

## The expert view: how to achieve good urban land use planning

Interviewer: [Gareth Byatt](#) – Principal Consultant, [Risk Insight Consulting](#)  
Interviewee: [Wendy Saunders](#) – Champion of Land Use Planning at the [Natural Hazards Commission Toka Tū Ake](#)

**May 2025**

Wendy,

Thanks for your time today to discuss your work at the [Natural Hazards Commission Toka Tū Ake](#).

Could we start this interview with a brief outline of the work that the [Natural Hazards Commission Toka Tū Ake](#) (NHC) undertakes, the path that led you to where you are today, and your main current areas of focus?

*Wendy: Thanks for the invitation. I'll outline what we do at [Natural Hazards Commission Toka Tū Ake](#) in New Zealand (NHC) first, to give some context to my role and background.*

*The NHC is an organisation that acts as a government insurer of specific hazards. Our aim is to reduce the impact that disaster hazards can have on people and property. NHC is unique in that we go beyond being an insurer – we actively aim to support the reduction of risk for people and to reduce the number and size of claims that need to be paid, and to help communities with financial recovery when something does happen to them.*

*A key aim of the NHC scheme is to ensure people have access to affordable natural hazard insurance. Cover is provided automatically when private insurance is gained – this is a condition people have to meet to obtain insurance from us. If this condition is met, our insurance cover is funded through an additional premium that people have on their insurance.*

*When impacts from natural hazard events occur to homeowners, we act as the first loss insurer for [residential land and some residential buildings](#). We cover up to the first NZ\$300,000 of a claim (approx. US\$177,000 as of May 2025), which doesn't tend to cover all costs when there is extensive damage – we tend to bear the brunt of the first tranche of costs to repair damage incurred.*

*We are not only an insurer; we aim to build resilience of people and their communities. [New legislation came into effect](#), called the Natural Hazards Insurance Act 2023, which changed NHC's mandate. This changed our role from being the Earthquake Commission to the Natural Hazards Commission.*

*As a result, we have a mandate to inform, enable and influence decisions about risk that can reduce vulnerabilities and exposure that people and their communities have to hazards.*

*The NHC has a public education team that supports community liaison, a risk reduction team and a research team. We invest in practical research with the aim being that it can be translated and used to help reduce the risks people and communities face, and to help them recover when a major event does occur.*

*I've been with the NHC since November 2020, and I am part of the risk reduction team as a Principal Advisor for Risk Reduction and the Champion of Land Use Planning. Prior to my role at NHC, I was at [GNS Science](#) which is New Zealand's Crown Research Institute for geological research, working in their social science team where I looked at natural hazard land use planning issues – similar to my role at NHC, but more research based.*

*While I was at GNS Science, I did my PhD on risk-based land use planning. My PhD work has been used for risk-based planning in New Zealand. I have worked with the national [Ministry for the Environment – Manatū Mō Te Taiao](#) to inform new policies and contributing to natural hazard aspects of legislative change. At the NHC I continue to work very closely with this Ministry and other agencies.*

*A key initiative I am working on at the moment is a methodology for risk tolerance to natural hazards. We have found that risk tolerance is often overlooked when decisions are being made on what to do about risk assessments, and we are working to do something about this.*

*It has previously been deemed too difficult or time-consuming to carry out an assessment of risk tolerance. We don't think this should be the case. A couple of years ago [we produced a risk tolerance methodology](#) with an associated literature review to support this approach, which we are reviewing and updating at the moment.*

*Another initiative my team is working on which ties in well with the risk tolerance piece of work is to create a pre-event land use planning methodology. Pre-event land-use planning involves the development of bespoke land use recovery plans, before identified, known, natural hazards occur. They use scenarios to combine scientific knowledge, policy development, and community engagement, while providing a foundation for a faster and more efficient land use recovery process after a natural hazard event.*

*The genesis for this work is that, quite often, the land use aspect of recovery is often not planned for, or the time required to fully consider and review appropriate decisions is not allocated during recovery, due to the urgency to respond.*

*Policy advice is also an important part of our work at NHC. We make submissions on central and local government policy changes. Every time a local council makes a plan change or carries out a new district plan, we assess the new policy, and if a criteria is met, we submit on the natural hazard provisions.*

*We also advise on government legislative changes including new bills that are proposed and new national policies, plans or strategies. We submit on these to advise and inform decision on what people are building, and where this building is taking place.*

**Gareth:** Thanks for this overview, Wendy. As I ask for your views on trends and ideas on risk management and land use planning and related aspects of urban development, I may refer sometimes to some principles I use in my Urban 2.0 work, which are described below.

[Urban 2.0 principles](#) (by: G Byatt)



I have a few questions to start with based on the advisory activities you have described. I appreciate that with the democratic political electoral cycle, aspects such as policy can change when political power changes, which is how things work in a democracy.

