



Recreational values of shallow lakes

Fish & Game New Zealand

- Statutory Crown Entity representing anglers and game bird hunters
- Funded by F&G Licence fees only
- Quantifiable group of recreational users of water
- Monitor resource and users

Active recreational lake users

- Angling & game bird hunting
- Rowing clubs
- Water ski – jet ski based clubs & users
- Sailing clubs
- ...

Other recreational lake users

- Nimmo-Bell (2004) - 1000 Household study
- 40% Rotorua & 33% BoP - trout fishing
- Other Active Recreation also popular
 - Swimming 65%, boating 40%, kayak 30%
- Passive Recreation more popular than Active
 - Picnicking 80%, walking 65%, driving 60%

The effect of declining water quality on use

- Rotorua - locally monitored effects on angling
2002-03-04 Algal blooms on Lake Rotoiti



The effect of declining water quality on use

- Locally monitored effects on angling
 - Short term licence sales declined - \$100K
 - Angler use dropped 65% on Rotoiti over summer peak
 - Significant detraction to 45% of anglers

The effect of declining water quality on use

- Locally surveyed effects on other lake users

Nimmo Bell report results

- Does the presence of blooms affect your use of the lakes?

	Yes	No	Unsure
Rotorua % of total	69%	20%	11%
Rest of BoP % of total	62%	20%	18%

The effect of declining water quality on use

- Locally surveyed effects on other lake users

Nimmo Bell report results

- Change in usage for households affected by blooms?

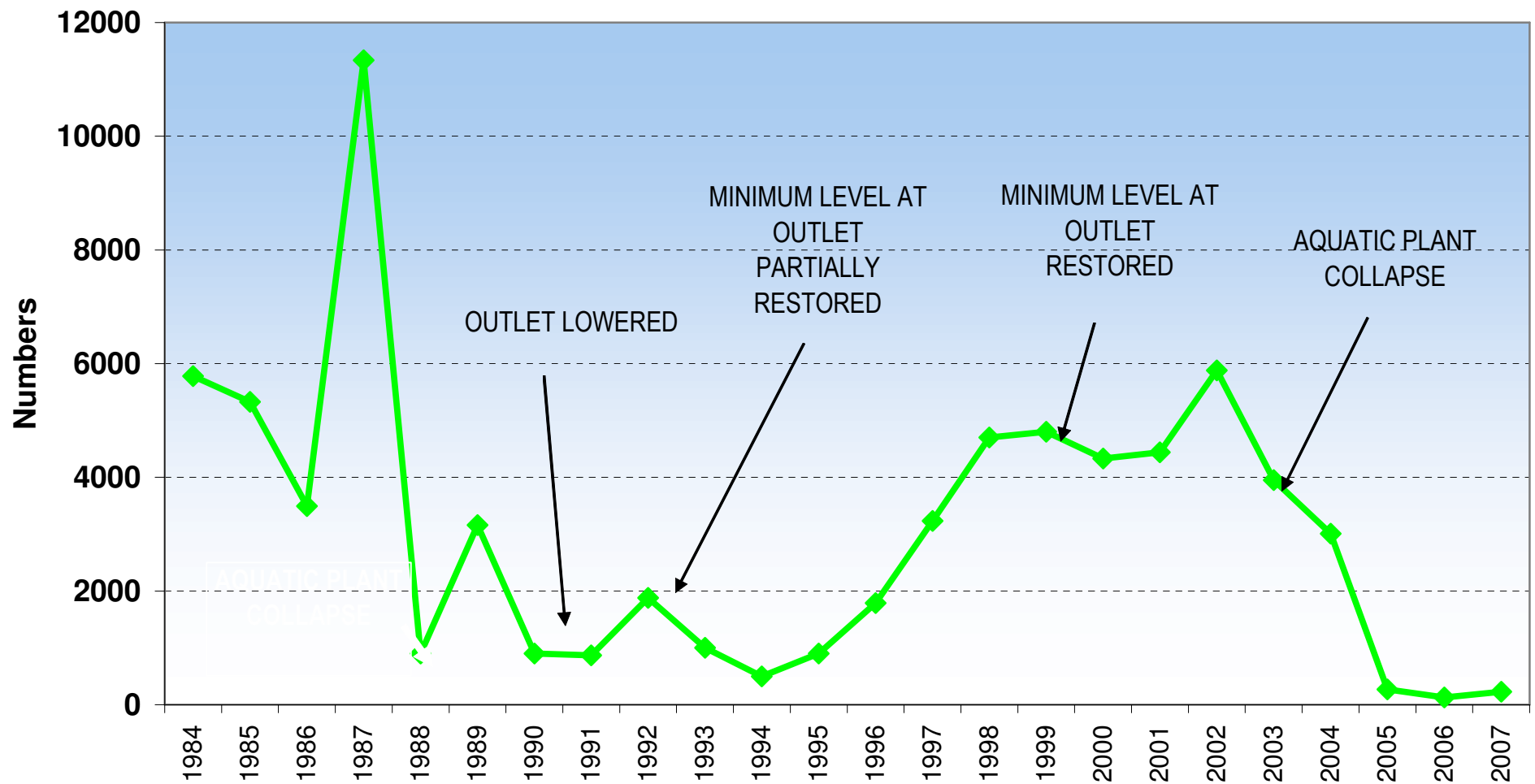
Activity	Average days use with blooms	Average days use without blooms
Picnicking	13	23
Walking/Photography	12	22
Swimming	19	33
General boating	23	35
All Activities as %	63%	100%

