

# Indigenous Biodiversity Strategy

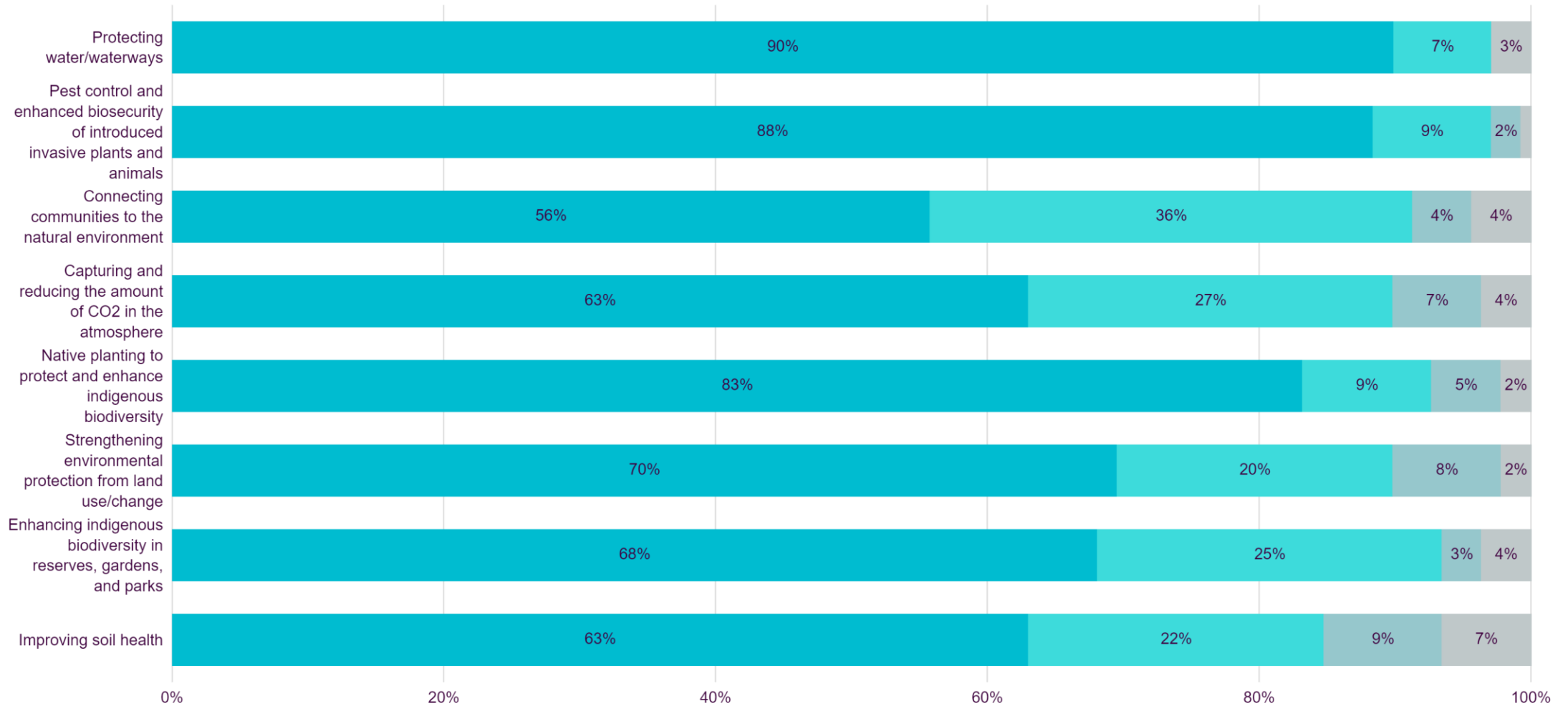
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Final Results and Analysis

# Indigenous Biodiversity Strategy

[Explore more in detail.](#)

# Topics critically important in Protecting Indigenous biodiversity in Te Awa Kairangi ki Tai Lower Hutt



■ Yes, this is critically important
 ■ No, this isn't critically important
 ■ Unsure
 ■ Not specified

Topics critically important in Protecting Indigenous biodiversity SUMMARY  
 sample size = from 137 to 139; total sample size = 139; 2 missing

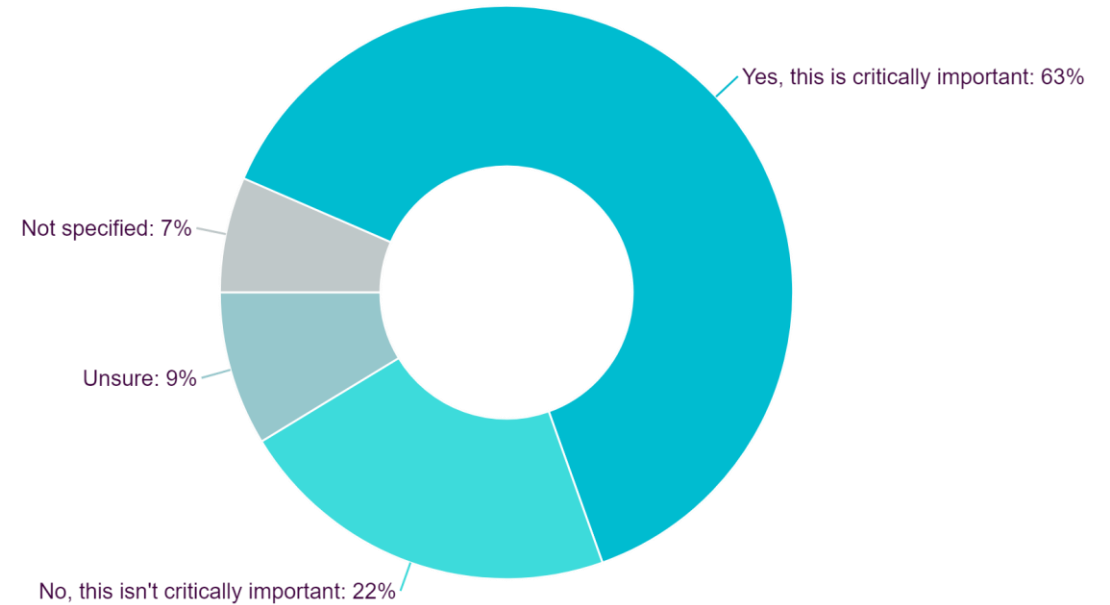
**Exploring this section in more detail**

# Improving soil health

	%	Count
<b>Yes, this is critically important</b>	63%	87
<b>No, this isn't critically important</b>	22%	30
<b>Unsure</b>	9%	12
<b>Not specified</b>	7%	9
<b>NET</b>	100%	138

Improving soil health SUMMARY  
sample size = 138; total sample size = 139; 1 missing

"**63%** of survey participants indicated that **improving soil health** is critically important."



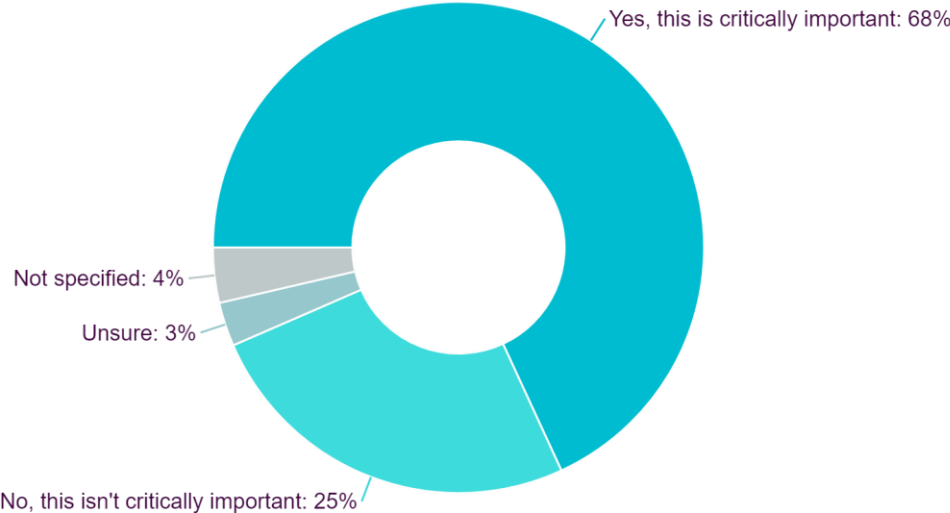
Improving soil health SUMMARY  
sample size = 138; total sample size = 139; 1 missing; 95% confidence level

# Enhancing indigenous biodiversity in reserves, gardens, and parks

	%	Count
Yes, this is critically important	68%	94
No, this isn't critically important	25%	35
Unsure	3%	4
Not specified	4%	5
NET	100%	138

Enhancing indigenous biodiversity in reserves, gardens, and parks SUMMARY  
sample size = 138; total sample size = 139; 1 missing

**"68% of survey participants indicated that Enhancing indigenous biodiversity in reserves, gardens, and parks is critically important."**



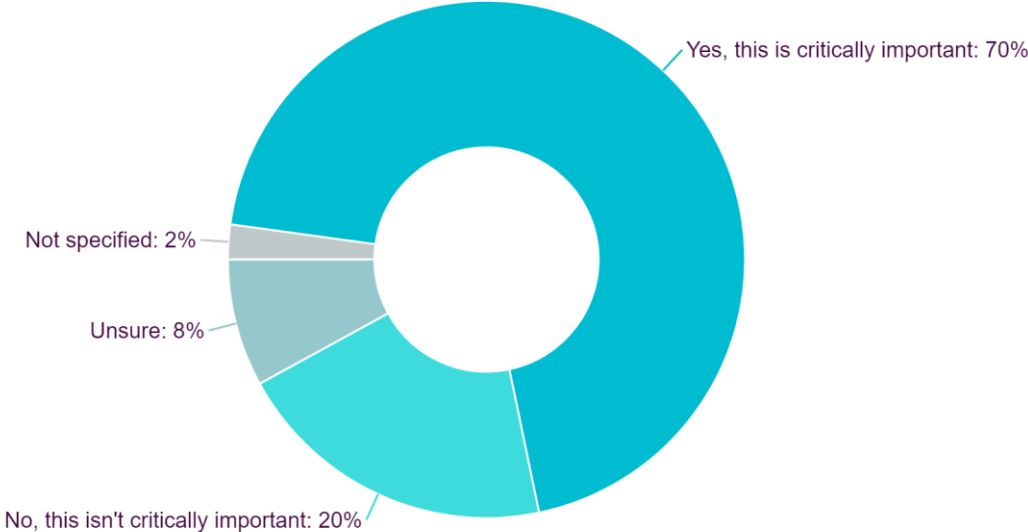
Enhancing indigenous biodiversity in reserves, gardens, and parks SUMMARY  
sample size = 138; total sample size = 139; 1 missing; 95% confidence level

# Strengthening environmental protection from land use/change

	%	Count
<b>Yes, this is critically important</b>	70%	96
<b>No, this isn't critically important</b>	20%	28
<b>Unsure</b>	8%	11
<b>Not specified</b>	2%	3
<b>NET</b>	100%	138

Strengthening environmental protection from land use/change SUMMARY  
sample size = 138; total sample size = 139; 1 missing

**"70%** of survey participants indicated that **Strengthening environmental protection from land use/changes** is critically important."



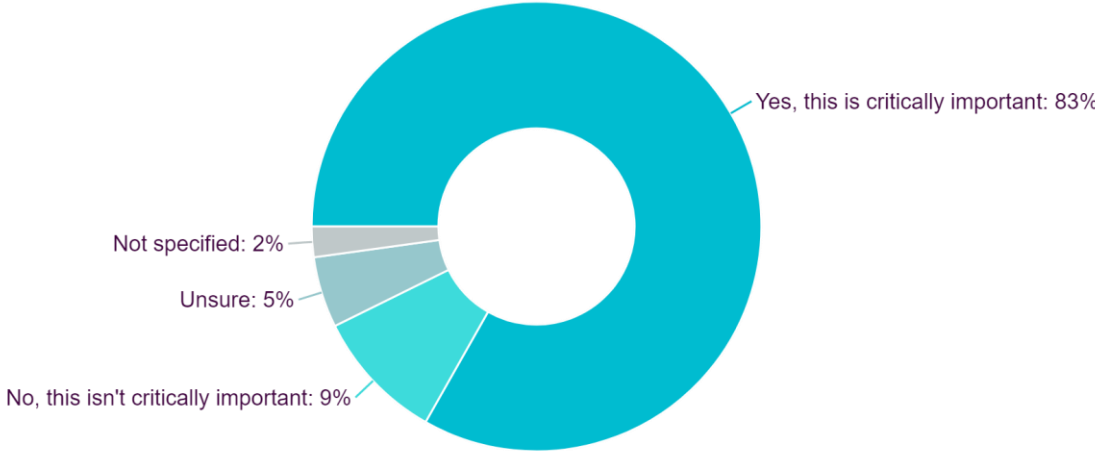
Strengthening environmental protection from land use/change SUMMARY  
sample size = 138; total sample size = 139; 1 missing; 95% confidence level

# Native planting to protect and enhance indigenous biodiversity

	%	Count
<b>Yes, this is critically important</b>	83%	114
<b>No, this isn't critically important</b>	9%	13
<b>Unsure</b>	5%	7
<b>Not specified</b>	2%	3
<b>NET</b>	100%	137

Native planting to protect and enhance indigenous biodiversity  
SUMMARY  
sample size = 137; total sample size = 139; 2 missing

**"83% of survey participants indicated that **Native planting to protect and enhance indigenous biodiversity is critically important**".**



Native planting to protect and enhance indigenous biodiversity SUMMARY  
sample size = 137; total sample size = 139; 2 missing; 95% confidence level

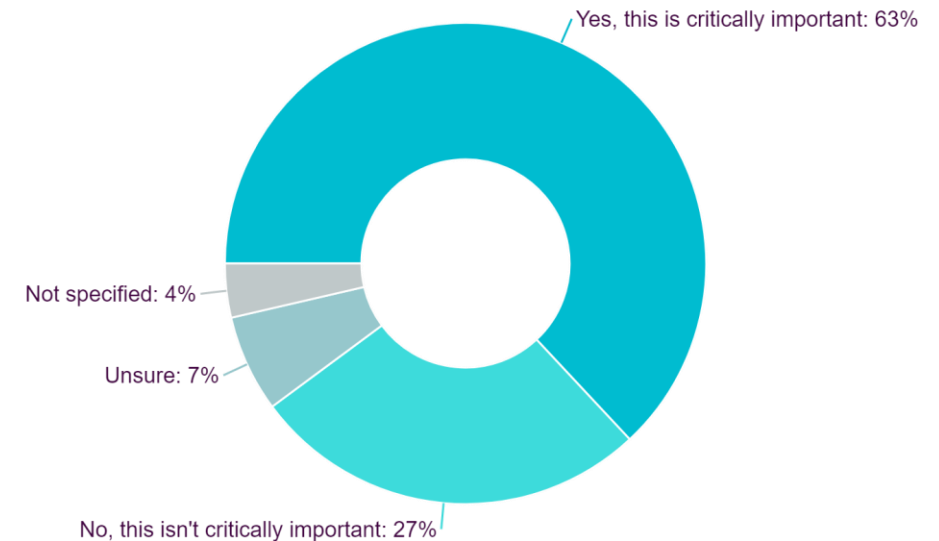


# Capturing and reducing the amount of CO2 in the atmosphere

	%	Count
<b>Yes, this is critically important</b>	63%	87
<b>No, this isn't critically important</b>	27%	37
<b>Unsure</b>	7%	9
<b>Not specified</b>	4%	5
<b>NET</b>	100%	138

Capturing and reducing the amount of CO2 in the atmosphere SUMMARY  
sample size = 138; total sample size = 139; 1 missing

**63%** of survey participants indicated that **Capturing and reducing the amount of CO2 in the atmosphere** is critically important'.



