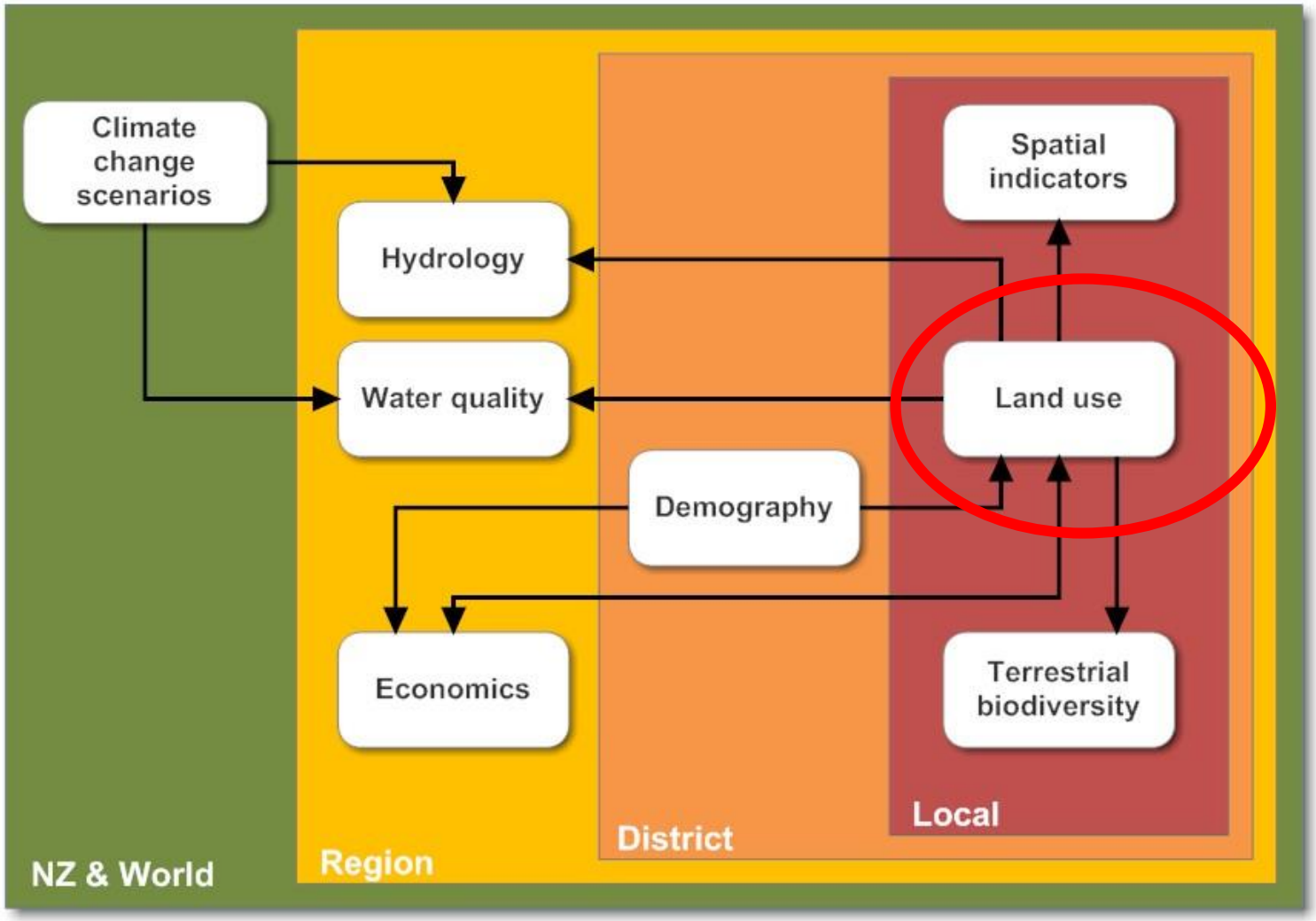
Land Use Change Model



WISE Land Use – 2013 Update

- No case to change classification of 24 land uses already defined
- Data sets used – LCDB4, Valuation Database, Agribase.
- Rules based approach seen as best method to update land use layer (similar to 2006 layer)
- Others – Roads/rail, marine farms, airports
- 100 x 100m grid for increased resolution

