

## Weeds at the early stage of invasion: pilot project evaluation

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**Summary** The Weeds at the Early Stage of Invasion (WESI) project focuses on high risk early invaders that threaten biodiversity. The project team works with public land managers anywhere in Victoria.

Various tools and a decision making framework help public land managers make informed decisions about the effective management of early invaders.

Between 2014 and 2017, the project team established a series of pilot projects to test, improve and assist adoption of the early invader tools. Over this period, a total of 16 pilot projects were conducted of which seven were chosen to be evaluated. A total of 52 individuals were involved in the pilot projects including 13 agencies/groups.

In 2017 a pilot project evaluation report was developed, summarising the findings of the evaluation. The report concluded that the early invader pilot projects had been a valuable way of testing, refining and gaining adoption of the early invader process and tools in Victoria. This model could be beneficial for the development and adoption of other invasive species projects.

**Keywords** Early invader pilot projects, Weeds at the Early Stage of Invasion.

### INTRODUCTION

The Weeds at the Early Stage of Invasion (WESI) project focuses on high risk, early invaders that threaten biodiversity. We work with Department of Environment, Land, Water and Planning (DELWP) and Parks Victoria staff looking after public land anywhere in Victoria. By investigating the barriers that prevent action on early invaders, WESI has created a process and tools to assist public land managers.

The WESI project's framework leads public land managers through a decision making process, which is supported by a set of detailed guides and other tools. The focus of the WESI project is to enable the early intervention and localised eradication of high risk invasive weed species on public land in Victoria at any scale. It aims to support, enable and build the capabilities of DELWP and Parks Victoria staff working on early invaders that threaten biodiversity.

The project team set up a series of pilot projects to assist the adoption of the WESI process and tools by local public land managers. It also provided an opportunity to test and refine the tools out in the field with real life scenarios.

The purpose of the evaluation plan was to evaluate the WESI pilot projects that aim to:

- to cover a range of scenarios and weed types to test and improve different aspects of the WESI processes and tools; and
- promote the WESI Project within the regions and aid its adoption.

The evaluation looked at:

- the appropriateness and delivery of the pilots;
- the distribution of the package of WESI tools to the pilot groups;
- whether the pilots were successful?;
- how useful the package of WESI tools was?; and
- how the package of WESI tools could be improved?

### Audiences and stakeholders for the evaluation

The WESI pilot evaluation plan informed the primary investor, the Weeds and Pests on Public Land (WPPL) program, the WESI Steering Group, project team and pilot participants.

A single report (James and Blood 2017) was produced to inform the participants of the outcomes of the pilot evaluation.

The report participants included nine people representing seven different pilot projects.

### MATERIALS AND METHODS

**Evaluation scope and methods** The pilot evaluation took the form of low-key interviews to limit the burden of the evaluation on the pilot participants, while at the same time providing adequate results for a meaningful evaluation. The interviews were conducted by the WESI project officer, Bec James, face-to-face or over the phone with the pilot participants. The evaluation informed future project direction and improved the existing processes and tools.

**Evaluation approach and key questions** Outlined below are the key evaluation questions asked by the WESI project team to pilot project participants as part of the evaluation. The specific audience for each question is indicated with brackets.

#### Activities

1. Were the pilot projects designed and implemented appropriately? [pilot project participants] Were the pilot projects implemented the right way?
2. Was the pilot project implementation strategy implemented as planned? [WESI project team] If not, why not?

#### Outputs

3. Was the planned Decision Making Framework (DMF) and the tools created and distributed to the pilot project groups, provided as planned? [WESI project team] What was planned? What was delivered? What changes were made along the way? Why?
4. To what extent did the pilot project groups use the WESI process and tools, and apply them to their situations? [pilot project participants]
5. How suitable was the WESI process and tools for the target audience and intended users? [pilot project participants]

#### Outcomes (Results)

6. To what extent was the package demonstrated to work, in a variety of settings? [pilot project participants] What worked? What didn't? What contextual (other related) factors influenced the results e.g. budget, time? What lessons were learnt about the use of the package and how it could be improved into the future?
7. To what extent do pilot project participants rate the success of the pilot project they were involved in? [pilot participants] Provide a rating on the overall success of the pilot: 5 – Highly successful, 4 – Successful, 3 – Partly successful, 2 – Unsuccessful, 1 – Very unsuccessful. Please provide a reason for the rating provided.
8. How do pilot project participants rate the usefulness of the most recent WESI package? [pilot participants] Provide a rating on the overall usefulness of the pilot project: 5 – Highly useful, 4 – Useful, 3 – Partly useful, 2 – Not useful, 1 – Useless. Please provide a reason for the rating provided.

