



NEW ZEALAND INSTITUTE  
OF LANDSCAPE ARCHITECTS

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**NEW ZEALAND INSTITUTE OF LANDSCAPE ARCHITECTS TUIA PITO ORA INCORPORATED.  
SUBMISSION ON THE CLIMATE CHANGE RESPONSE (ZERO CARBON AMENDMENT BILL 2019)**

**SUBMITTER DETAILS**

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**Introduction**

The New Zealand Institute of Landscape Architects, Tuia Pito Ora, (NZILA) is the national professional body of landscape architects for Aotearoa. [www.nzila.co.nz](http://www.nzila.co.nz)

The objective of the NZILA is to promote the profession of landscape architecture throughout New Zealand, and to promote the appropriate and sustainable protection, planning, design, intervention and management of our landscapes. As a collective of professionals, we have a responsibility to assist our members in improving their general and technical knowledge through Conferences and a Continuing Professional Development (CPD) programme.

Members must undergo an examination in professional practice before becoming a Registered Member and are encouraged to extend their knowledge and skill in their preferred areas of practice. Members of the institute must adhere to an agreed code of conduct and should it ever be necessary, the public can seek redress with the Institute over the conduct of a member.

The NZILA is a member of the International Federation of Landscape Architects (IFLA) and a signatory to the **IFLA Global Accord on Climate Change**.

<http://iflaonline.org/wp-content/uploads/2017/06/IFLA-Global-Accord-2017.pdf>.

The accord has three guiding principles; resilience; transformation; and sustainability. IFLA has initiated the Global Accord, an agreement on practice supported by individuals and organizations, governments and industries to encourage members to build competence and to promote innovation in planning and design decisions that embrace the challenges and opportunities of the changing world. The Accord establishes three guiding principles for decision-making and encourages collaboration across disciplines and geographic and national boundaries.

This submission is made by the Executive of the NZILA on behalf of its members. There are currently 818 members of the Institute, of which, 218 are Registered Members.

The Auckland Branch of the NZILA has recently established a 'Climate Resilience' subcommittee tasked to:

***Ensure the active participation of New Zealand Landscape Architects in national efforts to accommodate future climate challenges by;***

- ***Providing design led solutions focused on natural processes and ecologies***
- ***Co-ordinating discourse and debate with NZILA Membership and allied disciplines***
- ***Professional collaboration in local, national and global adaptation projects***

### **The NZILA Submission:**

In our submission we have chosen, alongside **broad support and endorsement for the Bill and its intent**, to focus our comment on:

- **Part 1A, Clause 5A – Establishment of Climate Change Commission,**

And more specifically, the 2 sections of the Bill below:

- **Part 1B - Emission Reduction. Clauses 5S, 5W, 5Z Emissions Budgets**  
**Part 1B - Clauses 5ZQ - Clause 5ZU: National Adaptation Plan**

The NZILA recognises and supports the Government's approach to directly (and holistically) address risks highlighted in the National Climate Change Risk Assessment, via an ongoing commitment to a National Adaptation Plan.

Specific Actions contained within the document titled,

*'Adapting to Climate Change in New Zealand: Recommendations From The Climate Change Adaptation Technical Working Group'*

to which New Zealand Landscape Architects can contribute knowledge; experience and expertise include those listed below.

Key activities, exemplar projects and existing contributions by landscape architects are included.

### **Foundational Actions**

**Action 1: Develop and regularly update a National Adaptation Action Plan; and**

**Action 21: When implementing the national policy statement for freshwater management, Councils have particular regard to adapting to the effects of climate change.**

NZILA are supportive of a National Adaptation Action Plan and have the professional capability to assist with its' formulation. NZILA Members have the combined expertise to focus on how natural

landscape systems and regenerative ecology can address key issues such as sea level rise, habitat displacement and the preservation of freshwater environments and open space areas.

NZILA Members are routinely involved in the adaptation, design and construction of major infrastructure projects throughout New Zealand, incorporating Landscape-lead design solutions (in conjunction with allied professions). These projects have the potential to both decrease the emission of carbon, and assist with future sequestration **at a regional and national network scale.**

Examples include the creation and extension of cycle linkages and greenway routes across Cities such as Tauranga, Wellington, Christchurch and Auckland, and through smaller master-planned Special Housing Areas such as Hobsonville, Northcote and Takanini. These provide mass transit options beyond vehicles (e-bikes, scooters, cycles, walking), and invariably offer allied opportunities to incorporate massed plantings, naturalized drainage (swales, raingardens) and other carbon sequestration and biofiltration systems.

Naturalised systems to manage stormwater are also seen by NZILA as large scale adaptation opportunities, where the impacts of the built environment on catchments and foreshore areas can be mitigated without reliance on physical assets such as stormwater outfalls, concrete channel and solid weir barriers.