I appreciate that local contexts in different parts of the world are always different, in terms of the hazards faced and vulnerabilities and exposure that exists, and also the way government and local authorities work and their resources. Given the variability of politics and economic circumstances in different countries, is variability to urban land use planning policy and risk reduction inevitable, or are there opportunities to discuss and share ideas and approaches, and possible consistency (appreciating different contexts) of applying good practices in different parts of the world?

We know that the people who run the world's cities and towns have to balance competing needs with limited resources, including how to tackle the economics of land management and how to minimise vulnerabilities and exposure to hazards.

**Wendy:** *It's an interesting point. It is always good to have an understanding and an appreciation of different planning frameworks from around the world. From what I've seen and experienced, planning needs to work with and reflect the local context of a local area. As you say, there are differing resources and capabilities in different countries and localities, which changes over time at a national and local scale. For example, aspects such as the local environment, different cultural requirements and responsibilities mean that there needs to be variability to reflect different local communities, different priorities, and needs of these communities.*

*Having said that, perhaps there are some common principles that we could align on, such as a commitment to avoid developing the highest risk land areas, providing equitable opportunities for risk reduction options, ensuring that recovery planning and response is resilient, ensuring that practices that need improving are improved, that we do not accept the status quo, and we learn lessons.*

*Risk reduction decisions are influenced by who has an opportunity to have a say on decisions to be made, and whether this cohort include people who are directly affected by these decisions. Whilst we can't have a standardised planning framework for the whole world because of the amount of variability of local contexts, maybe there are some key principles that we could agree on to have some consistency at a "principles level."*

**Gareth:** I like the idea or concept of common principles. One thing you mentioned just now was ensuring there is an opportunity for people to have a say, which is something I talk with many people about. Depending on the context, it might mean starting with a blank sheet of paper to rethink what's required, or it might be a review of the current status. The key is to have the right kind of involvement.

I talk often about meaningful involvement (one of the Urban 2.0 principles I mentioned earlier), rather than words such as consultation. I'm not saying that consultation is bad, but I prefer more active words which can correlate with actions by city and municipal authorities doing things like involving people by going to where they are and where they gather rather than organising a meeting at 8pm at town hall.

Are there lessons learned and examples that you can provide from New Zealand?

**Wendy:** *I agree. As an example, we have learned a lot from working with [Māori](#) communities, because when you work with these communities, you don't invite them to a meeting at the town hall – you have a meeting in the [Marae](#) and there are certain protocols that you need to adhere to. I think we have learned a lot from working with the [Māori](#) communities and other communities in New Zealand as well, and the principle of reaching out to communities where they live and relate to is important.*

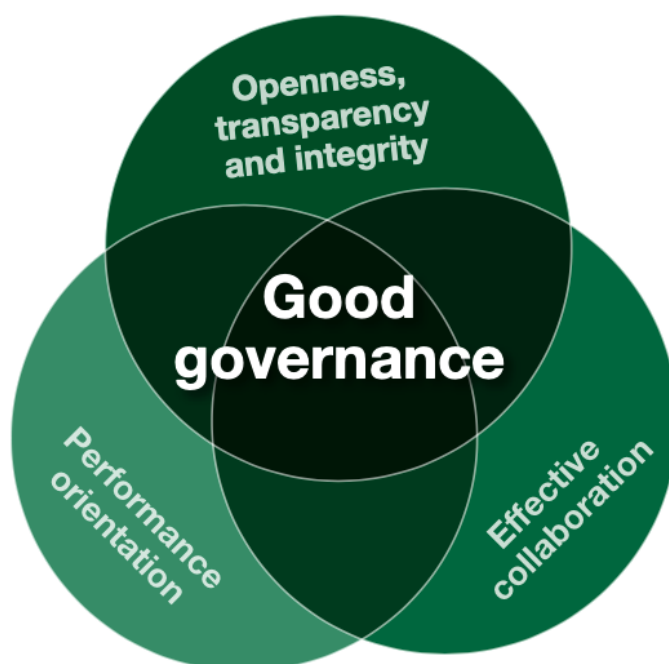
**Gareth:** I have discussed with people who work in urban development ways to ensure people from all parts of the community are meaningful involved in sustainable urban development.

For example, this may require considering financial support for citizens from any background, and those who represent community groups and civil society organisations, to attend forums and workshops. We have to appreciate that for many to step away from their normal lives, they may need financial support for expenses at least. To your point about working with indigenous communities, it is important also that we think about how people from different backgrounds can engage in discussions with others.

**Wendy:** *Definitely. What we have also learned, which is crucial to successful engagement and involvement, is that people need to see how the time they spend on these issues, and the contribution they make, has or has not contributed to the outcome and decision. If their ideas have contributed to an outcome, we must let them know how their involvement made a difference. Whether some or all their ideas have been taken forward or not, we must show people how they were taken into consideration explain why their contribution was not adopted. This helps in various ways. We want to record all points, because they might be revisited at some point. It is also useful to make accessible the rationale of the final decision (e.g. through online forums, summary information sheets, websites), because in general people will be more accepting of a decision if they can see how their input contributed in some way towards the decision.*

**Gareth:** It strikes me this is an example of transparency in governance. I often refer to a model by published by the Australian National Audit Office in which performance, transparency and effective collaboration are joined together.