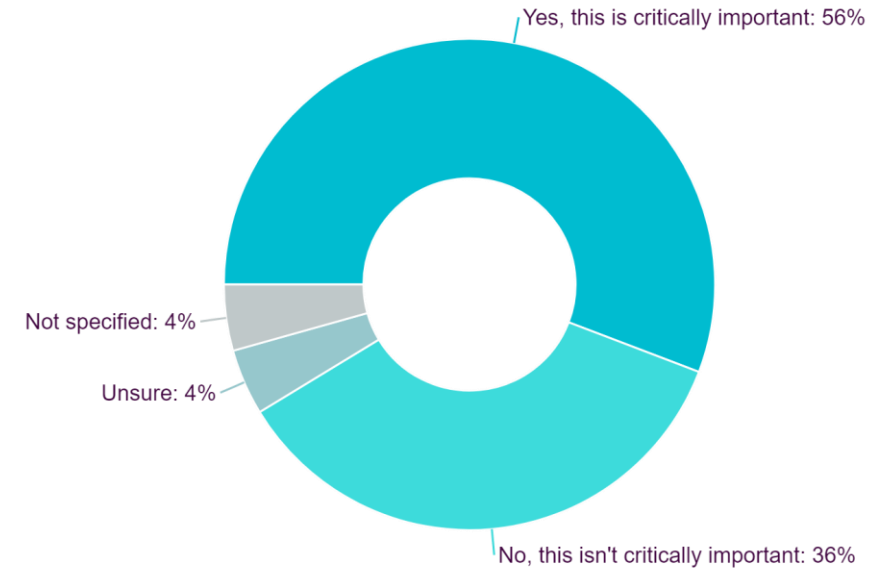
Capturing and reducing the amount of CO2 in the atmosphere SUMMARY  
sample size = 138; total sample size = 139; 1 missing; 95% confidence level

# Connecting communities to the natural environment

	%	Count
<b>Yes, this is critically important</b>	56%	77
<b>No, this isn't critically important</b>	36%	49
<b>Unsure</b>	4%	6
<b>Not specified</b>	4%	6
<b>NET</b>	100%	138

Connecting communities to the natural environment SUMMARY  
sample size = 138; total sample size = 139; 1 missing

"**56%** of survey participants indicated that **Connecting communities to the natural environment** is critically important".



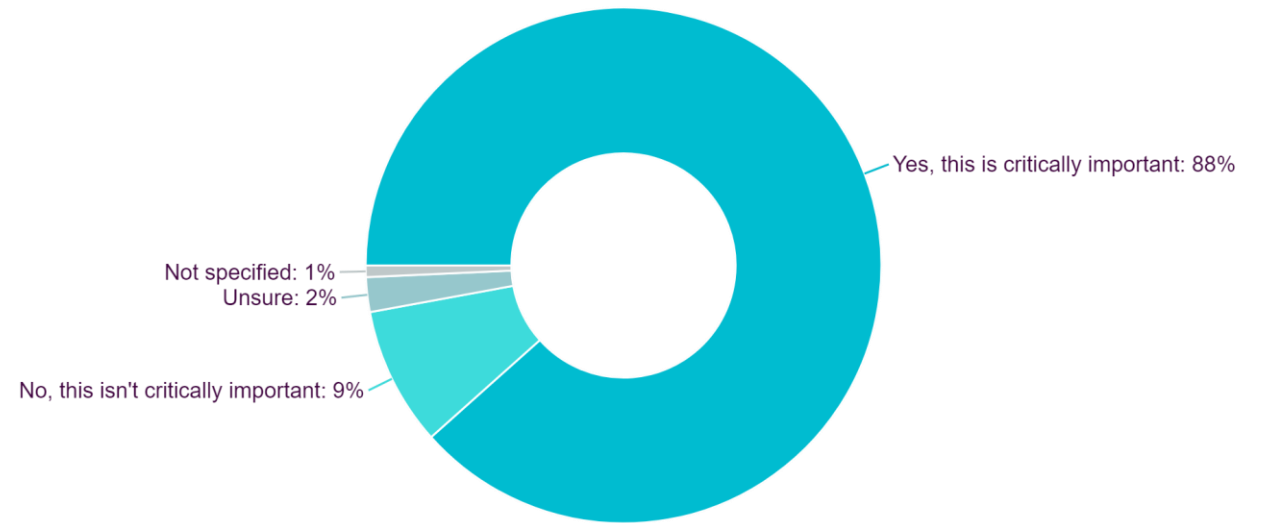
Connecting communities to the natural environment SUMMARY  
sample size = 138; total sample size = 139; 1 missing; 95% confidence level

# Pest control and enhanced biosecurity of introduced invasive plants and animals

	%	Count
<b>Yes, this is critically important</b>	88%	122
<b>No, this isn't critically important</b>	9%	12
<b>Unsure</b>	2%	3
<b>Not specified</b>	1%	1
<b>NET</b>	100%	138

Pest control and enhanced biosecurity of introduced invasive plants and animals SUMMARY  
sample size = 138; total sample size = 139; 1 missing

**"88%** of survey participants indicated that **Pest control and enhanced biosecurity of introduced invasive plants and animals** is critically important".



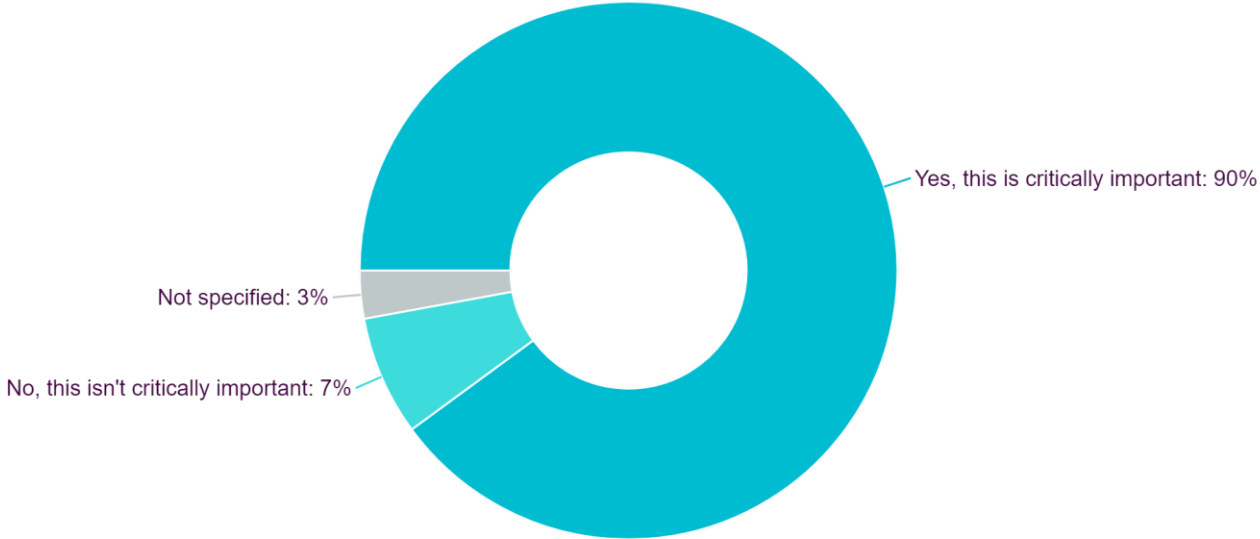
Pest control and enhanced biosecurity of introduced invasive plants and animals SUMMARY  
sample size = 138; total sample size = 139; 1 missing; 95% confidence level

# Protecting water/waterways

	%	Count
<b>Yes, this is critically important</b>	90%	125
<b>No, this isn't critically important</b>	7%	10
<b>Not specified</b>	3%	4
<b>NET</b>	100%	139

Protecting water/waterways SUMMARY  
sample size = 139

**"90%** of survey participants indicated that **Protecting water/waterways** is critically important."



Protecting water/waterways SUMMARY  
sample size = 139; 95% confidence level

# **Additional comments on the above section**

## **Summary of comments**

Several respondents commented on the balance of priorities, noting that they felt that all topics were equally important in protecting indigenous biodiversity, while others felt that some topics were minimally important. One common suggestion was the request for more native planting, particularly on berms where plain grass is commonly seen. There was some confusion over defining public land and Council-run land. Some respondents noted that they were upset over the changes led by central government for environmental management.

# Additional comments on the above section

## KEY QUOTES:

*"The impact of carbon capture is minimal. The Council should focus on reducing emissions in the city by enabling low-carbon lifestyles in dense, walkable mixed-use communities. The Council should focus on biodiversity on its own land, much of which is still planted only in turf grass and exotic trees, before forcing private landowners to plant natives. This is particularly the case for berms in the road reserve, which should be universally planted in native trees, tussocks, and other low-lying native plants rather than turf grass."*

*"Valued introduced species such as trout should also be recognised for greater protection. They have a higher water quality requirement than native species therefore what's good for trout is good for natives. - Focusing purely on 'indigenous species alienates those members of our community who have an affinity for valued introduced species such as trout. - Regional councils have a statutory obligation to focus policy formation on robust science - not populist 'values' surveys like this. - GWRC should look at the impact of it's own activity on indigenous species such as river bulldozing and the extensive habitat destruction it is responsible for."*

*"Leave private land alone"*

*"Biosecurity could be separated out in the question - invasive plants are quite different to invasive predators. The inclusion of waterways is a bit confusing, are we talking about freshwater biodiversity - the health of freshwater is covered under the freshwater NPS. And what about our coastal and marine biodiversity??"*

*"HCC Must work with landowners and incentivise to achieve biodiversity improvements."*

*"This is just another survey to try and force your views on SNA's on the rural communities - Stop the land grab - we do more for CO2 etc than most of the council combined we complete planting, pest control etc at our own cost all while townies consume more resources - infill housing destroys nature then you want to take our land off us essentially with bureaucratic nonsense to try and make up for the mess you all make in town - clean up your own act - sort out the public places you are responsible for stop wasting money on surveys - it is far better spent on services."*

*"Incentives to protect biodiversity on private land would be great."*

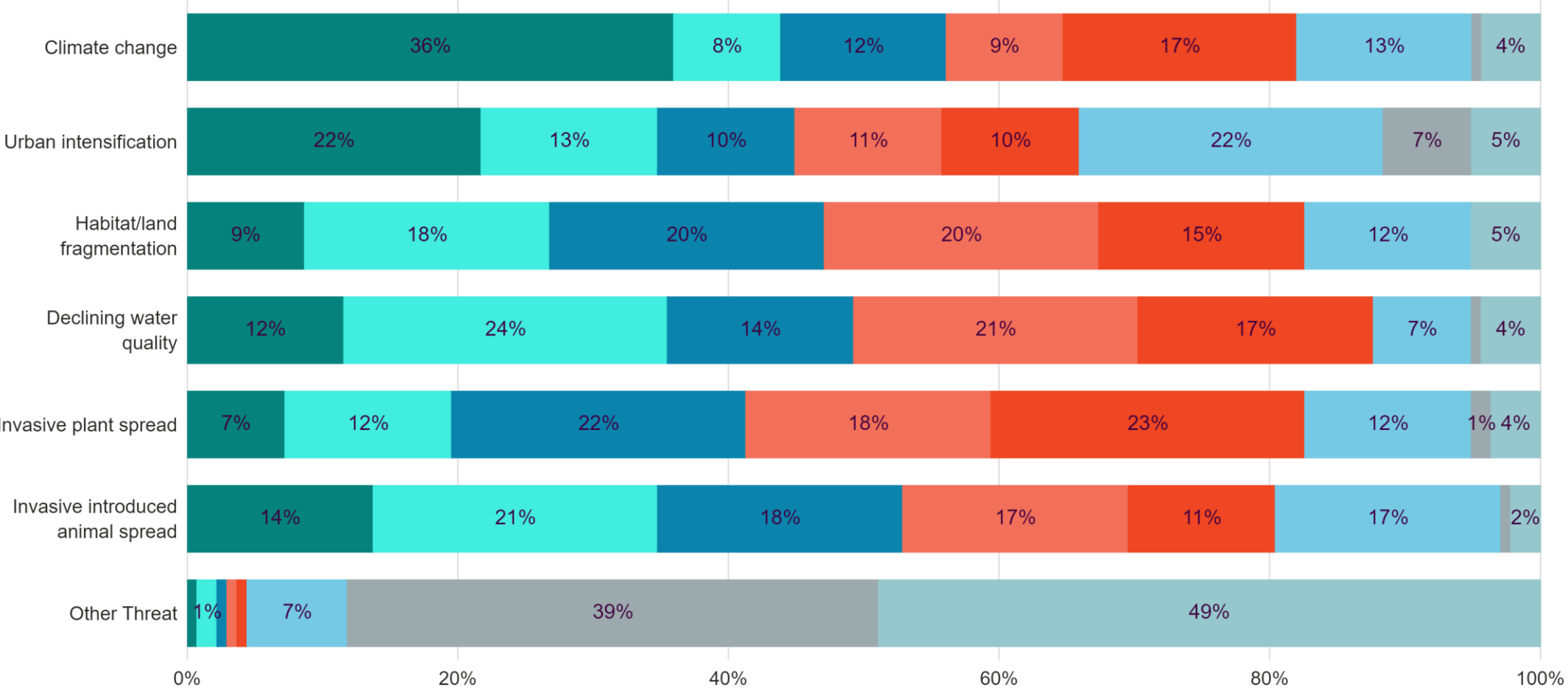
*"Your statement at the beginning is very leading. You are not being neutral and by adding that statement, you are pushing people to answer to match your statement."*