Construction of extended riparian habitat, daylighting of major water utility systems, and softening built interfaces with the foreshore in major urban areas could enable natural landscape elements to act as functional parts of key infrastructure in future.

Reserve linkages, ecological corridors and pocket park systems designed and built by Landscape Architects need to be routinely incorporated into master planning of new settlements across the Country, either as future-focused landscape bio-engineering, or as adaptive, retro-fitted natural infrastructure. There are leading examples of this approach across Auckland, Wellington and the regenerating areas of Christchurch in particular.

In summary design approaches which work with a changing natural environment (sensitive foreshore locations experiencing rising tides for example) will become increasingly mandatory to mitigate climate impacts on CBD areas around the Country, and also through gentrifying inner city suburbs and newer growth areas.

## **Action 2: Monitor and report on National Adaptation Action Plan implementation**

The NZILA supports this action.

## **Action 3: Develop a National methodology and framework for assisting climate change risks and vulnerabilities, and develop nationally consistent data sets.**

The NZILA have skills and expertise, working alongside natural science colleagues in the assessment of large-scale landscape systems and their ability to absorb change.

It is common for landscape planners with landscape architectural qualifications to assess and review developments within natural contexts for local and central government departments, provide expert witness testimony at the Environment Court, and be involved in legislative processes, preparation of concept & detailed design for natural systems management and oversee implementation / monitor their operational performance and develop alternative concepts.

Understanding in the first instance the landscape resource and its natural systems processes is necessary to successfully develop strategies for adaptation. Landscape architects have provided input

to the current guidance for the assessment of natural character (Department of Conservation 2011 – [www.environmentguide.org.nz](http://www.environmentguide.org.nz)) and led in the preparation of landscape resource evaluations and natural character of the coastal environment assessments for much of the country's landscape resource for Regional and Local Authorities throughout Aotearoa NZ.

These assessments form part of the existing data set of information and their writers also form part of the knowledge resource to inform decision making. Landscape architects with experience in this area of practice have much to contribute to the development of national methodology and its testing against nationally led climate solutions.

**Action 6: Incentivise and guide ongoing progress in adaptation action including avoiding, accommodating, retreating and defending**

The NZILA have specific technical knowledge to assist the NZ Government in giving effect to this action. Work by our membership includes technical assessments and design work across multiple environmental systems and land typologies to allow coastlines and low-lying areas to adapt naturally and consistently to encroaching tides, landscape architectural methods to address land stability, erosion and retaining works and other targeted mitigation methods.

**Action 8: Include the index of climate change in Central and Local Government procurement processes.**

The NZILA supports this action.

**Action 11: Commission Mātauranga Maori-led measures that reflect cultural impact of climate change, and are developed and managed by Iwi/Hapu.**

The NZILA has the cultural knowledge and connections to guide Mātauranga Maori and iwi/hapu to creating iwi management plans and designs that advise and educate past, present and guide the future generations towards a sustainable and healthier future.

Maori scientists are currently leading research into natural disasters and climate change adaptations. Landscape architects have the ability to implement the current research into design and practice. Working alongside iwi/hapu we can help develop projects that reflect the cultural identity that has been lost through intergenerational change.

The impact of colonization, the removal of land, and language has led to a loss of environmental knowledge. The NZILA has developed an understanding of Tikanga Maori and Mātauranga Maori in practice. Landscape practitioners have the ability to allow people to be empowered and become responsive to climate change.

Throughout the Well Being budget in 'Supporting Maori and Pacifica aspirations', there has been continuous mention of loss of identity for Maori. The environmental report consistently spoke about the loss of Wairua, ecosystems, and Mauri. We have a role to restore the environment back to its natural state. It is vital that landscape architects educate and design in a way that protects our ecosystems and communities.

It is critical that during this time when there has been a shift in New Zealand to protect indigenous rights, that landscape architects nourish, build, and restore the land.

It is essential that we bring our expertise in the master planning phase of design projects, looking deeper into the development and locations of built form and using our knowledge to guide the

architects and engineers with locations of built structures on our landscape so that we enhance the ecological abundance rather than diminish it.

**Example** – Te Kura Whare - <https://www.jasmax.com/projects/te-kura-whare/>

*Tūhoe have been working toward the restoration of their mana whenua with a focus on their heartland, the Te Urewera National Park, their vision to strengthen and reaffirm Tūhoe communities and re-develop their infrastructure. Tūhoe identified a requirement for a new meeting place that supported the iwi's large community and their regular gatherings and festivals. The iwi were adamant this new development fully aligns to their inherent connection to the land - mana tangata. – Jasmax*

*As a culturally and environmentally rich project with a strong social drive, a 'three way conversation' between the iwi, Jasmax and contractors Arrow International, continued throughout. With sustainability a key driver of the concept, it was decided that the building design would comply to the Living Building Challenge criteria. The most stringent and challenging of the green building guidelines available to date, the 'Challenge' demands net-zero energy and water, as well as zero waste and toxicity from completed projects. As a result, instead of doing 'less harm' these buildings actively address their impacts of energy and land use, and restoratively give back to society and the environment.*

**Action 13: Establish a centralised service to provide expert advice to local government for risk – based decision-making**

The NZILA supports this action.

