

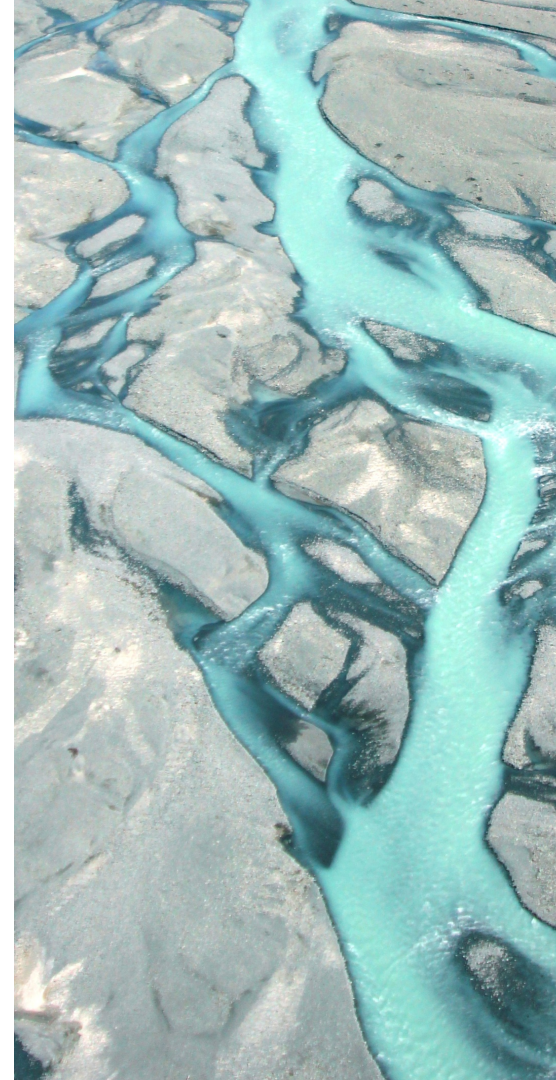


Braided rivers in 5-10 years time:

Some achievable targets

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- Globally rare and threatened habitats
- Canterbury central region
- Many unique species and communities
- More than 50 species threatened
- Specialised: Wrybill, black stilt, black-fronted tern, black-billed gull, banded dotterel and robust grasshopper



Steps for progress towards recovery

- mitigating human impacts
- managing weeds
- managing animal pests
- developing better tools
- awareness and support



- A great range of exciting work is happening
- Many possible future projects
- What actions are achievable and will give large gains?
- Aim is to explore a range of additional targets for some of the many options
- My view – to start us thinking about where we would like to be in 5-10 years time
- Here are 8 examples

