

NES-PF RISK ASSESSMENT TOOLS

NES-PF BACKGROUND

The Resource Management (National **Environmental Standards for Plantation** Forestry) Regulations 2017 (NES-PF) are a set of national regulations to manage the environmental effects of plantation forestry:



Maintain or improve environmental outcomes of plantation forestry activities

Increase the efficiency and certainty in the management of plantation forestry activities.

NES-PF AND THE RISK ASSESSMENT TOOLS

Tools 1 and 2 are based on local geophysical, biological and ecological data

All tools are tailored to identify plantation forestryspecific risks

NES-PF risk assessment tools help

> to determine the level of environment risks associated with plantation forestry activities

Tools are updated as new info and technology becomes available

> The NES-PF sets permitted activity conditions based on good plantation forestry practice and environmental effects. If foresters can comply with the conditions, the activity will be permitted. If not, the activity will require a resource consent.



1. EROSION SUSCEPTIBILITY CLASSIFICATION (ESC)

click for more info

The ESC is a spatial database tool MPI developed to identify

levels of erosion risk by classifying land into one of four colour coded erosion susceptibility categories below:

High

Very High **Dominant erosion process**

The ESC tool is based on the

Rock type

Topography

The ESC classification determines restrictions

NES-PF typically imposes less controls on activities conducted on lower risk green and yellow land, and more controls over activities conducted on higher risk orange and red land.



2. FISH SPAWNING INDICATOR (FSI)

click for more info

The FSI is a spatial database tool MPI developed to identify

level of risk that plantation forestry activities present to sensitive or threatened freshwater fish species found in our rivers, lakes and wetlands.

The FSI tool determines this risk by identifying

Threatened or sensitive freshwater fish species

> When these species are spawning (i.e. spawning periods)

Where these species are spawning

The FSI info determines appropriate restrictions

Plantation forestry activities that disturb spawning habitats during spawning periods will require resource consent. FSI info informs conditions imposed on these activities.



3. WILDING TREE RISK CALCULATOR (WTRC)

The WTRC is a desktop assessment tool developed to identify

the level of wilding conifer spread risk associated with afforestation and replanting in any location.

The WTRC uses these 6 indicators to determine the level of wilding conifer risk at a given site

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Site's land-use

characteristics

Spread vigour of tree species



Species palatability to livestock

Surrounding

vegetation



Topographical placement of site



Wind conditions

The WTRC indicators determine restrictions

to be imposed on afforestation and replanting. Points are assigned to each indicator. If the total score is over the required threshold a resource consent is required for afforestation



EROSION SUSCEPTIBILITY CLASSIFICATION (ESC)



