

Environmental Protection Failure New Zealand a case-study

EIANZ Conference Perth

October 2015

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Environmental protection failure; New Zealand freshwater a case-study

- What failed environmental protection looks like
- The major drivers of the recent impacts
- The government response - cover-ups, denial and goal post shifting
- Legislation failure (agency capture)
- The government “solutions”
- Real solutions

IF VOLKSWAGEN
MADE COUNTRIES—

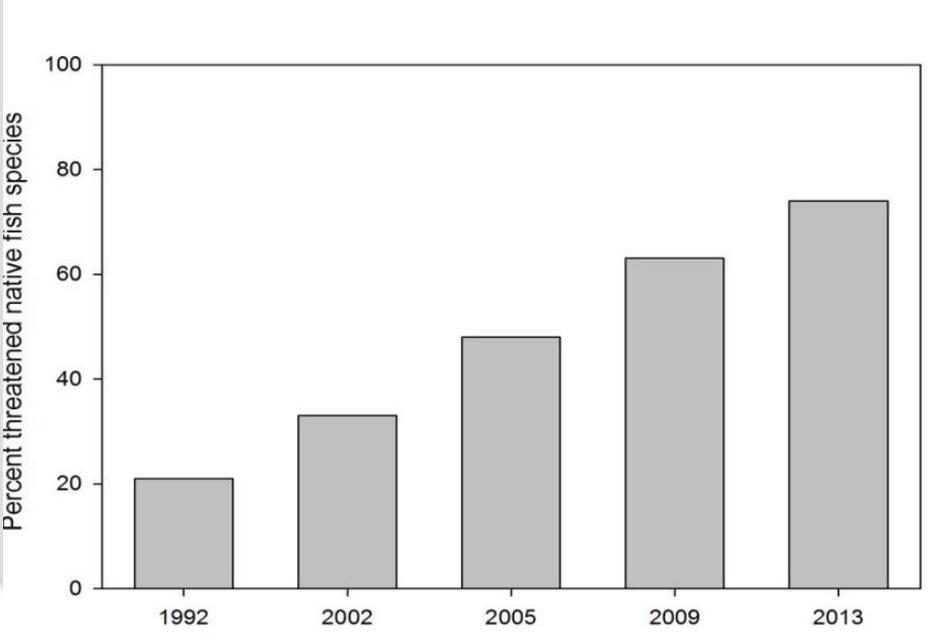
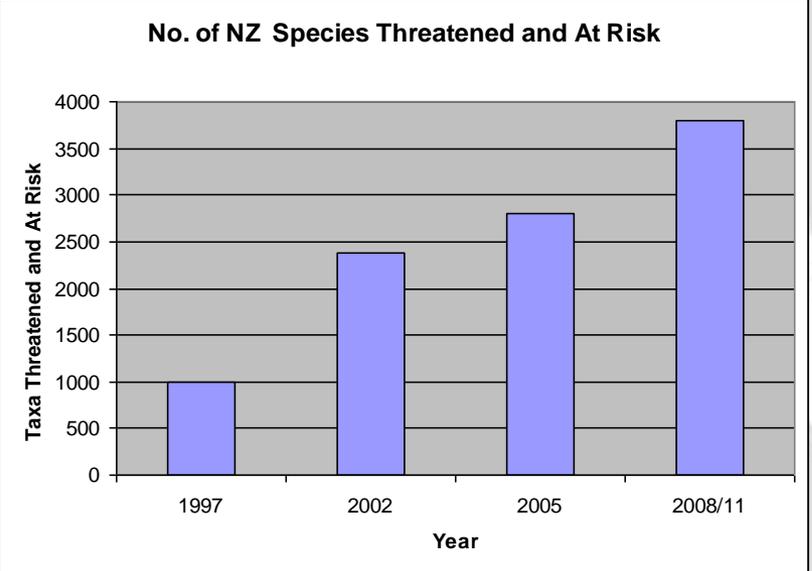
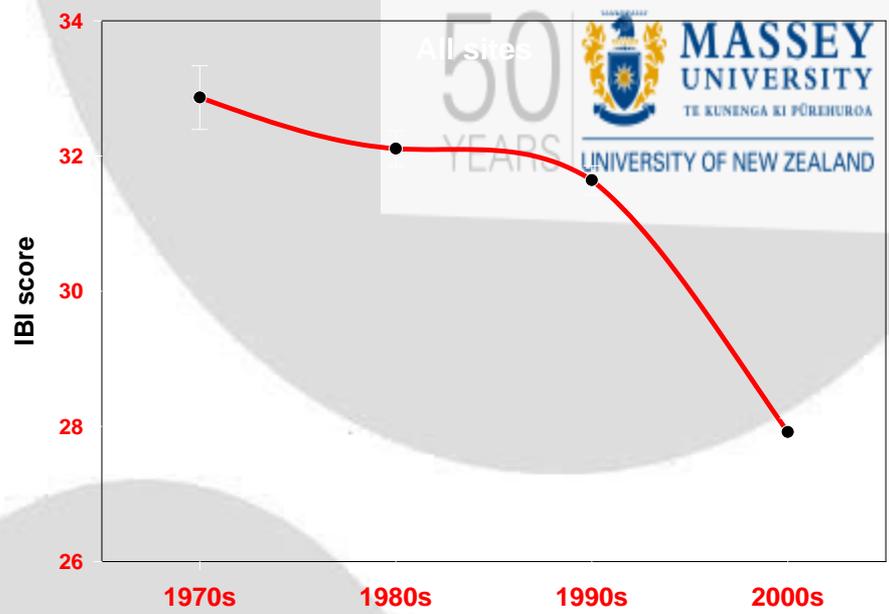


What a failed environment looks like:

- 74% of freshwater fish threatened
- + crayfish and kakahi
- gone by 2050

Highest proportion of threatened plants and animals globally including:

- 40% of native plants
- 40% of birds
- 85% of lizards



What a failed environment looks like:

