How wide, how much: A framework for quantifying economic and ecological trade-offs of altering riparian width on agricultural land

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Quantitative Aquatic Ecosystem Laboratory

Objectives

- To build a decision-support tool that quantifies economic and ecological tradeoffs

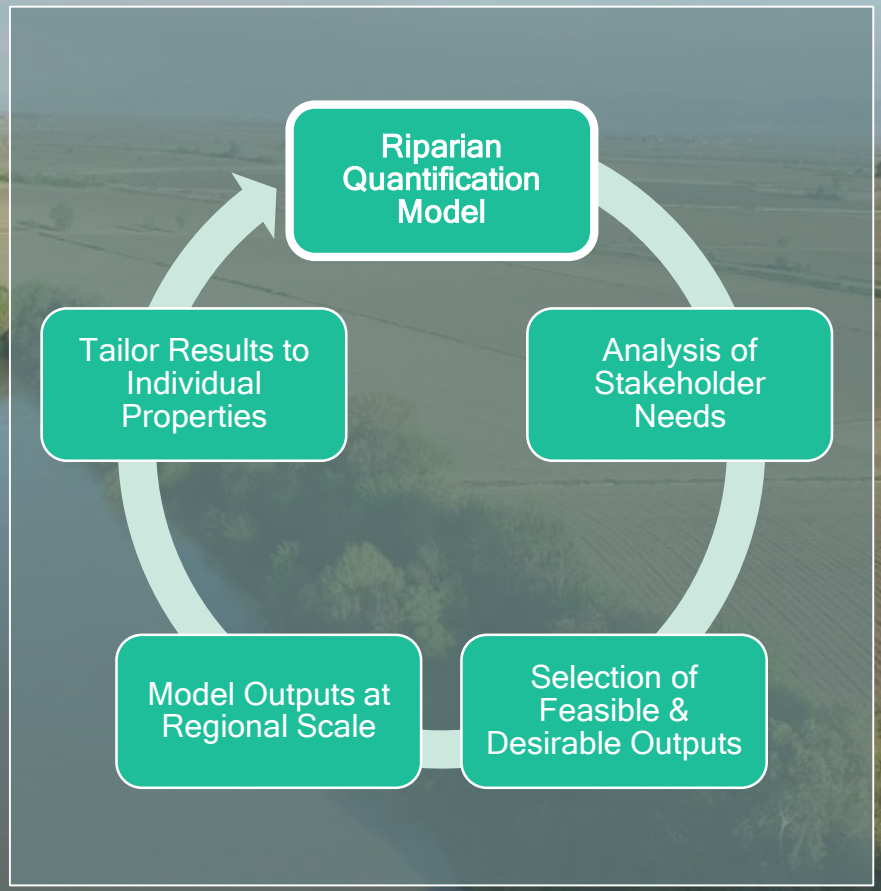
Aims

- To get informed on stakeholder needs
- Select desirable & feasible outputs
- To model outputs at regional scale
- To tailor results to individual properties