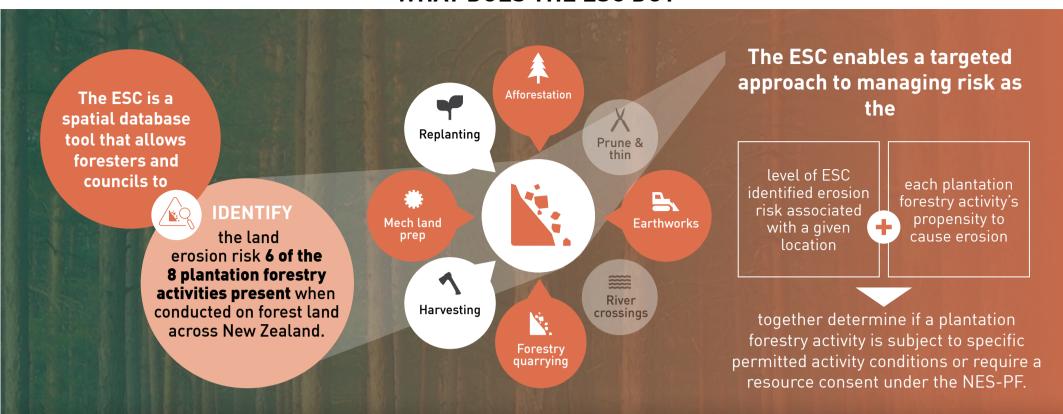
<u>HOME</u>

ESC

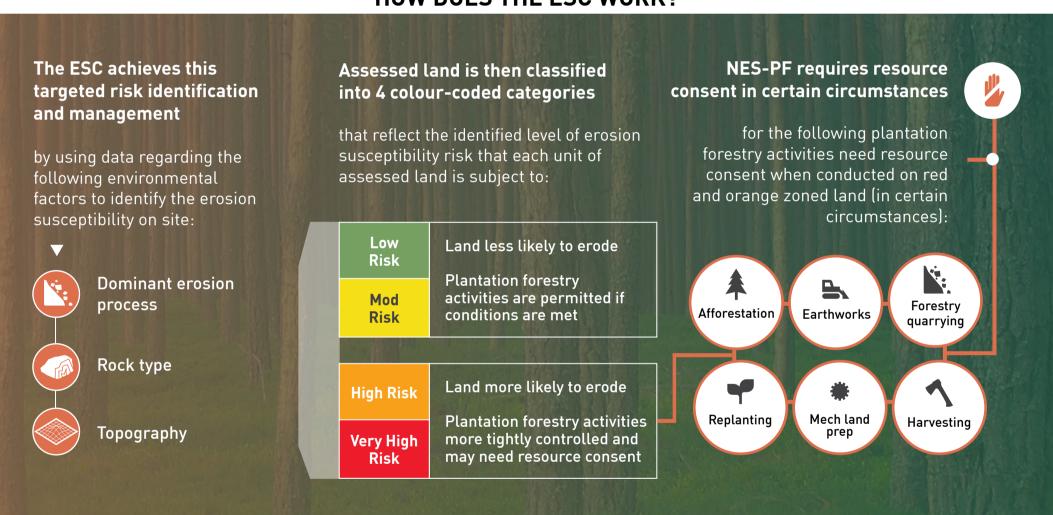
FSI

WTRC

WHAT DOES THE ESC DO?



HOW DOES THE ESC WORK?



DATA BEHIND THE ESC

The data that the ESC relies on to classify land is taken from the Land Use Classification system (LUC)

ESC land classification review process and requirements



The LUC is a database of location specific geophysical and ecological data managed by Landcare Research

A formal process will be implemented to enable reassessment of ESC classifications if there are concerns about its accuracy





To ensure the ESC's accuracy MPI engaged Landcare to review all land classifications in the 2017 ESC dataset.

The process, data and information requirements that must be satisfied to have an ESC unit reclassified will be made available by March 2018





FISH SPAWNING INDICATOR (FSI)

OME ESC

FSI

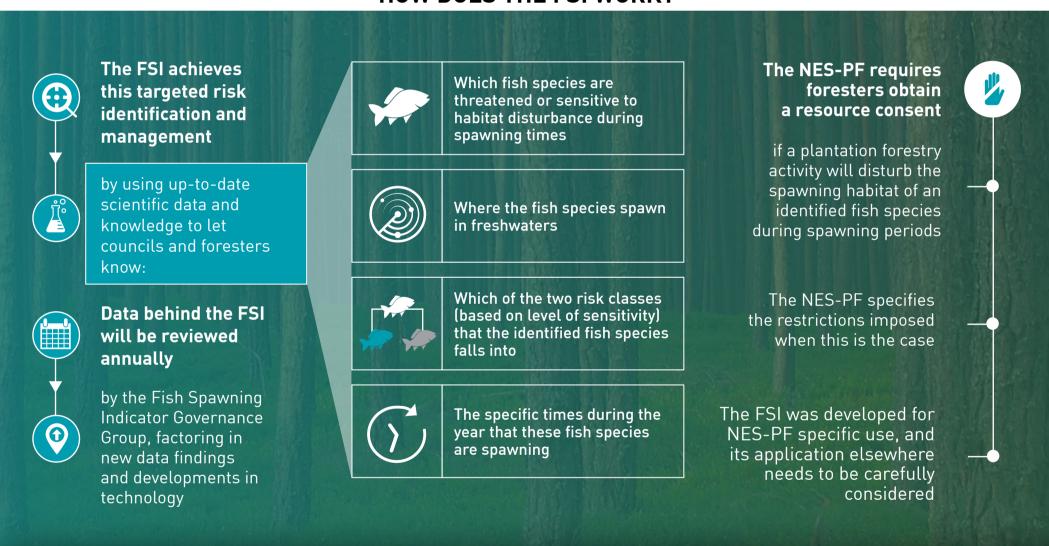
WTRC



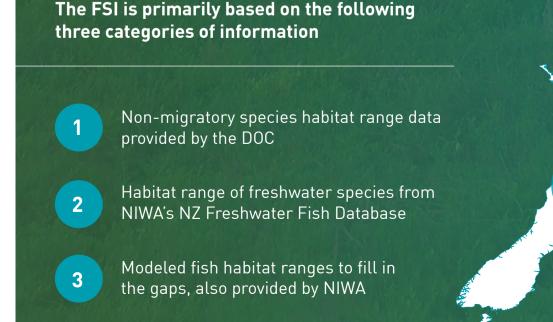
WHAT DOES THE FSI DO?



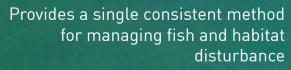
HOW DOES THE FSI WORK?