> 90% of wetlands gone and still going

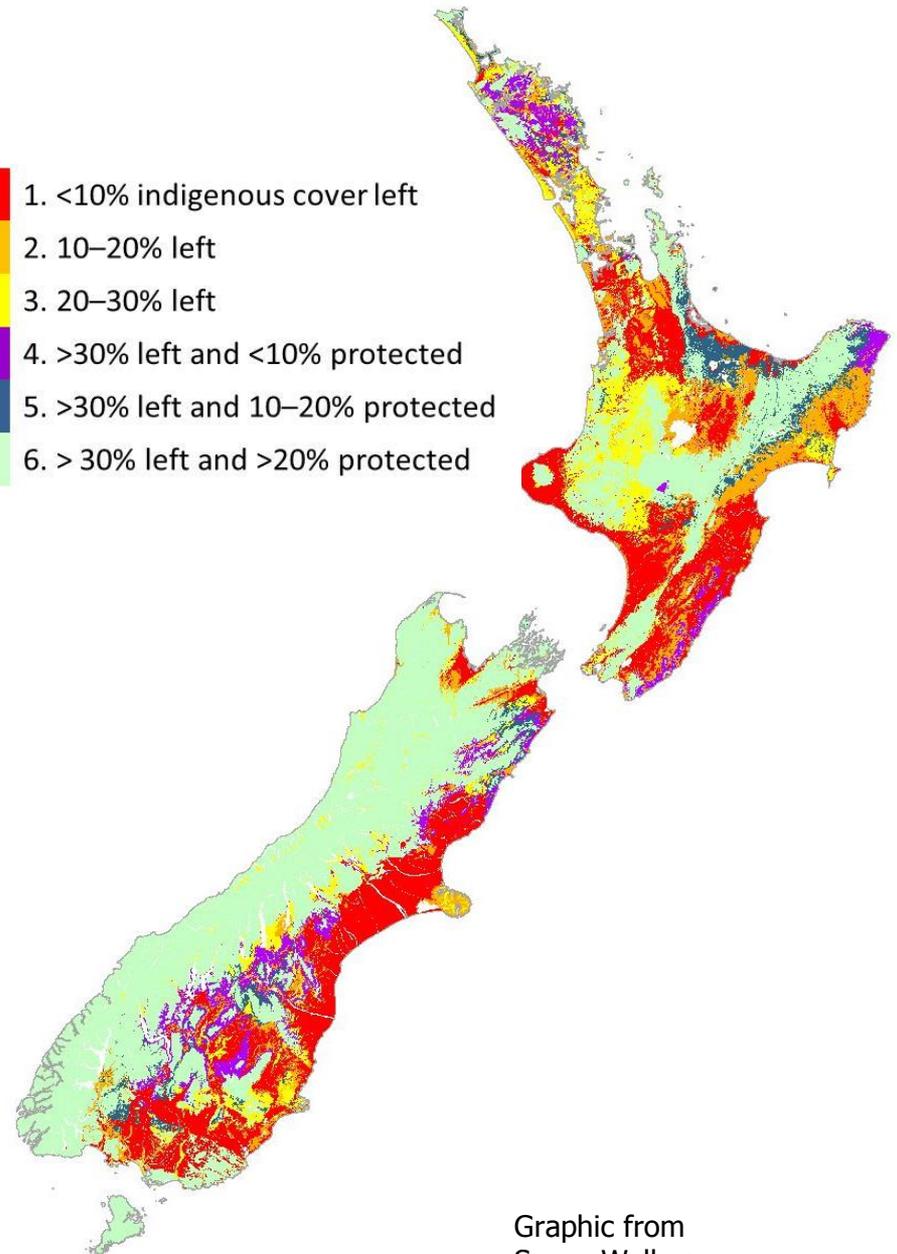
68%



68% of named ecosystems are threatened

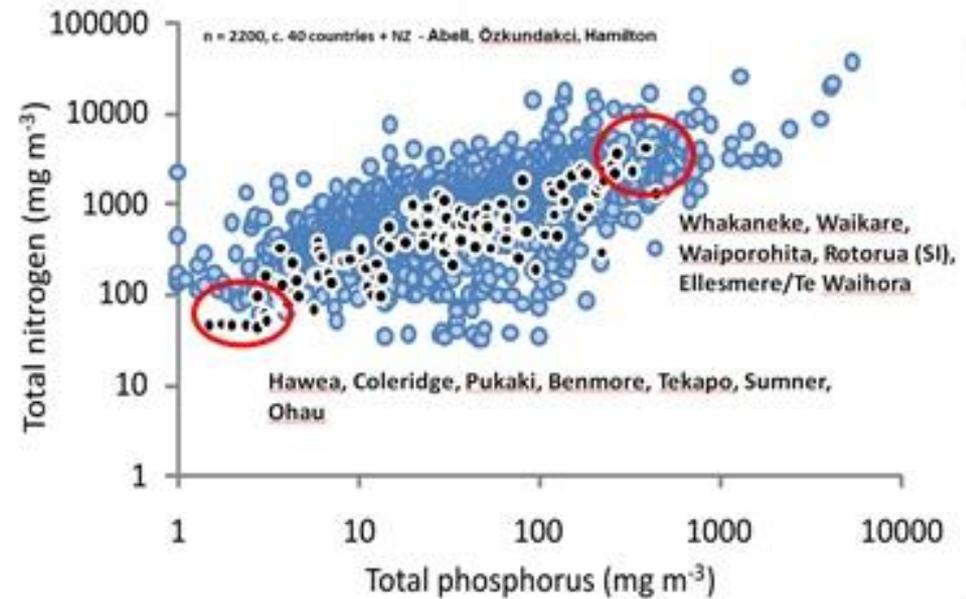
(Walker et al. 2006)

- 1. <10% indigenous cover left
- 2. 10–20% left
- 3. 20–30% left
- 4. >30% left and <10% protected
- 5. >30% left and 10–20% protected
- 6. >30% left and >20% protected



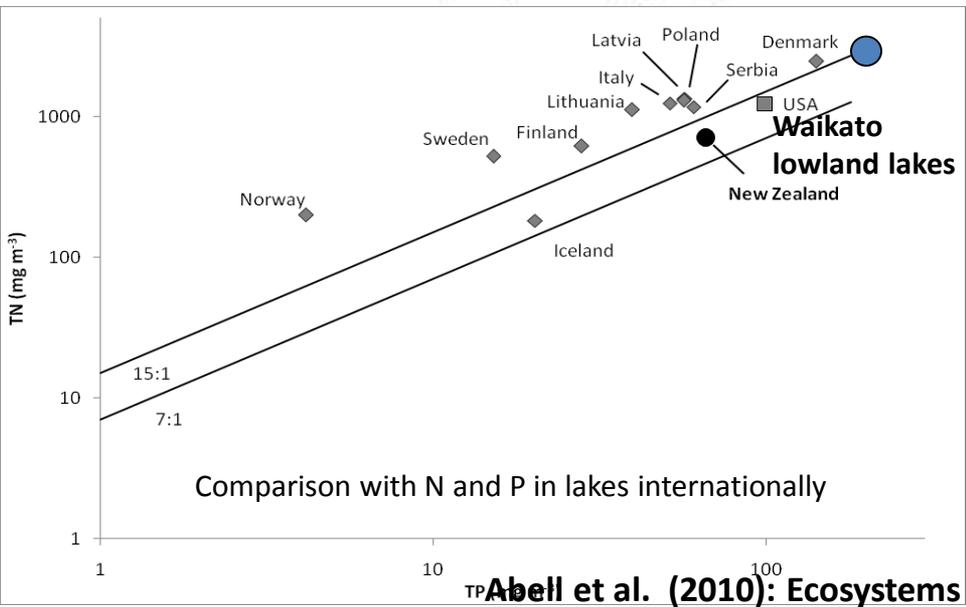
Graphic from
Susan Walker
Landcare NZ

What a failed environment looks like



43% of lakes are polluted with nutrients; 84% in pastoral catchments

(Verburg et al. 2010)



