

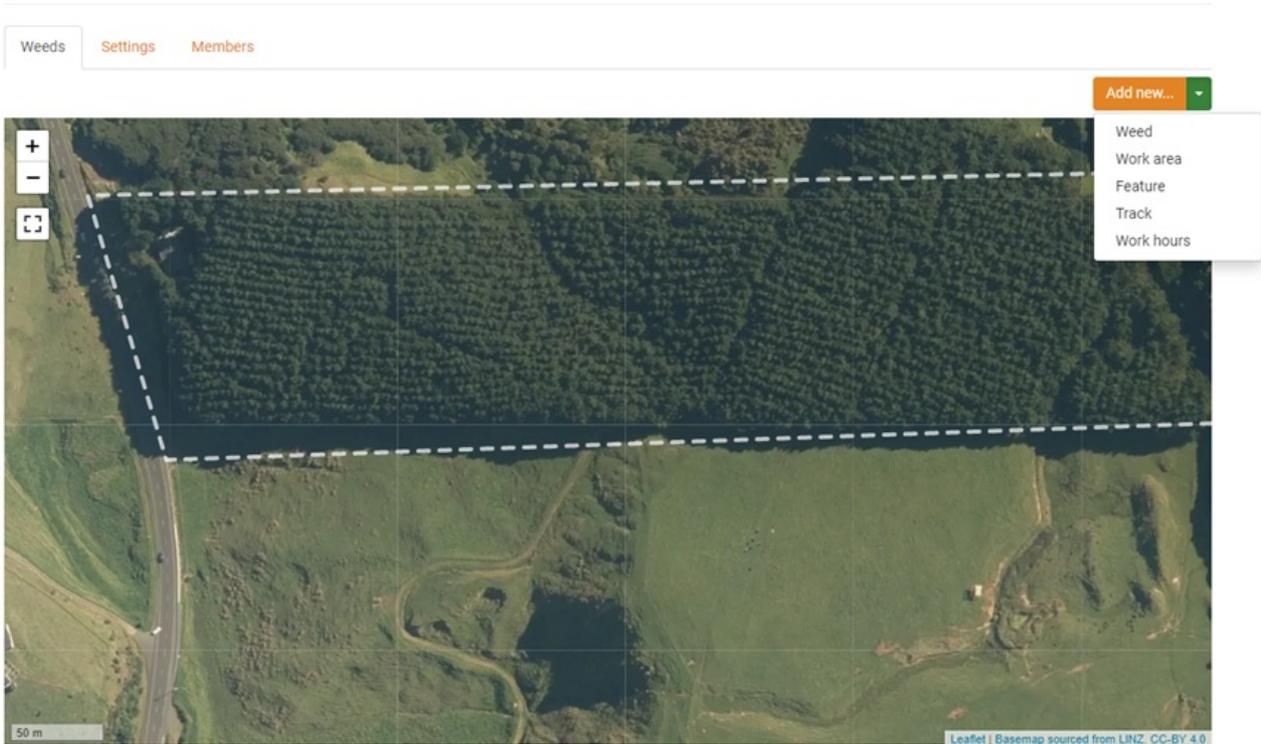
Managing weeds and work areas

WeedManager can be used at a range of levels from simple recording of completed weed control activities through to identifying weeds, monitoring weeds, assigning control activities to volunteers or contractors, recording controls which have been carried out and the time taken and monitoring the effect or outcome from that control. The first step is to record a target weed as an area (polygon), line or circle (point).

- Adding a weed to be managed
- Using work areas
- Selecting a weed for action
- Using a Work area to select weeds for an action
- Adding a feature
- Adding a track
- Checking a control
- Recording work hours

Adding a weed to be managed

Click on the **Weeds** tab under your project title, then click on **Add new....** A list options will appear, choose **Weed**. 



WeedManager will zoom out to show your entire project and you will see the weed entry form and map tools. Zoom in and pan to where the target weed occurs. Choose the map tool to either draw a polygon, line or circle marker to identify the location of the target weed. The example below shows data entry where 30% of the area is covered in 2m high adult blackberry. **Save** to finish data entry.

Species*
Blackberry (*Rubus fruticosus* agg.)