# Perceived threats to indigenous biodiversity

Participants were asked to rank what they thought were the biggest threats to indigenous biodiversity. They chose from the following list of topics:

1. Climate change
2. Urban intensification
3. Habitat/land fragmentation
4. Declining water quality
5. Invasive plant spread
6. Invasive introduced animal spread
7. Other threat

# The biggest perceived threats to biodiversity (ranked)

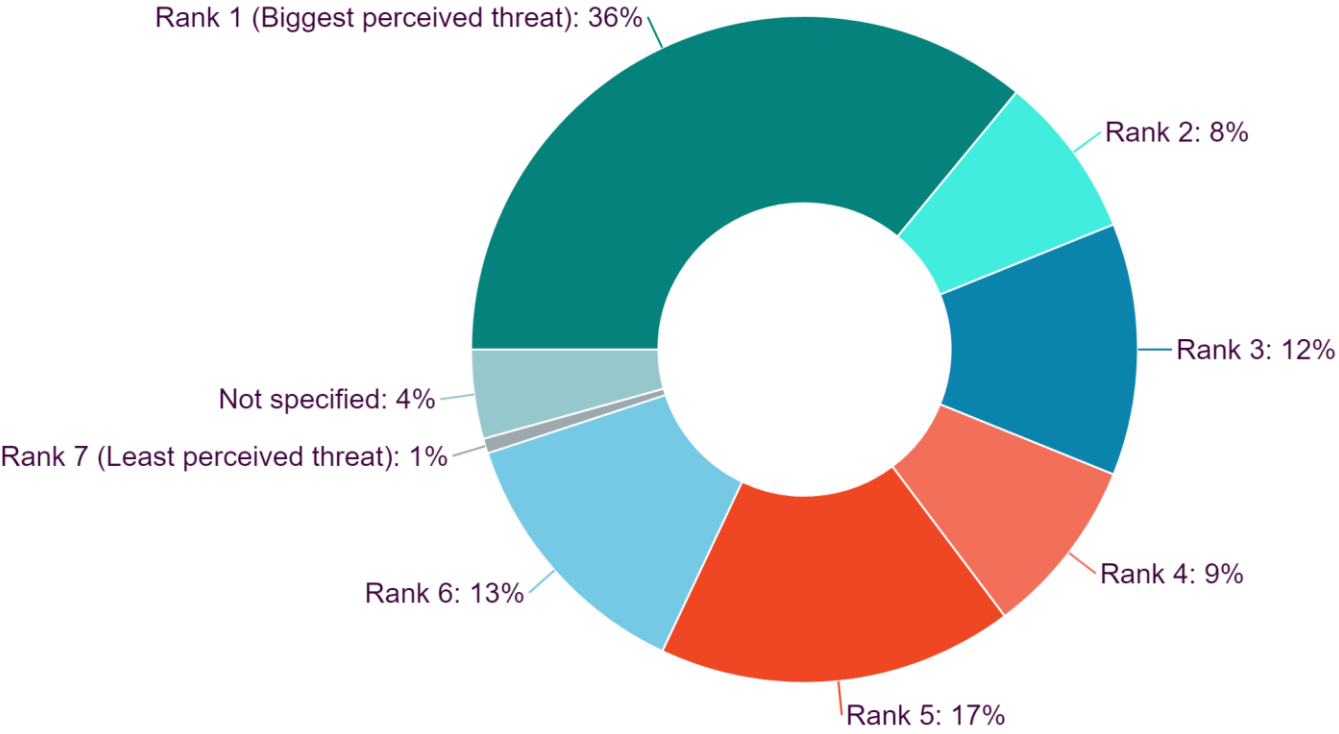


■ Rank 1 (Biggest perceived threat)
 ■ Rank 2
 ■ Rank 3
 ■ Rank 4
 ■ Rank 5
 ■ Rank 6
 ■ Rank 7 (Least perceived threat)
 ■ Not specified threat

Biggest perceived threat ranked SUMMARY  
 sample size = from 135 to 139; total sample size = 139; 4 missing



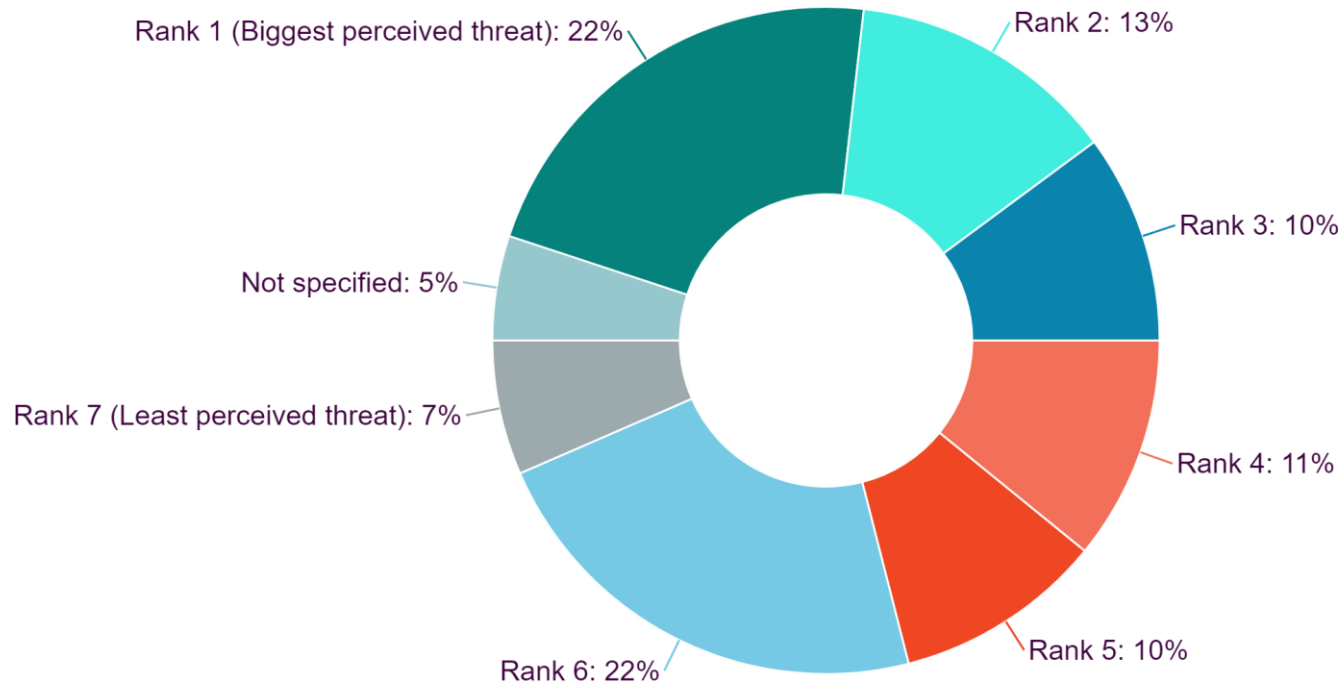
# The biggest perceived threats to biodiversity: Climate change



**“36%** of survey participants indicated that **Climate Change** is the biggest perceived threat.”

Climate change SUMMARY  
sample size = 139; 95% confidence level

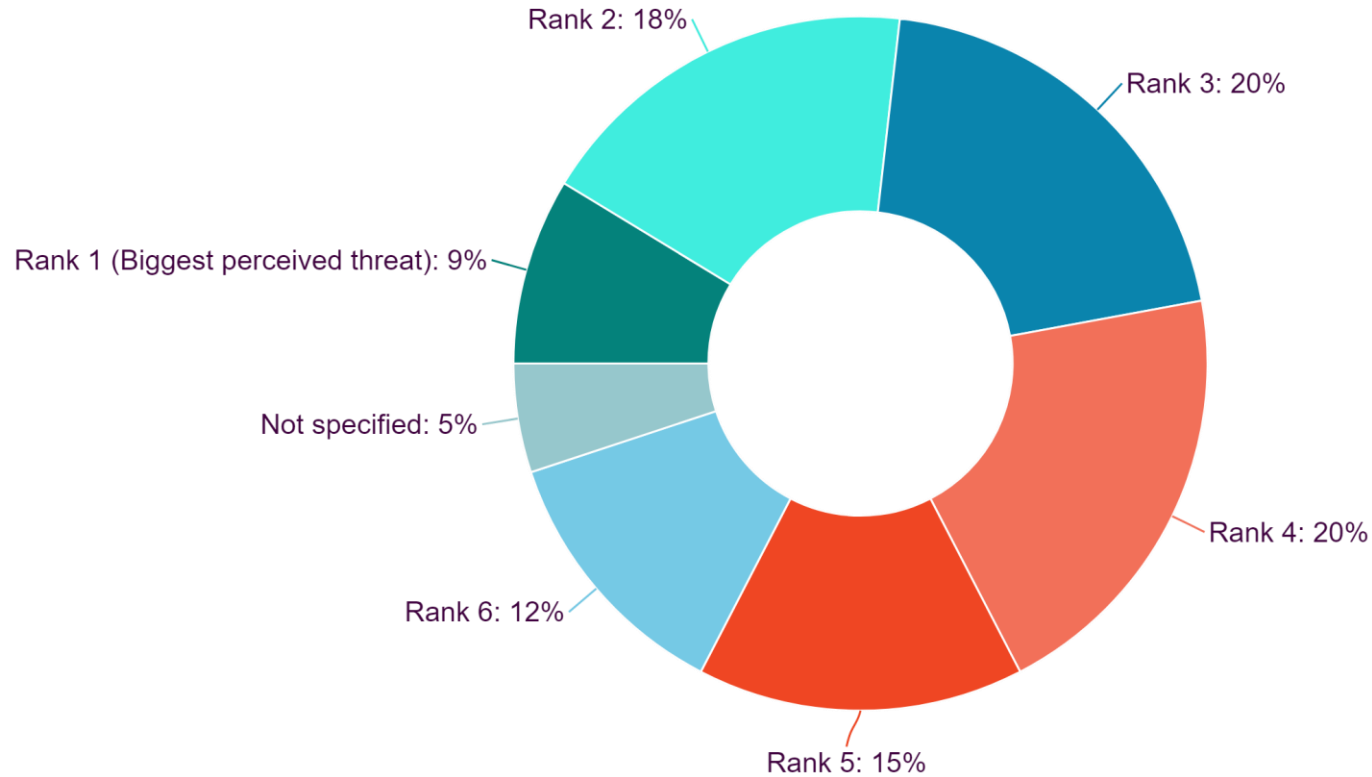
# The biggest perceived threats to biodiversity: Urban intensification



**"22 %** of survey participants indicated that **Urban intensification** is the biggest perceived threat."

Urban intensification SUMMARY  
sample size = 138; total sample size = 139; 1 missing; 95% confidence level

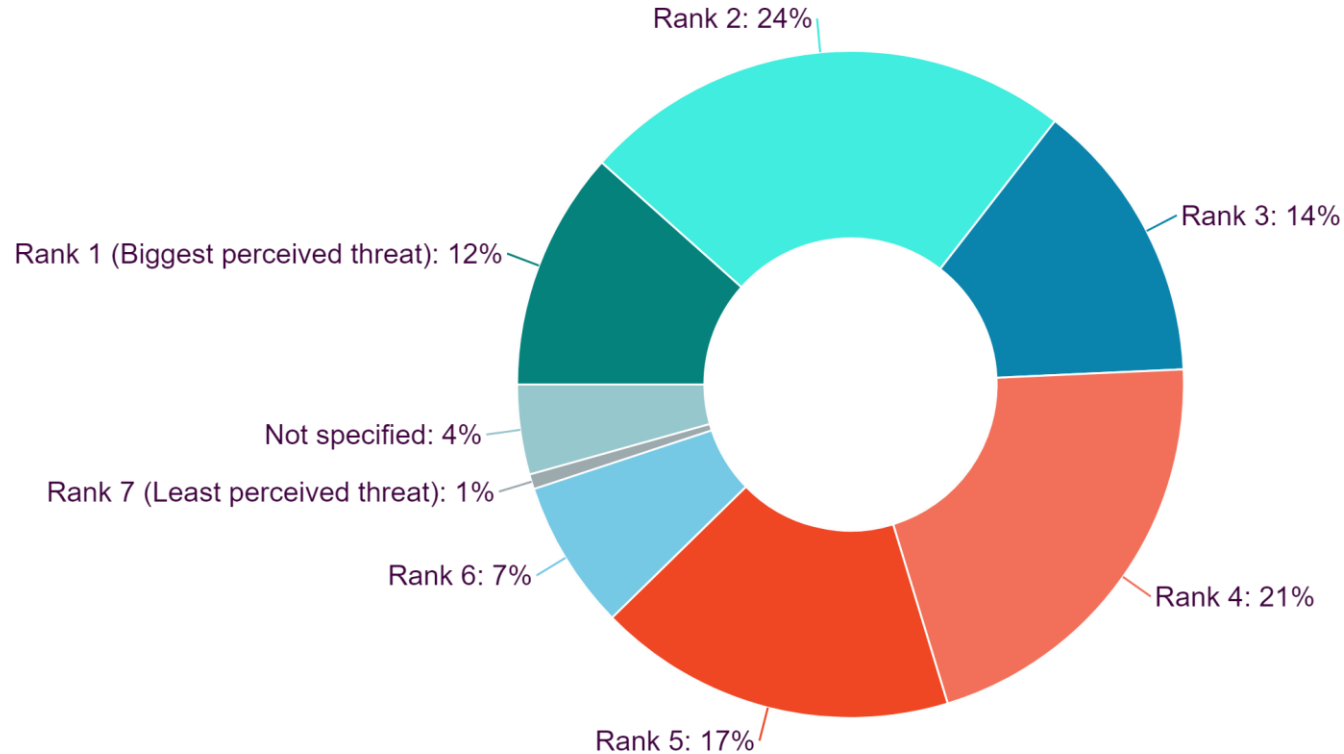
# The biggest perceived threats to biodiversity: Habitat/land fragmentation



**"20 %** of survey participants Ranked that **Habitat/land fragmentation** as threat of Rank 3 and Rank 4 respectively'.