What a failed environment looks like

Rivers and Estuaries

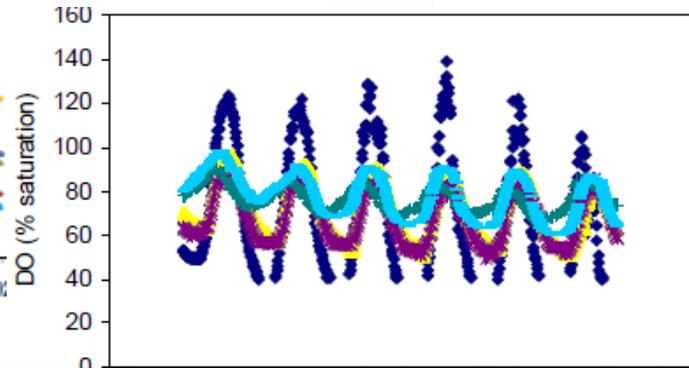
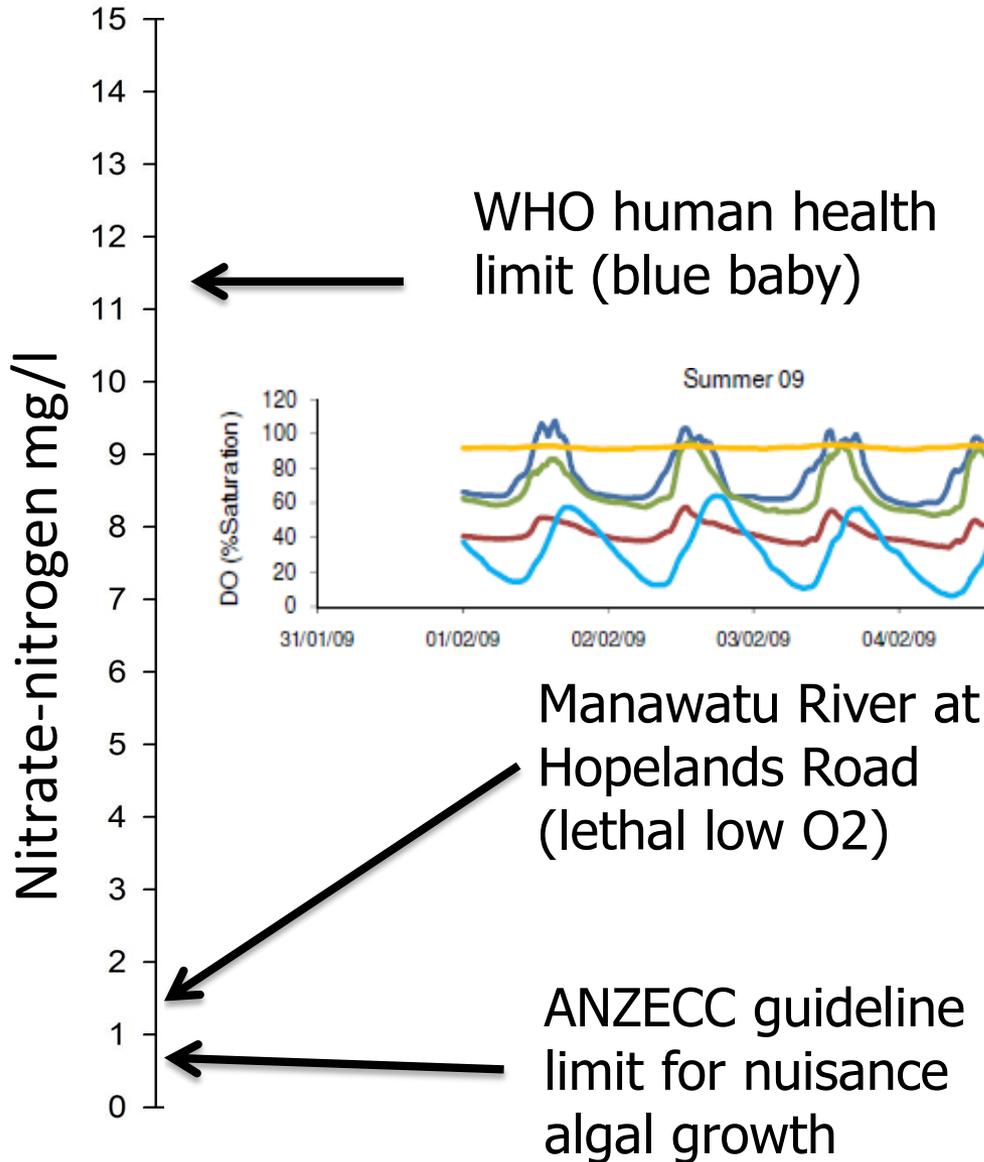
Sedimentation

- River beds higher than surrounding land in many places – pumps and stop banking
- most harbours and estuaries are so choked with sediment from land-use change leading = big impacts on oceanic commercial fish species (NIWA)
- in stream habitat loss for fish and insects

Nutrients – excesses lead to oxygen fluctuation, mats of slime on stream beds, habitat loss, cant swim ...

What a failed environment looks like

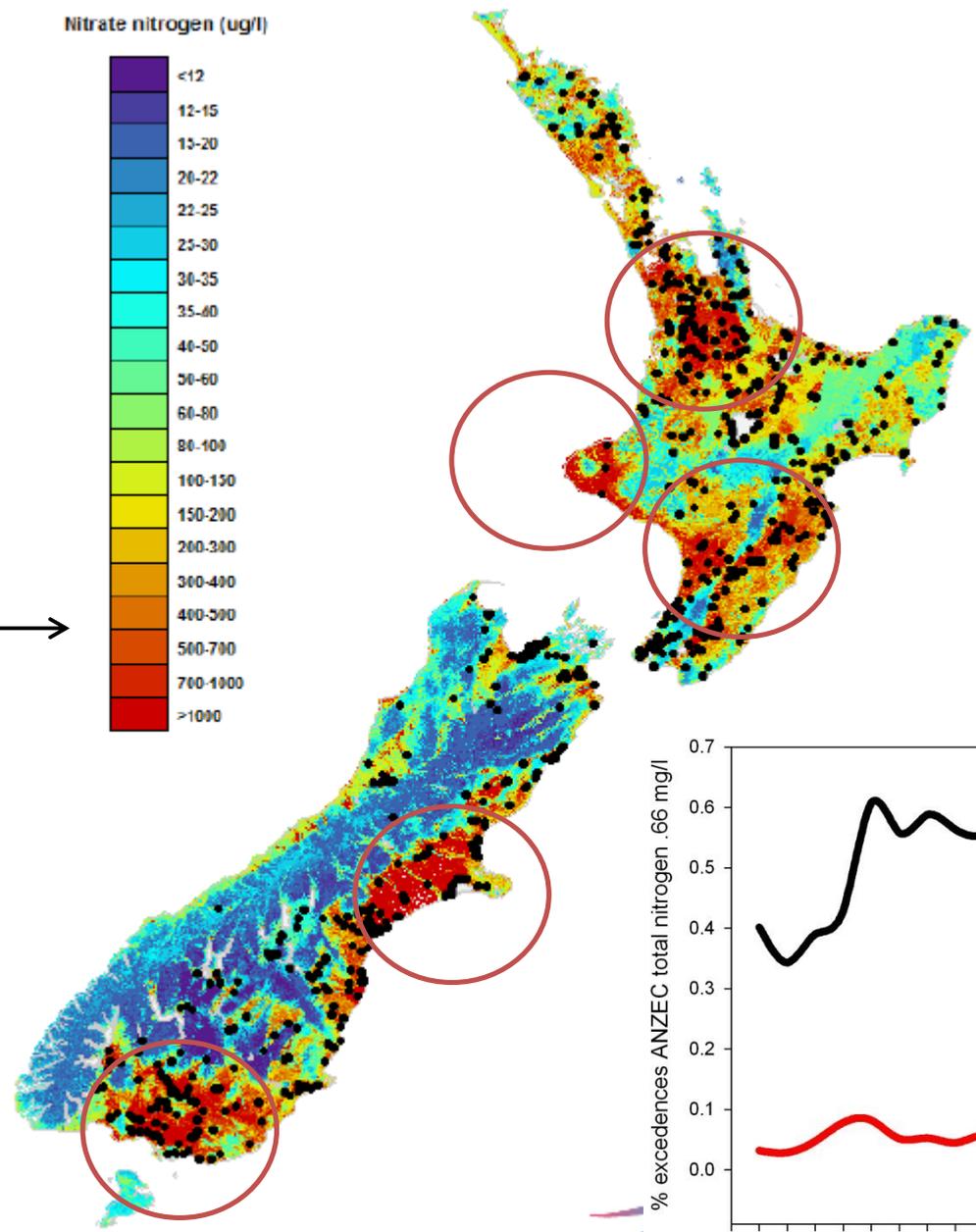
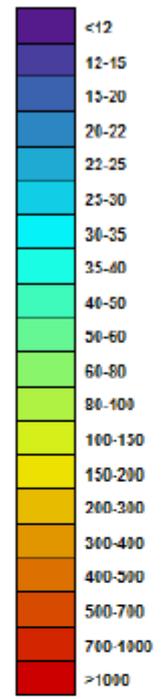
Excess nitrogen



