Resilience through nature

Insights snapshot – COVID-19 context

Qualitative research providing insights into New Zealanders' outdoors participation during lockdown levels

September 2021



Context for research

Customer Segmentation summary research reports:

Part 1.

https://www.doc.govt.nz/globalassets/documents/about-doc/role/visitor-research/new-zealanders-in-the-outdoors.pdf

Part 2.

https://www.doc.govt.nz/globalassets/documents/about-doc/role/visitor-research/nzers-and-the-environment.pdf

This document gives an insights snapshot into New Zealanders' participation in the outdoors within a COVID-19 context. The analysis draws on qualitative interviews undertaken by research agency UMR from November 2020 to January 2021. It builds on previous DOC/Te Papa Atawhai customer segmentation research (in a pre-COVID-19 context) looking at New Zealanders' participation in the outdoors.



Context for research

- The follow-up qualitative interviews were conducted with participants from the ethnographic phase of customer segmentation research conducted in 2018 to 2020.
 Research participants represented the six segments identified in that earlier research (see Appendix). For this research the sample is small (14 people) yet specific and in-depth – individual interviews lasted around one hour.
- The Department's aim was to understand the impact of the pandemic on New Zealanders' perceptions, attitudes and behaviour within the outdoors. The scope of outdoors participation went beyond public conservation land and waters, that is, it ranged from people's backyards to local parks to the wider outdoors. UMR's research findings considered the output from the earlier customer segmentation research interviews for <u>before</u> and <u>after</u> insight to better understand what changes had occurred in these people's lives.

Key insights– snapshot

- All research participants experienced some level of uncertainty and anxiety during COVID-19 lockdown. People coped with change differently.
 Some embraced it, some juggled around it and others resisted it.
- Those who embraced or juggled change tended to:
 - increase their outdoor activities
 - expand their connections with others
 - connect with and appreciate nature
 - engage in biodiversity and conservation action (in their backyard).

However it didn't translate into biodiversity and conservation action in the wider outdoors (eg: volunteering on public conservation land and waters).

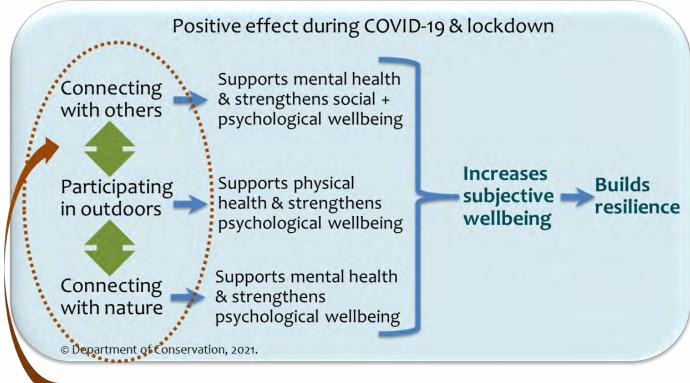
- Connecting with others during COVID-19 lockdown reduced anxiety
 and created a sense of community. In addition, connecting with nature
 supported people's mental health increasing subjective wellbeing and
 building resilience. Both Part 2 of the customer segmentation research
 (see slide 2 for link) and this COVID-19 context research show strong interest
 in volunteer opportunities that enable New Zealanders to 'give back'.
- Public conservation land and waters has a pivotal role in supporting the mental health of all New Zealanders

Key insights– snapshot

Definition – Cambridge Dictionary

Resilience:

- 1. The ability to be happy, successful, etc. again after something difficult or bad has happened.
- 2. The ability of a substance to return to its usual shape after being bent, stretched, or pressed.
- 3. The quality of being able to return quickly to a previous good condition after problems.



'Giving back' through biodiversity and conservation activities is a way of connecting people with others and the outdoors. People need guidance on 'what' and 'how' to give back. This could then support people in improving their wellbeing and caring about nature.



the outdoors and nature in new ways.

The research reveals there is an opportunity to encourage people to participate more actively in recreation, conservation and restoration — to help people cope with change, increase their wellbeing and build resilience.

Uncertainty and anxiety

Uncertainty and anxiety

All research participants said they experienced some level of uncertainty and anxiety during the COVID-19 lockdown. Triggers include:

- Seeing the pandemic unfold with speed globally
- Distancing self from others
- Worrying over work and possible financial impacts
- Managing disruptions to family/household routines.

Similar experiences of the pandemic were reported in the UK with a University of Lincoln research study showing elevated levels of distress (anxiety, diminished wellbeing and loneliness).¹

Uncertainty and anxiety

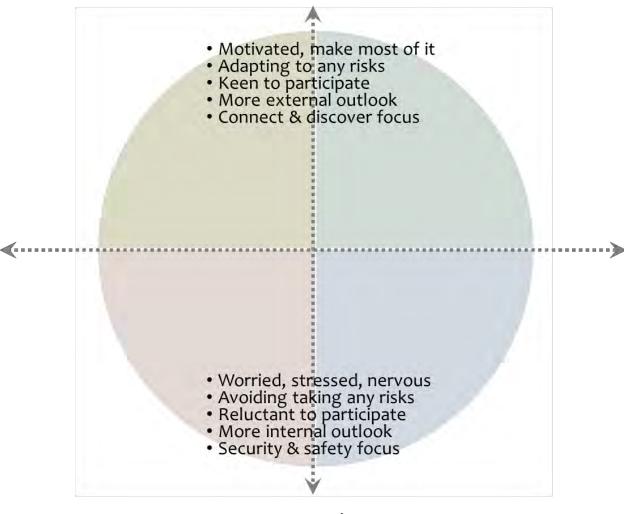
The vertical axis shows key differences amongst people. The axis is a continuum, so people sit anywhere along this.