Habitat/land fragmentation SUMMARY  
sample size = 138; total sample size = 139; 1 missing; 95% confidence level

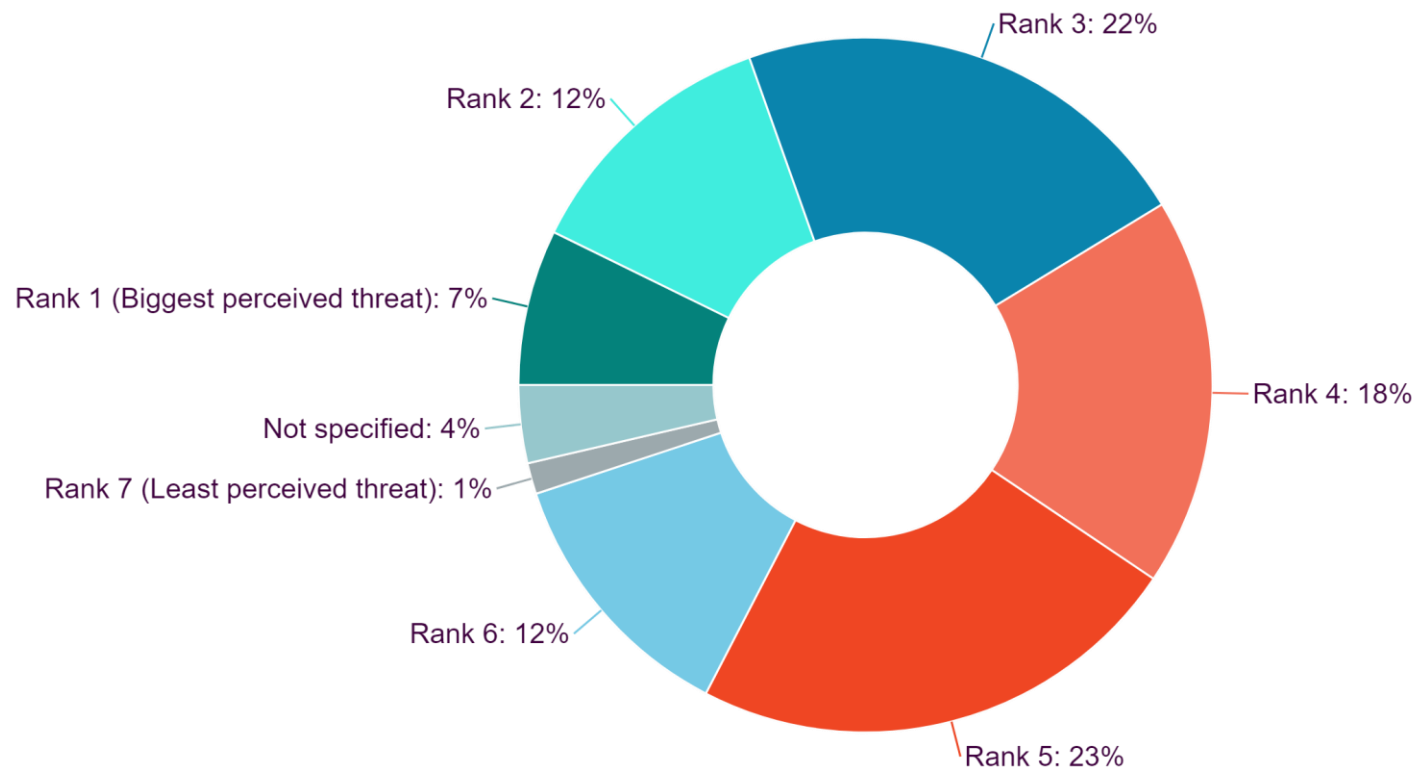
# The biggest perceived threats to biodiversity: Declining water quality



**"24%** of survey participants indicated that **Declining water quality** as a threat of Rank 2"

Declining water quality SUMMARY  
sample size = 138; total sample size = 139; 1 missing; 95% confidence level

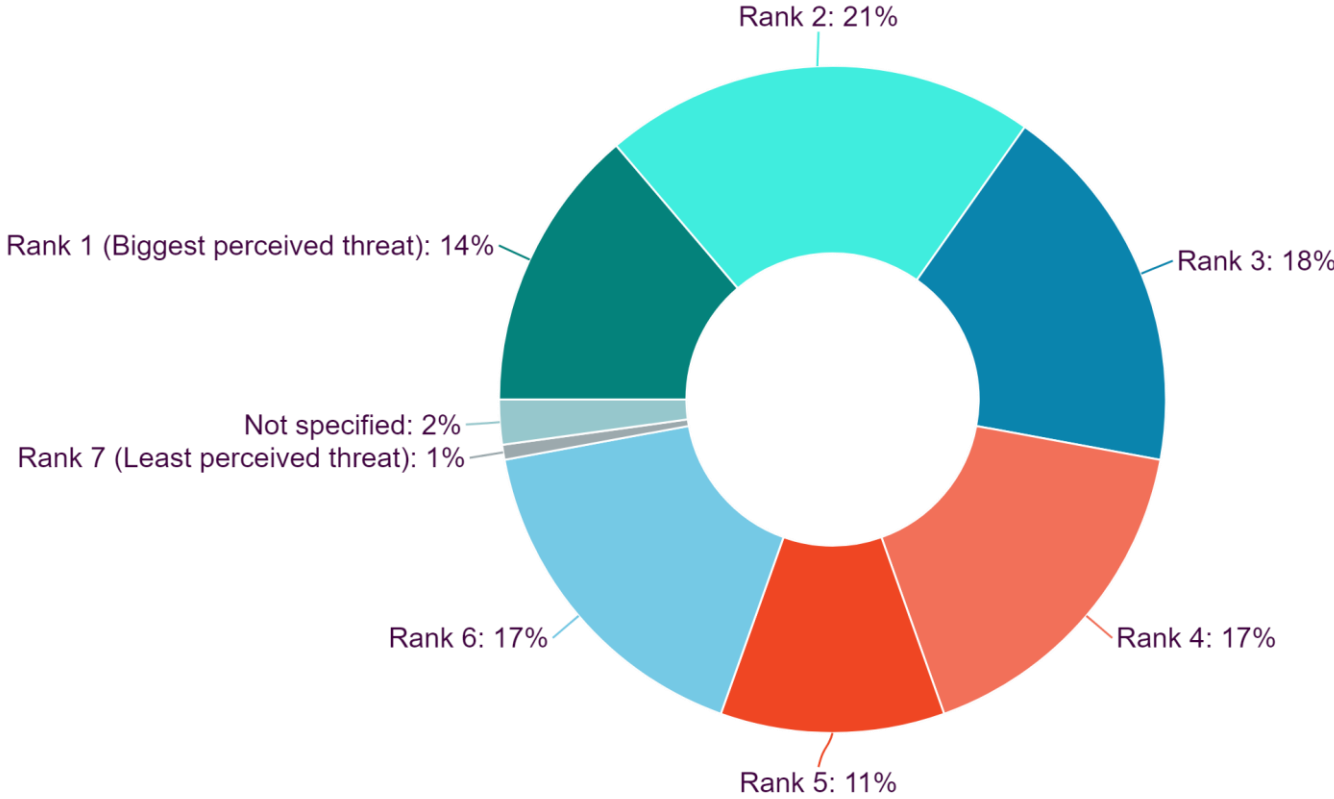
# The biggest perceived threats to biodiversity: Invasive plant spread



**“23%** of survey participants indicated that **Invasive plant spread** as a threat of Rank 5”  
23% for 'Rank 5'.

Invasive plant spread SUMMARY  
sample size = 138; total sample size = 139; 1 missing; 95% confidence level

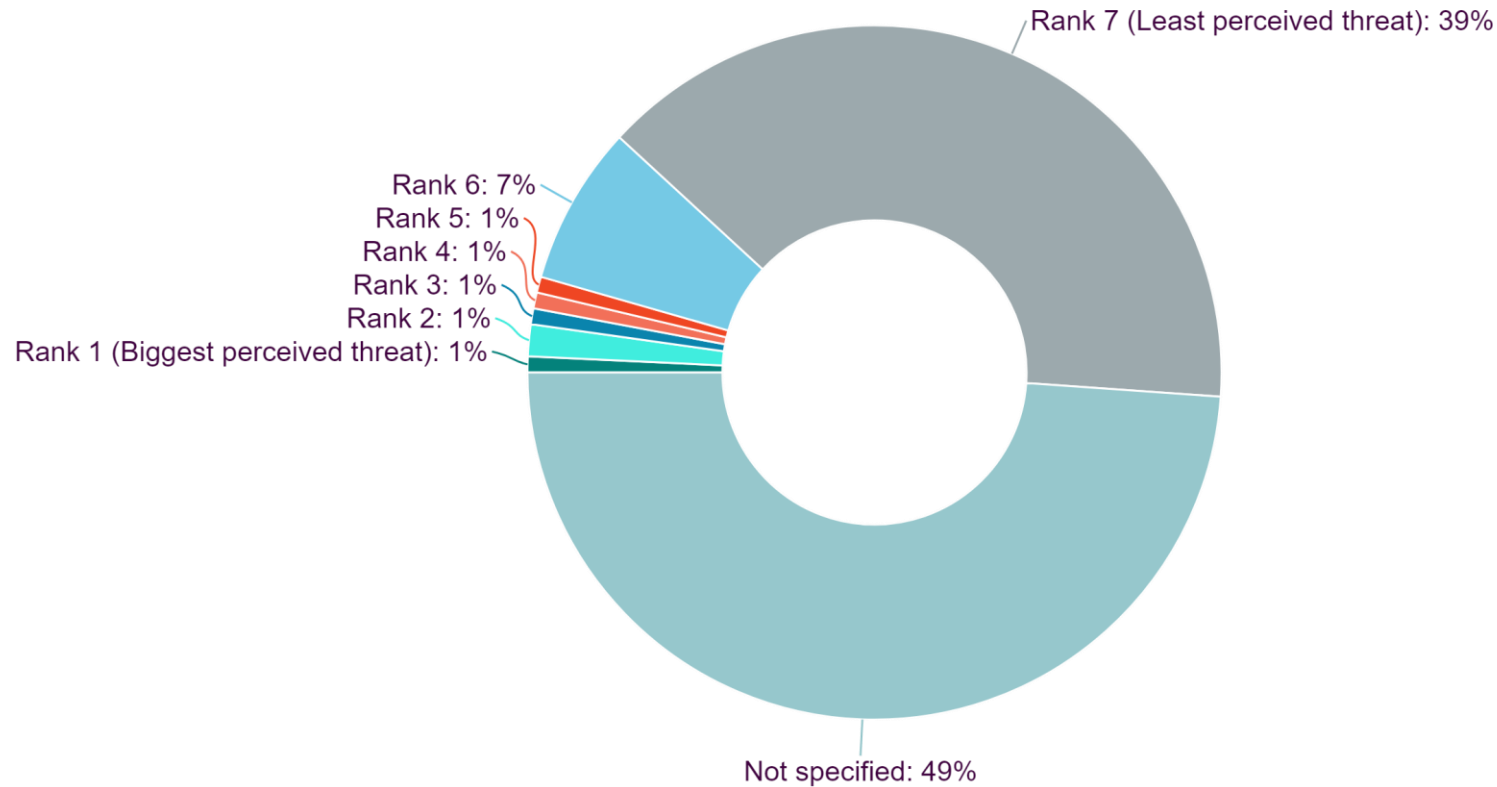
# The biggest perceived threats to biodiversity: Invasive introduced animal spread



**“21%** of survey participants indicated that **Invasive introduced animal spread** as a threat of 'Rank 2'.

Invasive introduced animal spread SUMMARY  
sample size = 138; total sample size = 139; 1 missing; 95% confidence level

# The biggest perceived threats to biodiversity: other threats



**“39%** of survey participants indicated that **other threats** as least perceived threat”.

# Comments on the rank of perceived threats to indigenous biodiversity

## Summary of comments

Common answers to this question included the perceived threats of domestic and feral cats, organisational mismanagement, and comments on the vulnerability of the marine and coastal environment.