How does WISE work – Land Use Change Model

Suitability

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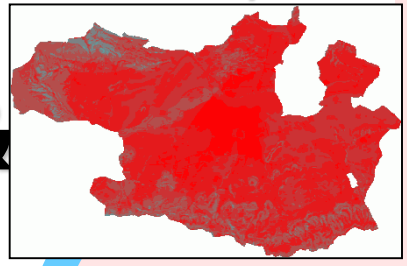

Zoning

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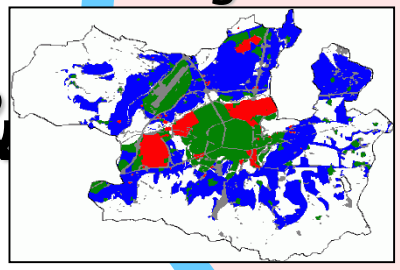

Accessibility

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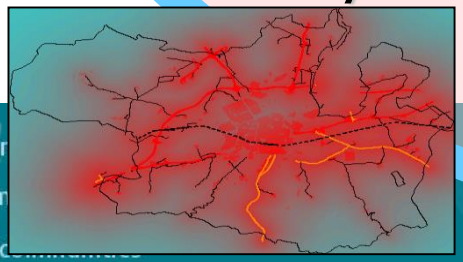
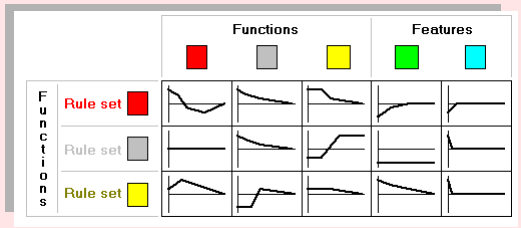
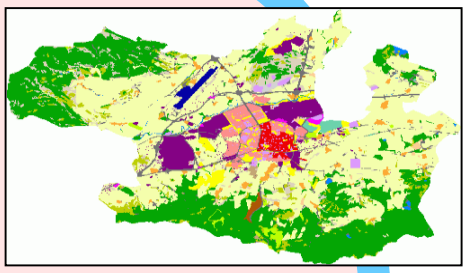