The effect of declining water quality on use

- Shallow Waikato lakes
 - Whangape: game bird hunting
 - Species

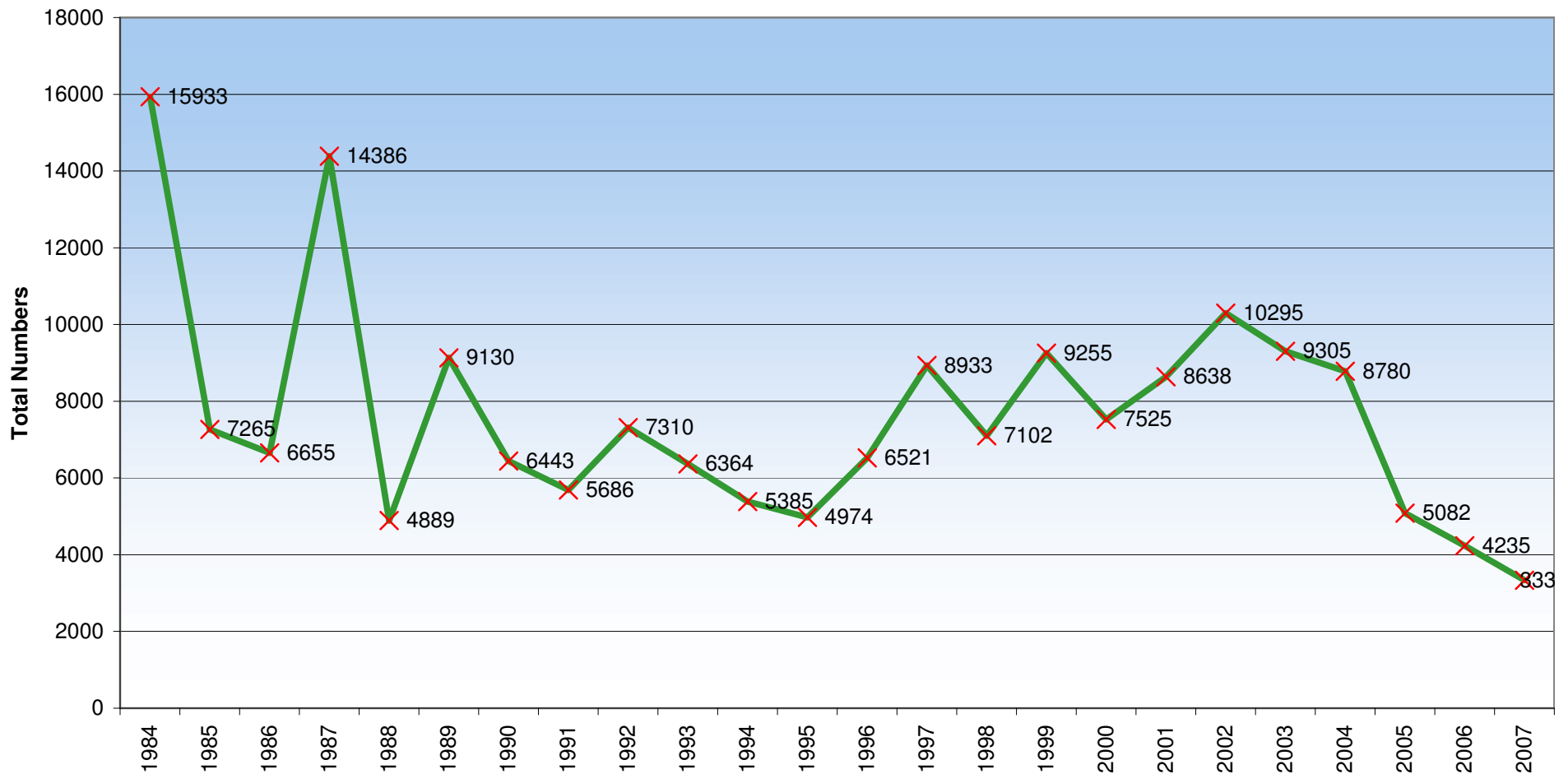
BLACK SWAN TREND COUNT

Lake Whangape 1984 -2007



BLACK SWAN TREND COUNT

Western Harbours and Lower Waikato Lakes



The effect of declining water quality on use

- Shallow Waikato lakes
 - Whangape: game bird hunting
 - Species
 - Hunter use
 - Experience – health warnings

The effect of declining water quality on use

- Shallow Waikato lakes
 - Whangape: game bird hunting
 - Ngaroto; sailing & boating



The effect of declining water quality on use

- Shallow Waikato lakes
 - Whangape: game bird hunting
 - Ngaroto; sailing & boating
 - Cancelled yacht regattas
 - Declining club membership
 - Te Awamutu rowing club – training only