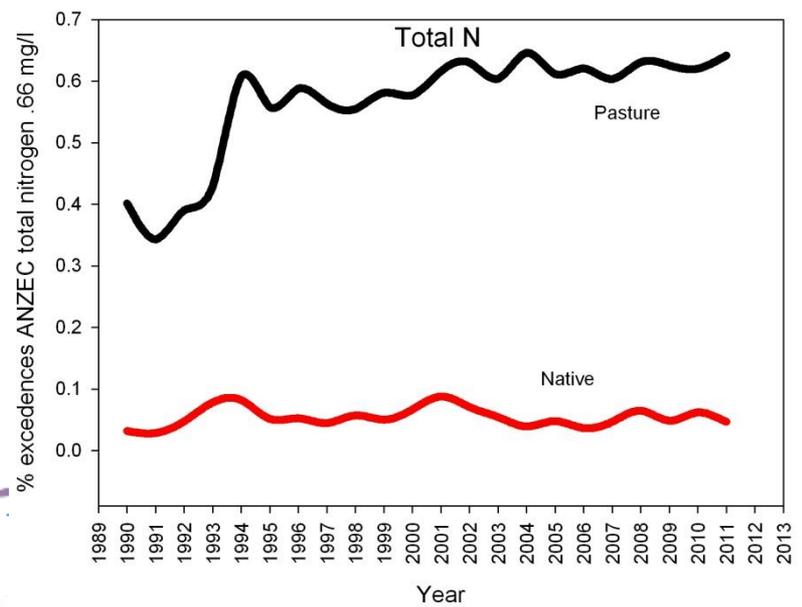
What a failed environment looks like

Nitrate

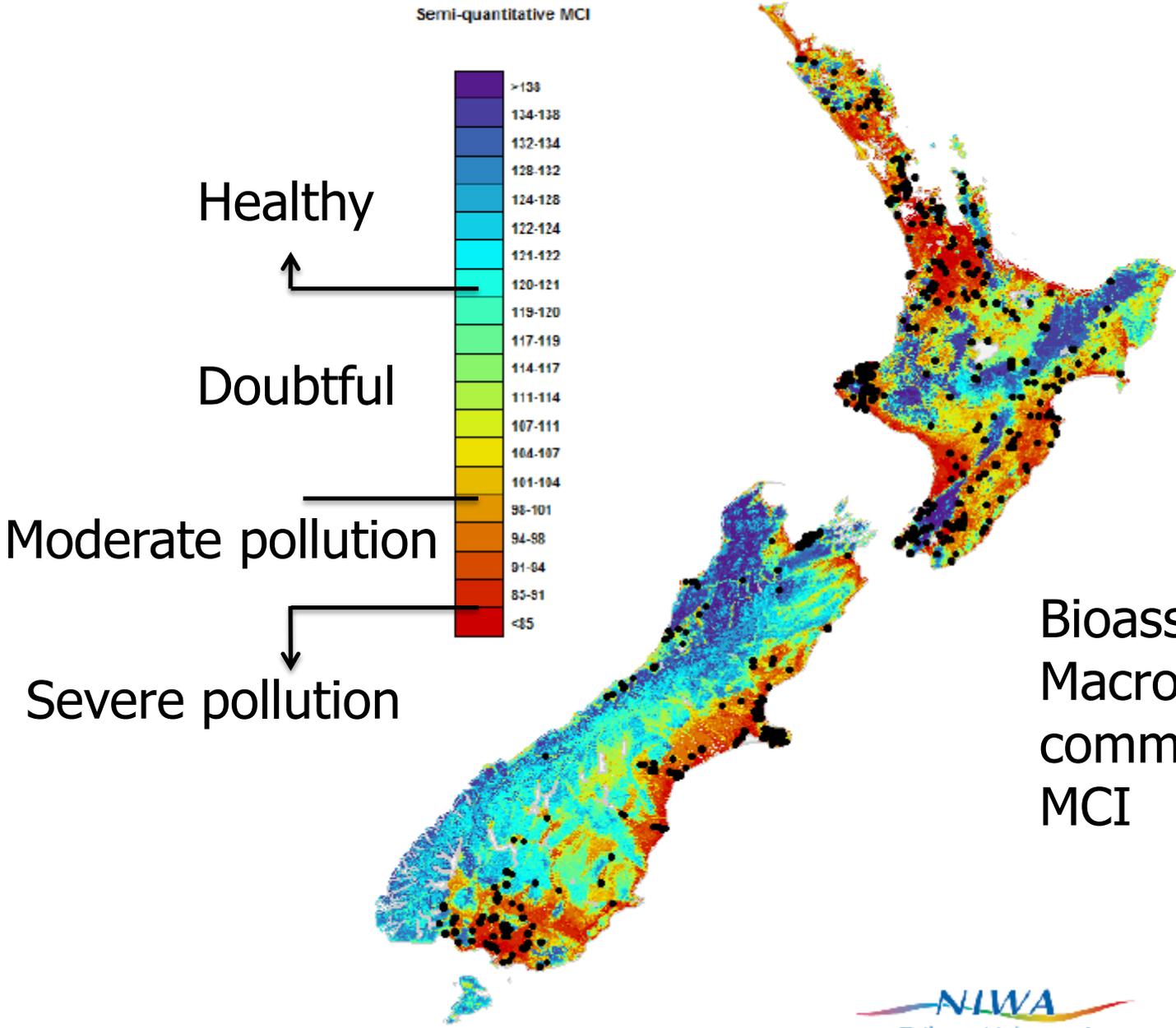
Nitrate nitrogen (ug/l)