Definitions – Cambridge Dictionary

- Uncertainty: 1. Not knowing what to do or believe, or not able to decide about something.
 2. Not known or fixed, or not completely certain.
- Anxiety: 1. An uncomfortable feeling of nervousness or worry about something that is happening or might happen in the future.
 Something that causes a feeling of fear and worry.

Response to uncertainty of COVID-19 & lockdown

Less Anxiety



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More Anxiety

Scope of anxiety

Anxiety was layered – experienced differently and coped with differently, yet an issue at some level for all.

Experiences of anxiety through COVID-19 & lockdown

Less Anxiety

Working from home was really, really different...dealing with the kids and doing stuff around the house. So it didn't really feel like there was much down time...Quite a stressful lifestyle if I am honest. (Upper Hutt, Social Active, male)

We were able to be outside and have some space...a massive park...made a big difference to being able to get out and have exercise and not be cooped up...I think everyone is just a bit tired.... (Auckland, Enthusiastic Active, male)

...my partner got quite nervous because she has had a few respiratory problems in the past...we were just up and down the driveway and doing exercise...stuck very close to home. My fitness is at an all time low. (Napier, Home-Close, male) ...there has been a number of personal traumatic events...And...COVID...it has been hard...my resilience tank is probably even worse than empty...I am at the point where if something else happens, I don't think I can cope. (Auckland, Social Active, female) NB: Displayed many Mindful Active traits in second interview.

Spectrum of lockdown experiences

For some COVID-19 lockdown was motivating and for others it was discouraging:

- For some, lockdown motivated 'making the most of the things'. It was an opportunity to connect with others, discover new local places and try out new activities.
- For others, lockdown made them 'worried and nervous' over job security or health safety often leading to reduced participation in the outdoors.

Spectrum of lockdown experiences

There were both positive and negative experiences in response to the uncertainty created by COVID-19 and lockdown.



Making the most of it:

Well, we were all together and you were forced to share things more...So, between that and lockdown and I guess embracing the change. But I am not sure to be honest if we would have made some of those changes voluntarily... (Auckland, Enthusiastic Active, male)

Also during lockdown despite the fact of staying in our bubble and in our home, we did a lot more sports. There were Facebook pages with ideas for parents with kids. So we played lots of games and became quite proficient at football. (Napier, Enthusiastic Active, male)

Worried and nervous:

Just the uncertainty and worry initially. My wife and me are not in the best of health, and we didn't want to risk it really...Better safe than sorry and all that and then you just get used to being home. (Napier, Home-Close Active, male)

I had to go for a big walk every day or otherwise I would go stir crazy. I was very nervous and anxious and building up. I haven't ever been super fit in my life, but I made the point of going out for lots of walks. (Auckland, Home-Close Active, male)

This research reveals all participants experienced varying levels of anxiety during COVID-19 lockdown. This indicates there is potential to connect more New Zealanders with nature to support them in reducing feelings of anxiety.



Responding to change

Coping with change

COVID-19 lockdown was a significant event that changed people's daily routines, eg:

- Restrictions at supermarkets
- Home-schooling children
- Exercising in new places
- Working from home
- Restrictions on face-to-face interaction.

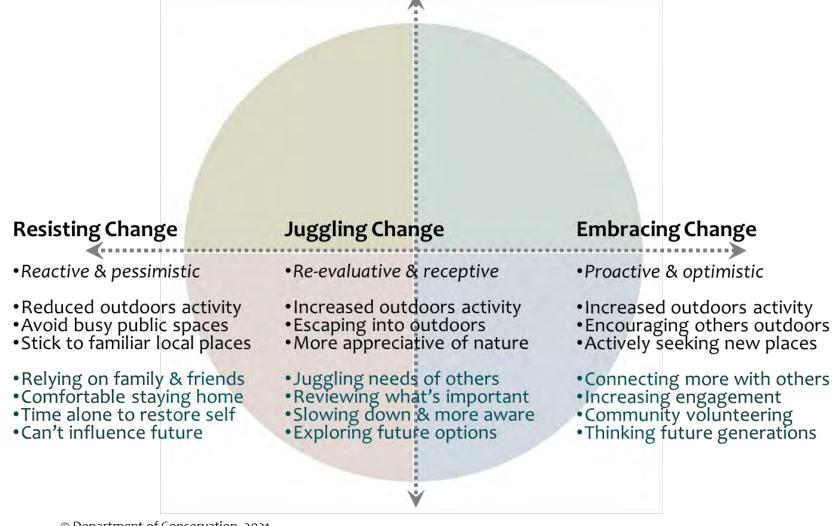
People responded to the uncertainty of COVID-19 lockdown differently, eg:

- Some *embraced change* and proactively connected with new people and activities.
- Others juggled with change re-evaluating what was important and finding ways to be more self-sufficient.
- And some resisted change and reacted pessimistically, tending to withdraw and focus on what was familiar.