Location



The map shows a blue polygon drawn over a blackberry patch. The polygon is irregular and covers approximately 30% of the area. A 'Finish' button is visible on the right side of the map. The map source is identified as 'Leaflet | Basemap sourced from LINZ. CC-BY 4.0'. A 30m scale bar is visible in the bottom left corner of the map.

Maturity
Adult

Patch width or diameter
m

Density
30 %

Height
2 m

Images
Add a new file
Choose Files N
Upload requirements

Start date
28/07/2021 - 06:10

Assigned members
Select

Revision information
No revision

Revision log message

GeoJson Data*

```
{ "type": "FeatureCollection", "features": [ { "type": "Feature", "properties": {}, "geometry": { "type": "Polygon", "coordinates": [ [ [ [ 174.621436, -38.687654 ], [ 174.621905, -38.688269 ], [ 174.622125, -38.688328 ], [ 174.622211, -38.688759 ], [ 174.625623, -38.688675 ], [ 174.625827, -38.688654 ], [ 174.625639, -38.688127 ], [ 174.625601, -38.687897 ], [ 174.625521, -38.687612 ], [ 174.622147, -38.687633 ], [ 174.621436, -38.687654 ] ] ] ] ] }
```

Notes
B I        Format -  Source

Save

The screenshot below shows multiple weeds which need to be managed. An area of blackberry, a patch or agapanthus, and a line of gorse.

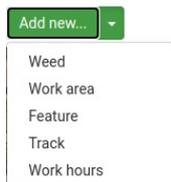


Using work areas

Work areas are used to group weeds, or weed patches, in an area. Work areas can then be assigned to volunteers or contractors for management. Work areas can overlap or be nested inside larger work areas. [?](#)

You can add a work area before or after adding a weed. Any new weeds added within the bounds of a work area are automatically included as part of the work area.

1. Under the **Weeds** tab in your project, click **Add new...**. A list options will appear in a drop down menu.
2. Select **Work area** from the list.