Key focus areas contributing to overall good governance outcomes (from: [the Australian National Audit Office, June 2014, page 18](#))



Hopefully, explaining to people how their contribution to a review is helping can mean they can continue to contribute towards urban placemaking and land use planning in various ways – and that they find it interesting and of value to do so, for themselves and their community.

For many of these types of reviews, we want to find a good outcome for the long term, that's always good, and I am also thinking that involving citizens and businesspeople can help greatly with short term tactical updates on practical things that matter to them that can be quickly implementing whilst contributing towards the longer-term – and showing people how things link up. We want to demonstrate that we are not always talking about the long-term distant future, to 2050 or beyond. People need to see action now.

Perhaps an interactive visual explanation of the urban system can help with these kinds of discussions with people, to show how things are connected and to show how a particular idea or proposal has or has not made it into the final outcome from a broad review with everyone.

***Wendy:** Absolutely. Sometimes incremental change is necessary, and that's OK. If we can show and involve people in the stepping stones of getting to where we all agree that we want to be, it is more real, rather than a vision of a place in 20 years' time with no clear pathway to get there.*

**Gareth:** This point about involving everyone links into an important point we discussed a few moments ago which I want to return to, Wendy, about risk tolerance.

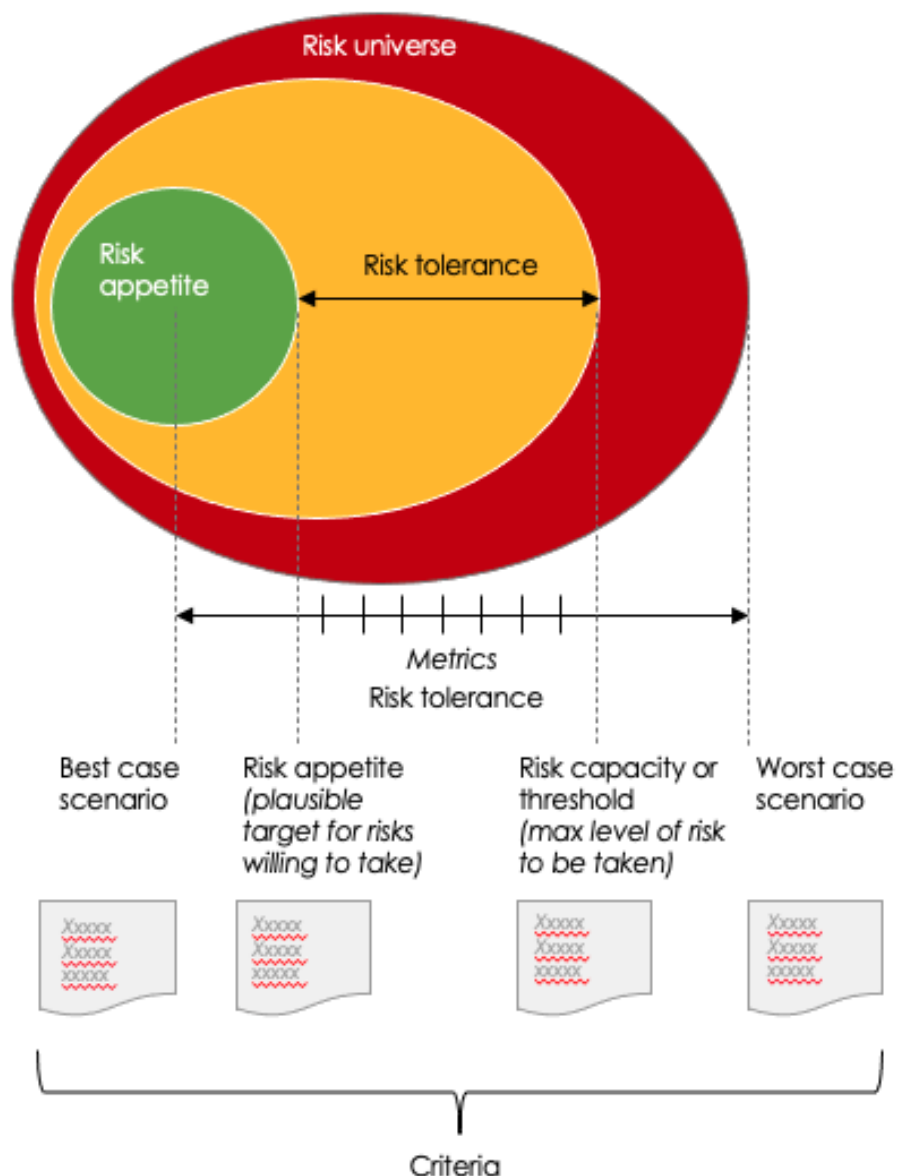
I use risk appetite and tolerance as a technique to discuss and agree risk-informed action with different organisations and groups I work with, in the urban context and in the private sector too. An example of the way I sometimes describe it is below.