DATA BEHIND THE FSI



Provides consistency while accounting for local variation - in particular it





Is underpinned by localalised biological and ecological data that accurately determines risk on a case-by-case basis



The FSI provides information for the North and South Island only – not for New Zealand's offshore islands

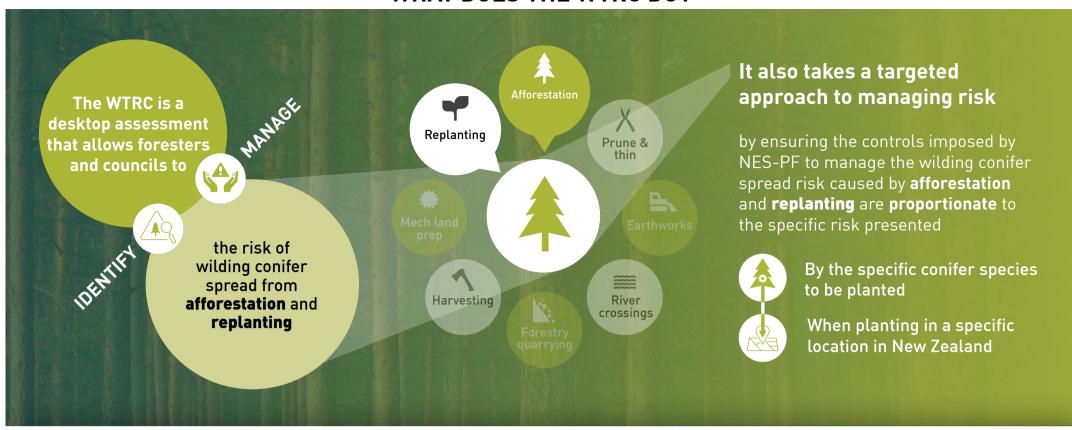




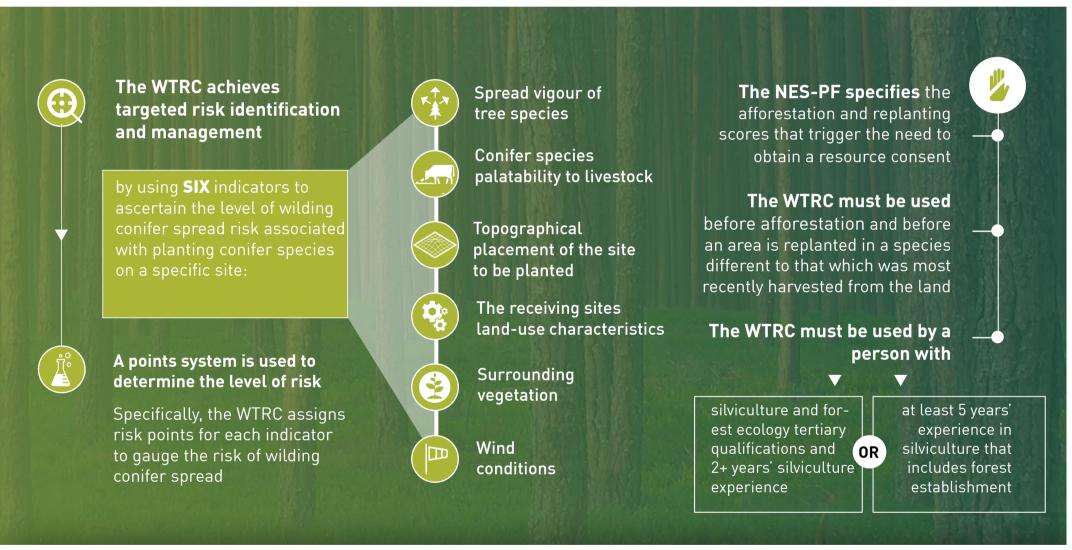
WILDING TREE RISK CALCULATOR (WTRC)



WHAT DOES THE WTRC DO?



HOW DOES THE WTRC WORK?



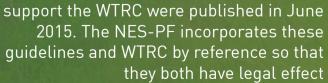
DATA BEHIND THE WTRC

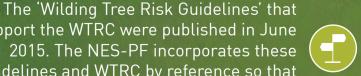
The data relied on by the WTRC to ascertain risk levels is taken from

WTRC is an evolving tool



Wilding conifer spread has been researched for decades by Scion (NZ Forest Research Institute Ltd; a Crown Research Institute; Ledgard; University of Canterbury School of Forestry et al., 1999)





The WTRC will be reviewed during the NES-PF monitoring and evaluation process that occurs at the end the first, third and fifth year of NES-PF's operation

The WTRC has two calculators: one for **new** plantings (DSS1); and one for assessing a sites wilding conifer invasion risk (DSS2). The above guidelines relate to DSS1 only

