

Creating spatial features for reporting: animal control

This guide applies to Victorian Government funded animal control activities where the objective is biodiversity protection, to be used in conjunction with Biodiversity 2037 Activity Data Requirements (PDF, 337 kB).

This guide describes how to prepare accurate spatial features for reporting animal control (terrestrial and marine pest animals, overabundant native herbivores and overabundant marine wildlife).

The associated data fields that should be attached to each feature being reported is provided in the [Biodiversity 2037 Activity data requirements \(PDF, 337 kB\)](#).

Templates, tools, and further information about spatial reporting for biodiversity protection are available on the [activity data webpage](#).

Using geographic information systems (GIS) to prepare accurate spatial features.

Animal control activities are usually at a point location, or along a line, or a combination of searching (lines) and control (points).

The spatial features for animal control activities are derived by the how the control is delivered (at a point, along a line, or a combination of line and point), and the species being managed.

The spatial data must be supplied separately for each species where more than one species is being controlled, and only once annually or as described under funding agreements.

This reporting guide describes how a polygon should be created based on operations undertaken at points (such as fox baiting), or operations which include lines along which some *searching* is undertaken as a direct part of the animal control activity (such as shooting).

Each treatment method and species combination should be reported separately. There are some exceptions – for example, rabbit control where a combination of methods is used as part of the same operation such as rabbit fumigation, harbour destruction and, baiting. In such cases the main control method can be reported. See Table 2.

The buffer extents are species specific and represent an *area of influence* that the animal would reasonably impact. The fox and cat baiting buffer distance considers the likelihood these animals will be exposed these control methods. See Table 1.

Point locations of control

Control that takes place at a location or point such as bait stations, trap sites, shooting and remove locations should be buffered by the buffer extents described for each species. See Table 1.

Table 1: Buffer extents for control at point/s

Species	Trap – Shoot – Remove Buffer point	Bait station Buffer point
Over abundant marine wildlife or pests	200 metres	n/a
Overabundant native herbivores (terrestrial)	500 metres	n/a
Fox	1 kilometre	1 kilometre
Feral cat	1 kilometre	1 kilometre
Goat	1 kilometre	n/a
Deer	2 kilometres	n/a
Pig	5 kilometres	5 kilometres
Feral cattle	5 kilometres	n/a
Feral horse	5 Kilometres	n/a
Rabbit	See Table 2	

Table 2: buffer extents for rabbit control methods

Method	Buffer by...
Bait trails (rabbit)	200 metres
Bait station	200 metres
Biological control (rabbit)	2 kilometres
Harbour removal	200 metres
Shoot or Trap	200 metres

Line locations of areas searched for control or maintenance of thresholds

Line locations of areas searched as a direct part of control is considered part of animal (pests, overabundant exotic and native wildlife) management. Line locations searched to determine maintenance of thresholds – for example, <1 rabbit per spotlight kilometre is also considered part of animal management. See Table 3

Table 3: buffer line extents for search methods

Method	Buffer line on each side by...
On foot	100 metres
Vehicle	100 metres
Marine	40 metres
Judas animal	100 metres
Aerial	200 metres

Creating single animal control features.

A single feature should be created for each species-control method combination. Noting exceptions where the *main* control method can be reported when a combination of methods is used for the same operation – for example, integrated rabbit control, integrated fox control

Point features only for fox and cat control

For fox and cat baiting and trapping, the point features should be combined into a single feature for each species by applying a rounded buffer to each point at the distances for their control method. The buffered points should be dissolved to create a single feature. Search lines are not relevant for these methods for cats and foxes.

Combining control method points and search lines to create animal control features.

Control activities that are a combination of animal control points (Table 1 or Table 2), and lines searched (Table 3) for a species should be combined into a single feature. Apply a rounded buffer of the distances for the control method to each point *and* apply a rounded buffer to each line for the search method.

The line and point feature, or features, should be dissolved to create a single feature (use the 'all' dissolve type). The number of animals controlled should be attributed to that feature if possible. See Figure 3 for dissolving buffered lines and points to create the feature.

For guidance on buffering and dissolving lines and points please refer to the [ArcGIS Desktop buffer guide](#).

Multi-part features

Animal control activities for a species that has the same control method, delivered at different locations over a wide area should be mapped at their separate locations. They can be attributed separately with the [Biodiversity 2037 Activity data requirements \(PDF, 337 kB\)](#). Alternatively, they can be merged to create a multi-part polygon and considered as a single attributed feature.



Figure 1: Like control activities delivered at different locations are mapped separately and merged so they are treated as a single record.

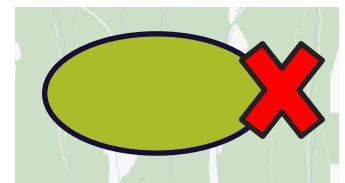


Figure 2: Like control activities delivered at different locations should not be mapped as a single record.