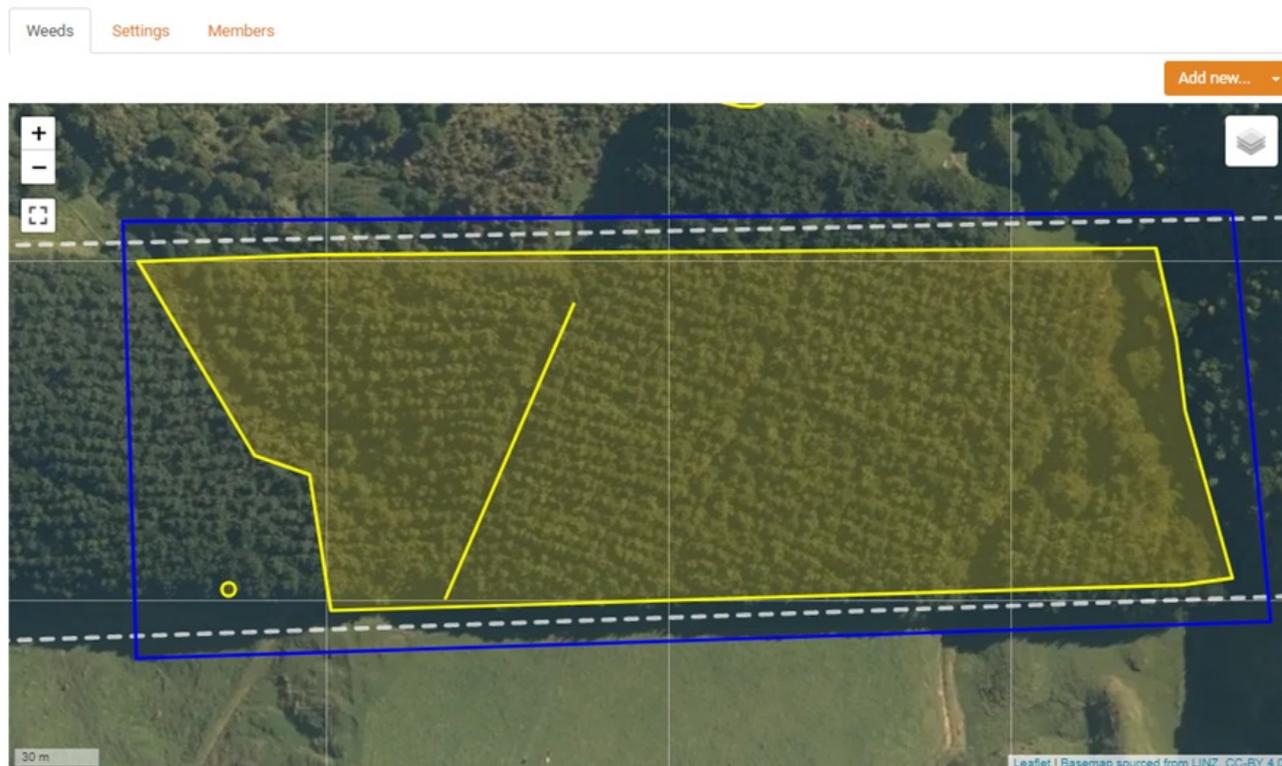


3. Under **Create Work area** give the area a **Name**.
4. Zoom in to the area you wish to define as a work area.
5. Choose the polygon map tool to draw the boundaries of your work area.
6. Click **Save** to finish data entry.

The work area will appear as a blue lined polygon. The example below shows a work area with three species of weeds.

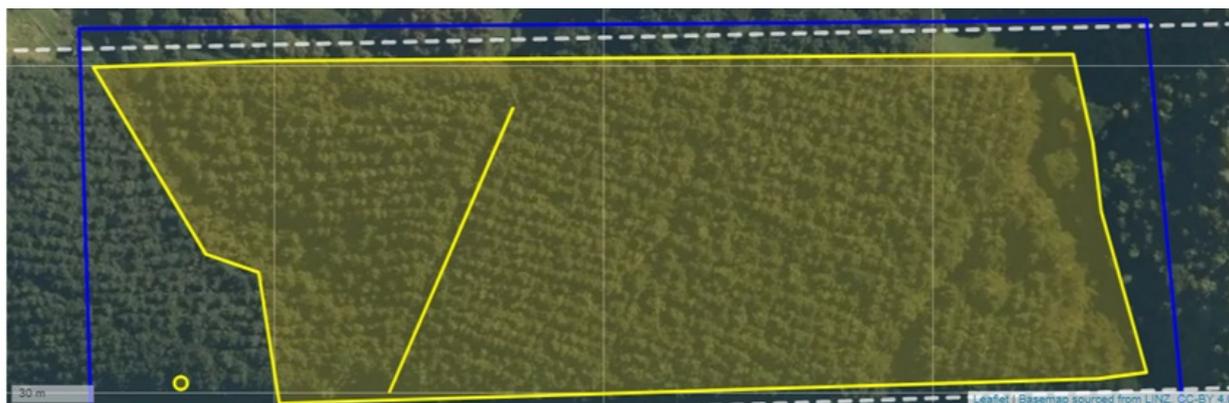
Work area *!st gully and top flat* has been created. ✕

Mokau test



Selecting a weed for action

Under the **Weed** tab you will see your map with a list of weeds in your project area with a filter tool.



JP of GT
0274994493

Weed filters

Work area: Species: Maturity: Last checked before:

Apply an action to selected weeds

<input type="checkbox"/>	Species	Edit	Patch width or diameter	Density	Height	Maturity	Added	Last checked	Images	Assigned members
<input type="checkbox"/>	Blackberry (<i>Rubus fruticosus</i> agg.)	edit		30%	2.00m	Adult	2021-07-28			
<input type="checkbox"/>	Agapanthus (<i>Agapanthus praecox</i>)	edit	3.00m	100%	0.70m	Juvenile	2021-07-27			
<input type="checkbox"/>	African club moss (<i>Selaginella kraussiana</i>)	edit	0.50m	10%	0.10m	Adult	2021-07-27			
<input type="checkbox"/>	Gorse (<i>Ulex europaeus</i>)	edit	30.00m	80%	2.00m	Adult	2021-07-26			
<input type="checkbox"/>	Gorse (<i>Ulex europaeus</i>)	edit	40.00m	50%	2.00m	Adult	2021-06-24			jp@groundtruth.co.nz
<input type="checkbox"/>	Gorse (<i>Ulex europaeus</i>)	edit		100%	2.00m	Adult	2021-05-24			

Filter by weed species

You can filter the list of weeds by species to assign or record a management action. Click in the **Species** box and begin typing to only display selected weed species.