**Action 14: Build capability and capacity in climate change adaptation across central government agencies**

The NZILA supports this action.

**Action 15: Build capability in climate change adaptation in key professional bodies and industry groups by developing and implementing training and development Programs**

The NZILA supports this action.

**Action 17: Investigate how future costs of climate change adaptation could be reflected in investment and planning decisions**

The NZILA can help by looking to international processes and actions to learn from their outcomes and adapt and adopt these methods. Climate change adaptation challenges that engage with communities and build awareness, engagement, appreciation of the strategies for adaptation and response are powerful tools.

The NZILA advocates for Government to fund design lead community-based processes to find innovative and publicly well supported adaptation strategies.

**Example - San Francisco Bay Area: Resilient by Design Challenge** [www.resilientbayarea.org](http://www.resilientbayarea.org).

*This is a year-long collaborative design challenge bringing together local residents, public officials and local, national and international experts to develop innovative community-based solutions that will strengthen our region's resilience to sea level rise, severe storms, flooding and earthquakes*

**Example – Toronto waterfront development**

*An example of waterfront stormwater remediation strategy is offered by the design of the new Toronto waterfront development by West 8 landscape architects (West 8). Their design response was a broad-ranging strategy that acknowledged a wide range of urban, landscape, and ecological and environmental issues on the Toronto waterfront.*

*One of West 8's design strategies is to make a better connection between the city and the harbour. West 8 proposed to make Queens Quay, a busy eight-lane road, narrower by shuffling the existing traffic lanes northwards. The effect of this move was to create a combined pedestrian/tram/cyclist promenade along the length of the quay adjacent to the waterfront. This section of Queens Quay was repaved and replanted to create a new urban promenade. Where the new promenade meets the harbours, West 8 proposed an extension of the quay with a number of 8m-wide timber decks that are shaped as waves.*

*These new structures, known as Wave Decks, provide public meeting places with seats formed by the curving decking. The decks also have another purpose; they contain large storage tanks for the collection of contaminated stormwater from the urban catchment. The stormwater moves through a number of other processes located in the harbourside park before being cleaned and then discharged into the harbour.*

*The Toronto waterfront development demonstrates how a 'hard' engineered stormwater treatment solution can be used to treat stormwater contamination. The placement and concealment of the tanks has also made a positive urban contribution as a sculptural promenade.*

### **Example – Waitangi Park**

*Waitangi Park (WAA, 2007) is located on the Wellington waterfront, New Zealand. The park contains a structural stormwater device, a constructed wetland, to clean contaminated stormwater from the surrounding urban catchment. Waitangi Park was designed by Megan Wright and Associates (WAA). The park is part of the Wellington waterfront redevelopment project initiated in the mid 2000s. The park is located at the southern end of the Wellington waterfront between the National Art Museum, Te Papa and Oriental Bay. The park is 6.5ha and has a number of social functions that would normally be associated with an urban park: a playground, skate board bowl, greenspace and café. As part of the park development, the history of the Waitangi Stream was rediscovered. The Waitangi Stream, used to run from the Basin Reserve to the harbour, it was then piped in the 19<sup>th</sup> century and used as a stormwater conduit for the highly impervious Te Aro valley. The stream ran in a trunk line under Kent Terrace to the harbour. As part of the redevelopment of the park, WAA daylighted the end of the stormwater pipe as an L-shaped canal and installed a number of remediation ponds along the length to treat the contaminated water before it was discharged into the harbour.*

### **Support for the submissions of fellow allied professions:**

We understand other aligned professional institutes and representative bodies including NZPI, NZIA, RMLA, UDF are making submissions. Specifically NZILA supports the submission content being made by the RMLA, namely as paraphrased below:

- That the National Adaptation Risk Assessment and National Adaptation Plan have regard to the RMA - ie: to the effects of climate change when making decisions on resource allocation.
- That there is alignment and a level of integration between the proposed national direction and sector actions for adaptation, including those required by Local Government under the RMA.

The New Zealand Institute of Landscape Architects Tuia Pito Ora thanks you for considering our

submission. We would like to be heard in support of our submission.

Nāku noa, nā / Yours sincerely

**NEW ZEALAND INSTITUTE OF LANDSCAPE ARCHITECTS TUIA PITO ORA (inc)**

A handwritten signature in blue ink, appearing to read 'B Coombs', with a stylized flourish at the end.

Brad Coombs  
**President**