ANZECC trigger level →



What a failed environment looks like



Bioassessment
Macroinvertebrate
community index
MCI



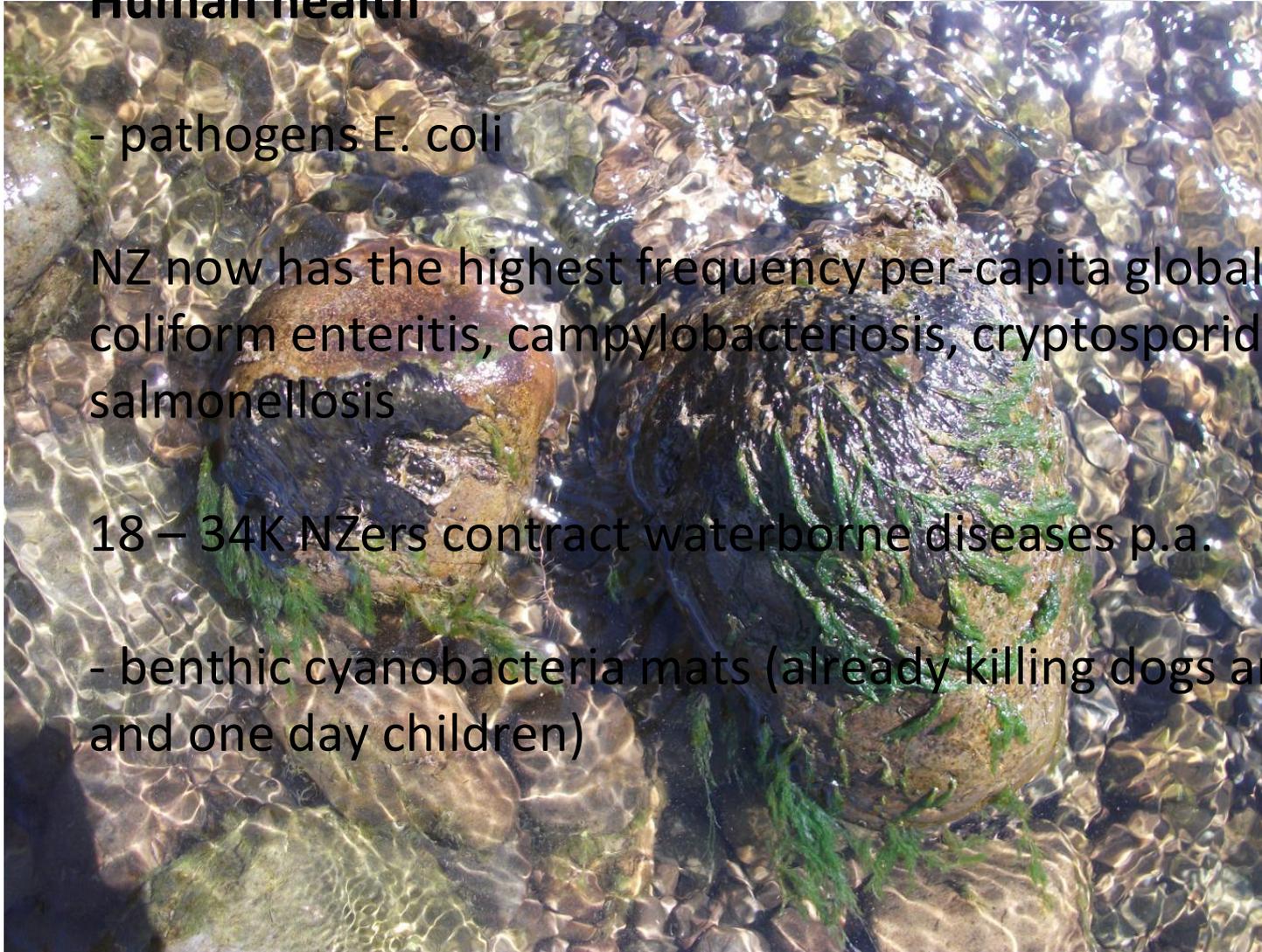
Human health

- pathogens E. coli

NZ now has the highest frequency per-capita globally of coliform enteritis, campylobacteriosis, cryptosporidiosis and salmonellosis

18 – 34K NZers contract waterborne diseases p.a.

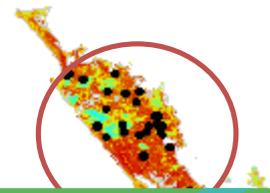
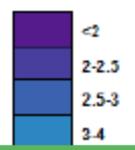
- benthic cyanobacteria mats (already killing dogs and horses and one day children)



What a failed environment looks like

Pathogens

E. coli (MPN/100 ml)

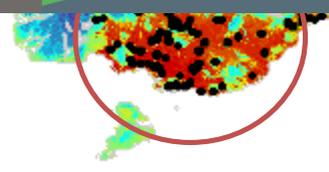


M
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**62% of the length of
all New Zealand rivers
are unsafe to swim in**

(Unwin and Larned 2013)



The drivers of degradation



1 dairy cow = 14 humans in faecal waste terms*. There are 6.5 million dairy cows nationally = 90 million humans worth of poo!

*(Environment Waikato 2008)

Excess

- Nutrients
 - Sediment
 - Abstraction (irrigation)
 - Invasive species
 - Physical impacts (dams, stopbanking, irrigation pumps, flood control...)
- all driven by the last ~ 20 years
- dairy cows * 2 now 6.5 million (90 million human equivalents)
 - dairy production * 4

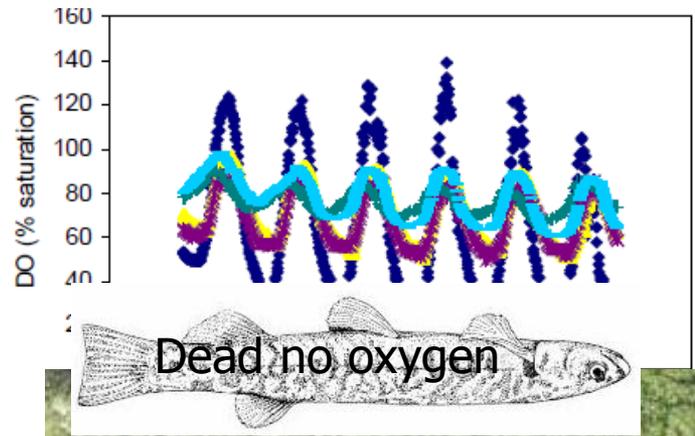
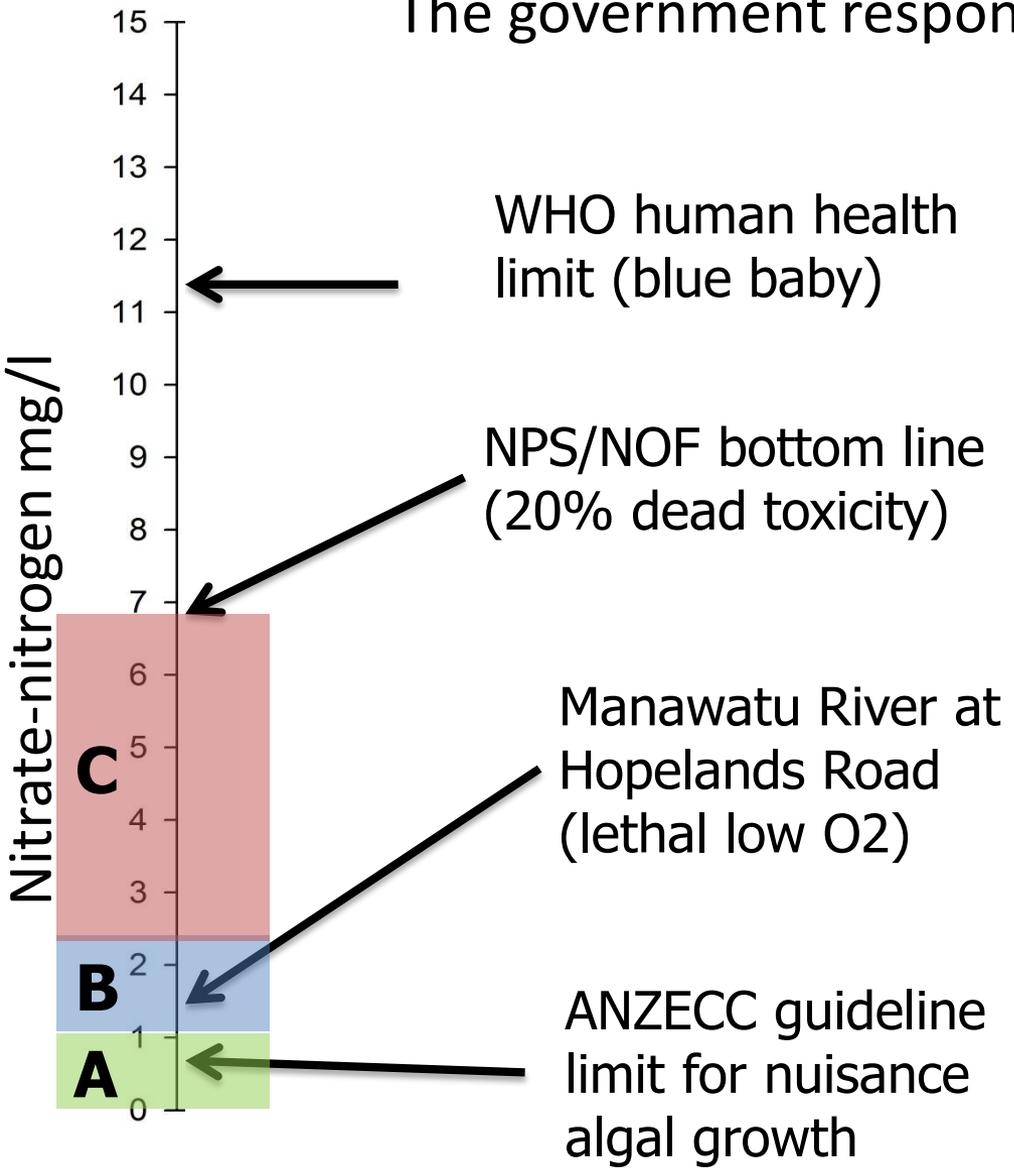
Nitrogen us up by 800% - (the global nitrogen bomb and planetary boundary)