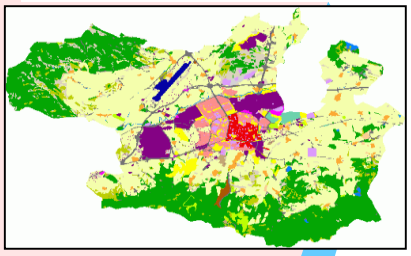
Neighbourhood Influence



Land use at T_0



Land use at T_0+1



Transition Potential

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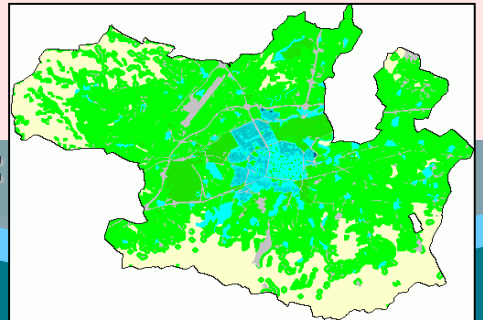
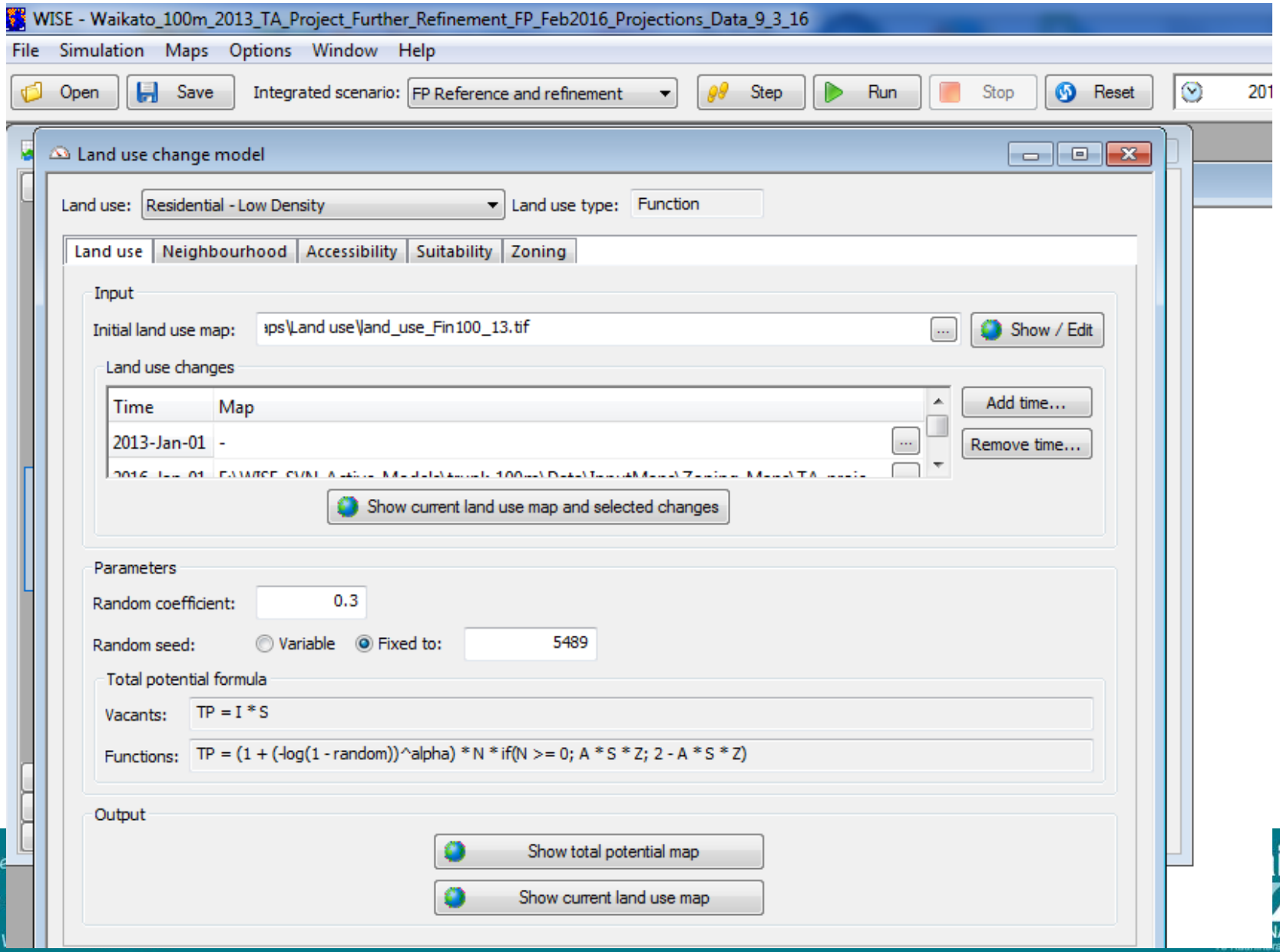


Land use change model - interface



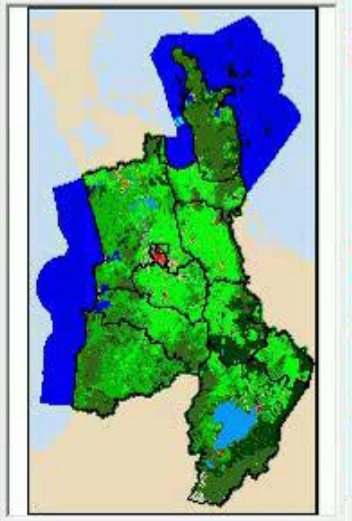
WISE - Waikato_100m_2013_TA_Project_Further_Refinement_FP_Feb2016_Projections_Data_9_3_16

File Simulation Maps Options Window Help

Open Save Integrated scenario: FP Reference and refinement Step Run Stop Reset 2014-Jan-01