Declining water quality – not just a local problem

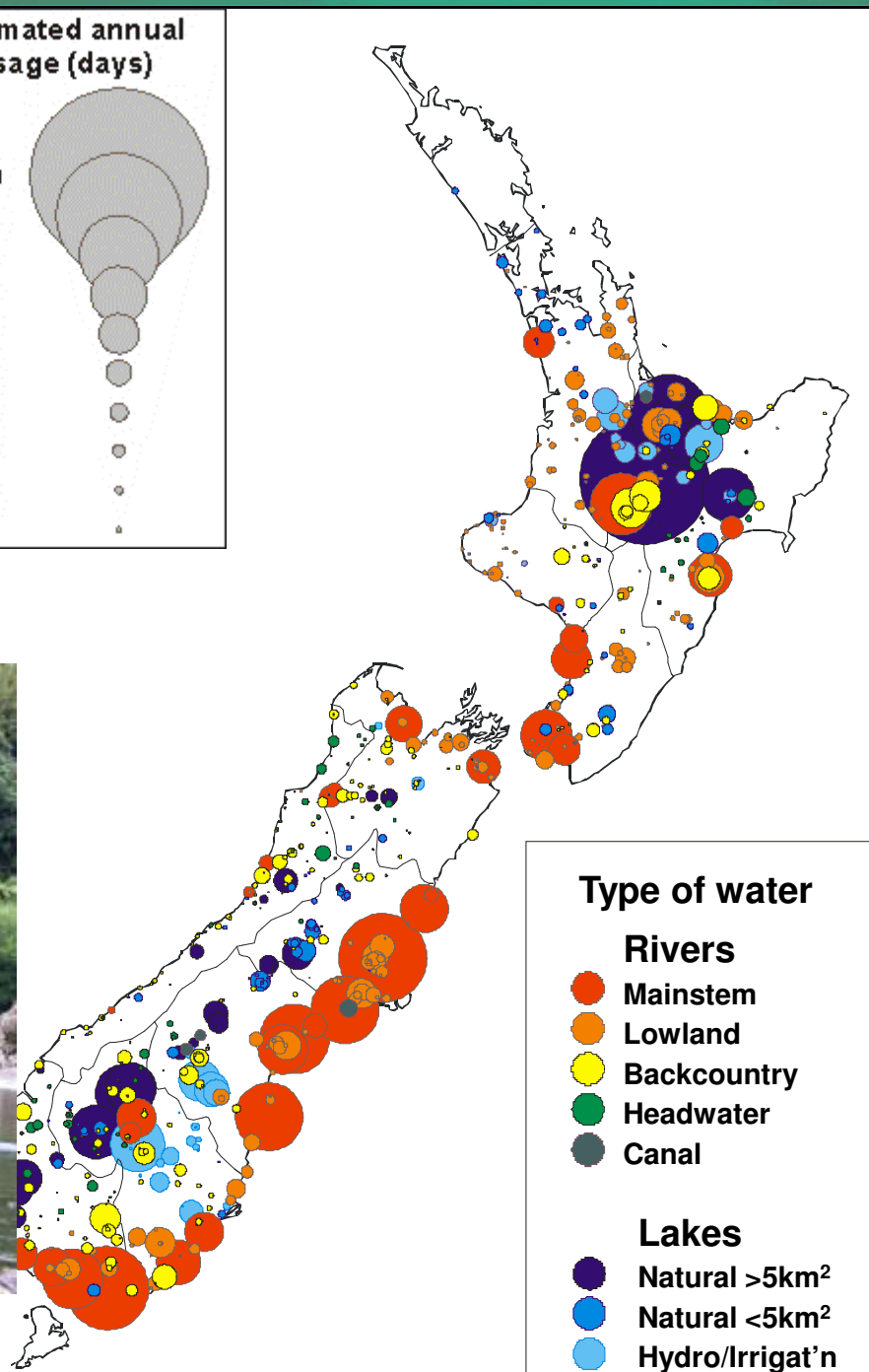
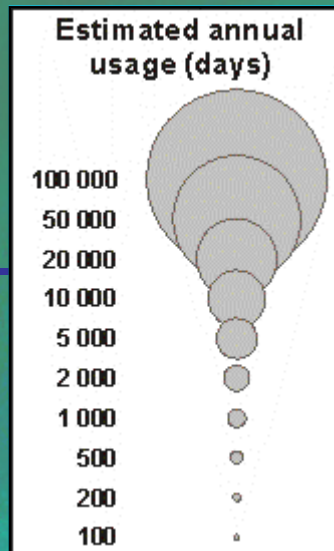
- National Issue
 - 2007 SOE report – Freshwater trends

Declining water quality – not just a local problem

- National Issue
 - 2007 SOE report – Freshwater trends
 - Improvements in point source related problems
 - Decline in quality from diffuse sources (as identified in 1997 SOE report)
 - Poor quality waters are getting worse

