

Land Use Suitability Programme

OUR LAND
AND WATERTōtū te Whenua,
Tōiora te Wai

The Land Use Suitability concept and a example application: Productivity within Environmental Constraints

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The need for an LUS concept and tools

General observations

- Managing primary enterprises within (resource use) limits is imperative.
- Land use choices affect economic, environmental, social and cultural values.
- Land use choices and land management activities occur at land-parcel scales...
but scales of effects range from land parcel to national, and they are cumulative.

The need

Concepts & tools that account for land-use suitability in plans, decisions, investments.

Basic requirements

- Provides feedback about effects of land-use considerations on the 'four well-beings'.
- Identifies options for stakeholders, who need to manage within limits, cost-effectively.
- Mappable and predictive.

Evolution of the LUS Concept

Conceptualisations

Previous land evaluation concepts: capacity of land to support sustained production, given physical limiting factors.

Recent concepts: productive capacity of land, while accounting for ecosystems services (or reduced environmental footprints).

Land Use Suitability concept: suitability of land for sustained production, while accounting for economic, environmental, social and cultural impacts at > farm scale. (including cumulative impacts).

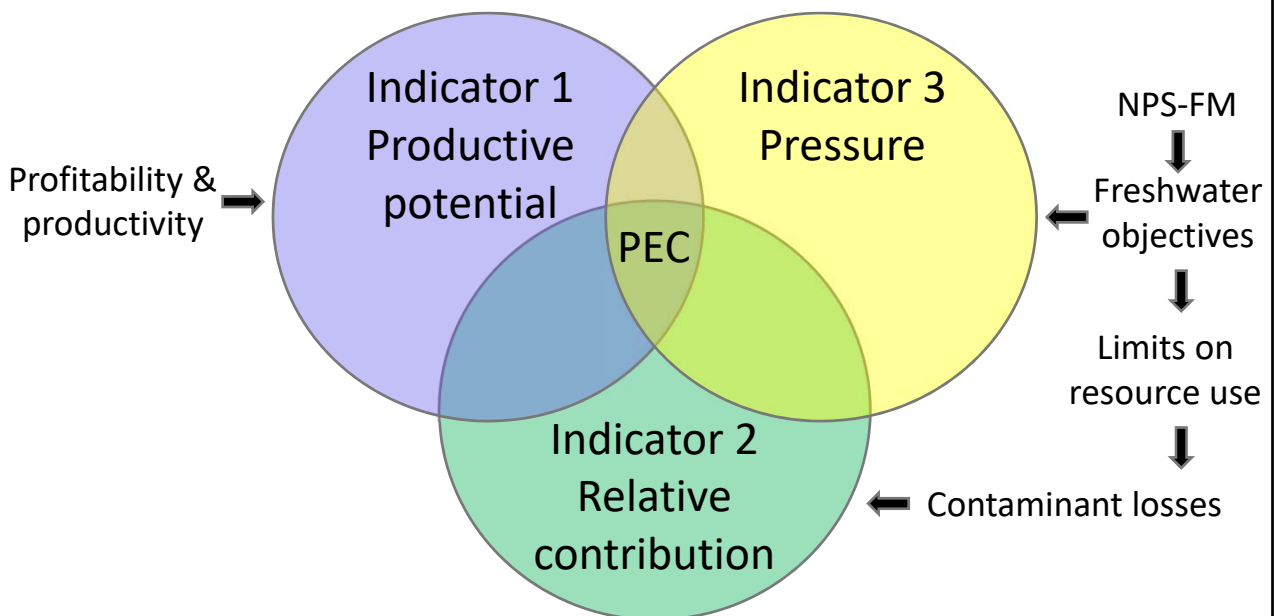
Applications

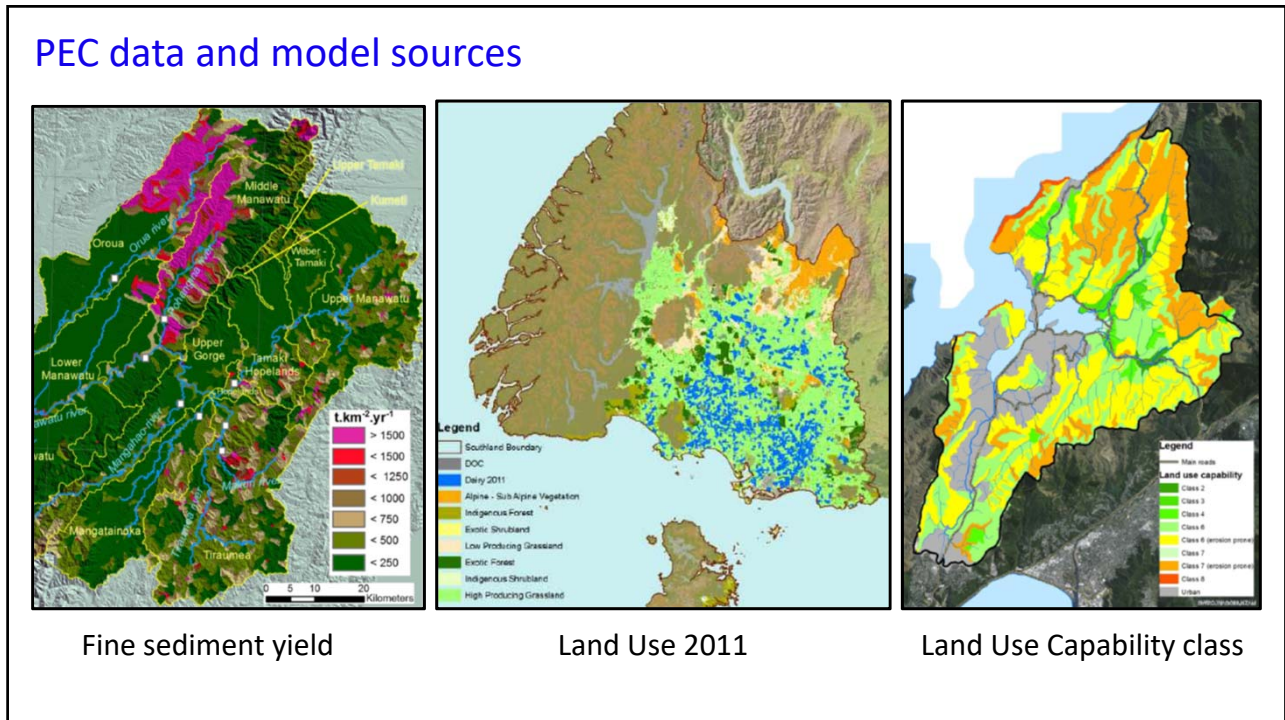
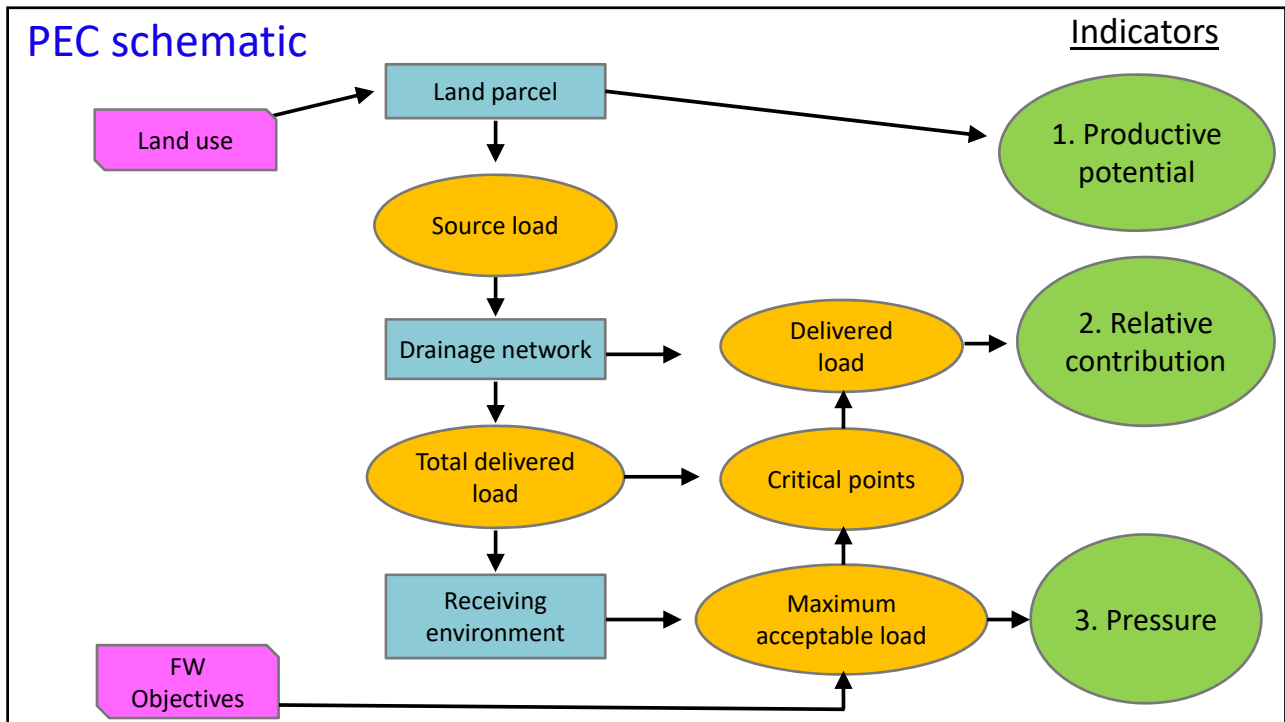
FAO Land Evaluation Framework, NZ LUC