Coping with change

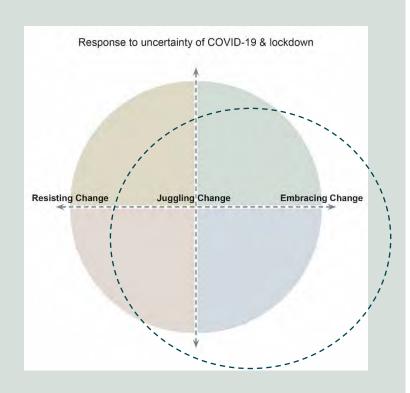
The horizontal axis shows key differences amongst people. The axis is a continuum, so people sit anywhere along this.

Response to uncertainty of COVID-19 & lockdown



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Participation in outdoors



NB dotted line: Those embracing and juggling change were more likely to increase their outdoors participation during COVID-19 lockdown.

Those willing to *embrace or juggle change* were more likely to increase their outdoors participation by going to new places and trying out new activities from Level 3 lockdown. Conversely, those who *resisted change* were more likely to avoid unfamiliar or distant places.

Embracing or Juggling change:

We went on bike rides, we walked a lot around the neighbourhood...because of the restrictions during lockdown we basically explored all the parks and reserves in our neighbourhood and there are quite a few actually and some of them are quite nice. (Auckland, Social Active, female)

The thing I have come to realise is when you take kids out to do stuff outdoors it is more the time that you spend with them than buying them stuff and those experiences of going out and doing something different is what I want to give to my kids... (Auckland, Stimulation Active, male)

Resisting change:

So I am a bit stuck at Christmas time in terms of having a trip away. Because at some point you just get sick of going to places in the South Island and I don't really want to try and move five people through Cook Straight. So that limits it a bit but you just buy more toys. (Christchurch, Other Things, male)

Approximate fit of customer segments

In COVID-19 and lockdown context, people's response to change tended to align with the customer segments (identified in the earlier customer segmentation research – see Appendix), eg:

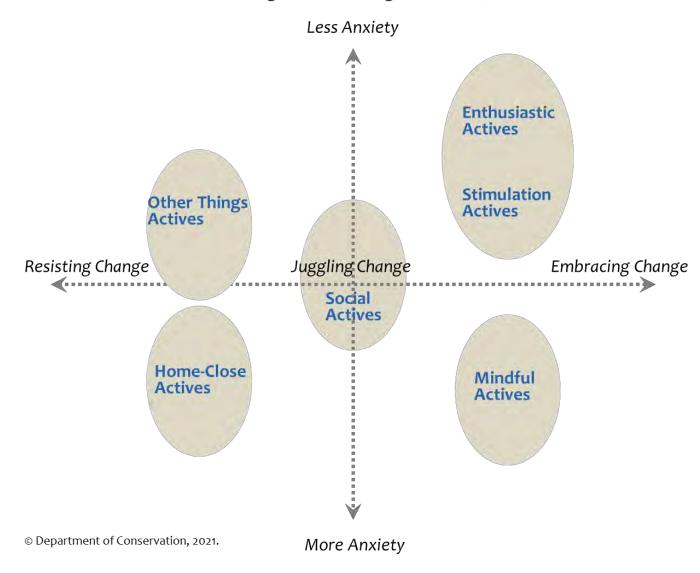
- Enthusiastic, Stimulation and Mindful Actives
 tended to embrace change. They increased their
 outdoor activities from Level 3 lockdown and
 expanded their interaction with others.
- Whereas *Other Things and Home-Close Actives* tended to resist change. They often further reduced their outdoor activities and interaction with others.
- Social Actives tended to juggle change often under pressure of circumstances. Their increase in outdoor activities was often to relieve stress.

Approximate fit of customer segments

While people's response to change tended to align with the customer segments – individuals within a segment may nudge back and forth along the 'Anxiety' continuum depending on the level of change and circumstances they were dealing with. The model and segments are dynamic, eg:

- A Mindful Active dealing with a lot of stress and change (loss of job/income and family illness) coped well.
- 2. A Home-Close Active in comfortable circumstances became very anxious and cautious.

Placement of segments through COVID-19 & lockdown



Added data: comfort levels during COVID-19

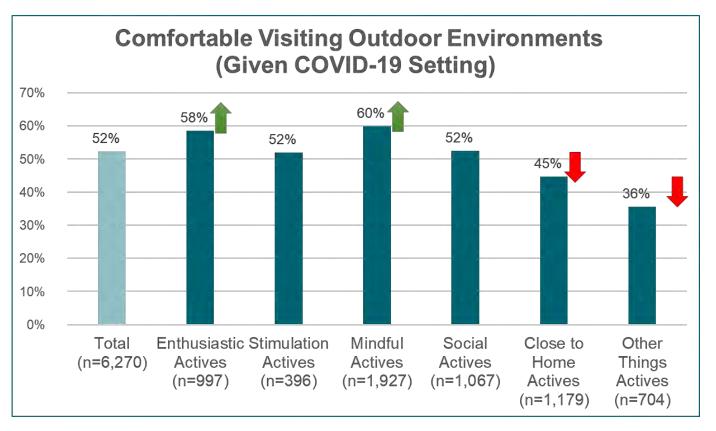
DOC/Te Papa Atawhai has been running a monthly survey that included a snapshot of New Zealanders' feelings about visiting outdoor environments within current COVID-19 settings. Results reflect learning from this qualitative research. Omnibus results are from total sample of n=6,270.