When I hold discussions about risk appetite and tolerance and when I get to work on specific details to suit the context of a situation, I ask people and teams what their appetite and tolerances are for different types of threats they face, and opportunities as well. I adapt the words being used to the situation – sometimes the discussion focuses on tolerances, for example.

In my experience, holding these discussions can be challenging, because we are discussing limits and seeing if we can agree on trigger points or thresholds that require action, and for which we want to agree accountability for action. This links into an associated focus I have on good governance and to agreeing key indicators to monitor for our urban environments (which will differ from place to place depending on a changing context). When we can agree on key indicators and set risk appetite and tolerance for them with thresholds, we can then agree what action to take to maintain good governance.



Risk appetite and tolerance example (by: G Byatt & Satarla)



**Wendy:** Risk tolerance is certainly an interesting area of development. As I mentioned, [we have published our literature review and the methodology we have used on our website](#), which is currently being updated as part of a review.

We have reviewed a range of risk tolerance metrics. Life safety is of course always a key consideration, whilst recognising that the risk to life safety differs depending on what natural hazard criteria we are reviewing and assessing. There are some criteria where life safety risk is usually low but other consequences for people can be huge. For example, the impact of a certain level of coastal erosion or [liquefaction](#) from earthquakes has a low life safety generally in the urban context, yet the consequences of losing a property (be it a home, or a business premises or something else) because of coastal erosion or liquefaction occurring is of course huge to individuals and families.

*Added to this, if we look at the risk of a situation occurring where thousands of people are at risk of losing their properties, it is multiplied in severity many times over.*

*What we have set out to do is go beyond a typical formulaic approach using mathematical and statistical calculations and get into the plain language detail of what a tolerance level really means for people; and actions required if a threshold is breached.*

*As I mentioned earlier, we conducted an international literature review on risk tolerance. There is a lot of material out there for different contexts.*

*Risk tolerance was also something that came through in my PhD and in other work I carried out after my PhD, looking at risk-based land use planning and the role of engaging with people about tolerances in order to set thresholds to establish a line between what's OK and what's not OK. So, this is very much linked to our discussion just now about how to meaningfully involve people in urban planning and development.*

**Gareth:** We also need to have agreed thresholds for action, right? If a certain threshold is close to being breached, it can be a warning sign (“a flashing orange light” if you will) to proactively act before things get worse. Plus, we should appreciate that people's tolerance for risk can change over time. For example, when something happens that impacts people directly, their “recency bias” often lowers their tolerance for risk.

Perhaps this kind of thinking can help us to capture and learn from “near misses”, where something could have happened, but it did not because we took action early enough? [I have spoken with the Catastrophist Gordon Woo](#) about the use of counterfactual analysis in the past, which relates to this point.

You mentioned insurance earlier. I have talked with people in the industry [such as Guillermo Franco](#) about insurance solutions that some are being looked at, trialled and implemented, such as parametric insurance and other options, which involve the use of agreed thresholds or limits to trigger early payouts.

**Wendy:** *In New Zealand our land use plans are valid for 10 years unless something major requires a review sooner. For the kinds of disaster and resilience risks and tolerances that we are looking at, I think 10 years is a reasonable timeframe to look at a snapshot of people's tolerances.*

*We need to discuss and agree in principle on thresholds of tolerances, as they impact decision-making on resilience measures that are required during recovery. Our pre-event land use planning methodology can help with this. We have provided some tables as what can be considered as a “starter for recovery”, which is in essence based on agreed tolerance thresholds from past events.*



*We want to ensure we ask the right questions which materially impact what we do, and what people may be exposed to if something happens. To give you a practical example:*

- *If an event occurs that destroys or severely damages a house, what are the thresholds that determine whether a house should be repaired, rebuilt or bought out? And what if there are hundreds of houses to be assessed?*

*Getting this agreed after an event takes place can take a lot of time between everyone involved. If we can get agreement in principle before an event happens, noting that it won't be perfect and it's not set in stone because each context is unique, this type of agreement gives us a starter to work with that is grounded in experience and analysis. A very important point to this is that it will have been socialised with the public and others to come to an agreed position on tolerance, in principle.*

*This type of discussion helps us to think about how much damage is acceptable to “live with”, and how much damage is not acceptable. We want this resolved quickly if it happens, because someone will be out of their home, and they can't move on or use their insurance payout until an agreement is reached.*

**Gareth:** I appreciate your point about having some flexibility with the tolerances and thresholds to take account of context to a specific event situation.