Once your weed species has appeared, click on **Filter weeds**. The list below will show only the chosen species. 

Weed filters

Work area: Species: Maturity: Last checked before:

Apply an action to selected weeds

Selected 0 items in this view

Select / deselect all results in this view (all pages, 6 total)

<input type="checkbox"/>	Species	Edit	Patch width or diameter	Density	Height	Maturity	Added	Last checked	Images	Assigned members
<input type="checkbox"/>	Blackberry (<i>Rubus fruticosus</i> agg.)	edit		30%	2.00m	Adult	2021-07-28			



Apply a management action to a weed

Once you have selected the weed(s) you can choose a management action:

- **Delete weeds:** delete a weed
- **Add Control:** allocate or record a control
- **Assign members:** assign a member to that weed
- **Add Check:** records a monitoring check to track the effectiveness of control

Apply an action to selected weeds

<input checked="" type="checkbox"/>	Species	Edit
<input checked="" type="checkbox"/>	Blackberry (Rubus fruticosus agg.)	edit

Controlling weeds

1. Select **Add Control** from the drop down menu and click **Apply to select items**.
2. Check the **Date**, choose the **State** of the action (either **Pending** or **Completed**), add **Assigned members**.
3. Select the **Control type** from the menu (**Chemical**, **Mechanical**, or **Other**) and provide the additional details required for the method chosen.
4. Notes can be added to describe additional details.

Control type

Chemical

Chemical control method

Hose and gun

Herbicide mix

Blackberry TBXT

For a **Completed** chemical control action, this becomes a record of application or spray diary entry. Factors critical to that aside from who, where and what is how much and what were the conditions. This information can be also be added as shown on the right. The **Chemical Volume Applied** is the total amount of spray mix used for the action.

Configure "Add Control" action applied to the selection

Selected 1 entities:

- Blackberry

Date*

28/07/20;

State*

Completed

Assigned members

jp@groundtruth.co.nz ✕

Applicators

JP's men

Control type

- None -

- None -

Chemical

Mechanical

Other

Once you have entered the information click on **Apply** to save the record. You can see the record by clicking on the weed under the

weeds tab. To go back to that tab click on **My Projects** then click on your project and click on the weed.

Apply an action to selected weeds

-- Select action --

Apply to selected items

<input type="checkbox"/> Species	Edit	Patch width or diameter	Density	Height	Maturity	Added	Last checked	Images	Assigned members
<input type="checkbox"/> Blackberry (<i>Rubus fruticosus</i> agg.)	edit		30%	2.00m	Adult	2021-07-28			



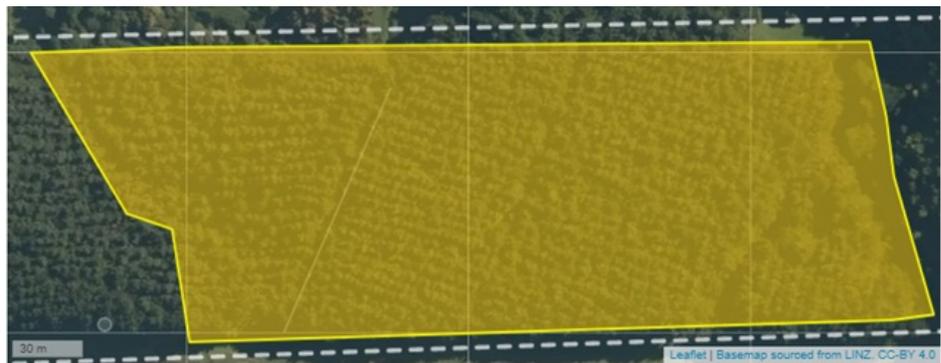
The screenshot below shows the record as **Pending** action. This can be updated to **Completed** by clicking on the date for the record.