#### Improvement

9. How can the package be improved, to increase its usefulness and effectiveness? [pilot project participants]

**Data collection methods, sample sizes and timing** Over the 2014–2017 WESI project period, a total of 16 pilot projects were conducted and some are still underway. A focused selection of seven of these pilot projects were chosen for evaluation, representing a variety of scales and situations. Pilot projects were undertaken in each of six DELWP regions.

The pilots were undertaken at different scales (e.g. small reserves to statewide) and tested all or different components of the WESI package of tools. The tools included a decision making framework, a set of six guides, weed risk database, templates and other items.

Data was captured from one-on-one interviews (in person or via phone), document reviews, collection of other specific data, including the outcomes achieved by the pilot projects.

#### RESULTS

The pilots were implemented mostly as planned in an appropriate manner. All participants interviewed thought the pilot projects were successful; and of the participants interviewed after the WESI guides were published, 100% thought the package of tools was useful.

#### Lessons learnt

- *Lesson A:* The WESI process and tools can be effectively applied at a range of scales, for new and established programs, and for a range of likely situations to improve investment decisions for early invaders. There are additional situations where it would be valuable to pilot.
- *Lesson B:* Without WESI team support, it could be challenging to gain adoption of the WESI process and tools.
- *Lesson C:* The existing WESI tools need to be simplified and, with additional tools, made more accessible to people in the field.
- *Lesson D:* There is a demand for a weed knowledge centre of information (including traits and risk ratings) to support the effective and efficient use of the WESI process and tools.
- *Lesson E:* Without resources and tools to achieve biodiversity outcomes, it is difficult to undertake planning and on-ground activities to implement the WESI process.

**Interpretation of findings** From the WESI project team's point of view at the end of this round of pilot projects, it is clear that the range of developed tools

could be further refined and manipulated into a more succinct and field-friendly format.

Ongoing support for regional staff is required to learn about and effectively use the WESI process and tools. A weed knowledge centre of information and risk ratings will significantly help the use and adoption of the WESI tools.

The provision of resources to assist public land managers with planning, eradication activities and monitoring will give the WESI project wings and accelerate its adoption.

#### RECOMMENDATIONS

The evaluation report recommended that the WESI project be continued with additional resources for at least a further three years to undertake the following recommendations:

- *Recommendation A:* Pilot the WESI process and tools across further situations to further improve investment decisions for early invaders.
- *Recommendation B:* Continue the WESI project to support biodiversity and public land managers with improved early invader management.
- *Recommendation C:* Refine existing tools and develop additional WESI tools which are more accessible to people in the field.
- *Recommendation D:* Develop a weed knowledge centre, accessible to all, containing information (including trait and risk ratings) to support the effective and efficient use of the WESI process and tools.
- *Recommendation E:* Provide resources to biodiversity and public land managers to undertake planning and on-ground activities to implement the WESI process and tools to achieve better biodiversity outcomes.

#### CONCLUSIONS

The early invader pilot projects undertaken from 2014–2017 were a valuable way of testing, refining and gaining adoption of the WESI process and tools in Victoria. One hundred percent of participants interviewed thought the pilot projects were successful; and of the participants interviewed after the WESI guides were published, 100% thought the package of tools was useful.

The pilot projects have reinforced the usefulness of the WESI package and suggested further refinements and additional tools to increase their effectiveness, including a weed knowledge centre.

The WESI decision making framework is logical and easy to understand. Pilot project participants were able to quickly understand and follow its intent. The set of six WESI guides that support the decision making framework is considered a great resource. Summarising the set of guides into one document will help its adoption, especially with operations staff.

Continued support from the WESI team for public land managers is important for further adoption of the WESI package. Future pilot projects will test additional scenarios. Further resources are necessary to assist planning and on-ground eradication of early invaders to protect biodiversity – the ultimate aim.

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