## Key quotes

*“urban intensification protects biodiversity by concentrating development within the envelope of the current city, rather than sprawling over diverse, bio-rich greenfields. Why is this even on here?”*

*“Bureaucratic bungling by well-meaning do-gooders.”*

*“Increasing numbers of feral cats destroying our fauna such as birds, geckos etc.”*

*“The rubbish situation – obviously, our dumps release greenhouse gasses, but also the long-term life of plastics and risk of microplastics in our soil and waters. As a community, we need to reduce our waste, and central and local government needs to legislate change for businesses to close the waste loop and have end-of-life plans for their products. But I'm also not confident that our current waste is being responsibly managed. I'd like more transparency around what happens to our recycling and how much of it is actually being recycled. I'd like to see good investment in local, sustainable, innovative ways to deal with our waste, rubbish and recycling, both included. As well as composing options.”*

*“Pollution, waste creation, reliance on cars”*

*“Habitat loss is more detrimental than fragmentation, a product of habitat loss. We should be restoring habitat to increase land use for natural use, which in turn will aid in lowering CO2 emissions and protect our biodiversity and reduce human impact on the land.”*

*“lack of education and/or acceptance of residents leading to “do nothing ” attitude”*

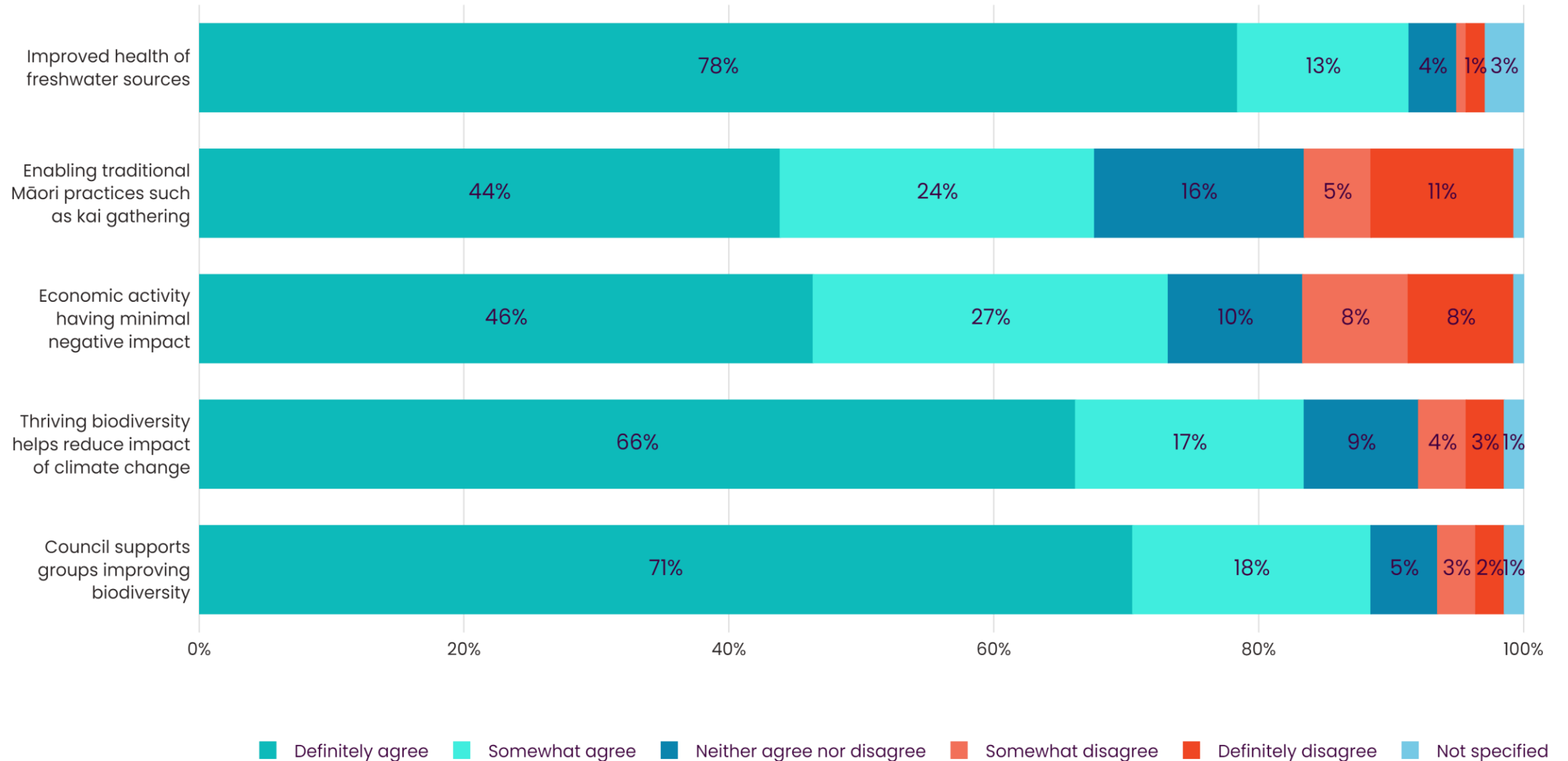


# Prioritised outcomes by Council on indigenous biodiversity

Participants were asked if they agree that the following outcomes should be prioritised by Council. They were asked to choose from the following options:-

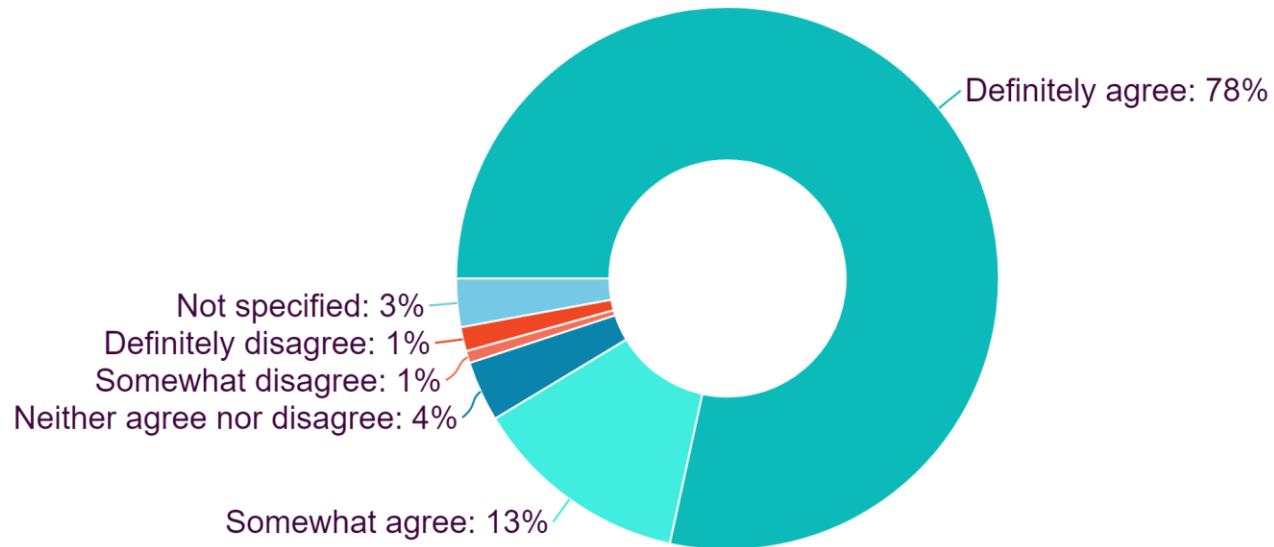
1. Improved waiora (health, soundness) of rivers, lakes and other freshwater sources.
2. Resilient biodiversity enables cultural practices and mahinga kai (healthy food), contributing to the regeneration of tikanga Māori (practices, customs).
3. Economic activity having little to no negative impacts on biodiversity.
4. Thriving biodiversity playing a vital role in reducing the impact of climate change.
5. Council support for community groups working to protect and restore biodiversity.

# Prioritised outcomes by Council on indigenous biodiversity



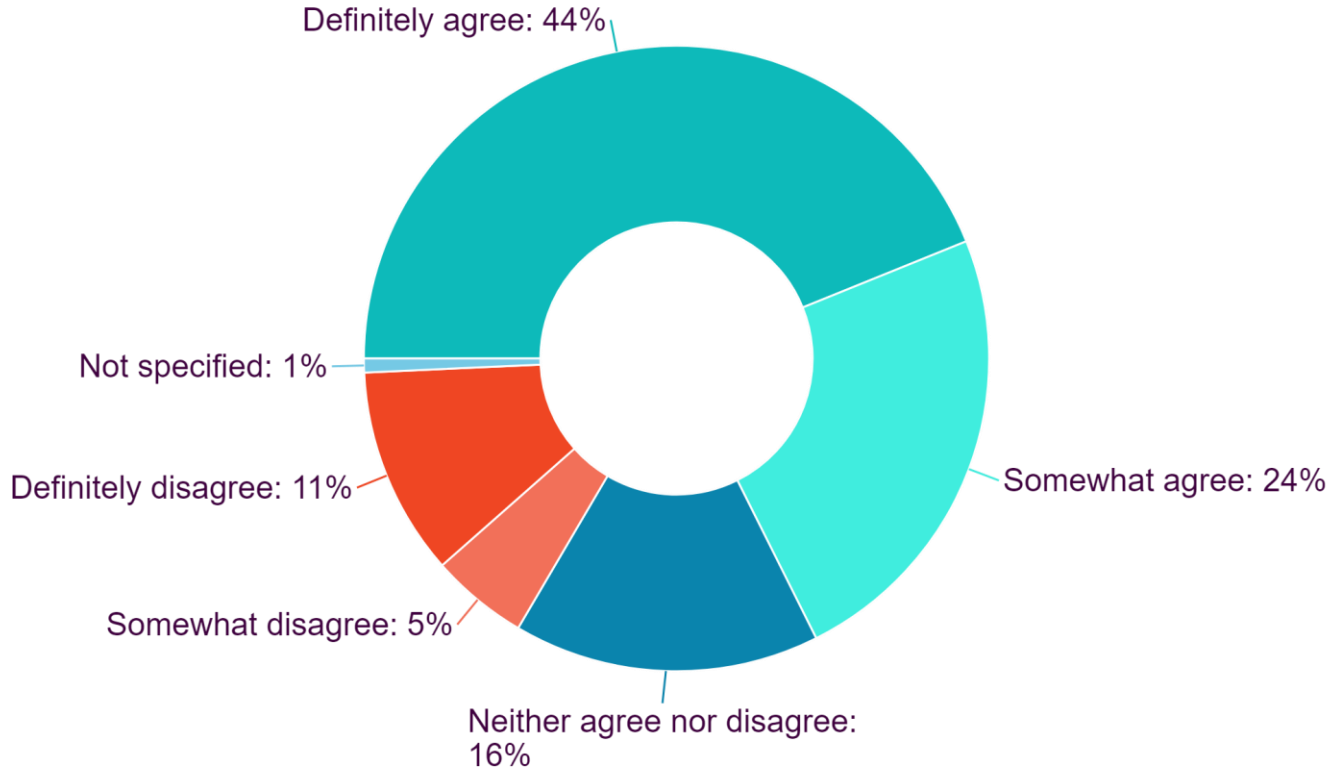
Prioritise outcomes by Council SUMMARY  
 sample size = from 138 to 139; total sample size = 139; 1 missing

# Improved waiora (health, soundness) of rivers, lakes and other freshwater sources.



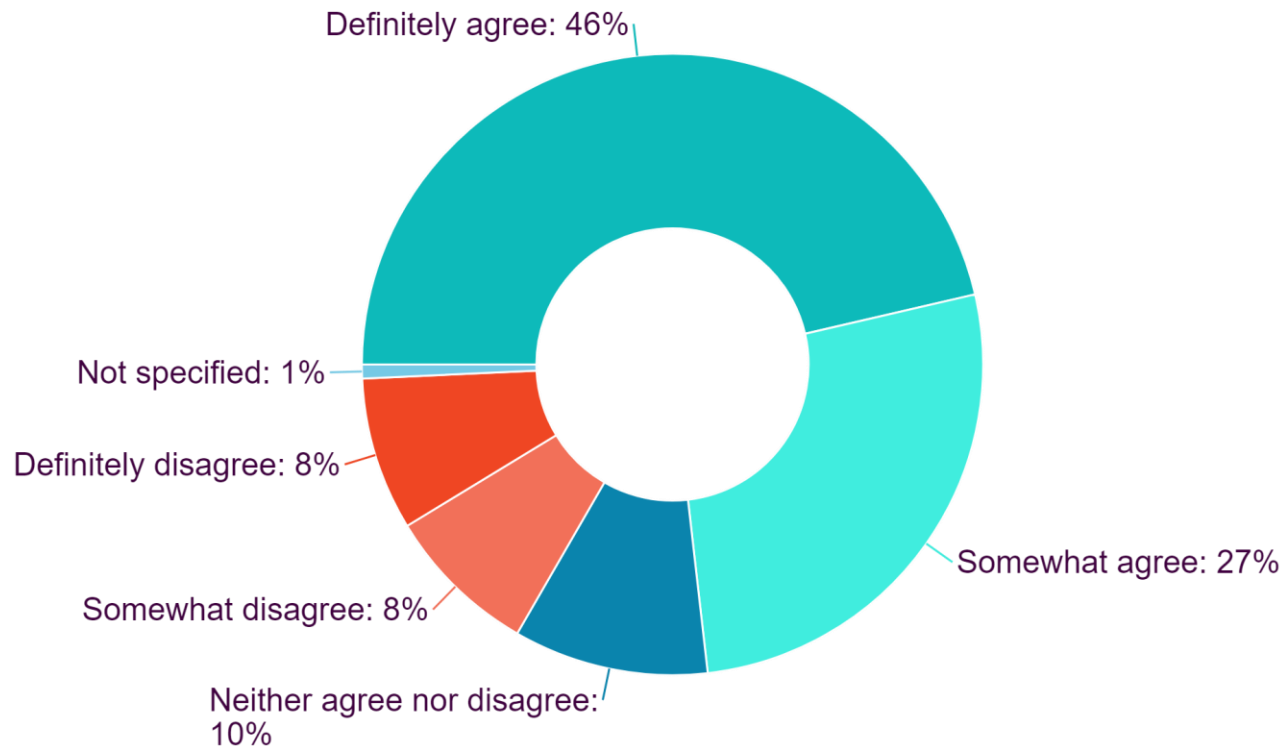
**“78% & 13%** of survey participants definitely agreed and somewhat agreed that **Improved waiora (health, soundness) of rivers, lakes and other freshwater sources** is the outcome that should be prioritised by Council”.