Those more likely to be comfortable were Mindful (60%) and Enthusiastic Actives (58%). Other Things (36%) and Home-Close Actives (45%) were less likely to be comfortable compared with all adult New Zealanders.

From November 2020 to May 2021 around one-half (52%) of adult New Zealanders reported they were either somewhat or very comfortable visiting outdoor environments given the current COVID-19 setting.

Added data: comfort levels during COVID-19







UMR Omnibus Survey (November 2020 – May 2021). Question: Given the current COVID-19 settings¹ (eg, risk levels, border restrictions) which of the following best describes how you feel about visiting outdoor environments including cultural and heritage sites?

DOC/Te Papa Atawhai is working to bring about positive results for people (improved wellbeing) and conservation (people increasingly caring for the environment) through getting more New Zealanders out in nature.



Outdoors participation

Increased outdoors participation

Enthusiastic, Stimulation, Mindful and Social Actives tended to increase their outdoors participation from Level 3 lockdown. Doing activities and being in nature became an effective coping strategy for dealing with uncertainty and anxiety:

- Discovering new local walks
- Including new activities
- Spending time with kids
- Connecting with neighbours
- Trying out new hobbies
- Being present in nature.



Enthusiastic Actives

We discovered new areas to walk locally because we couldn't go further...and give him (dog) walks that he needed that were long enough and kept him stimulated...I have realised that having outdoor experiences are important without a doubt.

(Auckland, Enthusiastic Active, male)



Stimulation Actives

...experiences of going out and doing something different is what I want to give to my kids now and it has taken me a few years to realise that...it (lockdown) has probably been better for their well being and their education of the outdoors and the world around them.

(Auckland, Stimulation Active, male)



Mindful Actives

...one of the gardening things that my boarder and I did was we got in there and it needed its yearly clear out...It was a sense of achievement, I found I have achieved something with the patchwork quilts and the bird feeder, I have achieved something ...with the genealogy.... (Christchurch, Mindful Active, female)



Social Actives

...because of the restrictions during lockdown we basically explored all the parks and reserves in our neighbourhood and there are quite a few actually and some of them are quite nice. So now we are using that more than before which is lovely. And we just loved the slow living. (Auckland, Social Active, female)

Constraints to outdoors participation

Access beyond local areas was an issue for some research participants. It highlights inequalities around access and/or anxiety around venturing too far:

- Lost jobs or reduced incomes through COVID-19
- Exploring wider outdoors and taking holidays is costly
- Anxiety around venturing too far from local areas
- Limited greenspace in some city centres and/or limited transport options to greenspace.

Constraints to outdoors participation

Inequalities emerged around access to the outdoors – especially the wider outdoors. There's an opportunity to find more ways to make public conservation land and waters more accessible to those on limited incomes.

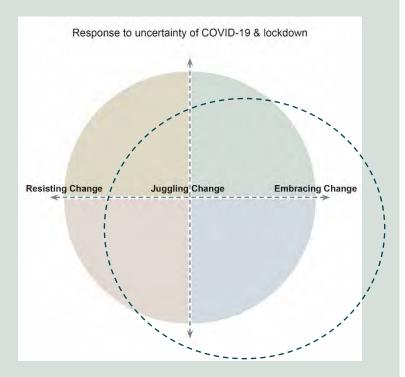


Limited transport and finances to explore NZ:

On one hand I don't have a car and public transport is a nightmare and by the time I get there I am so tired with commuting...But I haven't really gone out of Auckland...There isn't really any bush around, there is a quarry...I do want to do some more travelling. So if someone gave me some money and a car and two weeks off work, I would probably go up North to Leigh or further up into Northland, or I would probably want to go to Wellington. If I had a car, I would enjoy that. (Auckland, Home-Close Active, male)

...I was contracting to a company until June and then they had not enough work to keep me on board, so I finished at the end of June and I have been looking for work since then and it has been pretty tough, it is very competitive, there are a lot of people looking for work. And my son had some health issues as well so the two combined, means that I actually haven't worked for the past five months. So that has been a massive financial impact for our family because I am the main income earner. (Auckland, Social Active, female)

Engaging with biodiversity & conservation



NB dotted line: Those embracing and juggling change were more likely to engage in biodiversity and conservation actions during COVID-19 lockdown.

Those willing to *embrace or juggle change* were more likely to engage in biodiversity and conservation activities through lockdown – predominately in their own backyards. Conversely, those *resisting change* were less likely to alter their biodiversity and conservation activity.