Perhaps during the 10-year period when tolerances are in place, data can be obtained about people's views on the tolerances, to see if they are still in line with expectations – for example, if a major event does occur and taking on board any learnings from it?

Have you seen any other parts of the world that are working on a similar type of approach? In New Zealand, does the adaptability of having an agreement in principle mean that, depending on the context, sometimes getting a resolution might take a bit longer than being very regimented about the process?

**Wendy:** *That's a good question. I have been doing some comparative research with Professor Gavin Smith of [North Carolina State University](#) in the US, around what we call “managed relocation”, “community lead relocation”, or “managed retreat” – which are terms used to describe the process of moving existing development out of the path of a natural hazard(s).*

*I have seen some examples of risk tolerance and thresholds that are quite “black and white” in that there have been thresholds and measures which don't take into account context. This can mean that decisions are reached quickly without considering the full implications of the decision. I don't know how other countries are approaching this, but you mentioned examples of parametric insurance just now, which is somewhat linked to the use of risk tolerance.*

*In New Zealand we tend to create an appropriate bespoke response and recovery to large events. Whilst it is a response that is specific to an event and the resulting situation that a community finds itself in, it can take time to prepare the legal and financial framework to support the recovery. Sometimes there may be orders in council (executive orders) given because there might be a need by the national government to act quickly when the event is major in size. So, the response depends on the nature of the situation. Whilst we usually aim for a community driven approach, some situations might require a central government driven approach to implement immediate action.*

**Gareth:** In another example of proactive planning, I have spoken with people in Japan about how agreements are put in place between municipal authorities and businesses for certain types of work and activities that may be required to be carried out, so that if an event happens, contractual elements are already in place to allow recovery work to start very quickly, as an example of pre-event planning.

It must sometimes be hard to have discussions about risk tolerances when it comes to land use and land use planning, because there are always pressures to develop land for various purposes, and whilst there are regulations in place in many parts of the world which are good, they are not always followed, there may be workarounds that get agreed or it may be hard to enforce the regulations due to insufficient resourcing in place in city and municipal authorities that do not have the capacity to check every development.

I'd be interested in your views on some good practises on and solid evidence on risk-based land use planning.

**Wendy:** *Risk-based planning is increasingly being adopted in New Zealand, and ideally risk-based land use planning would be included in national policies. At the local level, we have had some very positive results, with a number of local councils who have taken it on board, and we have evidence of it being applied.*

*We are seeing two types of risk-based planning approaches emerging.*

- 1. The first is a comprehensive risk-based approach which takes into account risk tolerance and different likelihoods of risk occurring, which is the approach that is associated with my PhD many years ago.*
- 2. The second approach that has emerged doesn't require the same amount of data or information. This approach is based on at the classification of "sensitive activities", which is used as a proxy for risk. This approach removes the risk tolerance part for the assessment and in its place categorises different land uses according to the sensitivities they have to a hazard – which links to the tolerability of land uses. For instance, a highly sensitive activity would be hospitals, emergency services, retirement homes, daycare and schools. Medium or moderate types of sensitivities would typically be commercial activities, and perhaps residential depending on its nature and location (residential can also be high sometimes). The low types of sensitivities would be parks, farms and sporting venues.*

*What we're still seeing in a lot of plans are policies talking about acceptable levels of risk or significant levels of risk. The term "significant" is used in [the New Zealand Resources Management Act of 1991](#), so it is good that we use this term in local council plans. However, acceptable or significant (or other level of risk terms) are not defined nationally, nor is there a nationally agreed explanation of the intent of what these terms specifically mean.*

*This is an important point, because a good policy based around acceptable and significant levels of risk needs to be clear on what it is acceptable or significant, and to whom and for how long. This is also important for monitoring changing risk levels over time.*

The NHC stand at a NZ Planning institute annual conference (photo: W Saunders, NHC)



**Gareth:** This point about what risk is acceptable and what risk is significant has some direct linkages to risk appetite and tolerance, it seems?

**Wendy:** Absolutely. We have made good steps forward in recent years with risk-based land use planning, whilst noting that we always want to improve. In the past we had more of a hazards-based approach, nowadays there is more focus on risk-based planning. For example, the hazards-based approach was about looking at a flood map and seeing where it will flood from in different scenarios including a once in a 100-year flood, without really thinking about the consequences. We still achieved some good outcomes with that approach, but I think we are better placed nowadays by thinking about the consequences of risks if they occur.

*We now need to get to the next level, of having a consistent approach and consistent decision-making based across the country on what is deemed to be an acceptable level of risk and for risks deemed significant, and what does this mean.*

**Gareth:** It's good to see that there is a continued positive move forwards towards sustainable resilient land use development. I appreciate that change can take time, that there are always different factors involved and at play. Asking about improvements results in one question leading to another.