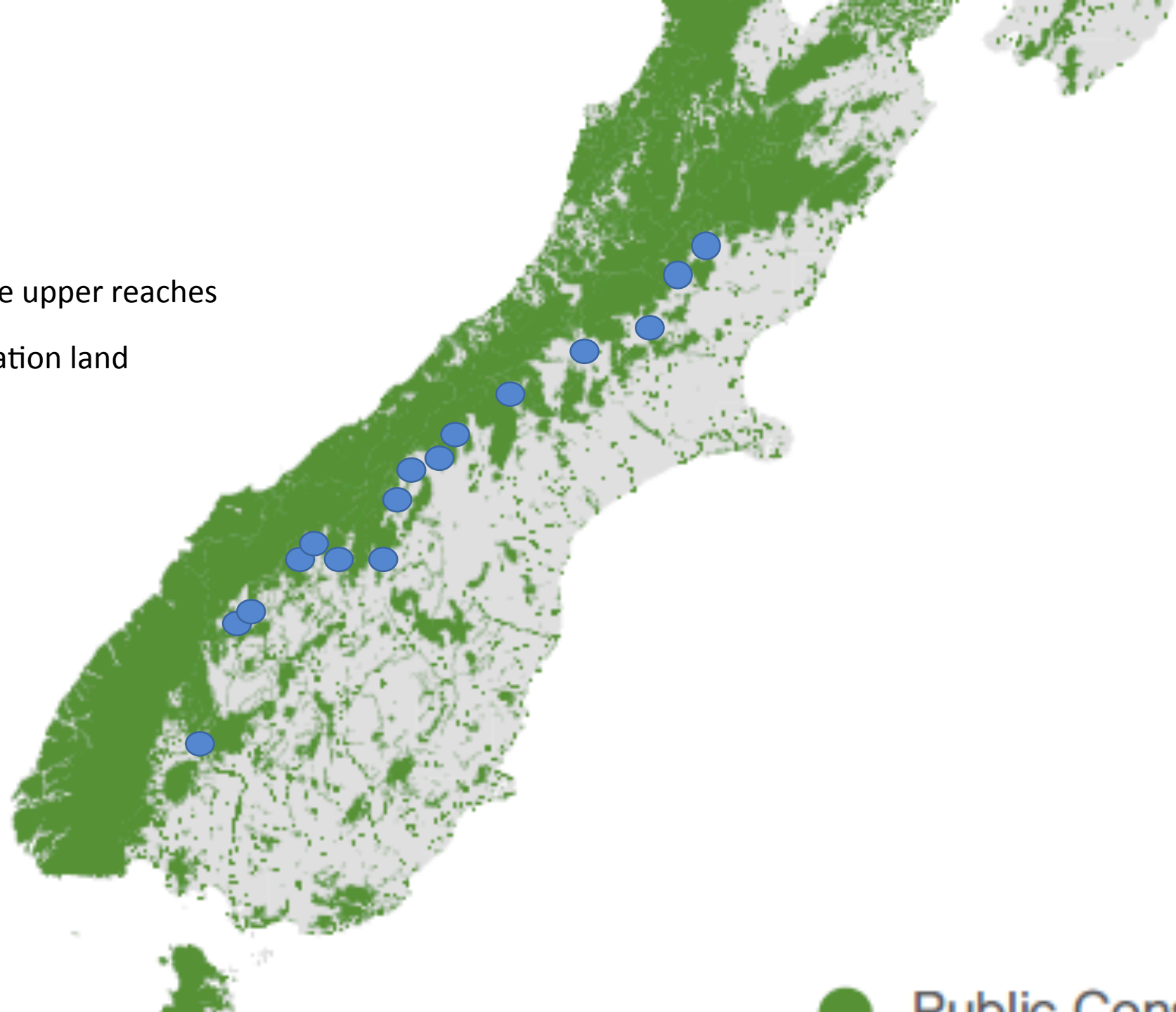
Achievable ecosystem targets

Target 1. Ecological reserves: *All upper reaches of braided rivers transferred from LINZ to DOC administration by 2022*

WHY

- Last examples of near pristine habitats
- Many threatened species, all taxa types
- Last opportunity for intact structure and function
- Signals the value nationally and globally
- Provides future options restoring oceans to sea connectivity
- Already managing threats (eg weeds) in these upland sites
- Why not - doesn't prevent use

