



Weed and Hygiene Management Plan

Prepared for

Northern Midlands Irrigation Scheme

This is a sub plan of the Construction Environmental Management Plan

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REVISION REGISTER

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REVISION STATUS

Rev.	Section Changes
A	First draft submission for internal review
0	REV0 – For Use (pending approval of changes)
0.1	REV0.1 – For Use (pending approval of changes)

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1 EMP Scope and Purpose

Scope

This document is to be read in conjunction with Tasmanian Irrigation's (TI) Construction Environment Management Plan Northern Midlands Irrigation Scheme EPBC Number:2022/09295 (TIs CEMP). The Weed and Hygiene Management Plan (WHMP) addresses the environmental aspects and impacts of the Northern Midlands Irrigation Scheme. The WHMP applies to the scope of work described in the Project Integrated Construction Management Plan (ICMP) and complies with the APGA Code, DPIPWE (2015) *Weed and Disease Planning and Hygiene Guidelines – Preventing the spread of weeds and disease in Tasmania, Keeping It Clean (2010)* and the Tasmanian Irrigation Environmental Protection Guideline - EPG 4 Weed and Hygiene Control and the commitments made in the *Northern Midlands Irrigation Scheme Preliminary Documentation (EPBC Act Ref: 2022/09295)*, report for Tasmanian Irrigation Pty Ltd by North Barker Ecosystem Services.

2 Project Environmental Aspects and Impacts

Weeds

Fourteen taxa classified as declared weeds under the *Tasmanian Biosecurity Act (2019)* were observed within the project area (Refer Appendix A for a pictured index of weeds), including five species that are listed as weeds of national significance.

Species	Location
Weeds of National Significance	
<i>Cytisus scoparius</i> (English broom)	Approximately 15 plants were recorded over two sites near Campbell Town Golf Course.
<i>Lycium ferocissimum</i> (African boxthorn)	Limited observations throughout the survey area, however some occurrences contained tall, dense infestations.
<i>Rubus fruticosus</i> aggregate (blackberry)	Recorded along the railway line at Epping Forest, and occasionally along fence lines throughout the survey area.
<i>Salix x fragilis</i> var. <i>fragilis</i> (crack willow)	Widespread and abundant throughout the waterways in the survey area, occurring predominantly along the Macquarie, Isis and Lake Rivers.
<i>Ulex europaeus</i> (gorse)	Widespread throughout the survey area, forming a dense impenetrable thicket in some places.
Declared Weeds	
<i>Carduus nutans</i> (nodding thistle)	Observed in numerous locations, typically in large clusters sometimes containing hundreds of plants.
<i>Carduus pycnocephalus</i> (slender thistle)	Observed in numerous locations, often in dense clusters at the edges of paddocks and disturbed areas
<i>Cortaderia selloana</i> (silver pampasgrass)	A single patch containing 20 plants was observed at a property at Valleyfield Road.

<i>Erica lusitanica</i> (Spanish heath)	A single plant was recorded along Macquarie Road, east of Macquarie Settlement Road. A common roadside weed in much of Tasmania.
<i>Hypericum perforatum</i> subsp. <i>Veronense</i> (perforated St Johns-wort)	A patch containing approximately 25 plants was recorded on Valleyfield Road at Blanchard's Creek.
<i>Lepidium draba</i> (white weed)	Observed in drainage ditches adjacent to Mona Vale Road, but not recorded in the adjacent vegetated area.
<i>Marrubium vulgare</i> (white horehound)	Isolated, small populations were recorded within agricultural land, generally limited to one or two plants.
<i>Onopordum acanthium</i> (cotton thistle)	Localized patches were found in areas south of Barton Road.
<i>Senecio jacobaea</i> (ragwort)	A single plant was observed along Ashby Road, an area no longer within project alignment.

Other notable weeds known from the project area that are likely to be problematic include:

- *Agrostis capillaris* (brown top bent grass),
- *Arctotheca calendula* (capeweed),
- *Cirsium vulgare* (spear thistle),
- *Crataegus monogyna* (hawthorn),
- *Dipsacus fullonum* (wild teasel),
- *Rosa canina* (dog rose),
- *Rosa rubiginosa* (briar rose),
- *Silybum marianum* (variegated thistle),
- *Solanum nigrum* (blackberry nightshade),
- *Typha latifolia* (great reedmace).

Potential Pathogens

The Tasmanian Natural Values Atlas identifies root rot (*Phytophthora cinnamomi*) as the only known biosecurity risk within the project area. However, no signs of *Phytophthora* have been observed during field surveys.

Chytrid fungus (*Batrachochytrium dendrobatidis*) affects amphibians worldwide, including Tasmania. The spread of the pathogen is likely to be promoted by human activity and has been associated with gravel roads near water bodies. It can be expected to be present within the irrigation district, but no known observations of the pathogen are evident from within five kilometres of the project area.

3 Objectives and Targets

The goal of the WHMP is to minimise the transfer and proliferation of weeds and pathogens within and between sites.

Environmental objectives are assigned based on project environmental aspects. Environmental targets assist in providing verifiable evidence the environmental objectives have been achieved.