*Wendy: That's right. We are moving in a good direction which is very positive. We have to be pragmatic because New Zealand has so many natural hazards – pretty much everywhere in the country is subject to one or more natural hazards, so we need to be pragmatic about enabling development and finding the way to enable this development in the right places and knowing where we should be avoiding. We also need to ensure we build in the right way, to make our buildings resilient.*

**Gareth:** I appreciate there are many different aspects and elements to getting development and good land use right. There are political aspects and economic aspects in terms of the availability and affordability of housing, there are decisions to be made on construction techniques and technologies that influence resilience and also ease and speed of rebuild after an event – for example, the difference in using concrete or steel for the structural frame of a large building makes a difference to how a damaged building can be dismantled and potentially reused or not.

I am reminded of a discussion I have had in early 2025 with [Esteban Leon](#), the Head of UN-Habitat's [City Resilience Global Programme](#) (CRGP), which is focused on supporting cities and territories.

They provide city and municipal teams with a resilience diagnostic tool called [the City Resilience Profiling Tool](#) (CRPT). In our discussion, Esteban explained that his programme team is focusing on a consequences-based approach to helping different cities around the world with their resilience, which is aligned to what you are saying – moving from a hazards-based type of approach to a consequence-based one.

I also appreciate that sometimes there are short-term and immediate priorities that need to be focused on and need to be addressed.

*Wendy: Hopefully we will all see good action from a consequence-based approach. One example to consider is homeowner decision-making when they are looking to buy or rent a house. They can access our settled [claims data online](#) through our Natural Hazards Portal (the Portal) to see if there have been settled claims for a residential property since 1997. People can quickly look up an address and see if there have been any NHC claims and use that information to inform their decisions.*

*Whilst saying all of this, we know, and we understand that resilience priorities are not top of the list when people look at where they will move to.*

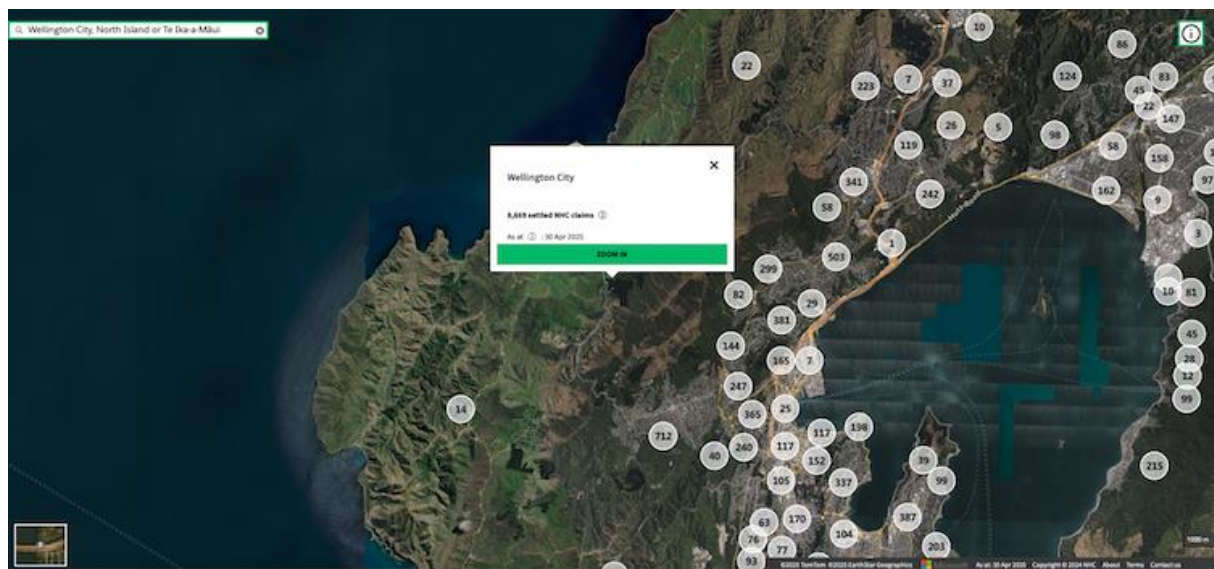


*School zones are key, proximity to public transport, how easy is it to get to work, is it a safe neighbourhood and of course, what are property prices now and what are the predictions for the future. We cannot control everything on this, but we can provide data and information to people and to local councils to supporting them in making informed decisions.*

**Gareth:** It's an interesting point, with the examples of priorities you mentioned about people wanting to know about transport, schools, safety and other things to a local neighbourhood. Disaster risk may not be front of mind for people – unless or until something actually happens in that area.

Hopefully, if it is quick and easy for people to check data such as claims made, it will encourage people to at least have a quick look and to bear it in mind. I had a look myself just now on the portal and I can see how quick it is to obtain visual data.

Example of looking at claims in Wellington (from: [the NHC portal claims map](#))



Resilience and land use planning of course takes into account where schools are, how public transport functions, and also aspects such as possible public evacuation routes in the event of a major event happening (something that [I discussed with Professor Adam Millard-Ball of UCLA in February 2025](#)).