A Pending Control is one that has been scheduled but not yet carried out. Set to Completed to add extra data such as environmental conditions and chemical volume applied.

State*

- Pending
- Pending
- Completed

jp@groundtruth.co.nz x



Checks

Add check

Controls

Date	State	Assigned members	Applicators	PPE used for application	Control type	Herbicide mix	Chemical volume applied
2021-07-28	Pending	jp@groundtruth.co.nz	JP's men	Cotton overalls	Chemical	Hose and gun	Blackberry TBXT 250.00L

Add control

Using a Work area to select weeds for an action

A work area can be used to group a number of weeds into an area for management by volunteers or contractors. Under the **Weed** tab your map, and a list of weeds will appear in your project area with a filter tool.

Filter by Work area

1. Click in the **Work area** box and select a work area.
2. Click the **Filter weeds** button.

The screenshot shows the 'Weed filters' section. A red box highlights the 'Work area' dropdown menu, which is open and showing three options: 'Gorse on slip 3', 'Gorse on slip 2', and 'Gorse on slip'. Below the dropdown is a green button labeled 'Apply to selected items'. To the right of the dropdown are three input fields: 'Species' (with a 'Select' button), 'Maturity' (with a 'Select' button), and 'Last checked before' (with a date format 'dd/mm/yy' and a calendar icon). A green button labeled 'Filter weeds' is to the right of these fields. Below the filters is a table of weeds with columns: Species, Edit, Patch width or diameter, Density, Height, Maturity, Added, and La. The table contains two rows: 'Pampas (Cortaderia selloana)' and 'Gorse (Ulex europaeus)'. Below the table is a green button labeled 'Apply to selected items'.

3. The list below will show only the weeds occurring in that work area.
4. Select (tick) the weeds you wish to apply an action to (control, check, assign or delete)

Assign member

A member of the project can be assigned to a specific weed, or the weeds within a work area. You can assign a member to a weed in three different ways:

Applying an action on the project home page:

1. Select the weeds you wish to assign, choose **Assign members** as your action and click **Apply to selected items**

The screenshot shows the 'Apply an action to selected weeds' interface. At the top, there is a dropdown menu with 'Assign members' selected. Below it is a green button labeled 'Apply to selected items'. Underneath, a grey box says 'Selected 7 items in this view'. Below that is a checkbox labeled 'Select / deselect all results in this view (all pages, 2 total)'. Below that is another green button labeled 'Apply to selected items'. Below that is a table with columns: Species, Edit, Patch width or diameter, Density, Height, Maturity, Added, Last checked, Images, and Assigned members. The table contains two rows: 'Pampas (Cortaderia selloana)' and 'Gorse (Ulex europaeus)'. The 'Pampas' row has a blue checkmark in the 'Species' column. Below the table is a green button labeled 'Apply to selected items'.

2. Choose a member(s) you wish to assign and click **Apply**.

Selected 1 entities:

- Pampas

Assigned members*

The screenshot shows the 'Assigned members' input field. It contains two text boxes: 'JP Praat' and 'adam.shand', each with a small 'x' icon to its right. The input field is outlined in red.

The screenshot shows two buttons: a green button labeled 'Apply' and a grey button labeled 'Cancel' with a small 'x' icon to its left.

Directly editing a weed:

1. Using the **edit** button next to a weed:

<input type="checkbox"/>	Species	Edit	Patch width or diameter	Density	Height	Maturity	Added
<input checked="" type="checkbox"/>	Pampas (<i>Cortaderia selloana</i>)	edit		50%	2.00m	Adult	2021-02-19
<input type="checkbox"/>	Gorse (<i>Ulex europaeus</i>)	edit	0.00m	50%	2.50m	Adult	2021-02-19



Adding a feature

WeedManager will allow you to add other features to the map as well. Features which can be added include **Hazards**, **Important Vegetation**, **Signage**, **Sites**, and **Views**.