PALM KERNEL - at 2.3 million tonnes/yr. NZ is the biggest palm kernel consumer globally



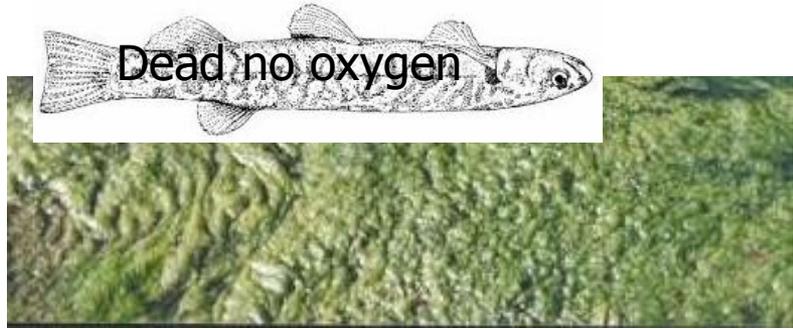
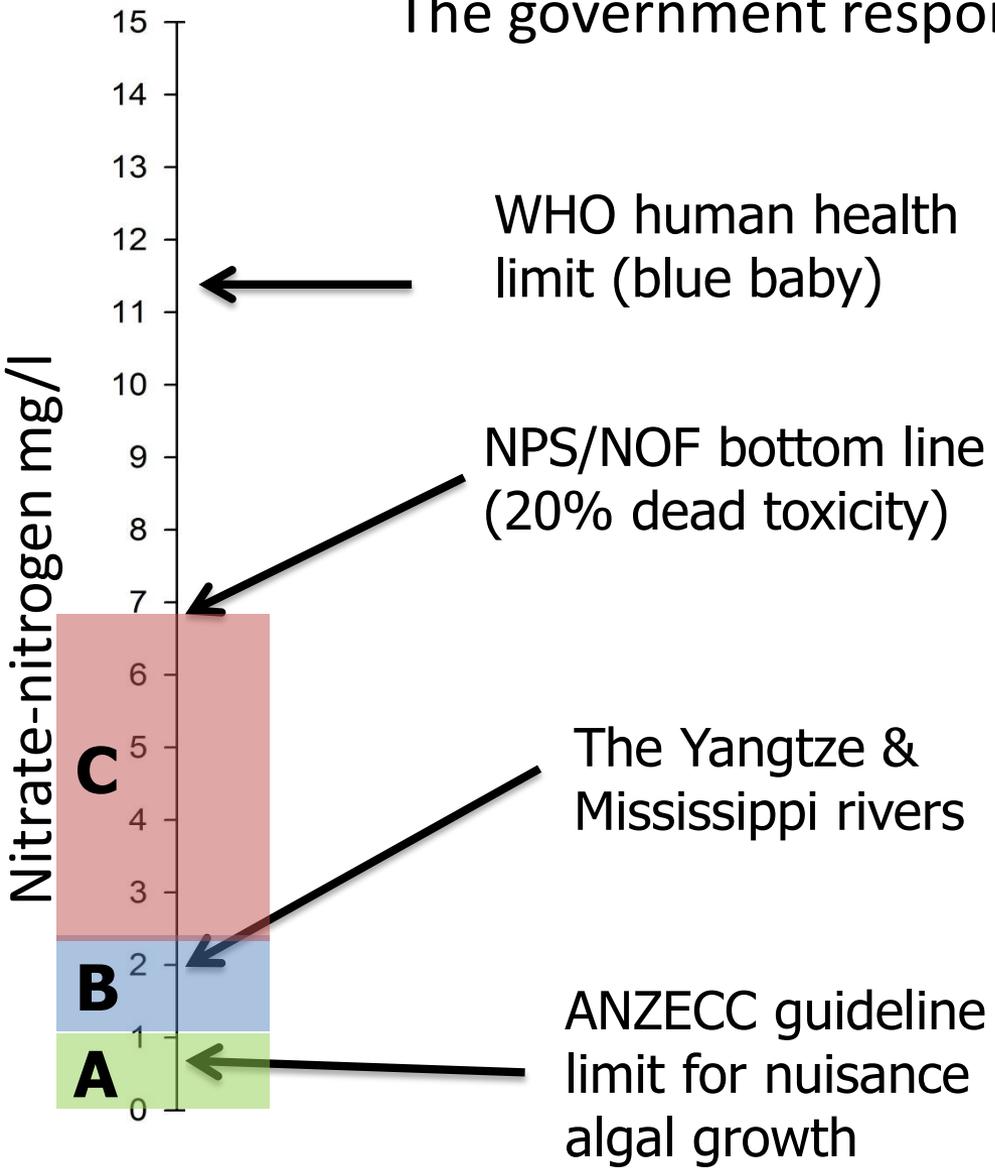
The government response to the crisis— shifting goalposts