Land use map

- Bare Surfaces
- Indigenous Vegetation
- Other Exotic Vegetation
- Wetland
- Residential - Lifestyle Blocks
- Residential - Low Density
- Residential - Medium to High I
- Commercial
- Community Services
- Horticulture
- Biofuel Cropping
- Vegetable Cropping



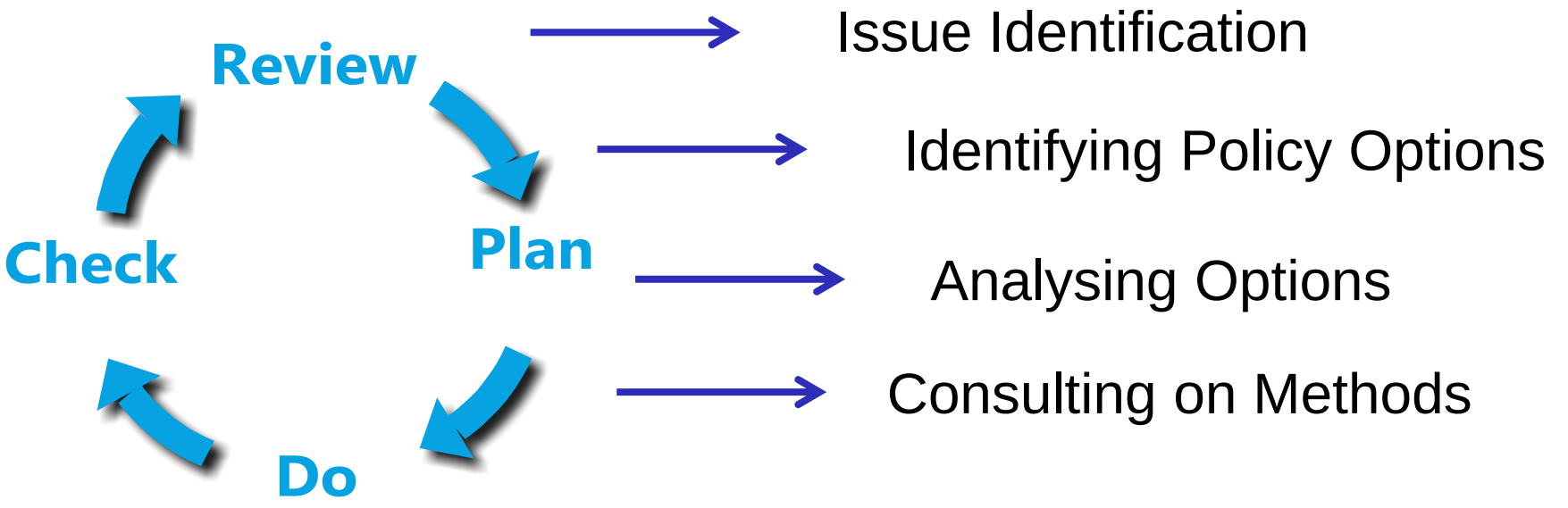
Potential figures (1652, 905)

Land use	Total potential	Neighbourhood potential	Suitability	Numerical zoning	Accessibility
Residential - Lifestyle Blocks	0	137.768	0.945742	0	0.46539
Residential - Low Density	83.09	157.028	0.945742	0.9	0.339532
Residential - Medium to High Density	61.5859	207.015	0.945742	0.4	0.331378
Commercial	32.4465	95.5196	0.945742	0.4	0.467204
Community Services	105.432	184.063	0.945742	0.6	0.47955
Horticulture	-3.56694	-1	0.447214	0.2	0.599105
Biofuel Cropping	0.677326	2	0.738677	0.2	1
Vegetable Cropping	-31.7976	-9.00153	0.391487	0.2	0.826403
Other Cropping	0.512032	2	0.537075	0.2	1
Dairy Farming	2.33846	13.042	0.580838	0.2	0.85902
Sheep, Beef or Deer Farming	33.7654	30.6343	0.669433	1	0.788736
Other Agriculture	1.02719	9.42721	0.716235	0.2	0.414179
Forestry	0.296456	1.81716	0.553918	0.2	0.765923
Manufacturing	0	166.437	0.945742	0	0.479293