# Resilient biodiversity enables cultural practices and mahinga kai (healthy food), contributing to the regeneration of Tikanga Māori (practices, customs).



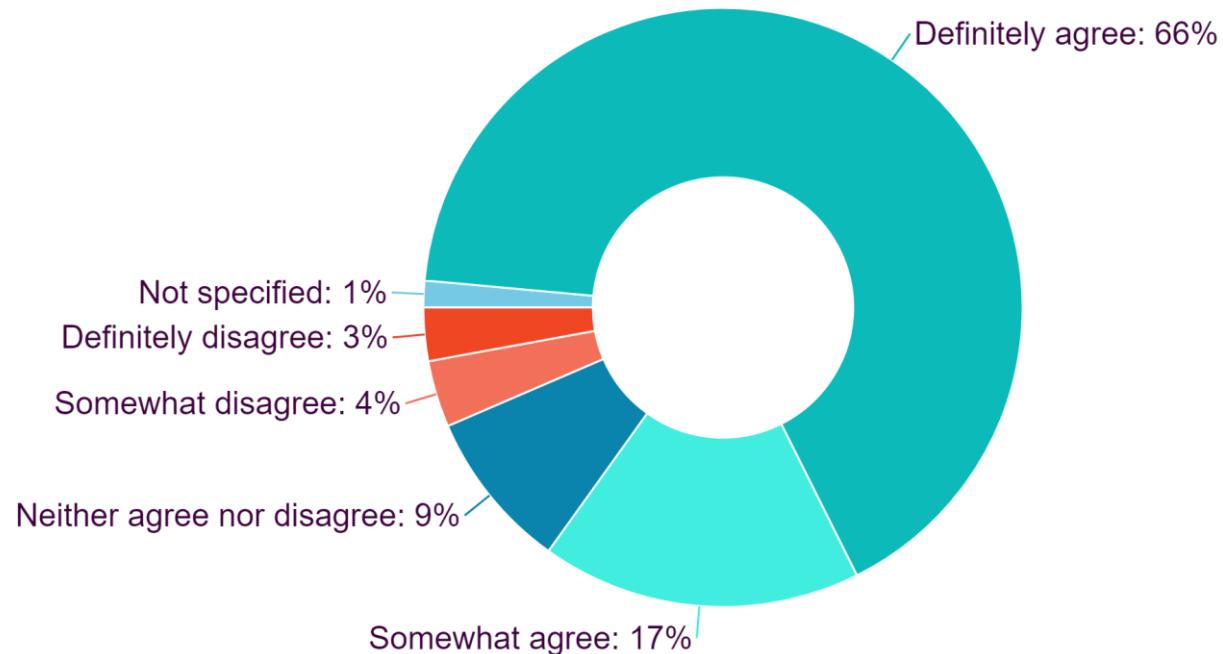
**“44% & 24%** of survey participants definitely agreed and somewhat agreed that **Resilient biodiversity enables cultural practices and mahinga kai (healthy food), contributing to the regeneration of Tikanga Māori (practices, customs)** is the outcome that should be prioritised by Council”.

# Economic activity having little to no negative impacts on biodiversity.



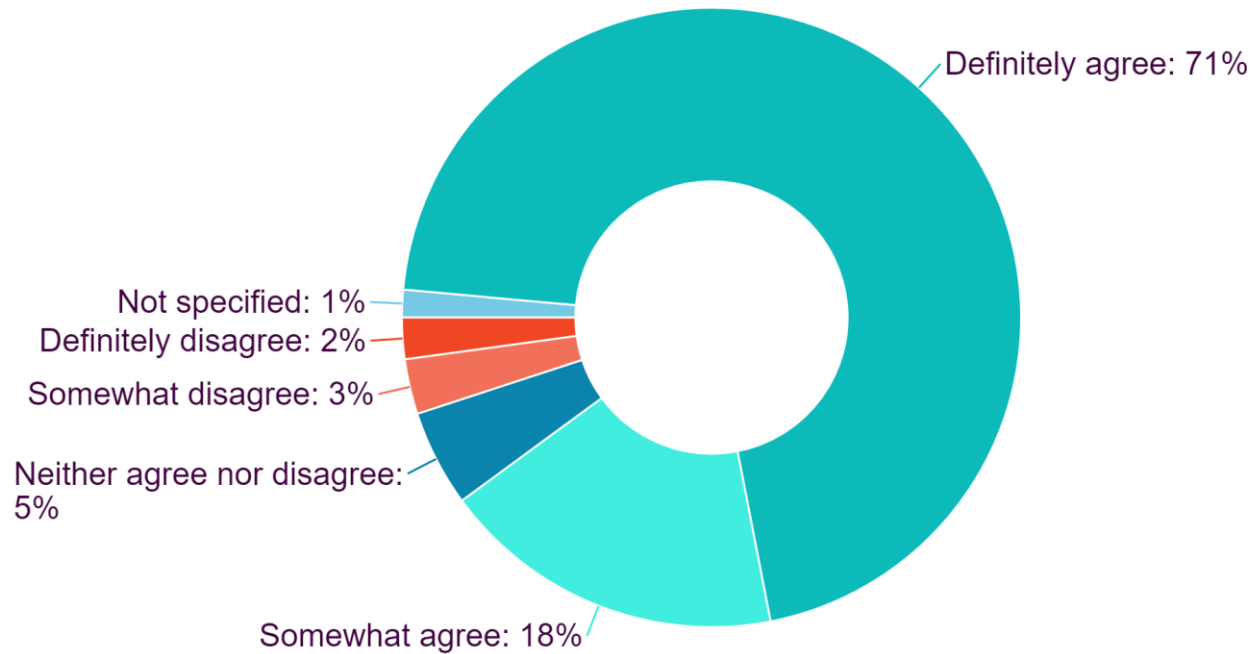
**“46% & 27%** of survey participants definitely agreed and somewhat agreed that **Economic activity having little to no negative impacts on biodiversity** is the outcome that should be prioritised by Council”.

# Thriving biodiversity playing a vital role in reducing the impact of climate change



**“46% & 27%** of survey participants definitely agreed and somewhat agreed that **thriving biodiversity playing a vital role in reducing the impact of climate change** is the outcome that should be prioritised by Council”.

# Council support for community groups working to protect and restore biodiversity.



**“71% & 18%** of survey participants definitely agreed and somewhat agreed that **Council support for community groups working to protect and restore biodiversity** is the outcome that should be prioritised by Council”.

# Comments on the priorities on indigenous biodiversity

## Summary of comments

Improved waiora (health) of the environment was the most likely outcome to have been selected as 'strongly agree'. A close second was support for community groups. Some respondents commented that Council should do more to visibly and substantially support community groups and iwi / Mana Whenua to encourage biodiversity. Others thought that Council should step back entirely and let other groups (community groups, iwi, regional council) address the issue. A select few expressed their frustration towards the survey as they did not think it was relevant or useful for them or for policy development.

## Key quotes

*"Encourage the establishment of new community groups to support areas currently lacking in visible community support. Publicise the existence of community groups in council literature to support those groups receiving greater community interest."*

*"There's a lot of bad practice out there, including from council operations. Supporting community groups can deliver far higher benefits than council working alone, but only if that is efficiently and effectively done."*

*"Restoration projects along with predator control and education is vital in ensuring a positive outcome to the strategy."*

*"Water protection is vital, so I put definitely agree, but it needs to be noted that the key player in that is regional council, don't waste money or resources on specific areas or tasks that they should be doing"*



# Comments on the priorities on indigenous biodiversity

## Key quotes

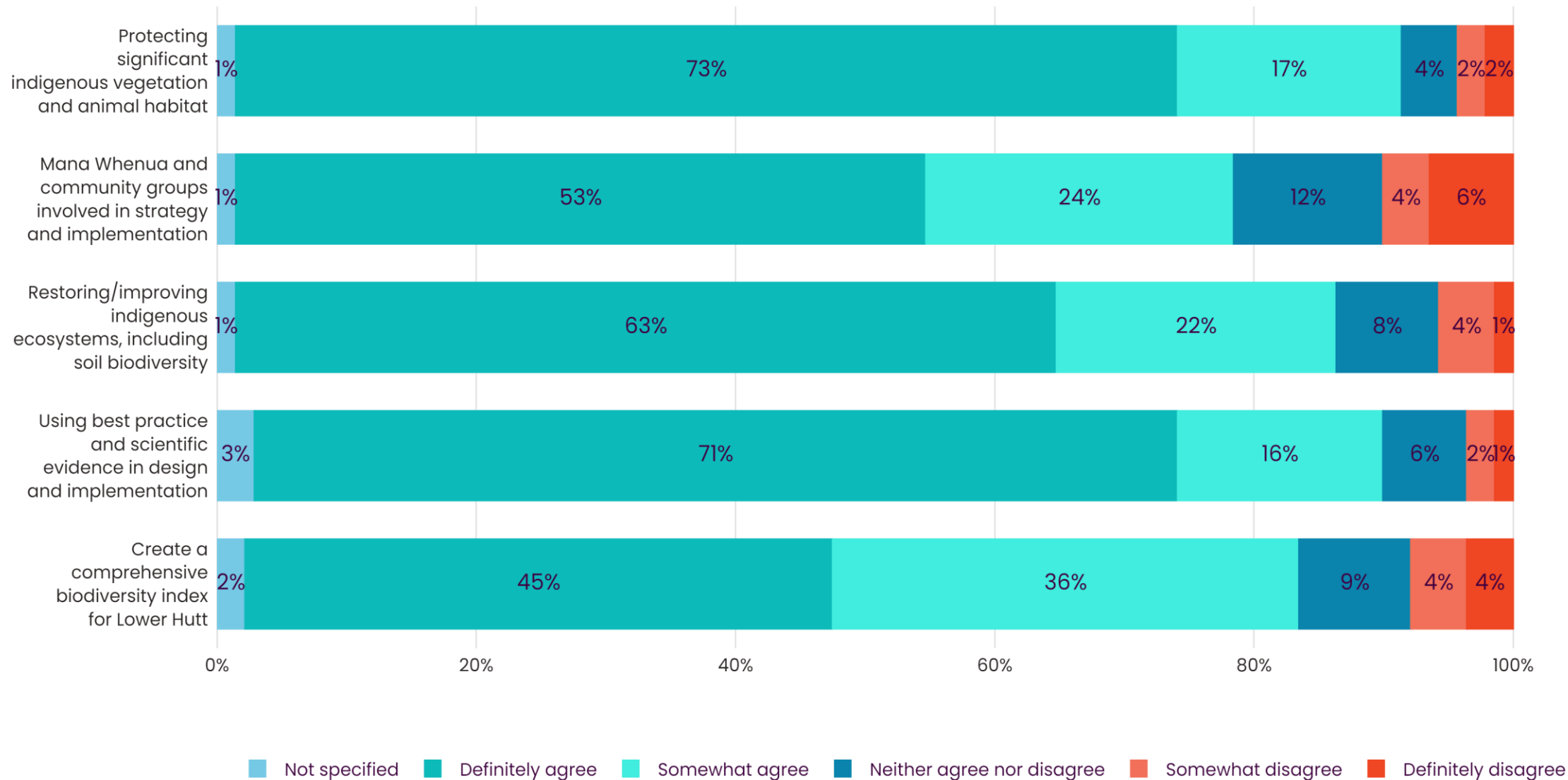
*“Encourage the establishment of new community groups to support areas currently lacking in visible community support. Publicise the existence of community groups in council literature to support those groups receiving greater community interest.”*

*“There's a lot of bad practice out there, including from council operations. Supporting community groups can deliver far higher benefits than council working alone, but only if that is efficiently and effectively done.”*

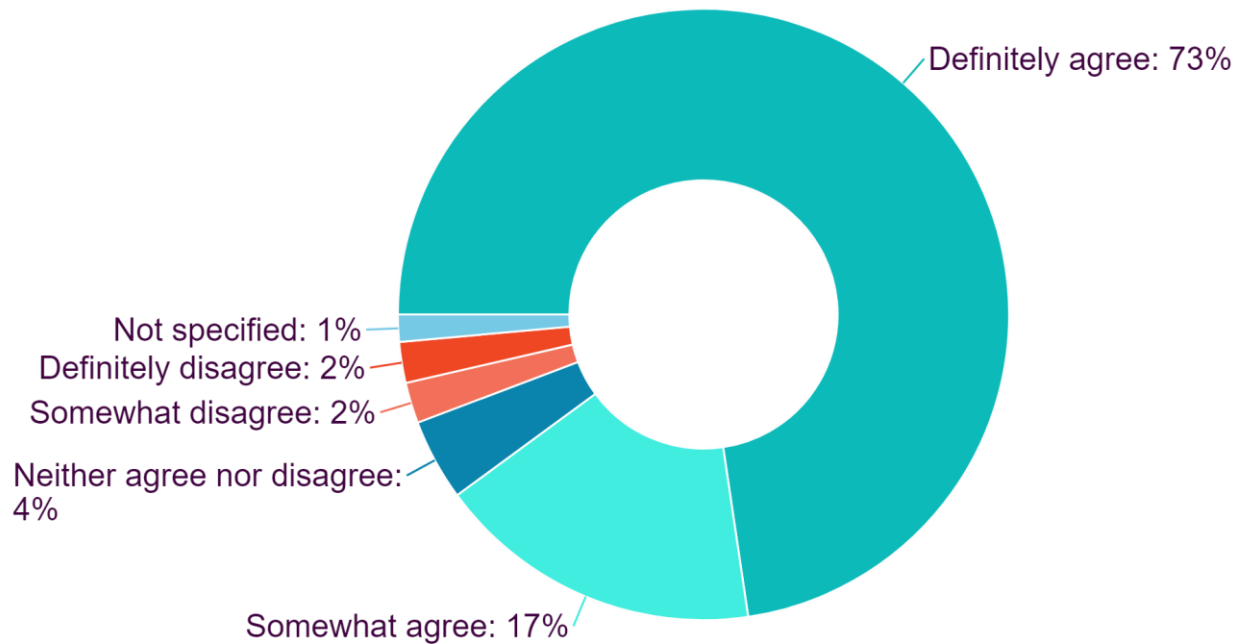
*“Restoration projects along with predator control and education is vital in ensuring a positive outcome to the strategy.”*