The government response

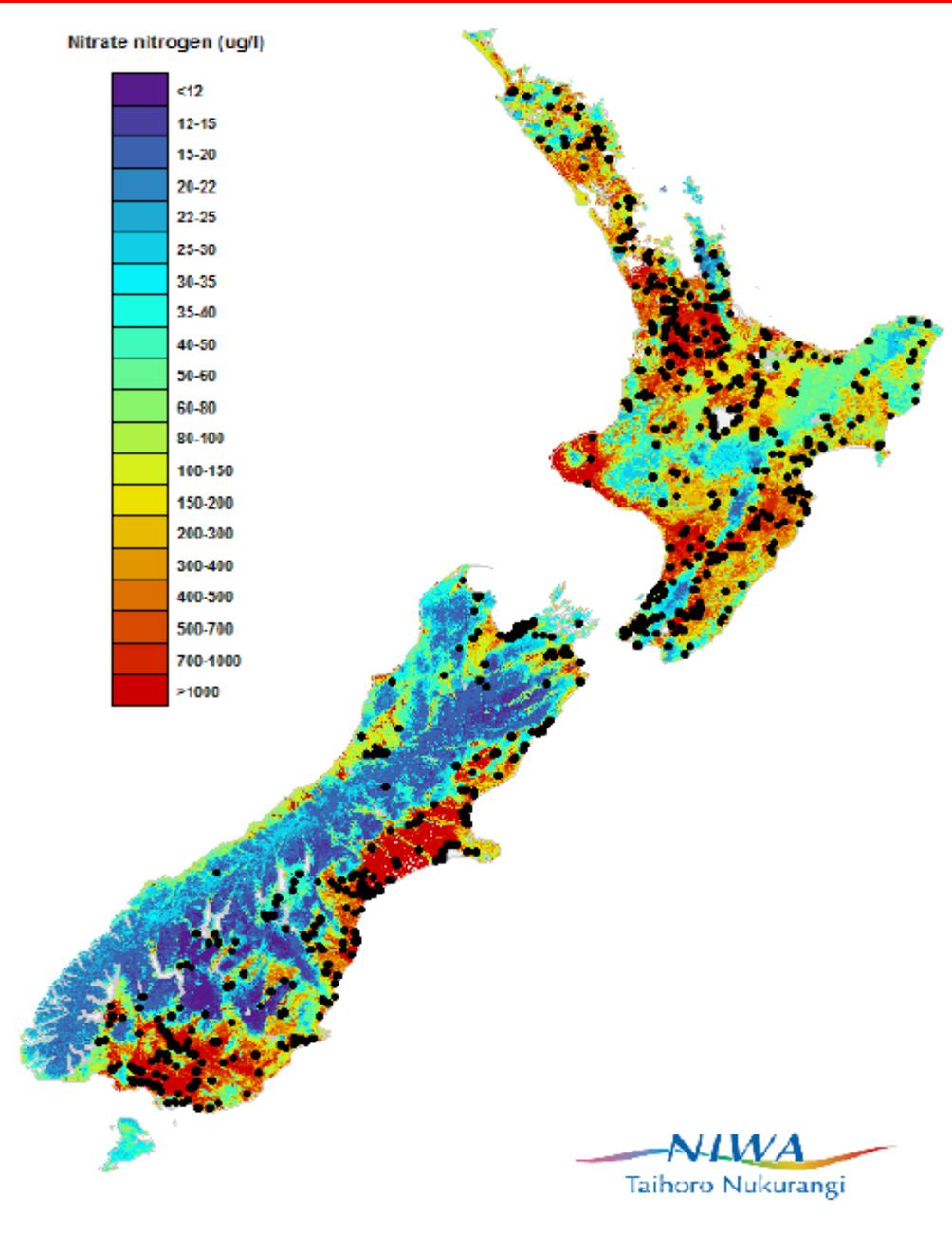
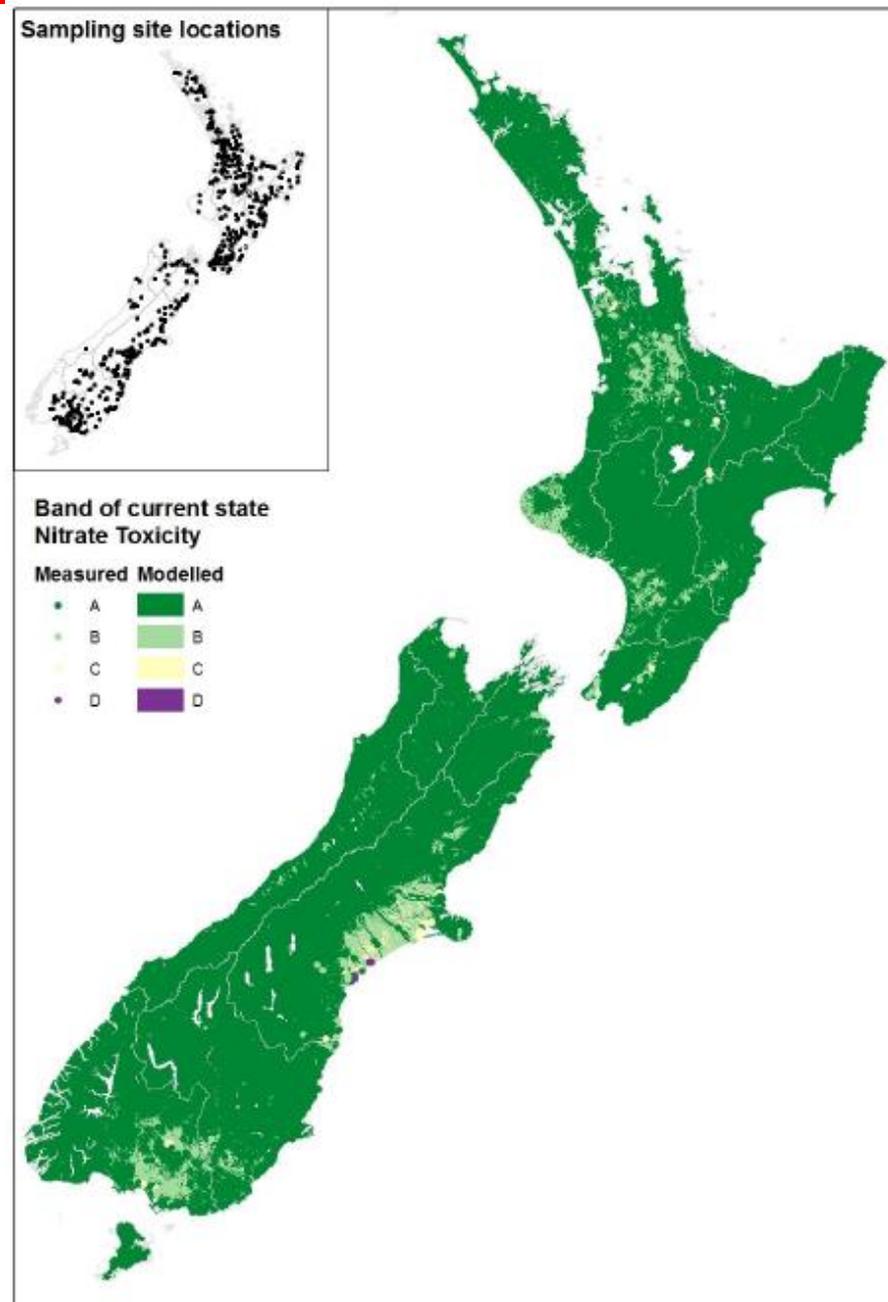


