Wildlands Wellington News July 2014

***An update on our people and services*.**

In our news this quarter: field surveys and mapping.

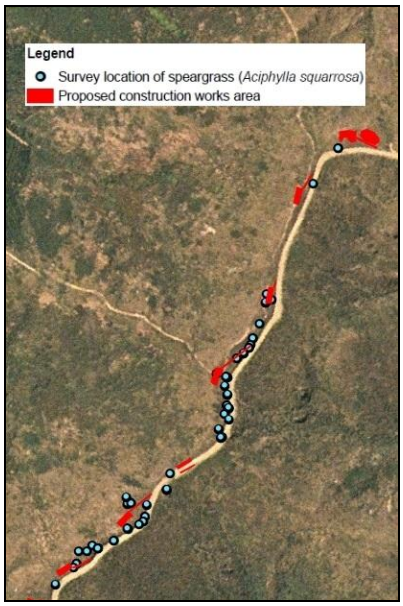
Wildlands: providing outstanding ecological services to sustain and improve our environments.

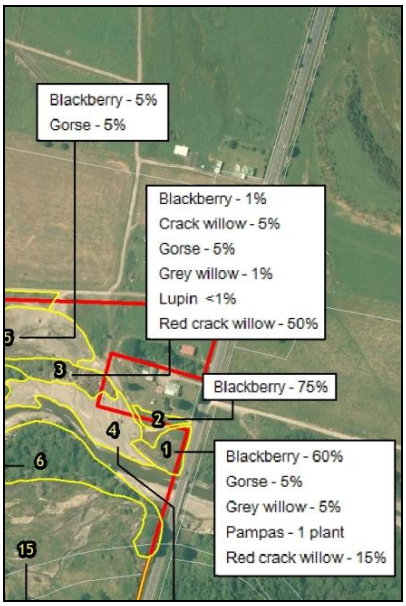
Recent projects

Most Wildlands reports include maps to show features of importance. Recent Wellington projects with a strong mapping component have included: vegetation and habitat types at proposed subdivisions and existing and proposed mountain bike tracks, indigenous bird habitat in a public park; ecologically significant sites in Kapiti Coast District, assessing and mapping the likelihood of storm-damaged exotic forest developing into indigenous forest; stream modification and restoration; and whitebait spawning grounds. Additionally, we've peer-reviewed a range of resource consent applications, including several with a stream component, and have developed planting and weed control plans for subdivisions and restoration projects.

Shortjaw kōkopu found

The 2013-14 summer field season was a good one with opportunities to survey a number of high profile urban streams in the region. A highlight of the season was finding shortjaw kōkopu (*Galaxias postvectis*) in a pool in the Kenepuru Stream, at Porirua. This pool had been electric-fished in 2006, with nothing of interest found, but a recent spotlighting survey revealed eels, inanga, and kōura (freshwater crayfish), as well as the 'Nationally Vulnerable' shortjaw kōkopu.





Survey and mapping

One of Wildlands' core strengths is undertaking field surveys and mapping the findings. We have a very experienced, in-house team who produce a wide variety of maps, using ESRI Geographic Information System software (ArcGIS 10.1). Files from other compatible software, such as CAD, MS Excel, and GPS, can all be imported and combined with digitised data and aerial photography for further analysis or mapping. We can also provide clients with geographic data in a form that can be viewed using Google Earth.

Vegetation and habitats

Wildlands routinely maps vegetation and habitat types using consistent classification systems based on key canopy species for each vegetation type. We have mapped large parts of New Zealand - for instance more than 50,000 hectares in the Wairarapa alone!

Mapping of vegetation types can help to determine areas for pest plant and pest animal control, and potential sites where rare or unusual plants, or animals, might potentially be found.

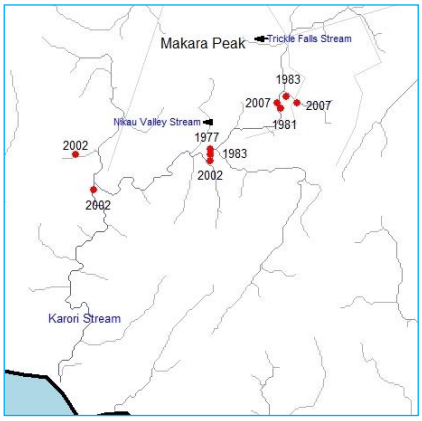
In the Wellington Region there are many areas of vegetation that are developing into more mature vegetation types. For example, areas of gorse are being overtopped by indigenous species. More indigenous species will then be recruited as forest conditions change. Some of these will later emerge through the canopy resulting in a more complex forest structure. Mapping of the same areas over time can illustrate such trends in forest development.

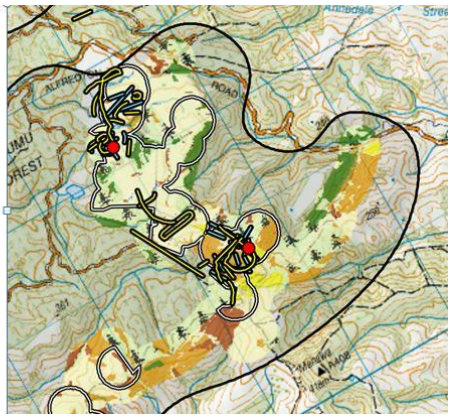
Wildlands

We mapped a population of speargrass (*Aciphylla squarrosa*, Range Restricted in Wellington) in relation to a proposed development, enabling the development footprint to be altered to minimise impacts. That map is now also being used to monitor the impacts of goats on speargrass, and with monitoring for the regionally threatened speargrass weevil (*Lyperobius huttoni*).

Weeds

Weeds can be mapped to show distributions in relation to high value sites, or to highlight heavy infestations. Mapping can also illustrate priorities for control, for instance those species with the greatest environmental impact, or those which have only recently established and are still relatively easy to eradicate. Maps can incorporate graphics or text to help illustrate the density and variety of weeds and also highlight important indigenous species that may need to be protected during weed control operations.





Mapping of fauna

We can monitor some animals fairly easily, either by observation or using telemetry, and plot their tracks to show where they travel over time. This is routinely done for birds at proposed wind farm sites (above right). It is also useful to map the levels of bait taken per bait station, and sites where predators have been caught, to help inform future predator control. Fish come and go at sites so we use the NIWA Freshwater Fish Database software to map historic fish records (above left). This is quick and cost-effective, and helps us to determine whether further surveys are required.

People:

Astrid van Meeuwen Dijkgraaf PhD Ecology Senior Ecologist
A highly qualified ecologist with a wealth of experience on large projects such as subdivision and infrastructure consent applications; and broad scale monitoring and inventory. Strong leadership skills make Astrid the ideal person to oversee projects while her science background means she can promptly identify and initiate appropriate monitoring and research programmes for your projects.
Her specialties: Survey and monitoring and expert witness at Hearings (birds, bats, lizards, ecology, biodiversity offsets), design of monitoring programmes and data analysis, plant-animal interactions and management.

Frances Forsyth BSc Geomorphology and PG Dip Ecology Senior Ecologist
An environmental scientist and ecologist with experience on a wide variety of projects Frances has a reputation for well-researched, thoughtful and practical work with reports written in plain English. Strong networking skills and a commitment to a quality product ensure that clients return with requests for further work and recommend her to others.
Her specialties: Ecological restoration, ecological management plans, expert witness at Hearings, native freshwater fish, and stream management. SEV and electric-fishing qualified.

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