*“Water protection is vital, so I put definitely agree, but it needs to be noted that the key player in that is regional council, don't waste money or resources on specific areas or tasks that they should be doing”*

# Methods to be prioritised by Council

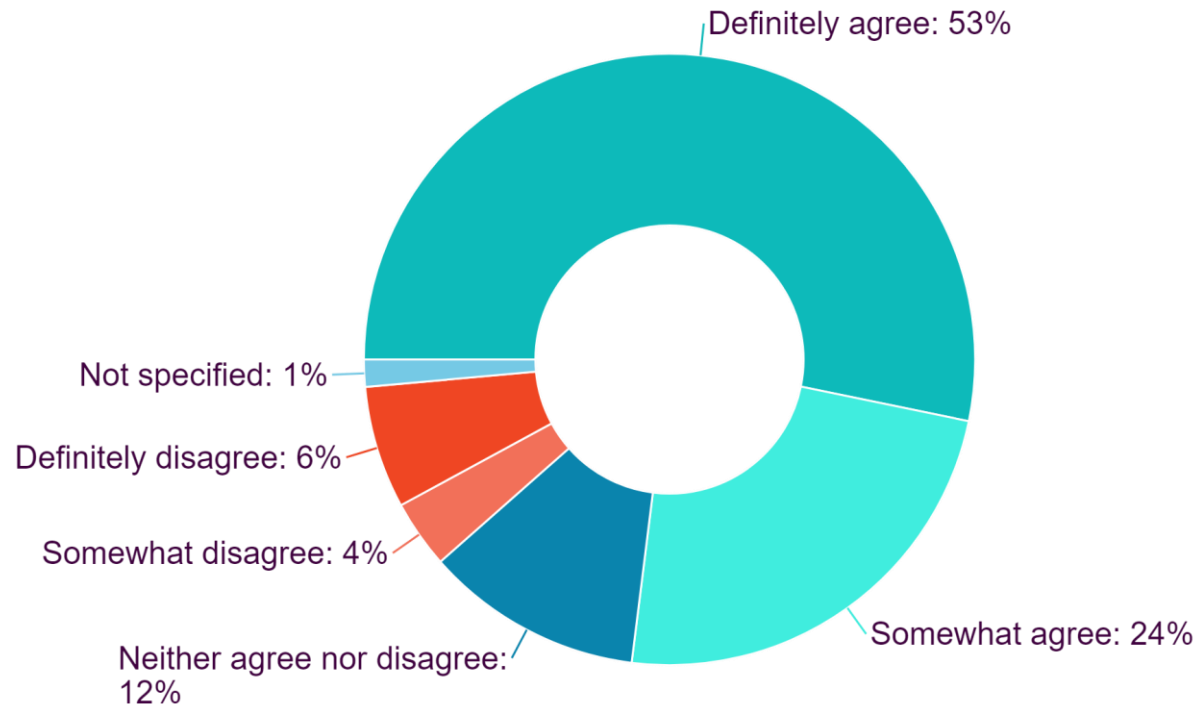


# Protecting areas of significant indigenous vegetation and significant habitats of indigenous animals.



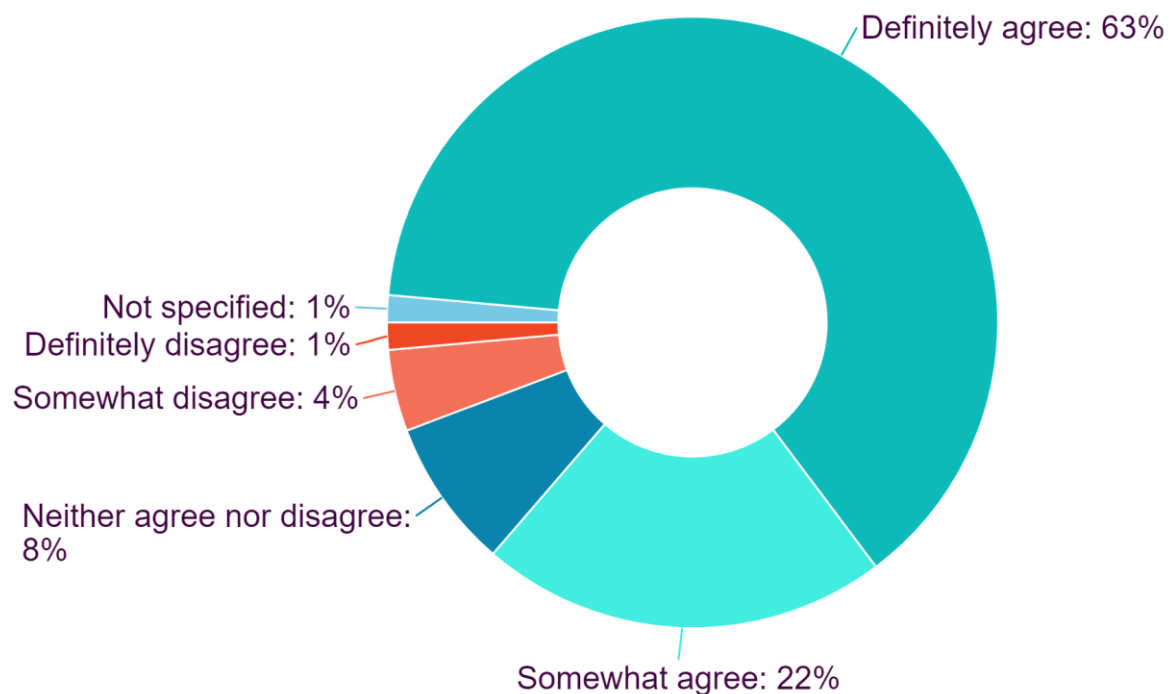
**“73% & 17%** of survey participants definitely agreed and somewhat agreed that **Protecting areas of significant indigenous vegetation and significant habitats of indigenous animals** is the method that should be prioritised by Council”.

# Work with Mana Whenua and other community groups to include their aspirations into the biodiversity strategy and its implementation.



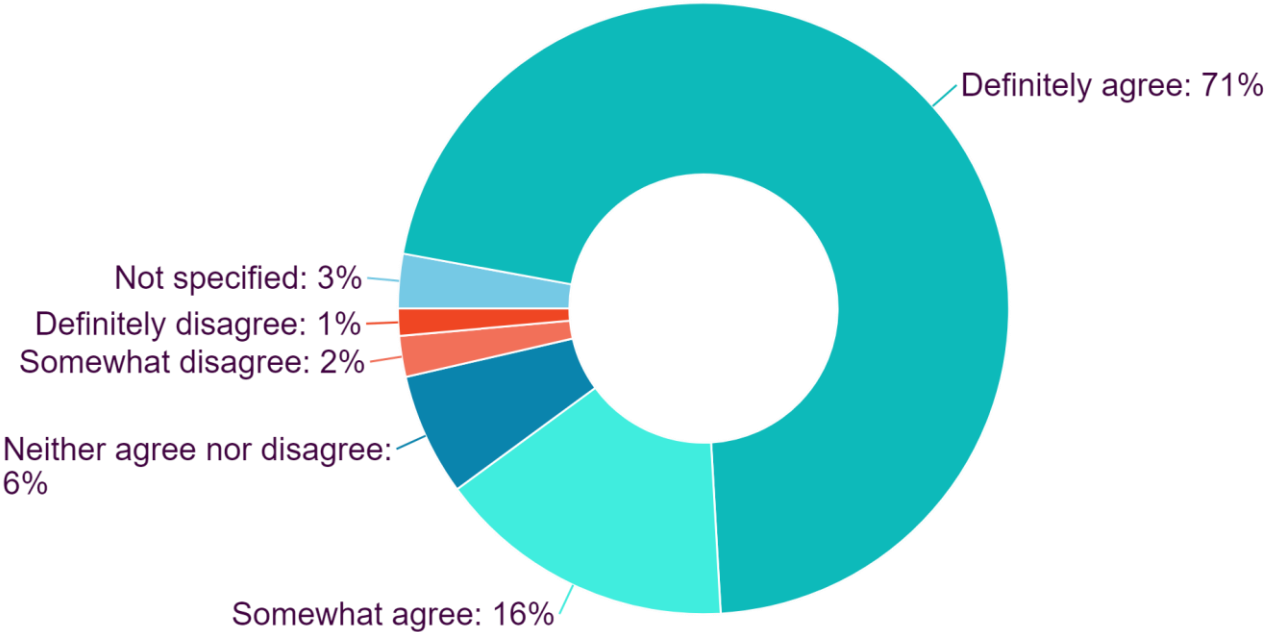
**“53% & 24%** of survey participants definitely agreed and somewhat agreed that **Work with Mana Whenua and other community groups to include their aspirations into the biodiversity strategy and its implementation** is the method that should be prioritised by Council”.

# Restoring and enhancing indigenous ecosystems, including the health of soil biodiversity.



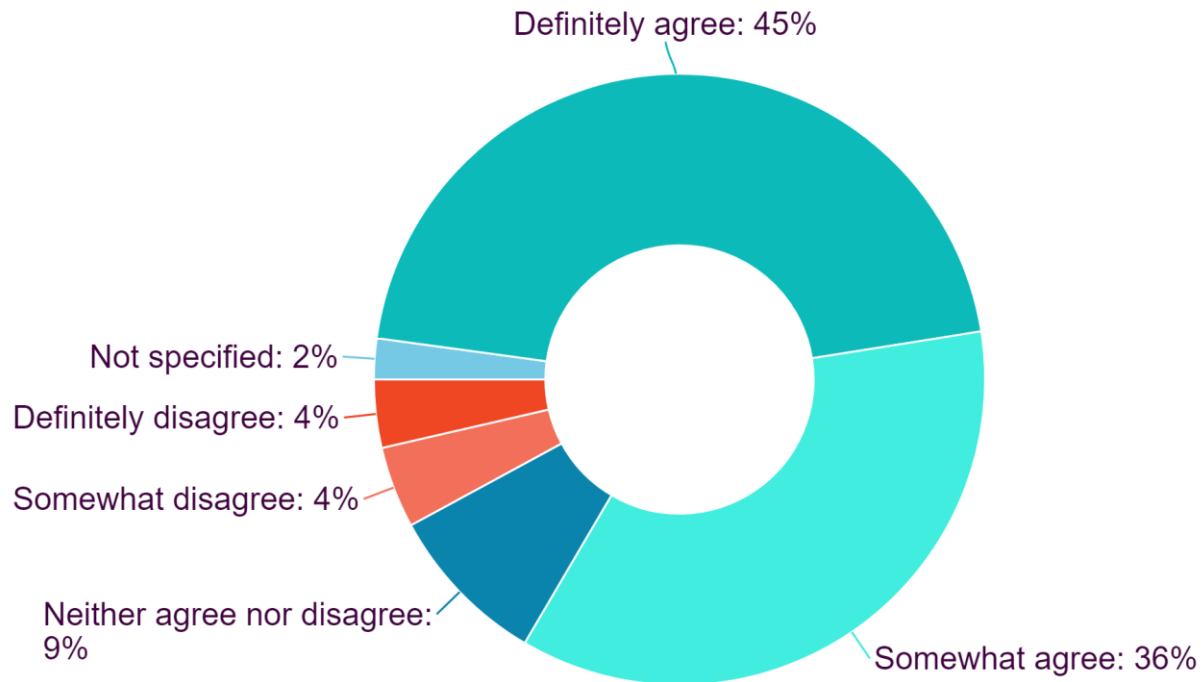
**“63% & 22%** of survey participants definitely agreed and somewhat agreed that **Restoring and enhancing indigenous ecosystems, including the health of soil biodiversity** is the method that should be prioritised by Council”.

# Using best practice and evidence-based decisions to identify, protect, measure, and restore indigenous biodiversity.



**“71% & 16%** of survey participants definitely agreed and somewhat agreed that **Using best practice and evidence-based decisions to identify, protect, measure, and restore indigenous biodiversity** is the method that should be prioritised by Council”.

# Creating a comprehensive biodiversity index (measuring what biodiversity already exists in our city).



**“45% & 36%** of survey participants definitely agreed and somewhat agreed that **Creating a comprehensive biodiversity index (measuring what biodiversity already exists in our city)** is the method that should be prioritised by Council”.

# Comments on methods to be prioritised by Council for addressing indigenous biodiversity

## Summary of comments

Feedback was overwhelmingly in agreement (including 'agree' and 'strongly agree') that each method should be prioritised by Council. Additional comments included respondents noting that encouraging biodiversity needed a regional approach, along with good scientific backup. Some also noted that Council needed to be mindful of the effects that restrictions have on people's property, along with being mindful of all cultures and professions (farmers and businesses, for example).