Embracing or Juggling change:

...we got two worm farms before lockdown and so we are recycling a lot more food waste. And we also have a water tank which we got in between lockdown 1 and 2. So we are more conscious of how we are living and utilising water, less waste going into the bins. We have planted citrus trees and we have started a new garden with herbs and things that we use a lot of. It is a massive change...(Auckland, Enthusiastic Active, male)

I think we were in level 2 and I went and got the wood and I erected this sugar water feeder out in the yard and the wax-eyes and I noticed this morning one of the sparrows was drinking out of it which is unusual for them. The wax-eyes are just delightful and I give them oranges, half a pear...(Christchurch, Mindful Active, female)

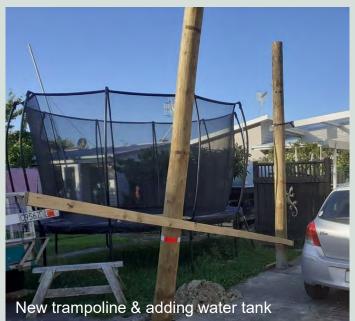
Resisting change:

It is just a whole bunch of people talking. I have seen more action on environment through people trying to make money in my client base than I have by the government. I think that it is something which has to be led. At the end of the day I can use a lot less plastic at the supermarket but it doesn't change much. (Christchurch, Other Things Active, male)

Shifting role of backyards









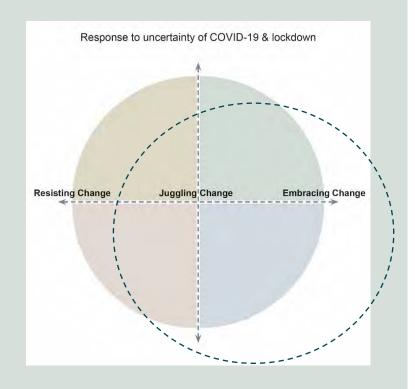
The COVID-19 lockdown restrictions on movement, prompted many research participants to extend or retreat into their backyards:

- Extending backyards into a playground, eg: integrating equipment to keep kids active, installing an outdoor spa and extending decks so adults can relax.
- Using backyards to develop an active garden, eg: to grow own fruit and vegetables, to attract insects and birds, to be more sustainable (composting, worm farms, collecting water). With the added benefit of both educating and entertaining kids.
- Bringing nature into backyards by planting native trees and plants.
- Working-out in backyards, eg: clearing and replanting or as an alternative space for physical exercise.

We started a little vege garden, my partner and my kids built some vege beds (in lockdown)...I sometimes make a smoothie for us and I just go down the stairs from the deck and I pick some celery and spinach and mint and strawberries and I use them to make my smoothie and it's just so satisfying. (Auckland, Social Active, female)

Photos: Taken by research participants.

No defined call to action



NB dotted line: Those embracing and juggling change were more likely to engage in biodiversity and conservation actions during COVID-19 lockdown.

COVID-19 had prompted people to be more self-sufficient (backyard biodiversity and conservation actions) however that has not translated to increased biodiversity and conservation actions in the <u>wider</u> outdoors.

There is an opportunity to better define what biodiversity and conservation actions look like. Aside from planting and trapping, it could also include educating others in responsible behaviours in the outdoors. How might New Zealanders be encouraged to get involved and take action?

- This research reinforces gaps exist in: 1. better defining biodiversity and conservation actions and 2. understanding how to reach, engage and inspire New Zealanders into action. New Zealanders excel in enjoying recreational activities but are weak on contributing to restoring NZ's nature and heritage.
- Customer segmentation research (Part 2: New Zealanders and the Environment – see slide 2 for link) revealed that while many New Zealanders are open to taking biodiversity and conservation actions, they are unsure how to. This highlights an opportunity to support and guide New Zealanders into taking action.
- Those embracing and juggling change require nudges and mechanisms to support them in taking action. Those resisting change require support in stepping-out of their comfort zone. Local community groups might be seen as an easy stepping-stone to help these people build their confidence and experience the benefits of taking action.

The link between gardening and improved wellbeing during COVID-19 lockdown is showing up in international research studies. Gardening could be a stepping stone to encouraging biodiversity and conservation action in New Zealand's outdoors.

Building resilience

'Connecting' maintains wellbeing

Wellbeing was explored through the research – what it means and how it looked in people's lives through COVID-19 lockdown.

- Those who interacted more (face-to-face and online) with others: family, friends, neighbours, colleagues or local community tended to improve wellbeing. Their view of wellbeing was more holistic, their outlook more external, their interactions more open, and their outdoors participation more expansive.
- Those who expressed diminished wellbeing tended to focus on the self to support their wellbeing.
 They limited interaction with others to close family and friends. Their outlook was more internal, their interactions more cautious, and their outdoors participation more restrictive.