To add a feature to you project map:

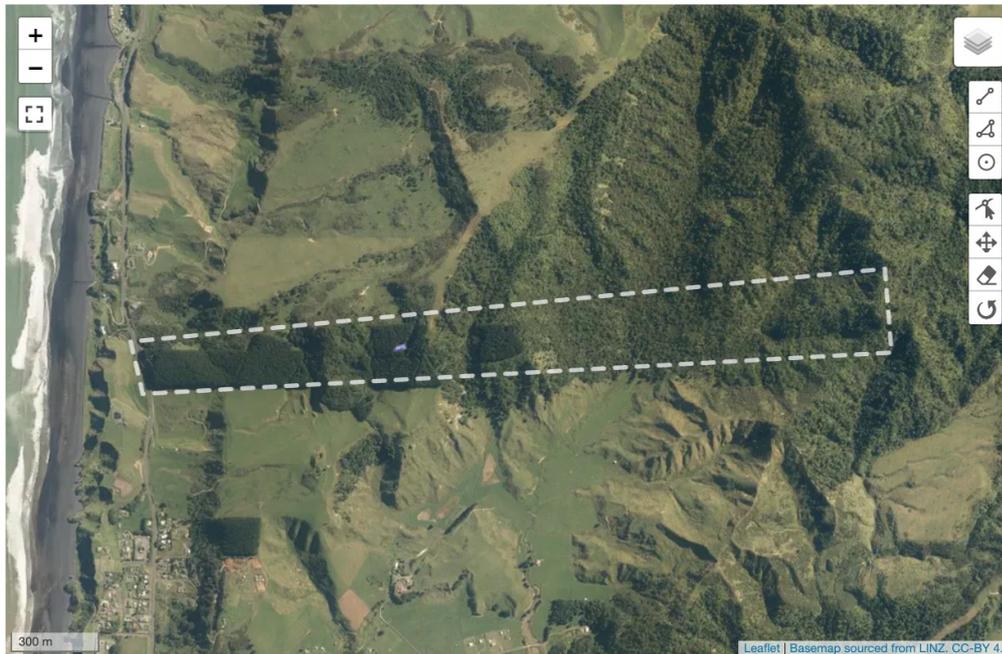
1. Under the **Weeds** tab on your project page, click **Add new...** and choose **Feature**.
2. On the **Create Feature page** give the feature a **Title** and select a **Feature type**.
3. Use the map tools to place the feature on the map.
4. Optionally upload images of the feature.
5. Click on **Save** to finish feature entry.



Create Feature

Title*

Location



GeoJSON Data*

Feature type*

✓ - Select a value -
Hazard
Important Vegetation
Signage
Site
View

Opacity

Images

Add a new file

 No

Upload requirements

Status

Last saved
Not saved yet
Author
adam.shand

Save

Adding a track

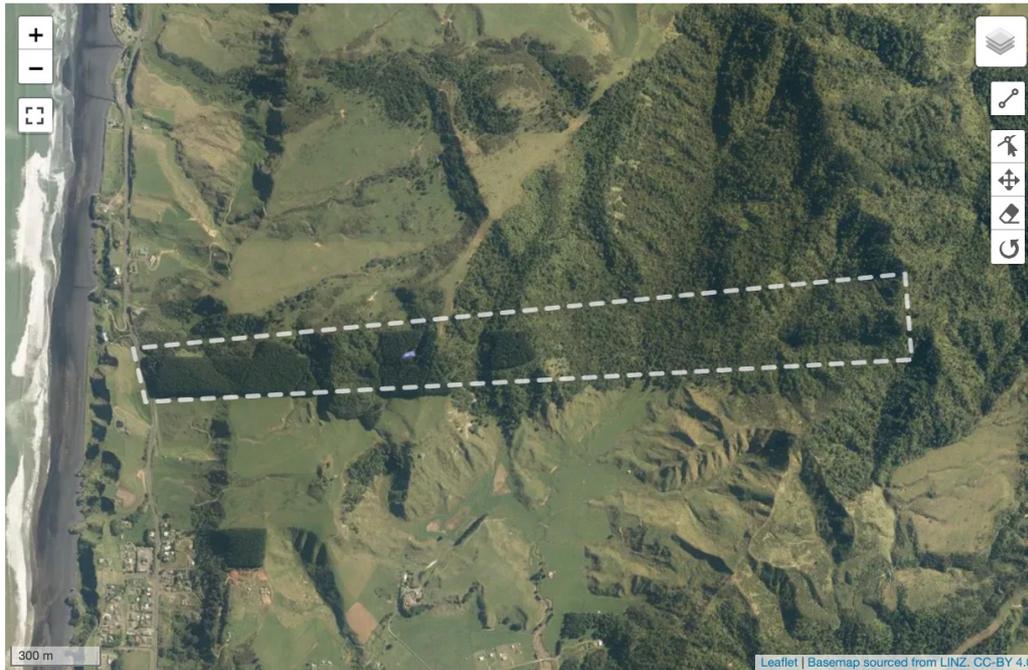
Tracks can be used to show the physical path taken when surveying, controlling, or checking the results of controls.