## Key quotes

*"A biodiversity index is one tool. Needs combining with mātauranga, community observation, independent analysis and commentary on the state of biodiversity. Which in turn needs to be used to communicate to public and drive responses (decisions, actions, resourcing, strategy, partnership, etc)"*

*"Stay off our land and keep out of our lives."*

*"While there's always a need for ongoing research and monitoring we will never have perfect information and we can't use it as an excuse to not act. We've spent decades doing that"*

*"Some of these questions echo the SNA debacle, please note that landowners should be incentivised to protect their land, rather than blanket rules that they can't use their land.."*



# Prioritised on methods by Council for addressing indigenous biodiversity

Participants were asked if they agree that the following methods should be prioritised by Council. They were asked to choose from the following options:-

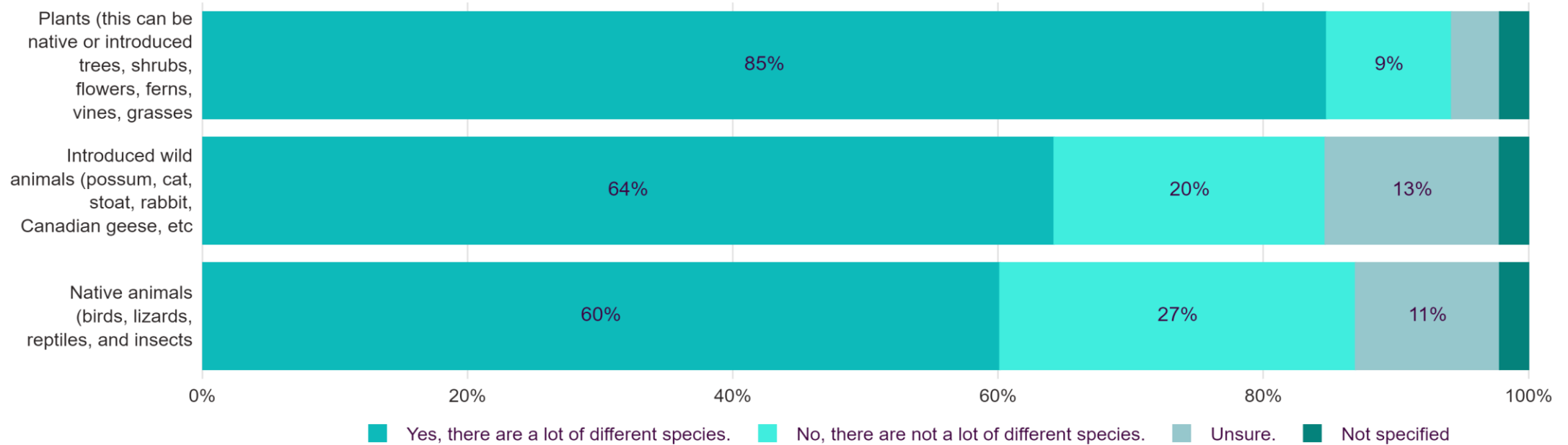
1. Protecting areas of significant indigenous vegetation and significant habitats of indigenous animals.
2. Work with Mana Whenua and other community groups to include their aspirations into the biodiversity strategy and its implementation.
3. Restoring and enhancing indigenous ecosystems, including the health of soil biodiversity.
4. Using best practice and evidence-based decisions to identify, protect, measure, and restore indigenous biodiversity.
5. Creating a comprehensive biodiversity index (measuring what biodiversity already exists in our city).

# Variety of flora and fauna within neighbourhoods

Participants were asked if their neighbourhood has a variety of different kinds of plants/trees and / or animals. They were asked to choose from the following options:-

1. Plants (this can be native or introduced trees, shrubs, flowers, ferns, vines, grasses)
2. Introduced wild animals (possum, cat, stoat, rabbit, Canadian geese, etc)
3. Native animals (birds, lizards, reptiles, and insects)

# Variety of flora and fauna within neighborhoods



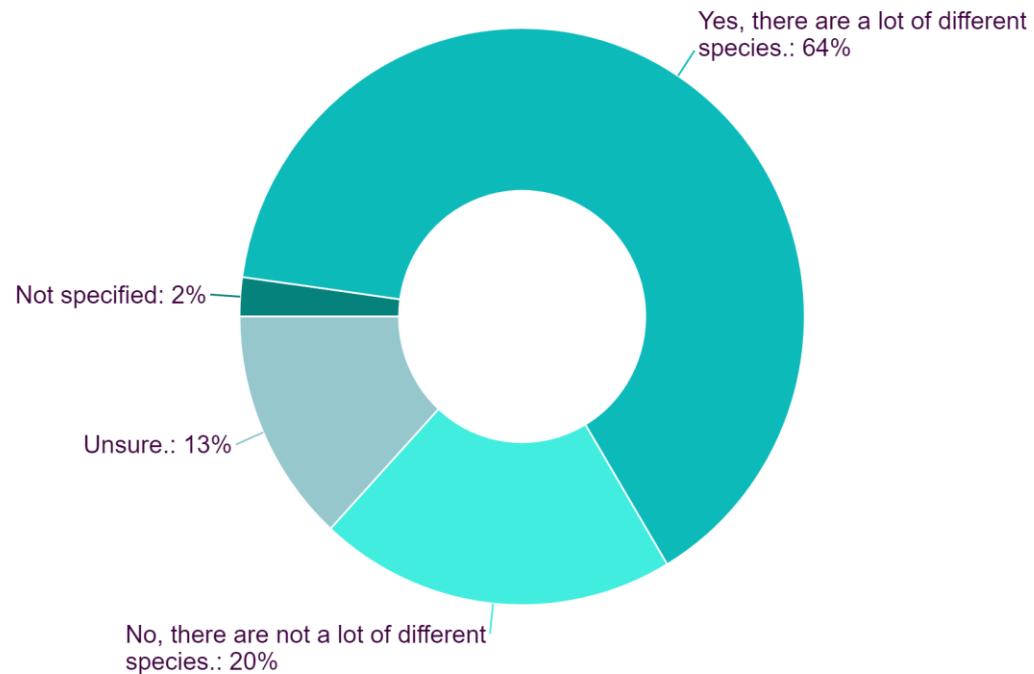
Variety of flora and fauna within neighbourhoods SUMMARY  
sample size = from 137 to 138; total sample size = 139; 2 missing

The strongest relationships in **Variety of flora and fauna within neighborhoods** include:

- 85% for 'Plants (this can be native or introduced trees, shrubs, flowers, ferns, vines, grasses)' and 'Yes, there are a lot of different species.'
- 27% for 'Native animals (birds, lizards, reptiles, and insects)' and 'No, there are not a lot of different species.'

The weakest relationship in **Variety of flora and fauna within neighborhoods** is 9% for 'Plants (this can be native or introduced trees, shrubs, flowers, ferns, vines, grasses)' and 'No, there are not a lot of different species.'

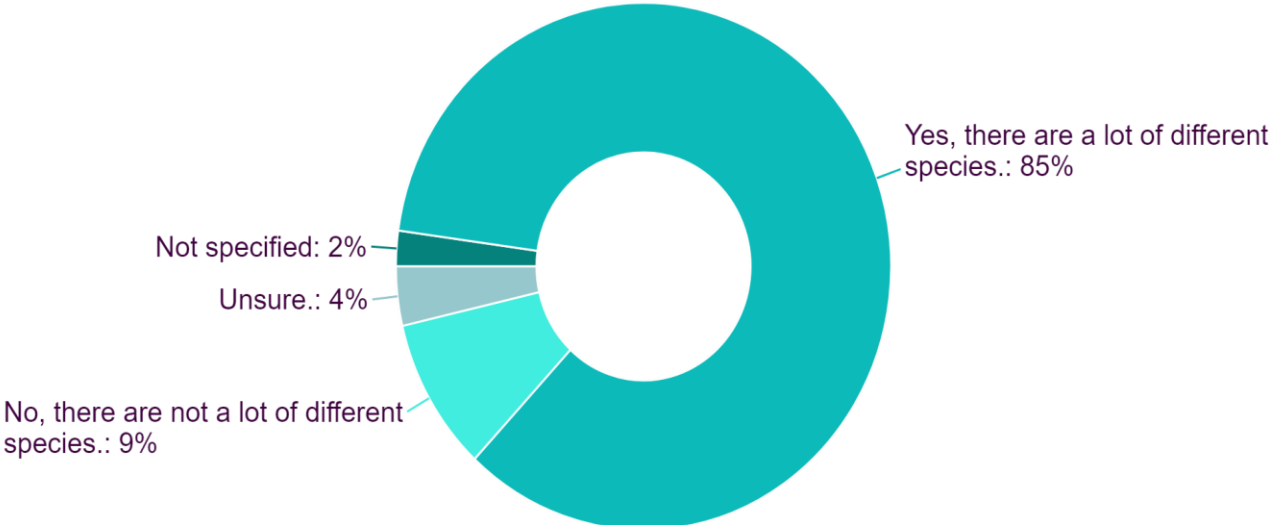
# Introduced wild animals (possum, cat, stoat, rabbit, Canadian geese, etc)



**“64%** of survey participants indicated that there are **Introduced wild animals (possum, cat, stoat, rabbit, Canadian geese, etc)** within neighbourhoods

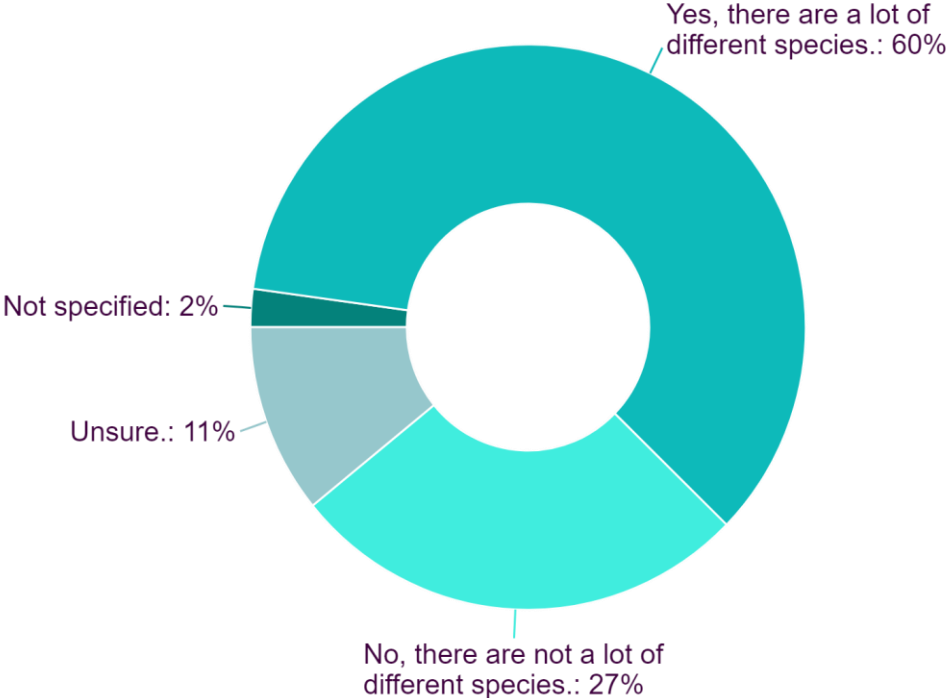
Introduced wild animals (possum, cat, stoat, rabbit, Canadian geese, etc) SUMMARY  
sample size = 137; total sample size = 139; 2 missing; 95% confidence level

# Plants (this can be native or introduced trees, shrubs, flowers, ferns, vines, grasses)



**“85%** of survey participants indicated that there are **Plants (this can be native or introduced trees, shrubs, flowers, ferns, vines, grasses)** within neighbourhoods

# Native animals (birds, lizards, reptiles, and insects)



**“60%** of survey participants indicated that there are **Native animals (birds, lizards, reptiles, and insects)** within neighbourhoods

Native animals (birds, lizards, reptiles, and insects) SUMMARY  
sample size = 138; total sample size = 139; 1 missing; 95% confidence level

# Comments on variety of flora and fauna in neighbourhoods

## Summary of comments

There was a significant agreement to this question that their neighbourhood had a variety of flora and fauna. There was a similar response for native vs introduced plants and animals, indicating that respondents felt that the variety in their neighbourhood was not restricted to indigenous plants and animals but was extended to introduced flora and fauna as well. The comments indicated a positive perception of native animals, with some respondents hoping that Council (or New Zealand in general) could restrict pests to protect them or have better management of dogs and cats. Some also commented that private planting was a different issue, whereas public planting (i.e. council-run land) needed more attention to the biodiversity of its planting.

**Note: Data was potentially limited by not requiring neighborhoods data to be given by participants. Hence we could not breakdown the participants' neighborhoods according to their feedback.**

## Key quotes

*"Our private gardens have a range of plants. But council land/public places - not so much."*

*"Tui and the occasional Kereru. Not much else is evident"*

*"In my area feral, wandering cats are out of control and trapping needs urgent action."*

*"Council needs to look at implementing a policy on domestic cats not being able to leave owner's property to protect indigenous species ie. banded dotterals"*

*"I do a couple of pest trapping lines, and try to manage pest plants. I am unable to prevent deer (and pigs?) from the regional park being an issue. Current lack of funding support means that the pest plants are having a resurgence this year as I can only fund the trapping and monitoring."*

# Additional comments on indigenous biodiversity in Te Awa Kairangi ki Tai Lower Hutt

## Key quotes

*"More should be done along the river. Massive areas of grass that aren't really useful and just cost a lot to mow. Where is the harakeke?"*

*"Please take your time, consult, get advice, listen to landowners and Tangata Whenua."*

*"I am filling out this survey on behalf of the East Harbour Environmental Association. We have a strong interest in conserving and improving biodiversity in the Hutt City Council area. We would like to be involved in the further development of HCC's policy on Native Biodiversity."*

*"I would like to be involved if there is an opportunity to"*

*"Would like to see more consideration given to green spaces when planning intensification of houses. Keep all parks and reserves and add more."*

*"Would like river link work to include native planting."*

*"For goodness sake, can't we just crack on? PLANT MORE TREES!"*

*"Please ensure that you acknowledge all valued biodiversity in this plan and the interconnectedness of introduced biodiversity and the role it plays in supporting indigenous biodiversity as well."*