Expected Outcomes

Economic cost
- Production
- Revegetation
- Fencing

Ecological gain
- Carbon
- Habitat
- Water



BirdCast

LOOC-C

InVEST
integrated valuation of ecosystem services and tradeoffs

FullCAM

Agricultural output (ALSA) x 3

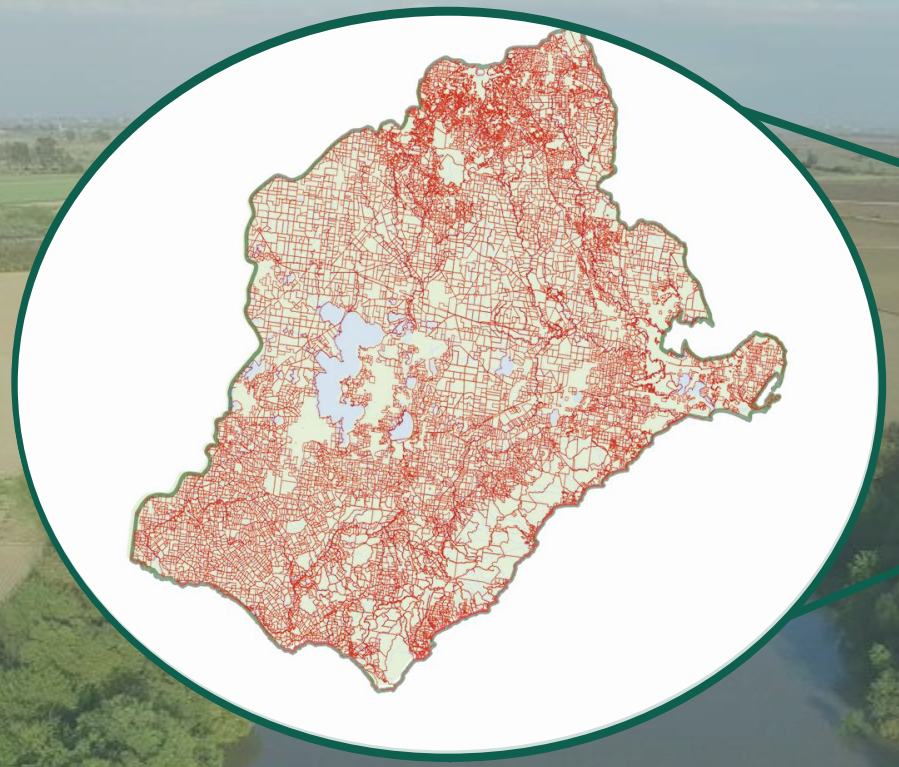
Carbon Sequestration

Habitat Distribution Models x 17

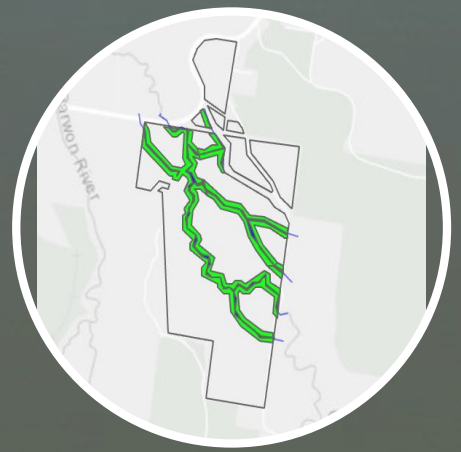
Revegetation Costs

Fencing Costs

Estimated Impact on Water Quality



User Inputs



x 15,906