**Wendy:** *Hopefully our Portal helps people to gain an appreciation of the natural hazard risks. In New Zealand we have what we call medium density residential standards, which has encouraged councils to develop and intensify residential land around transportation hubs. What do we do if we have a transportation hub that is in a liquefaction zone, a flood zone or a tsunami zone? If land is likely to be subject to sea level rise and increased ponding, is there a risk threshold at which we choose not to develop in such places? You looked at our map for Wellington just now – what about land that is near to the Wellington fault? Or subject to earthquake-induced landslides or liquefaction? It's not always an easy discussion or decision.*

**Gareth:** Given the challenges, if at least there is an awareness about the risks, including by developers, there can be a discussion about whether to develop in high-risk areas. I'm also mindful of how some people do not have a choice about where they can live, for example because of various social pressures.

**Wendy:** *We definitely need to remember that a lot of people do not have a choice about where they live (in New Zealand and elsewhere around the world). These people have little choice but to trust that it's a safe area. And that's where I think we need to start challenging the status quo, particularly with climate change. For example, when we have factual evidence of an increase in the intensity of weather events, the status quo may be out of date. Just because there is development in place from the past doesn't mean that it is OK to keep developing there, because the risks have changed or are more understood.*

**Gareth:** Once again, we are back to our core discussion about risk tolerances and thresholds, which can change over time. What are some ways to tackle these types of situations, where new data is suggesting an increased risk profile to a local area?

**Wendy:** *For ourselves at the NHC, we're trying to tackle this in our submissions and in our reviews of policy and plans. It can be difficult because the status quo is often used, particularly by developers, as the modus operandi. When there are already 30,000 homes in a local council area, why shouldn't another 5000 be granted permission?*

*If data suggested an increased risk of flooding in this area, we have to look at the impact of having an extra 5,000 people in that area. We are trying to raise the awareness, and we are asking questions to decision-makers, which are essentially about their risk tolerance for future risks.*



*Are they happy with the measures and rules that are in place? It comes down to whether they are satisfied that there are enough risk reduction measures for the planning status quo to be acceptable. What is acceptable to the local community, and when does the status quo become unacceptable, and who decides this?*

**Gareth:** These are difficult questions, I can see, and trying to navigate a balance between sustainable economic development and risk reduction is hard, in New Zealand and elsewhere around the world. I appreciate these concrete examples that you are providing, and we are once more returning to the point about risk tolerance, and the three points mentioned earlier about governance: transparency, effective collaboration and performance, which link to accountability.

As you say, by asking the questions which I know can be hard for decision-makers to answer, the answers can be worked through.

I wonder if this is where involving citizens and different local community groups can lead to shared awareness and agreement on a decision that will be made, with transparency in governance being shown (which links to the point I made about governance earlier)? As you mentioned earlier, it's not about stopping land development and economic progress; it is about understanding our risk and making sure risk-informed decisions are taken, with everyone being aware of what this means for ongoing resilience. To my mind, decisions being made in openness with the local community, who will be impacted, must be better than decisions being made behind closed doors and not involving and engaging the local community. Meaningful involvement takes time, yet it has to be worth it.

I also hope that private sector developers and builders (of all sizes, small to large) can appreciate and see the advantages to them being part of the discussion, to see how good risk management can help them in the long run.

**Wendy:** *When you look at the definition of planning, it is centred on thinking about the future. We must make sure we do not lose sight of this. Planning cannot solely be about reacting to today's planning requests. We need to be thinking about the future, which means different possible futures and different scenarios.*

*I think it is good for everyone who is involved in planning to have a reminder on what planning is, and to look at local areas and think about the possible range of futures depending on how land is used. Then thinking about what we want or need to change, what we want to keep going with, and what we should start to address now to ensure planning is not being reactive and purely focused on what's happening today – it is about real planning. I think about three types of planning horizons that we need to be considering:*

- 1) Those legacy issues that we need to manage, where decisions were made at a time when we didn't know any better;*
- 2) the planning issues that are being created today that will lead to a problem in the future. We have good data nowadays, and we need to avoid making bad decisions that will become legacy planning issues of the future; and*
- 3) planning issues of the future, which we may not even be aware of yet.*

**Gareth:** I'm glad you mentioned scenario planning Wendy, linked to the discipline of planning. I am a keen advocate of using scenario planning to review ways that the future could evolve, and to link it to an agreed risk appetite and tolerance.

Your point about planning being centred on thinking about the future, Wendy, makes me think about economics, and that the disciplines of planning and economics go hand in hand because the application of economics is about making choices that create prosperity now and in the future. I have discussed this point with urban economists, [for example with Alain Bertaud](#), and I hear from these people that some planning teams around the world could do with having a better understanding of economics to support planning.