The environmental objectives and targets for this project are:

- No spread or proliferation of weeds or pathogens within and between sites or to adjoining land
- No introduction of weeds or pathogens from another geographic region

4 Environmental Control Measures

Weeds have been identified and recorded by Tasmanian Irrigation prior to works, and locations are included in the project GIS data set. Site personnel will assess the project works area prior to construction for the presence of weeds and pathogens.

Disturbance to areas containing identified weed species is to be minimised.

This will be achieved through implementing the following:

- All plant and machinery will be washed down prior to arriving to site.
- All vehicles and machinery to enter and exit construction site at designated access points only.
- Movement of vehicles and personnel to be limited to defined access tracks.
 - All vehicles, plant, and machinery will be washed down between property boundaries as per Landowner Access Agreements. Wash down units will be located at access points between properties.

All vehicles and personnel are limited to defined access tracks. Vehicles and machinery operating within or nearby to waterways will be subject to additional wash downs. Accessing across waterways will be minimised as much as reasonably practicable.

Hazell Bros FRM-GRP-098 Mobile Plant and Vehicle Weed and Seed Hygiene Inspection Checklist is to be completed to record compliance of wash downs. Any vehicles or machinery operating within or nearby to waterways is to be washed down with Phytoclean or Trigene, applied using a mobile high pressure water trailer to mitigate potential spread of disease as required. A washdown register will be kept for all vehicles.

Should weed affected soils need to be stockpiled, locations will be nominated and agreed with landowners. Treatment will be applied as required.

Any material such as imported topsoil, crushed rock or gravel, and organic revegetation mattings will need to be certified to be weed and disease free by the supplier prior to being brought to site. Any necessary approvals for this will need to be obtained and provided to TI prior to work commencing at the site.

A declared weed eradication program will be implemented along the construction corridor during works and following rehabilitation; until the end of the defect liability period or for 12

months after construction is completed whichever is greater. Treatments will be timed in accordance with species specific prescriptions. The proposed program will be approved by landowners in landowner agreements and additional information is within Hazell Bros Rehabilitation and Reinstatement Plan.

5 Environmental Monitoring & Reporting

Environmental Monitoring and Inspections

Environmental monitoring will be conducted as follows:

- Fortnightly monitoring of plant and materials, and location of stockpiles.
- Spot inspection of plant entering and exiting the operation prescription areas to ensure the effectiveness of control measures including wash downs.
- Follow-up monitoring to be undertaken post installation as post rehabilitation for weed identification and appropriate additional control, as disturbance from construction works along the pipeline route is likely to stimulate germination of a range of weed species.
- The Contractor must ensure that the erosion and sediment controls outlined within the CEMP are complied with and are documented. Compliance reporting will be outlined in:
 - Daily Site Diary
- Weekly environmental checklists (provided to TI at the end of the month along with the monthly report)

Project Audits

The project is subject to internal and external audits as determined by the Hazell Bros Audit Schedule. The aim is to conduct an internal management system audit on all projects within three months of project commencement and six monthly thereafter. Projects may also be subject to external surveillance and recertification audits depending on project size, funding and duration. Audits will be scheduled as per Tasmanian Irrigation's Construction Environment Management Plan (TI's CEMP) and the requirements of section 2.2.2 in the technical specification.

6 Appendix A – Index of Observed Weeds



Figure 1: *Carduus nutans* (nodding thistle)



Figure 2: *Carduus pycnocephalus* (slender thistle)



Figure 3: *Cortaderia selloana* (silver pampasgrass)



Figure 4: *Erica lusitanica* (Spanish heath)



Figure 5: *Hypericum perforatum* subsp. *Veronense* (perforated St Johns-wort)



Figure 6: *Lepidium draba* (white weed)



Figure 7: *Marrubium vulgare* (white horehound)



Figure 8: *Onopordum acanthium* (cotton thistle)



Figure 9: *Senecio jacobaea* (ragwort)



Figure 10: *Cytisus scoparius* (English broom)

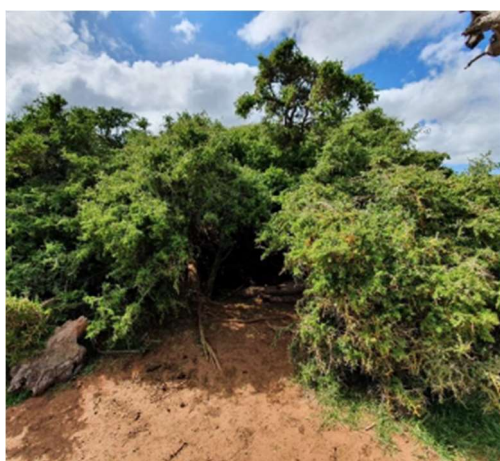


Figure 11: *Lycium ferocissimum* (African boxthorn)



Rubus fruticosus (blackberry)



Figure 4: *Salix x fragilis nothovar* (Crack willow)



Figure 5: *Ulex europaeus* (Gorse)

7 Appendix B – FRM-GRP-098 Mobile Plant Weed and Seed Hygiene Inspection Checklist