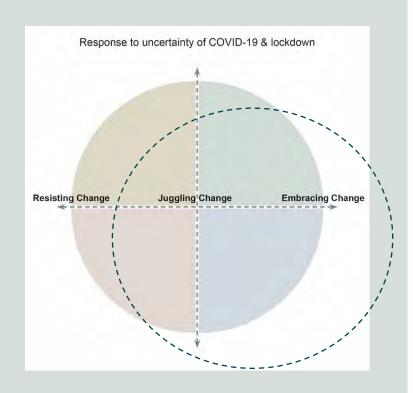
'Connecting' maintains wellbeing

Less Anxiety More connected Wellbeing: physical, mental, financial, social, emotional · Connect with others (family, friends, neighbours, colleagues, local community) Help self by helping others
Be open & expansive Enthusiastic, Social, Other Things & (Stimulation) Actives · Wellbeing: physical, mental, emotional, (spiritual)
Connect inner & outer (close family & friends) · Care for self to feel good · Be cautious & restrictive Home-Close, Mindful & (Stimulation) Actives Less connected © Department of Conservation, 2021. **More Anxiety**

Wellbeing differences through COVID-19 & lockdown

NB: Stimulation Actives tended to display aspects of both.

Connecting with nature



NB dotted line: Those embracing and juggling change were more likely to connect with nature during COVID-19 lockdown.

Connecting with and appreciating nature during COVID-19 lockdown was frequently mentioned as reducing feelings of anxiety and supporting wellbeing. Those who *embraced or juggled with change* participated more in the outdoors and connected more with nature than those who *resisted change*.



...the nature that is sitting out there right in front of us...what I can do is get out locally into the environment and in this area I am pretty lucky that they have put native plantings in, streams, so I am seeing flora and fauna grow, things emerge from it. I really value it and one of the things for me is encouraging people to get out in your community and have a really good look at what is out there. (Christchurch, Mindful Active, female)

During lockdown there was a lot of time doing nothing, just sit and observe and be with the world. Stop and stare at the stars a bit longer or listen to the birds singing or look at the trees...Life takes a bit of a stop and a change. So your outlook to life in general changes. (Napier, Enthusiastic Active, male)

It has become more of a priority for me to have that connection with nature and the outdoors and to be able to experience it on a daily basis. Just for pure enjoyment but also, I would say from a wellbeing perspective. Almost spiritual perspective — I think when you are feeling connected with nature you feel really good as a human being. So, it has almost made me more committed to it but also made me prioritise it in my life. (Auckland, Social Active, female)

Connecting creates community

There is potential for <u>community</u> to become an important influence in the uptake of biodiversity and conservation activities. At a bigger picture level it might encourage greater awareness of significant challenges such as: biodiversity loss, climate change adaptation and protection of NZ's nature and heritage.



A lot more interaction with the neighbours in the community, talking to them and family and friends and figuring out what can be done to minimise the kids playing on their Playstations and Xbox and Facebook and trying to get them out helping in the community or playing sports. (Dunedin, Enthusiastic Active, male)

...over the lockdown period there was a lot of people out walking and while we kept our distances there was kind of like this community thing happening where you would see people and it was lovely to see the creativity. Obviously parents with children on the footpaths there was a hopscotch done and one morning there was a rainbow and it had 'keep smiling' on it with a smiley face. Other little bits and pieces encouraging people to keep going. (Christchurch, Mindful Active, female)

...the sense of being there for each other...we did lots of baking and we took baking to the neighbours and then the neighbours would drop off avocados and there was this little thing going on in the street and it was really lovely. And I think everybody has gone back to their busy lives now. People's lives are so stretched, I think. (Auckland, Social Active, female)

Wellbeing builds resilience

Definition – Cambridge Dictionary

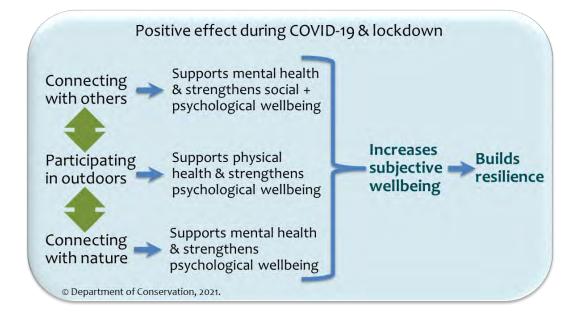
Resilience:

- 1. The ability to be happy, successful, etc. again after something difficult or bad has happened.
- 2. The ability of a substance to return to its usual shape after being bent, stretched, or pressed.
- 3. The quality of being able to return quickly to a previous good condition after problems.

This COVID-19 context research indicates those more connected with others coped better with lockdown. They increased their outdoors participation and embraced change despite experiencing some anxiety.

This in turn suggests those who *embraced or juggled* with change (because they connected and participated) are likely to have higher levels of subjective wellbeing and built more resilience.

Wellbeing builds resilience



Connecting with others:

A University of Otago study points out enhanced community spirit and social connection can have protective effects on mental health and future resilience. It also references a COVID-19 study in Turkey that shows a sense of social belongingness was associated with greater psychological wellbeing in students.²

Participating in outdoors:

A Canadian Ryerson University study during the pandemic on children and youth shows access to places for socialising and being physically active led to improved physical and mental health, and correlated with improved subjective wellbeing.³

Connecting with nature:

Substantial research already confirms the beneficial effects of nature for health and wellbeing. A Welsh Cardiff University study during the pandemic reinforces greenspace improved health and wellbeing, and points out the natural environment can be as important as the social environment in building resilience.⁴

Resilience through nature

Definition – Cambridge Dictionary

Resilience:

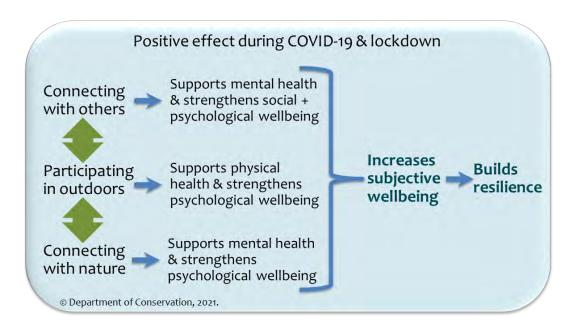
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- 2. The ability of a substance to return to its usual shape after being bent, stretched, or pressed.
- 3. The quality of being able to return quickly to a previous good condition after problems.