*Wendy: Your point about economics is interesting. I am not sure how broadly it is taught in universities as part of planning degrees nowadays. Perhaps there are some good examples out there. At NHC we have an economist in our team which is very useful for us.*

*Planners often rely on reports from economists. Whether they have the skills to be able to use them in the right way is a key question.*

**Gareth:** I know there are planning courses at universities in various parts of the world that include urban economics. Perhaps it comes down to who is in the faculties and what they are prioritising with their courses.

Perhaps we can talk about some of the activities relating to insurance, which we briefly touched upon earlier. How does the NHC insurance activity link with private sector insurers (you mentioned that it is a requirement for the owners of properties to have their own insurance in order to gain automatic NHC cover). Am I right in thinking that the insurers who insure people's properties have an important role to play in helping people to understand risk and resilience, in various ways?

We keep hearing about challenges around the world that homeowners and businesses have to obtain insurance, due to increased risk in certain areas and also the costs insurers have faced of dealing with major events that have happened.

*Wendy: The private sector insurers of homeowners and businesses are having more and more input and involvement in land use planning in New Zealand. There are some examples of private insurers that are making submissions on district plans and plan changes, which is influencing some positive plan changes to address risk.*

*Insurance is seen as a trigger – a threshold or an indicator, particularly when we talk about how we may need to manage people's relocation in cases such as when avoiding a hazard is required (which we discussed earlier). In such situations, one of the triggers might be insurance withdrawal, but in my opinion, when you have an insurer withdrawing from an area, that's too late.*

*We have had Op Eds published in newspapers in New Zealand from CEOs of insurance companies, saying that we need better natural hazard policies to stop building in the places that are known as high risk. So, they are becoming more vocal, and they do talk to Ministers in government.*

*In my personal opinion, if we get to a stage of insurance withdrawal, in some way that is a failure of planning (this not in an NHC opinion).*

*If there is a good plan in place for an area, and if planners know that they have an agreed risk tolerance with appropriate thresholds, and they are responding proactively when thresholds are triggered in a planned way, then insurers should have more confidence to stay in the market because it will remain profitable for them.*

*Insurers don't want to withdraw from a market because they are commercial companies and they want to make good returns as part of good business, for which they need a good portfolio.*

*We work quite closely with the Insurance Council of New Zealand, and we often share our submissions with them, and they share their submissions with us. When it is appropriate we can align our messaging on a land use matter, which can be useful.*

*Insurers are increasingly being asked by councils to advise on matters such as, if a certain mitigation is put in place, will they keep ensuring the community?*

*I think the appropriate liaison between planners and insurers, with the right governance in place, is critical, so that planners can do their job and think about the future with risk-informed development, and insurers can advise on the insurance implications and provide input for planners to consider.*

*Planners 'plan' holistically – they consider aspects of the community, the infrastructure, access to services, etc, while balancing many priorities. Insurers may not have the same holistic approach when discussing plan requirements. The planners need to plan, and the insurers should be involved so that they see what is required and they can advise from their perspective, while acknowledging the broader priorities that need to be achieved.*

**Gareth:** The way things can work between planners and insurers makes sense, Wendy. Good governance should support this relationship. Whilst of course insurers and indeed other parts of the finance community have their own governance in place for what they do, it is good to have a clear demarcation of responsibilities so that they know how they can perform their role within the overall system.

One last point, if I may. I'd like to get your views on how the work you do and the way things operate in New Zealand and how it links into the work of UN agencies like UNDRR and perhaps UNDP, and some of the international frameworks such as the [Sustainable Development Goals](#) (SDGs) and [the Sendai Framework for Disaster Risk Reduction 2015-2030](#).

I often ask people about how cascading or linking things up in an appropriate way from the local level through to international frameworks can work in an effective way, and also how to link into some of the work of UN agencies such as their main assessment reports and forums. I appreciate that everyone is busy, and time is precious.

*Wendy: It's good to have international frameworks in place as overall guidelines, and we do know what is there. Some of our team has had some direct liaison with international framework development and reporting in the past. I published [a paper in 2020 on the implementation of the Sustainable Development Goals in New Zealand](#).*

*At a practical level of implementation, things have perhaps happened by accident rather than on purpose, but I think the linkages are there when we make the time to look at them.*

**Gareth:** Thank you very much for your time, Wendy.

A final point I will end with is that, at the start of our conversation, we talked about some ideas for common principles that perhaps countries around the world could align on for good land use planning – ideas such as a commitment to avoid developing the highest risk land areas; providing equitable opportunities for risk reduction options; ensuring that recovery planning and response is resilient; ensuring that practices that need improving are improved; not accepting the status quo; and learning lessons. Perhaps we could add one more principle to this list of ideas – a commitment to use risk tolerance and thresholds for risk-informed decision making on land use.

I look forward to keeping in touch about the work of the [Natural Hazards Commission Toka Tū Ake](#).