Unique properties

Address Search Bar

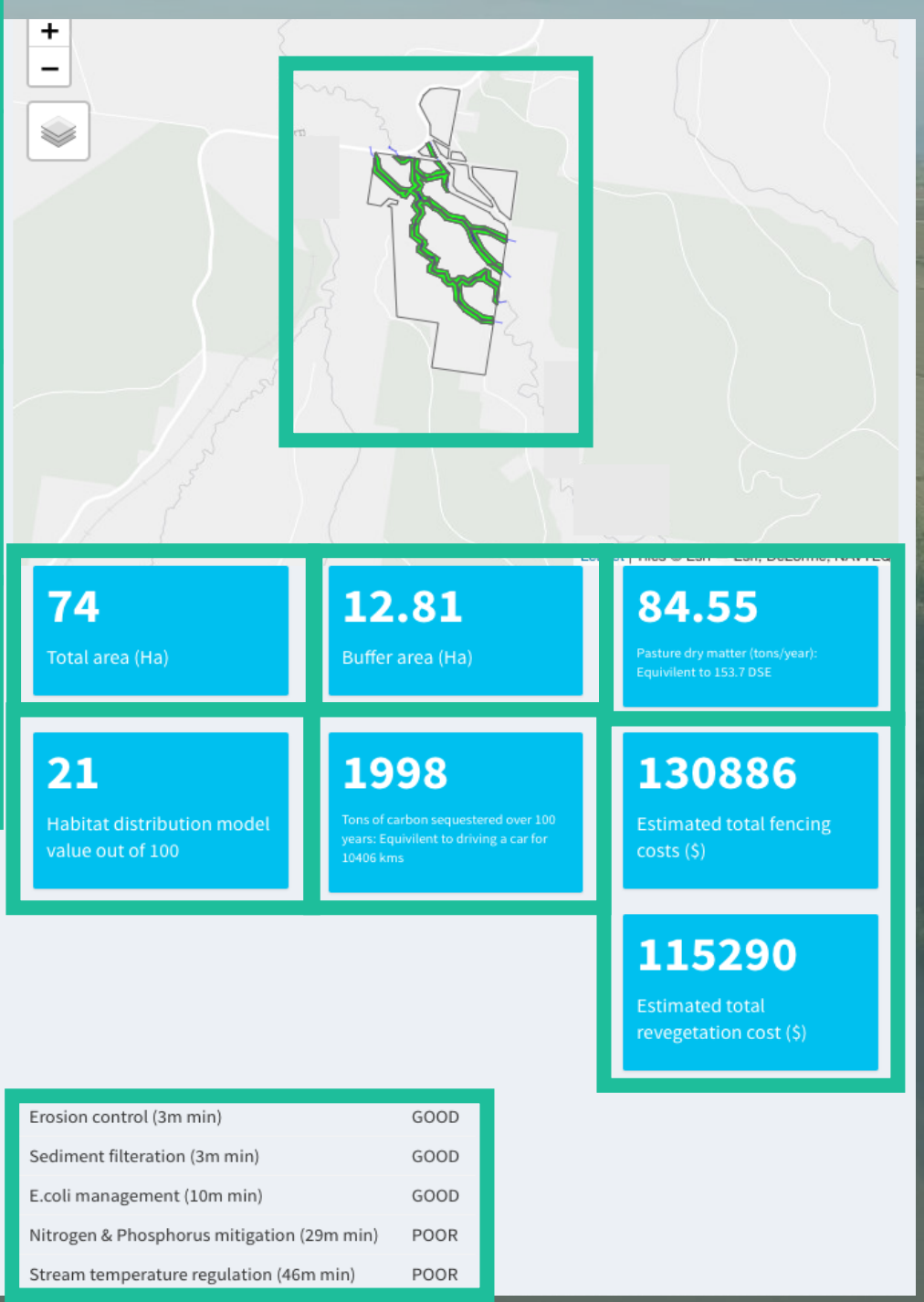
River & Buffer Width

Climate & Habitat Distribution Models

Cost of Fencing & Revegetation Defaults

Dry Sheep Equivalents

Car Emissions

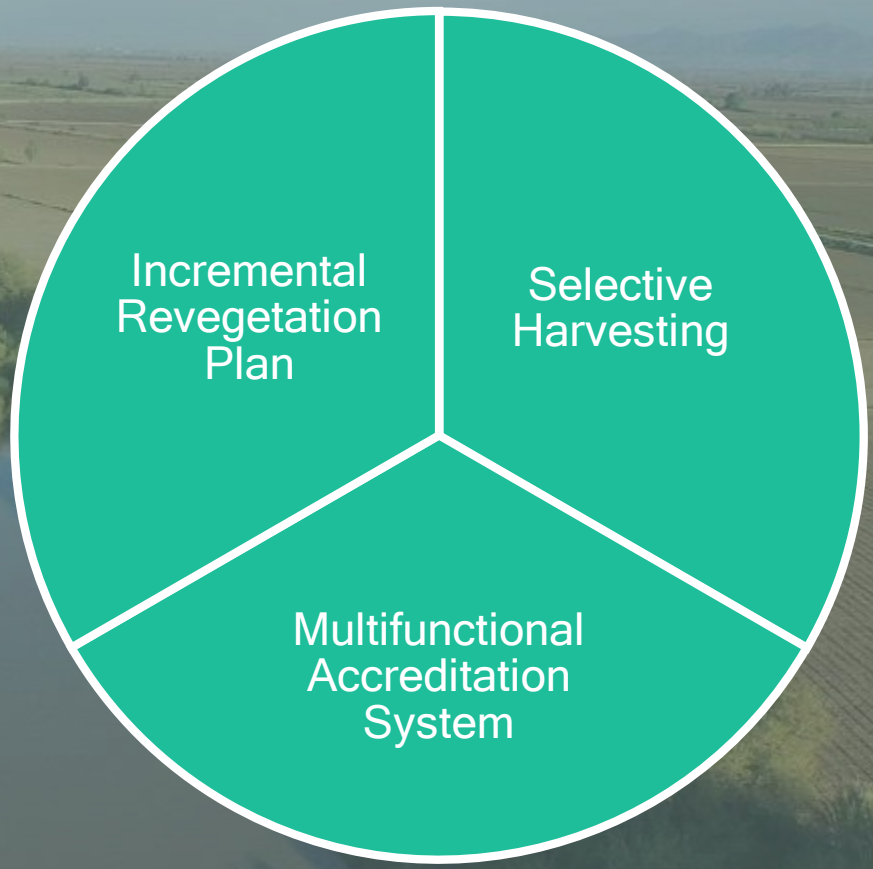


Model Advantages & Implications

Multifunctional Evaluations

Economic cost
- Production
- Revegetation
- Fencing

Ecological gain
- Carbon
- Habitat
- Water



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