Poor mental health has been increasingly prevalent and costly in NZ and worldwide. Studies show the pandemic has exacerbated this with increased rates of psychological distress. A 2020 University of Otago survey shows nearly 40% of New Zealanders reported experiencing poor wellbeing on WHO scales (versus 25% in a 2018 national social survey).⁵

Given this COVID-19 context research shows participating in the outdoors and connecting with nature improves wellbeing, it makes sense to take a stronger role in connecting New Zealanders with nature to build resilience.

Then mentally it was spending time in nature, so being self-aware of my emotions and if I was feeling stressed or sad or anxious taking the steps to get me out of there. Walks in nature or a chat with a friend as well...And I feel that it is such a big part of wellbeing as human beings being in nature every day, I am convinced of that...that is definitely something that has changed for me – how important it is. (Auckland, Social Active, female)

Resilience through nature



Nature Tourism:

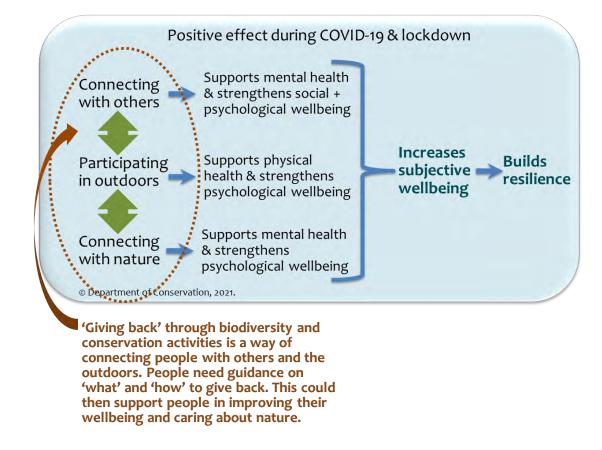
An Australian Griffith University study with 238 tourists visiting forest and beach parks in Australia found 82% perceived parks as contributing to health and happiness. The study points out the US and UK government healthcare systems, health insurers and employers have begun to fund nature therapies. This suggests potential in NZ for therapeutic nature tourism to be delivered by tangata whenua, local communities and regional tourism operators with government support. This could encourage greater participation on public conservation land and waters by all New Zealanders including those less inclined or able to participate in the outdoors, ie: Home-Close and Other Things Actives.

Connecting New Zealanders to the outdoors

Despite the increase in some New Zealanders' outdoors participation, it did not lead to an increase in conservation and biodiversity actions (beyond their backyard).

This suggests an opportunity to be more proactive in encouraging New Zealanders in taking conservation and biodiversity actions to 'give back' to nature.

Connecting New Zealanders to the outdoors



Thought starters to engage New Zealanders:

- Define and facilitate local and backyard conservation and biodiversity actions.
- Expand collaboration with local/regional community groups and organisations.
- Setup and facilitate programmes and projects that local communities can adopt.
- · Reach adult New Zealanders through children and youth via school programmes.
- Encourage people to connect with others to protect NZ's natural and cultural heritage.
- Expand communications campaigns to publicise the wellbeing benefits of 'giving back'.

Lens of Living Standards Framework

The Treasury NZ (Treasury) Living Standards Framework (LSF) outlines 4 capitals: Natural, Human, Social, Financial/Physical that generate current and future wellbeing. Nourishing and growing the capitals builds intergenerational wellbeing. 12 domains/indicators reflect how New Zealanders experience wellbeing.⁷

- Health and Subjective Wellbeing were mentioned by most research participants.
- Environment, Time-use and Social Connections were also important contributors to participants experience of wellbeing.



Mental health is key issue...

Treasury has identified mental health as a key issue associated with the pandemic. A Health Promotion Agency Survey (2020) found that 17% of respondents experienced moderate to severe psychological distress during the lockdown.⁷

Nature improves mental health...

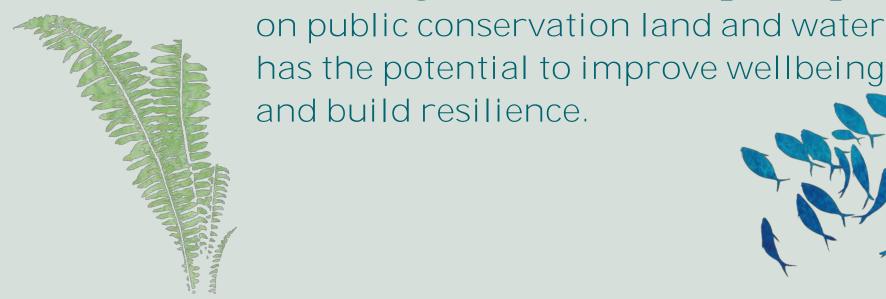
An Australian Griffith University research study points out nature exposure improves human mental health and wellbeing. And that national parks have a pivotal role in supporting the mental health of visitors. Health-related benefits include: improved attention, cognition, sleep and stress recovery.⁸

Value of national parks...

