAYERS APPLIED IN GIS DURING GAP ANALYSIS PROCESS FOR IDENTIFICATION OF SEAs

- Auckland City Council Hauraki Gulf Island Sites of Ecological Significance Sites
- Auckland City Council Plan Change 88 Sites
- Andrew Dakin species lists (points)
- Auckland Regional Council Air Water and Land Plan Wetland Management Areas
- Auckland Regional Council Coastal Plan Costal Protection Area 1 and 2 areas
- Auckland City Council Covenants
- Biodiversity Optimisation Project
- District Council parks and reserves
- Department of Conservation Natural Heritage Fund vegetation layer
- Department of Conservation Reserves
- Draft Proposed Auckland Regional Policy Statement Biodiversity Sites of Ecological Significance Layers1
- Franklin District Council Covenants
- Freshwater Environments of NZ (FENZ)
- Geopreservation sites
- Golder Shapefiles (for Manukau Parks & Reserves surveys/restoration plans)
- Hauraki Gulf coastal habitat classification (DOC)
- High Conservation Value (HCV) Sites
- Hunua Indigenous Vegetation (Wildlands data)
- Hunua Protected Natural Area vegetation and fauna
- Indigenous vegetation not surveyed
- Kaipara Vegetation Project
- Kaipara-Otamatea Ecological District Ecological Survey
- Land Environments New Zealand Level IV
- Land Environments New Zealand Threatened Environments <20%
- Manukau Awhitu Ecological Survey
- Manukau City Covenants
- North Shore Ecological Survey
- Originally rare ecosystems
- P Sites (Auckland Regional Council information database)
- Papakura District Council Covenants
- QEII Covenants
- RAPs
- Rodney District Council Bushlots
- Regional Parks

- Rivers
- Rodney District Plan Significant Natural Areas
- Rodney Ecological District Protected Natural Area Programme Priority Vegetation Sites
- Rodney Ecological District Protected Natural Area Programme Priority Wildlife Sites
- Sites of Special Wildlife Interest
- Waitakere lowland data
- Wetland layer (extracted from DoC NHF shapefile)
- Wetlands of Ecological & Representative Importance
- Zostera extent project (Kaipara Harbour)

ATTACHMENT C

MANUAL ASSESSMENT CRITERIA FOR SIGNIFICANT ECOLOGICAL AREAS OF AUCKLAND

ATTACHMENT D

A POTENTIAL ECOSYSTEMS MAP OF AUCKLAND (2014)
Singers, N.

ATTACHMENT E

INDIGENOUS TERRESTRIAL AND FRESHWATER ECOSYSTEMS OF AUCKLAND (2015)

Singers, N., Osborne, B., Hill, K., Lovegrove, T., Jamieson, A., Webb, C., Hill, S., Andrews, J. , Sawyer, J.W.D., Boow, J.
Edited by Jane Connor