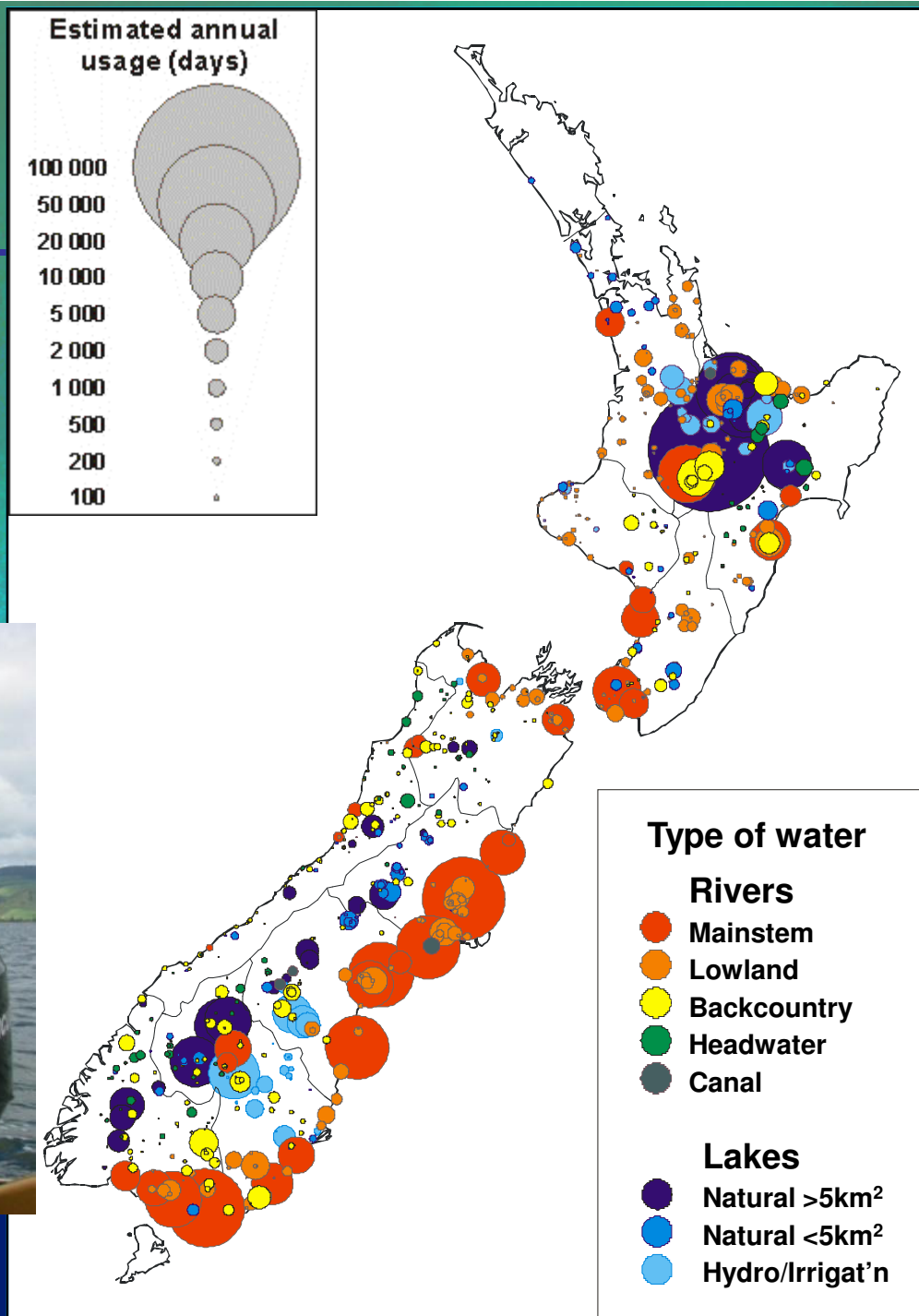
NZ Angler use 1,455,000 visits (01-02)