The government response to the crisis— shifting goal-posts

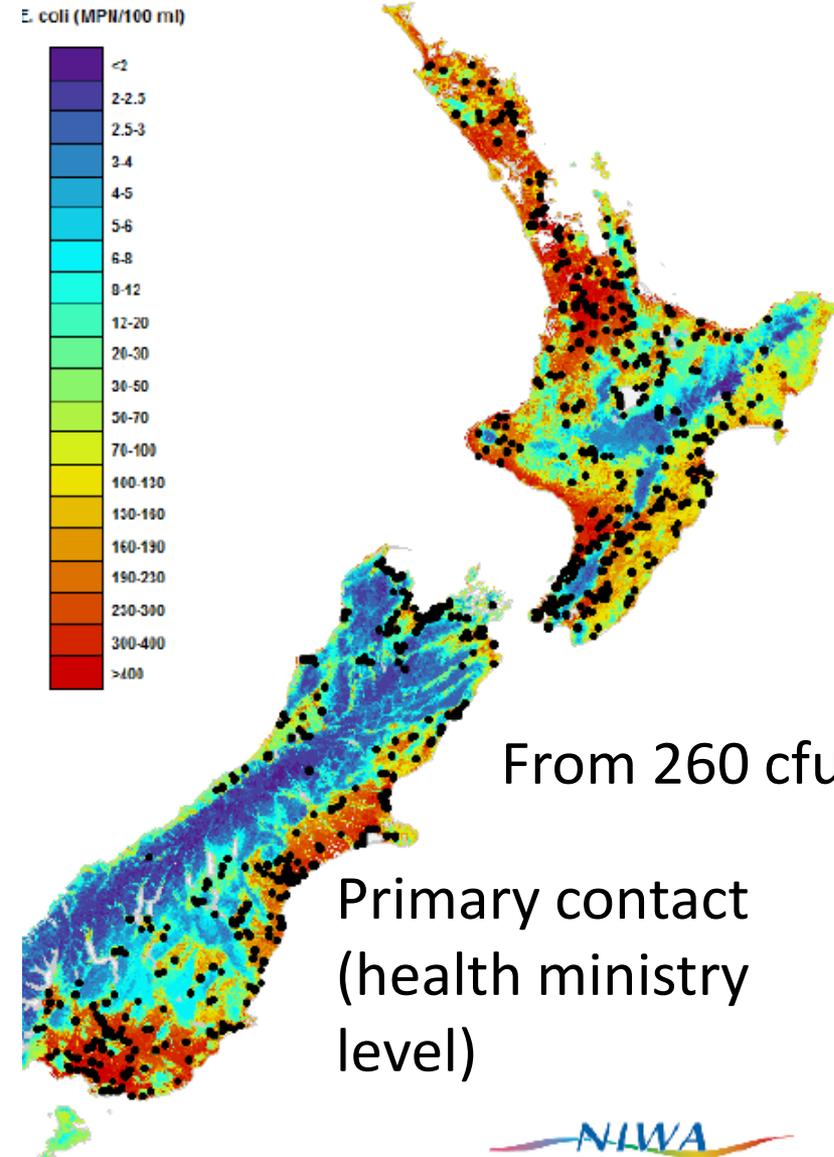
The government response



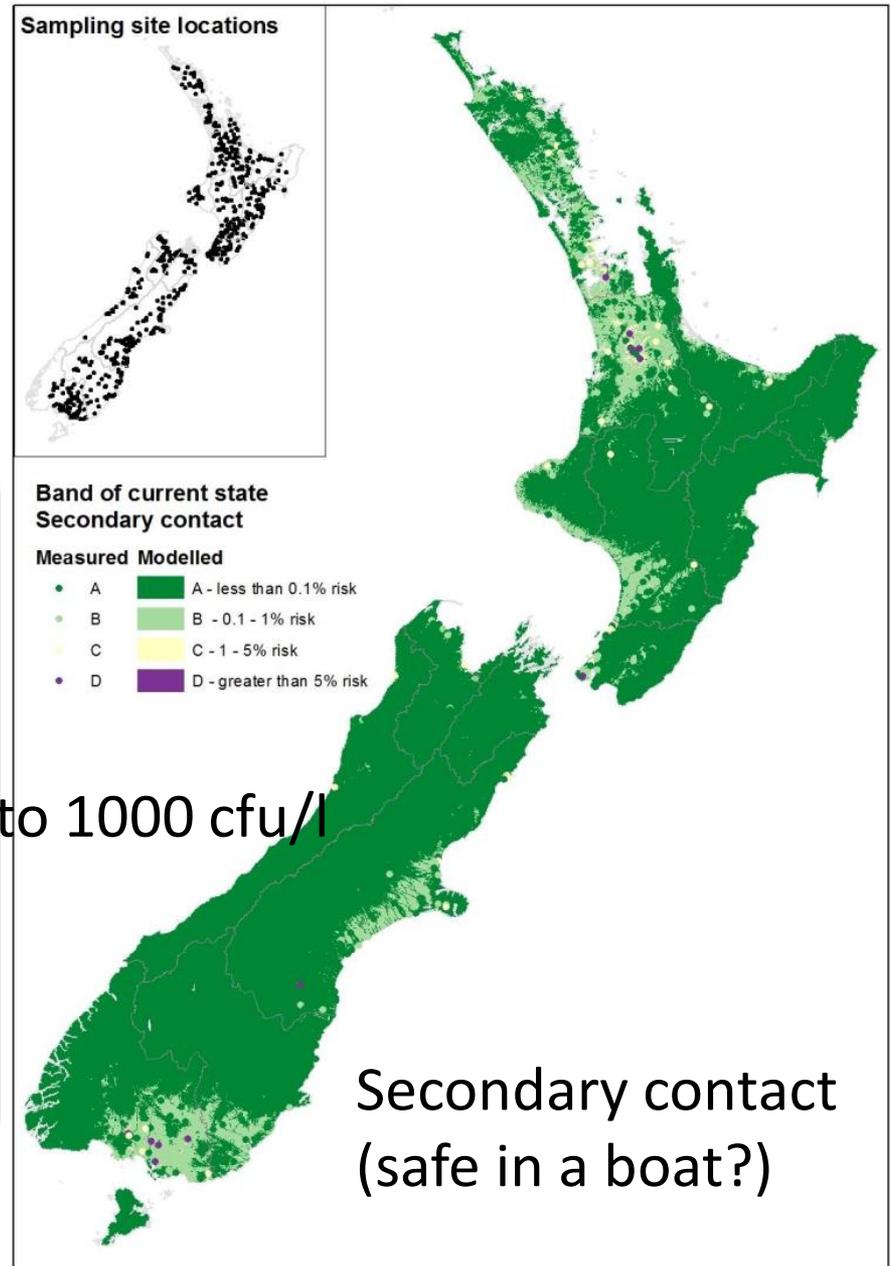
"A fresh start for freshwater" NPS objectives 2014: (making the problem disappear)



The government response to the crisis— shifting goalposts



From 260 cfu/l to 1000 cfu/l



The government response to the crisis— lies and denial

What is not in the National Objectives Framework:

Temperature, O₂, physical impacts, groundwater, estuaries, offshore impacts, benthic cyanobacteria, pathogens, clarity.



Ministry for the environment putting out false statements about water quality and not rescinding when caught out



Legislation failure (agency capture) 1. Central Government

- No legal protection for native fish (but exotic game fish have total protection), > 6 threatened spp. are commercially and recreationally harvested; 4 of those are endemic. The harvest of 4 of the threatened fish spp. is managed by the Department of Conservation.
- A two decade delay implementing national freshwater policy then finally bringing it in with massively weakened limits.
- Incentivising pollution by exempting agriculture from ETS, soil heavy metal classification, not limiting diffuse nutrient pollution or sedimentation
- Failing to include value of natural capital and ecosystem services in national accounting
- Their solution – the “collaborative model” failed the environment (LAWF)

Legislation failure (agency capture) 2. Local Government

- Failing to monitor and enforce or even implement protective legislation.
- Failing to address cumulative impacts (death by a thousand cuts)
- Compromising environmental protection by grandparenting pollution rights (rewarding polluters)
- Spending taxpayer and ratepayer money on feel-good “clean-up projects” while still allowing pollution

Overall the triumph of political short-termism over science and sustainability - economic and ecological - so we have almost complete failure. We have failed our children

Real solutions:



Tim Winton from his recent book - Island Home

... [decision makers] ...

No matter how pragmatic they sound, in their dogged attachment to a spurious economy where endless-growth and consumption have no real consequences, they display a devotion to magical thinking they seem to find contemptible in others.

Theirs is a cult that does not encourage reflection, a faith built on looking forward at all times, a belief system unsettled by the backward glance, because to look back is to acknowledge a trail of destruction – to ecosystems, languages, cultures, entire peoples.

Moreover, a citizen prospering in the present may discover that most of the sacrifices that paid for this prosperity were made by countrymen and women who were never likely to share in the spoils.

Looking inwards is even more troubling because lying in wait for the captain of industry and the political insider is the anxious prospect that he too might eventually be required to give something up.

Activism is my rent for living on the planet.

—ALICE WALKER

Thanks to:

Massey
University
Freshwater
activist
friends
students &
colleagues all
over New
Zealand



AFSC.ORG

Please don't let this just be another talkfest.
We need to call the decision makers out in the
strongest language possible

PHOTO: VARKEY PARAKKAL



THE ENGINE
OF THE NEW
NEW ZEALAND