- Indicative upper reaches
- Conservation land

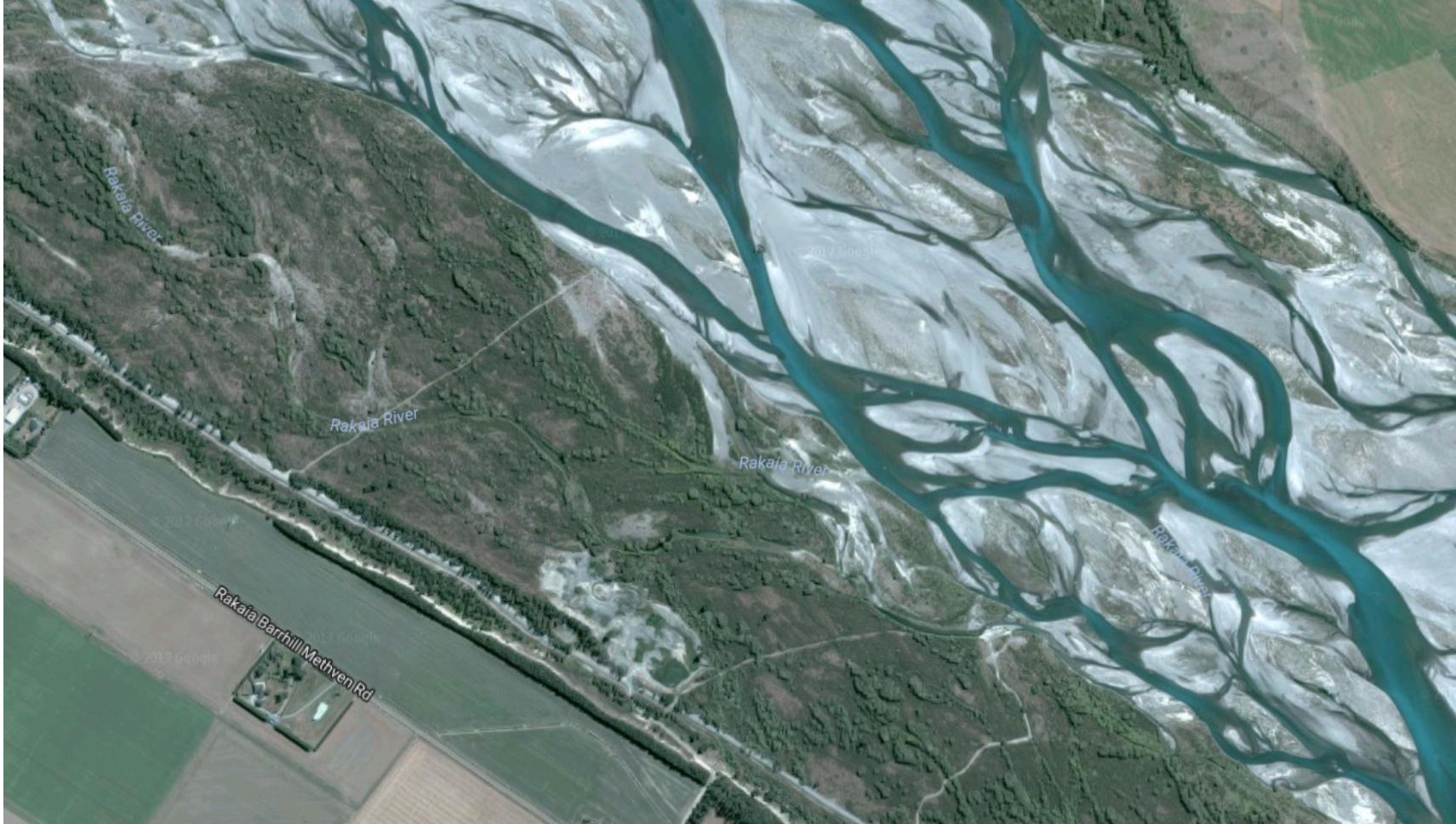


Achievable ecosystem targets

Target 2. *Reconnecting natural riparian margins: Two 5-10 km lengths of mid-river reaches are cleared of all weedy woody vegetation by 2025*

WHY

- Allows natural erosion and flow processes to occur
- Reduces predator refuges
- Provides higher areas as refuges for chicks and adult birds during floods
- Provides backwater foraging opportunities for birds
- Restores natural backwater, spring-fed characteristics for freshwater species



Weed infested riparian margin,
no lateral erosion, no flood free
refuges. High natural banks.

Achievable ecosystem targets

Target 3. *Its not okay. Change the attitude towards driving vehicles in braided rivers by 2022*

WHY

- Vehicles squash nests and chicks of threatened species, kill invertebrates and native plants, and destroy habitat
- There are 94000 kms of roads in NZ, and many off-road tracks – no need to drive on 2000kms of braided rivers
- You wouldn't park a vehicle in a trout spawning site to go bird watching, so why park in a bird nesting site to go fishing?



Achievable ecosystem targets

Target 4: *Develop understanding about links between flows and terrestrial values. Answer the question about how change in flows impacts on terrestrial flora and fauna values by 2022.*



WHY

- Area / flow relationships available for freshwater fish – do the same for birds, invertebrates and plants
- Guide island habitat creation, inform water and gravel abstraction applications
- What flows (minimums, floods) to support habitat? How can habitat be best contoured and restored following gravel removal?

Achievable species management targets

Target 5: *Save black-fronted terns: get a 50+% increase in the global population by 2028*

- Having 15,000+ black-fronted terns in 10 years time is achievable
- We have the tools
- Large rivers, bulldoze 1-2 ha islands, 1 per km
- Small rivers, clear islands + undertake 500m radius predator control
- Do this for 10 colonies per year until 80% of colonies covered



Achievable species management targets

Target 6: *Save black-billed gulls. Reverse declines through predator and weed control by 2028*

HOW

- Apply the black-fronted tern approach as start point
- Modify it until it works. There are lots of black-billed gulls, target is recruitment greater than mortality.
- Test this in 5 colonies by 2022, then apply it to 80% of all colonies by 2028

Achievable species management targets

Target 7: *Save robust grasshopper. Protect at least 5 populations and connecting habitat by 2028*

HOW

- Use an adaptive management approach to develop methods of increasing population size
- Apply these methods over 5 sites



Achievable pest management targets

Target 8: *Control black backed gulls. Reduce population densities to 20% of current levels by 2028*



WHY

- Black backed gull populations are supported by agricultural lands
- Populations are well above carrying capacity
- Gulls prey on eggs and chicks of braided river birds, and eat other native fauna. At high densities their impact will be severe.
- Rivers such as Rangitata, Waimakariri, Rakaia should support a few hundred not several thousand gulls

In summary

- Understanding the complexity of braided river environments will take time
- We can make good gains in managing some threats and improve ecosystem condition and threatened species status now
- Lets start setting targets for those elements where we know enough to get good gains
- It will take co-ordination and collaboration to meet such targets