

Get to Know LandWeb

#1. Introducing LandWeb. What does it mean for you?

When you have fresh questions but your model is already stale

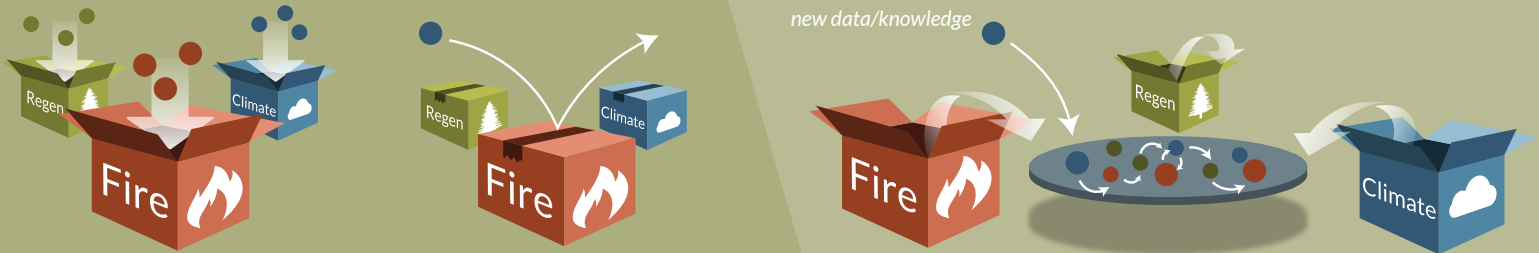
When you hear the word “model”, what do you think of? For forest managers, models represent a large investment of time and effort to reliably answer a question. Models can be powerful tools, but they are only as good as the data and knowledge that go into them—which means as soon as new data is collected, the model is in danger of becoming obsolete.

The one-model-per-question approach leaves managers playing catch-up as the questions, assumptions, and data change. **There is a better way.**

Traditional models are good when first built...

... but are inflexible to new knowledge inputs.

Modern platforms are dynamic and allow models and new knowledge to integrate together.



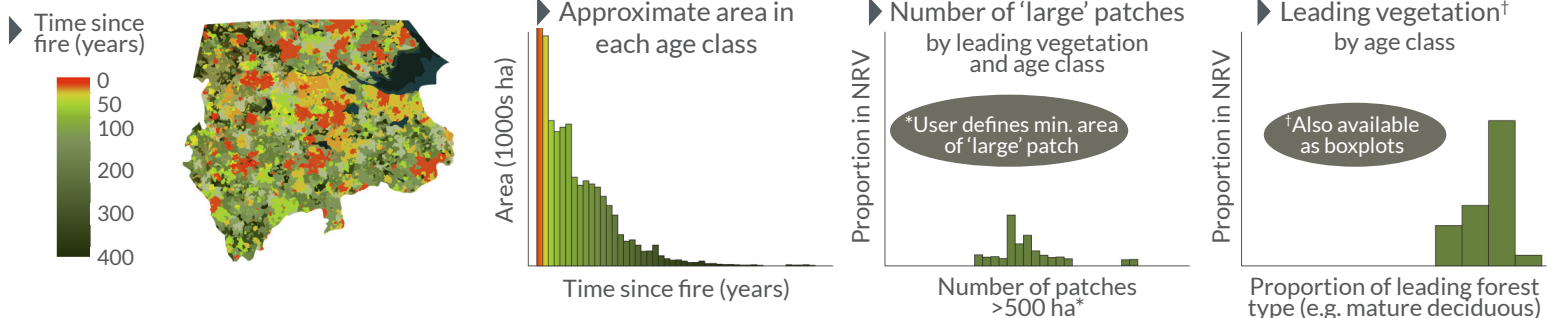
LandWeb is built on a modern platform that keeps it flexible, dynamic, and integrative.

LandWeb keeps you up-to-date and takes you straight to the results

Moving beyond individual models is not a simple task, and that’s just the first step. When it comes to understanding a landscape’s natural range of variation (NRV), LandWeb combines models for you and takes you straight to the results.

LandWeb is an easy-to-use web application that allows managers to visualize the landscape’s NRV with a few clicks of the mouse. It does this by breaking away from the traditional one-question-one-model framework, allowing for continual updates as new information become available. It combines several sources of public and proprietary data, and the supporting components that form the basis of LandWeb have been peer-reviewed and validated.

LandWeb users get the following information by ecozone, FMA, or (for registered users) custom polygons:





LandWeb is part of a larger framework built for complex challenges in a changing, interconnected world

LandWeb is built within the SpaDES (Spatial Discrete Event Simulation) modelling platform, which gives it the flexibility to be updated without starting from square one. But the LandWeb app is just the tip of the iceberg for understanding complex ecological management problems.



The LandWeb app offers a simple and powerful interface for users to view NRV output from the LandWeb model.

The LandWeb model is a configuration of SpaDES components—known as “modules”—specifically designed to address NRV questions.

SpaDES has reimagined how we design models to answer complex questions by “unboxing” models so they can be integrated in different configurations.

The SpaDES framework not only provides the platform that allows various model components (modules) to talk to each other, but also includes different modules created by “unboxing” models developed by many different researchers. These various modules can be combined in new and different ways to answer a range of questions.

What could future expansions of LandWeb be used to answer?

LandWeb has a specific purpose, but there is no need to stop there. The Healthy Landscape Program’s mission is to ask and address a range of these pressing, intricate questions—if you have questions and want to know if they can be answered through future expansions of LandWeb or SpaDES, send them to the Healthy Landscapes Program using the contact information below. Here are just a few examples of what is possible for LandWeb and SpaDES using modules that are complete or under development:

What could LandWeb answer with a minor expansion?

Pre-industrial estimates of...

... habitat condition for woodland caribou



... NRV for different habitats and landscape types (e.g., riparian and non-riparian)



... past populations of wildlife (e.g., caribou and grizzly bears)

What could future expansions using SpaDES be used to answer?

Use SpaDES to predict...

... future range of variation (“FRV”) under climate change



... long-term implications of not managing the “passive” part of the boreal forest

... how future mountain pine beetle scenarios may influence wildfire threat