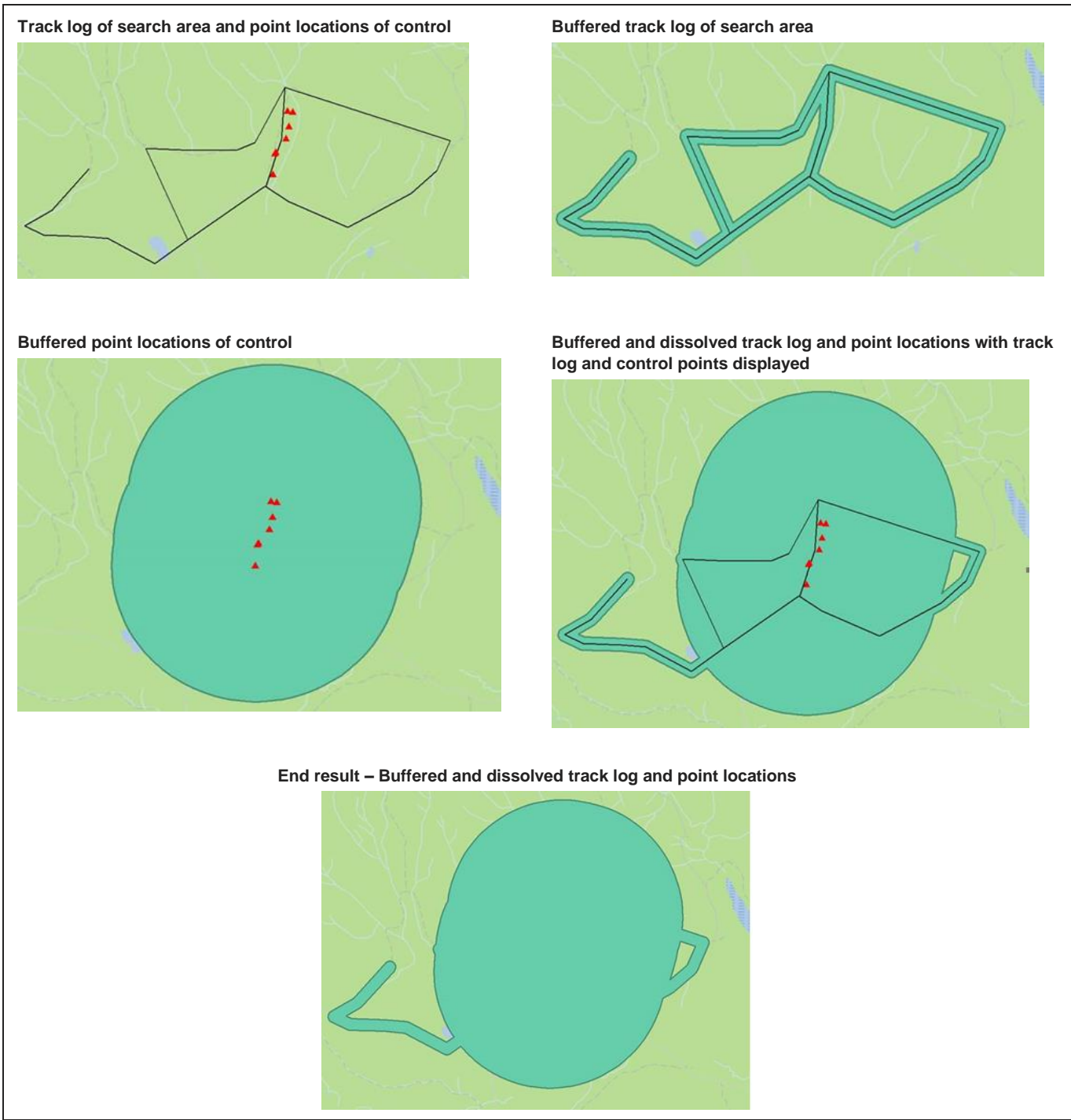


Figure 3: Track and control points buffered and dissolved to create a spatial feature for reporting (ArcGIS). The feature must have [Biodiversity 2037 Activity Data Requirements \(337 kB\)](#) attributed to it.

Preparing spatial features without GIS

Animal control activities (pest animal control, including exotic wildlife such as deer) must be reported as a polygon (shape feature) representing the area in which the *actual* control method was delivered. It should be mapped as accurately as possible to the locations of control, including searching.

Activities that are delivered at multiple points, such as fox baiting, should have the extent or boundary of the bait stations mapped, see Figure 4. Information about the number of bait stations within the polygon is required. See [Biodiversity 2037 Activity data requirements \(PDF 337 kB\)](#).



Figure 4: The extent of the bait locations (a) is represented by a polygon (b).

Data fields and values to attribute to features

Attributes must be attached to each feature, regardless of how the feature was created, 'Common attributes' and 'Animal Control' attributes are required for each feature. See [Biodiversity 2037 Activity data requirements \(PDF, 337 kB\)](#).

Many organisations have activity recording systems where some of the fields and values are described differently and may need some translation, or the fields and values may not exist. Where possible, data providers are asked to supply the fields and values in the [Biodiversity 2037 Activity data requirements \(PDF, 337 kB\)](#).

Templates, tools, and further information about spatial reporting for Biodiversity protection are available on the [activity data webpage](#).

An extra note - Sharing species observations with the [Victorian Biodiversity Atlas \(VBA\)](#)

Contributing your pest animal records to the VBA helps to get an authoritative picture of the extent of pest animal extent and prioritise action to protect native species. Contributing data to the VBA is open and available to all!

Your animal control actions are an important source of species observations for Victoria. Observations can be shared directly into the [VBA](#). Direct entry allows you to link your project identifier to the records, include information such as control actions or multiple records at a single site, as well as use the 'batch upload' function for bulk upload of records.

The VBA is a tool to help Victorians to understand more about their local biodiversity. By sharing your species observations, including pest animals, you are helping ensure that the VBA:

- is continually updated to reflect the current distributions of plant and animal species, including pest animals
- data is current and supports more robust modelling of habitat distribution and future climate change impacts
- provides evidence-based assessments of species distribution changes over time and where key threats are.

VBA data is a core input to most government processes and programs that impact native species and contributes to the knowledge bank that underpins the modelling, mapping and decision-making tools that are essential for climate adaption policies, emergency and forest fire risk management and land use planning.

The VBA is a foundational dataset for assessing the progress and targets of [Protecting Victoria's Environment – Biodiversity 2037](#).

We acknowledge Victorian Traditional Owners and their Elders past and present as the original custodians of Victoria's land and waters and commit to genuinely partnering with them and Victoria's Aboriginal community to progress their aspirations.



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