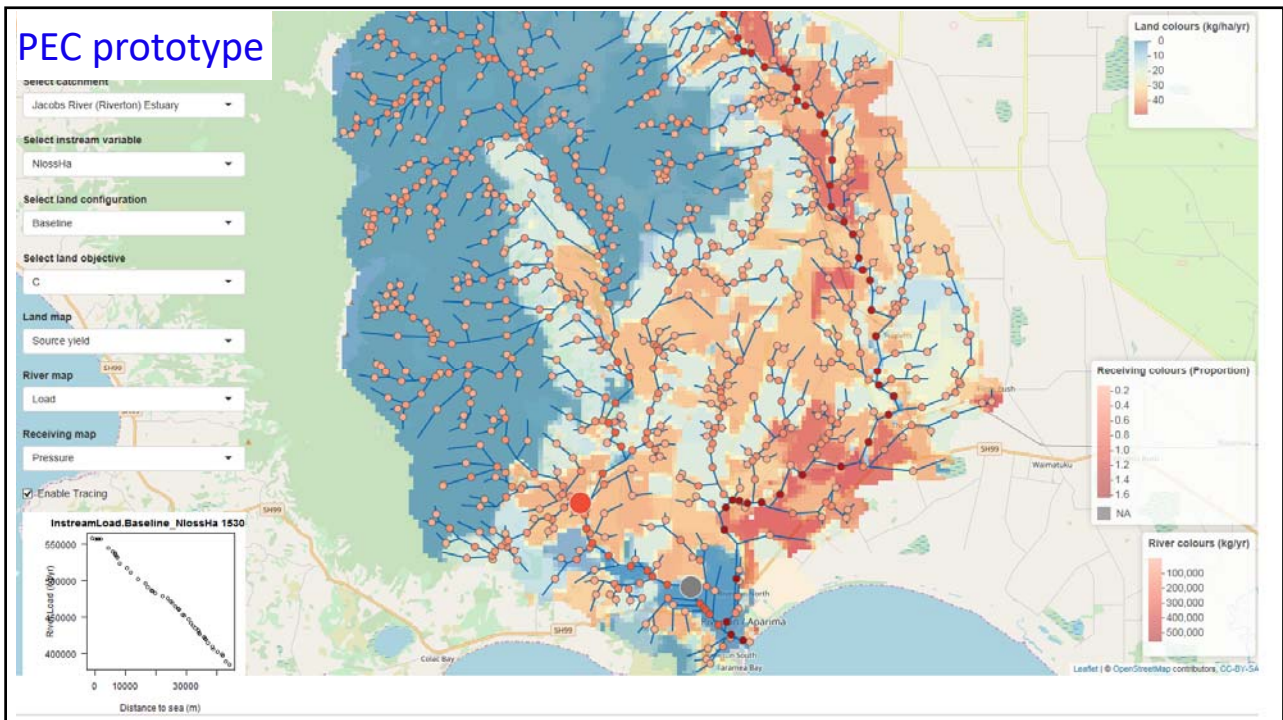
Integrated Agricultural Systems

Productivity within Environmental Constraints

First application of the LUS framework: Productivity within Environmental Constraints







PEC Assessments results

Pressure	Productive Potential								
	High			Medium			Low		
	Relative Contribution								
	Low	Average	High	Low	Average	High	Low	Average	High
Low (Headroom)	5	5	4	5	4	3	4	3	2
Medium	5	4	3	4	3	2	3	2	1
High (Shortfall)	4	3	1	3	2	1	2	1	1