The research study above suggests there is potential in national parks becoming an outdoor therapy solution to support people's mental health.

Connecting New Zealanders with others, the outdoors and nature is likely to support people in taking conservation and biodiversity 'giving back' actions.

Increasing New Zealanders' participation on public conservation land and waters



Appendix: customer segments

Previous customer segmentation research (in a pre-COVID-19 context) looking at New Zealanders' participation in the outdoors, was undertaken during 2018 to 2020. It involved both qualitative and quantitative research phases with around 3,900 New Zealanders that identified six primary customer segments. Differences between each of those segment are briefly summarised here.

More detail can be found in: Customer Segmentation summary report: Part 1. https://www.doc.govt.nz/globalassets/documents/ about-doc/role/visitor-research/new-zealandersin-the-outdoors.pdf

Appendix: customer segments

- Mindful Actives more likely older, European, educated, female and from rural/provincial areas. Seek escape into nature for tranquility and quiet. Like to stay physically active and likely to participate in walking, cycling or camping experiences.
- Social Actives more likely younger, with dependent families and educated. Seek to connect through learning and discovery activities. Look for familyfriendly options. Being sociable with others is important and experiencing new things and places.
- Enthusiastic Actives more likely younger, yet other ages too. Live in main cities. Often Maori, Asian, Pasifika and recent migrants. Seek stimulation. Look for new and diverse activities and places with their family and friends. Often go to popular places.

- Stimulation Actives more likely younger, male and Aucklanders. Includes Asians and recent migrants.
 Seek stimulation while juggling others in their households. Often larger households with extended family.
 Keep busy in non-outdoor activities too. Look for challenging activities, eg: hiking, hunting, climbing or skiing.
- Home-Close Actives more likely older, female, includes Māori and rural/provincial areas. Often single households with lower incomes. Less educated and less good health. Seek sense of security. Look for safer accessible experiences. Spend time visiting family and friends. Often do short local walks and home gardening.
- older, European, in small households.
 Live in urban areas. Often less
 educated. Not engaged with the
 outdoors and prefer indoor activities.
 Do short local walks or activities for
 moderate fitness. May visit cultural
 heritage sites.

References

- 1. Dawson, David L, Golijani-Moghaddam N. COVID-19: Psychological flexibility, coping, mental health, and wellbeing in the UK during the pandemic. *Journal of Contextual Behavioral Science* (17) 2020 126-134.
- 2. Jenkins, Matthew, Hoek J, Jenkin G, Gendall P, Stanley J, Beaglehole B, Bell C, Rapsey C, Every-Palmer S. Silver linings of the COVID-19 lockdown in New Zealand. *PLoS ONE 16(4):* e0249678 April 1, 2021. https://doi.org/10.1371/journal.pone.0249678.
- 3. Mitra, Raktim, Owen E, Waygood W, Fullan J. Subjective well-being of Canadian children and youth during the COVID-19 pandemic: The role of the social and physical environment and healthy movement behaviours. *Preventative Medicine Reports* 23 (2021) 101404.
- 4. Poortinga, Wouter, Bird N, Hallingberg B, Phillips R, Williams D. The role of perceived public and private green space in subjective health and wellbeing during and after the first peak of the COVID-19 outbreak. *Landscape and Urban Planning* 211 (2021) 104092.
- 5. Every-Palmer S, Jenkins M, Gendall P, Hoek J, Beaglehole B, Bell C, et al. (2020). Psychological distress, anxiety, family violence, suicidality, and wellbeing in New Zealand during the COVID-19 lockdown: A cross-sectional study. *PLoS ONE* 15(11): e0241658. November 4, 2020. https://doi.org/ 10.1371/journal.pone.0241658.
- 6. Buckley, Ralf, Westaway D. Mental health rescue effects of women's outdoor tourism: A role in COVID-19 recovery. *Annals of Tourism Research* 85 (2020) 103041.
- 7. Cook, Diana, Evans P, Ihaka-McLeod H, Nepe-Apatu K, Tavita J, Hughes T He Kāhui Waiora: Living Standards Framework and He Ara Waiora COVID-19: Impacts on Wellbeing *New Zealand Treasury Discussion Paper* 20/02 July 2020 https://www.treasury.govt.nz/sites/default/files/2020-08/dp20-02-covid-19-impacts-on-wellbeing-v2.pdf
- 8. Buckley, Ralf, Brough P, Hague L, Chauvenet A, Fleming C, Roche E, Sofija E, Harris N. PERSPECTIVE Economic value of protected areas via visitor mental health. *Nature Communications* | (2019) 10:5005 https://doi.org/10.1038/s41467-019-12631-6 www.nature.com/naturecommunication