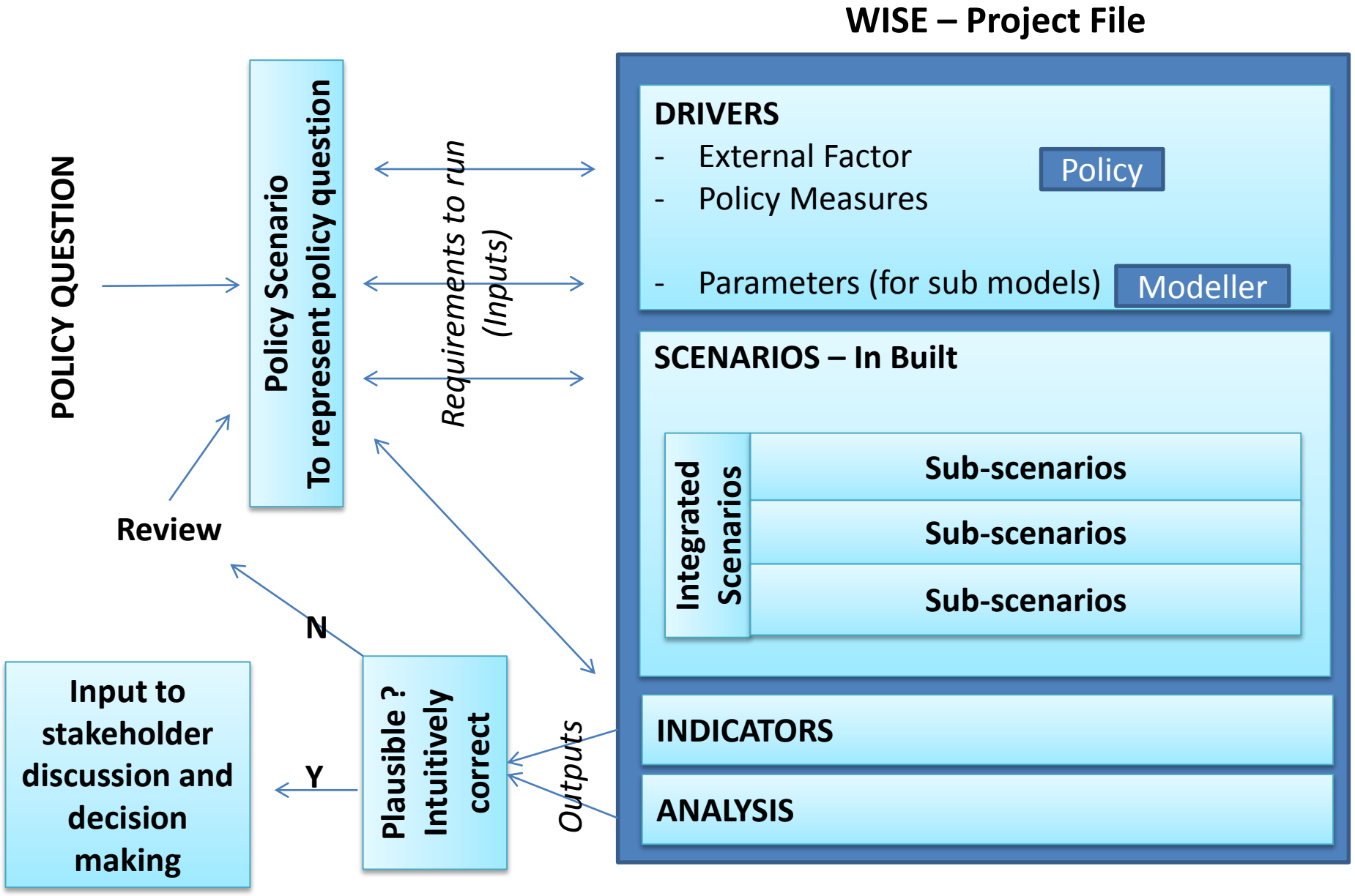
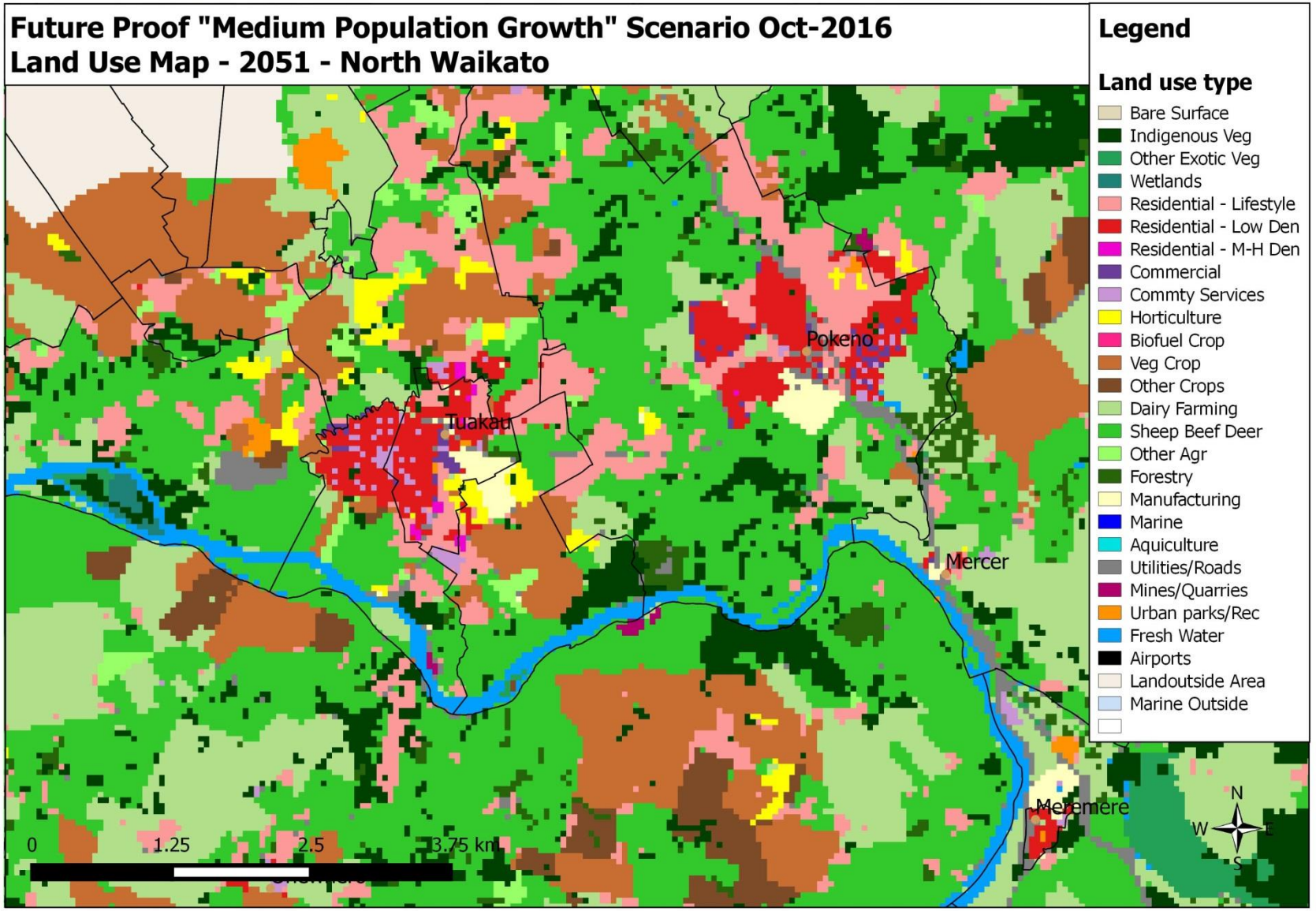
Value of Scenario Planning

- Better understand the range of plausible futures
  - To have more informed decision making
  - Create more robust enduring policy
- Framing policy questions to direct Scenario development
- Process is often more important than the products
- Select ‘Decision Support’ tools to suit questions

Policy Cycle - How can WISE help you?



WISE – Implementation Process



WISE Land use outputs – used to drive population allocation by CAU