- National Angler Survey
- 10%
- Backcountry/headwater



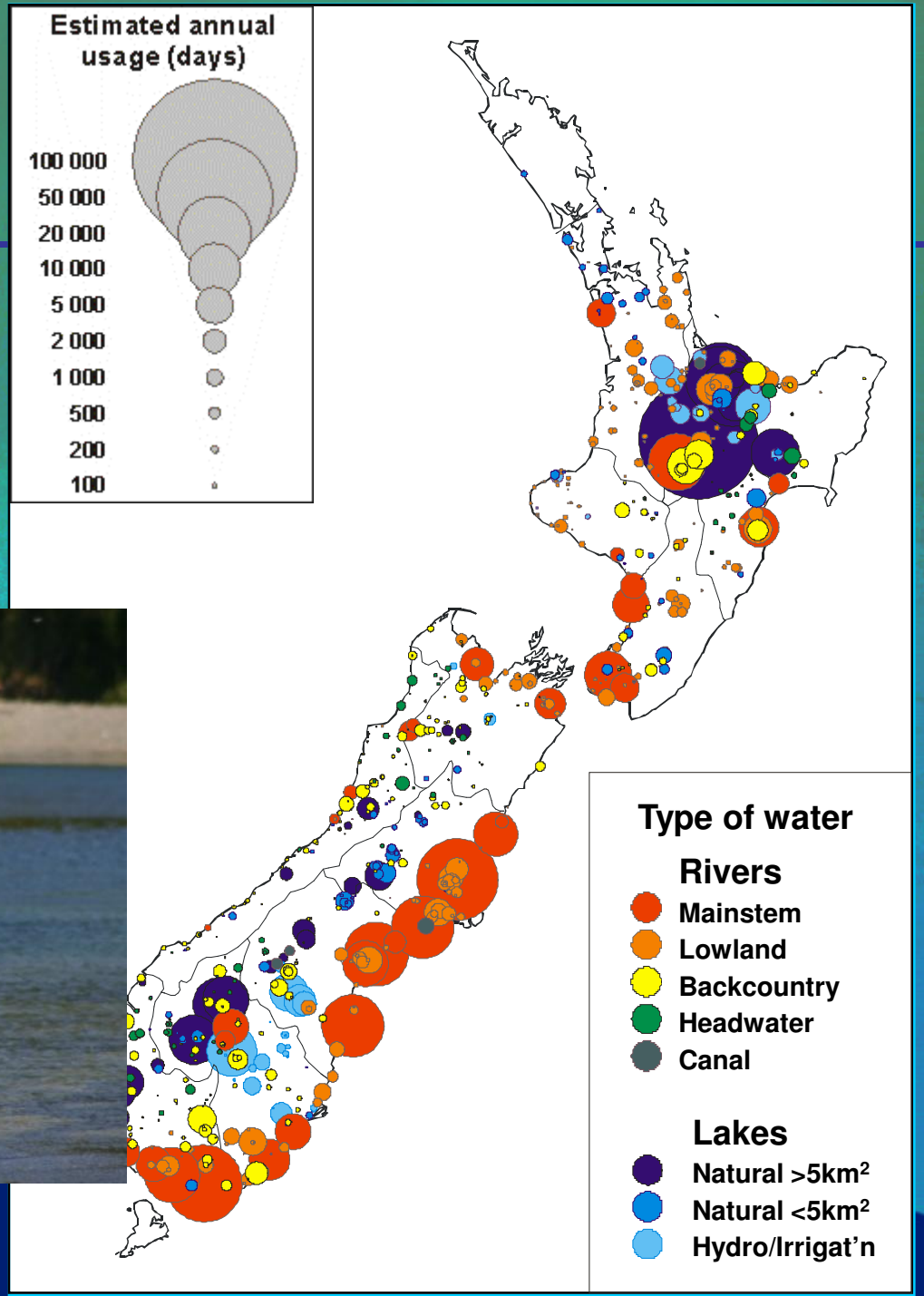
NZ Angler use 1,455,000 visits (01-02)

- National Angler Survey
- 40%
Lakes/Reservoirs



NZ Angler use 1,455,000 visits (01-02)

- National Angler Survey
- 50%
Lowland / mainstem river



Lowland Rivers – what do the anglers think?

- NIWA Lowland River Study – 2003
- Long term angler perceptions obtained from 270 anglers with an average of 35 years experience on 321 lowland rivers.

Lowland Rivers

- NIWA Lowland River Study – 2003

Angling Quality	% of Rivers
Markedly worse	34%
Generally worse	34%
No Change	25%
Generally better	6%
Markedly better	1%

Lowland Rivers

- NIWA Lowland River Study – 2003
- Key reasons cited for fishery quality decline
 - Declining water quality (NI & upper SI)
 - Declining water quantity (Central SI)
 - Increased silt and sediment loads (NI & SI)
 - Increasing angler use (NI & SI)

What tools we have, or how we use what we've got?

- Statutory
 - RMA, WCO's, NPS
- Non-Statutory
 - Landcare / Catchment type groups
 - Clean Streams / Project Watershed
 - Codes of practice, BMP's

Some are working, some are not

- Lake Tarawera & Lake Okaro
 - Action plans, catchment works, in-lake options
 - Community buy-in
 - Development of actions
 - Regulations to protect investment gains

Some are working, some are not

- Mohaka River
 - WCO
 - “outstanding amenity or intrinsic value”

National Policy Statements

- = Outstanding Freshwater Resources?
(or Rule 11, or Variation 5, ...)
- Local & National perspective
- Pragmatic application and prioritising?
- Regulation and/or enforcement?

Summary – Something has to change

- Recreational users are strongly affected
- There are many more users out there than we might initially consider
- Improved management performance is necessary
 - change tools,
 - or change the way we use existing tools