1. Under the **Weeds** tab on your project map click on **Add new....** A list of options will appear, choose **Track**.
2. On the **Create Track** page use the map tools to place the track on the map.
3. Track types can be for **Survey**, **Control** and **Checking** the result of a control.
4. Click on **Save** to add the track.

Create Track

Name*

Location



GeoJSON Data*

Activity

- ✓ - None -
- Survey
- Control
- Check

05/08/20:

07:20:48 PM

End date

05/08/20:

07:20:48 PM

Status

Last saved
Not saved yet

Author
adam.shand

✓ Save

Checking a control

After a chemical or mechanical control has been applied checks can be recorded for effectiveness. Select a weed or weeds from the list under the **Weed** tab. You could use the **Work area** and **Filter** tools to refine your selection. Once a weed is selected, select the action **Add Check** and click on **Apply to selected items**.

Got some weeds to destroy

Weed filters

Work area: Species: Maturity: Last checked before:

Apply an action to selected weeds

Add Check

Selected 7 items in this view

Select / deselect all results in this view (all pages, 2 total)

Apply to selected items

<input type="checkbox"/>	Species	Edit	Patch width or diameter	Density	Height	Maturity	Added	Last checked	Images	Assign
<input checked="" type="checkbox"/>	Pampas (<i>Cortaderia selloana</i>)	edit		50%	2.00m	Adult	2021-02-19			
<input type="checkbox"/>	Gorse (<i>Ulex europaeus</i>)	edit	0.00m	50%	2.50m	Adult	2021-02-19			

Apply to selected items

You will now see **Add Check** entry form. Note the weed species is correct and select from the available descriptions in the drop down menu. Control check descriptions include:

- **Alive** (no effect)
- **Partially controlled** (reduced in size)
- **Dead** (no further control required)

Add any useful notes such as variability in control or apparent misses. Choose a description and click on

Configure "Add Check" action applied to the selection

Selected 2 entities:

- Pampas
- Gorse

Date

05/08/20:

Effectiveness*

- ✓ - Select a value -
- Alive (no effect)
- Partially controlled (reduced in size)**
- Dead (no further control)

Basic HTML

About text formats

Apply

The date of the last check will be shown under the **Weeds** tab:

<input type="checkbox"/> Species	Edit	Patch width or diameter	Density	Height	Maturity	Added	Last checked
<input type="checkbox"/> Pampas (<i>Cortaderia selloana</i>)	edit		50%	2.00m	Adult	2021-02-19	2021-08-05
<input type="checkbox"/> Gorse (<i>Ulex europaeus</i>)	edit	0.00m	50%	2.50m	Adult	2021-02-19	2021-08-05

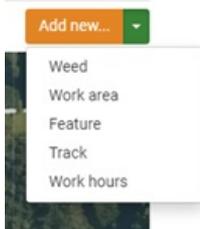
Apply to selected items



Recording work hours

You can record the hours worked against a work area.

1. Click on the **Weeds** tab under your project title, then click on **Add new**.
2. A list options will appear, choose **Work hours**.
3. You will then see the **Create Work hours** form.
4. Fill in the details such as **Work hours**, **Members**, **Member type**, **Activity** and the **Work areas**.
5. Click on **Save** to record work hours. 



Create Work hours

Date

29/07/20: 

Work hours

1 h

Members

jp@groundtruth.co.nz ✕

Member type

Contractor

Activity

Control

Work areas

1st gully and top flat ✕

 Save