**List of Improvements to WISE and outputs of Population and Land Use Projections**

Draft for further feedback from TA’s – Nov 2016

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| Improvement Idea | What’s Required | Who’s involved | Resourcing required (Estm) | Importance(1-10) |
| 1. Include a households/ dwelling model into WISE
 | There is a demand from TA’s for household / dwelling numbers from WISE rather than just population. This would require creating a ‘conversion’ model that take population changes and converts this to household and dwellings based on StatsNZ generation rates. | *Tony – WISE**Michael Spurr – HCC**Myk Cameron - UoW* |  |  |
| 1. Ability to generate No’s of ‘Rating units’
 | Use WISE modelling to help generate future estimates of number of Rating Units. | *Raised as need by – Charan (HDC) /Niall (MPDC)**Input – M.E.?, others?* |  |  |
| 1. Accounting for absentee ratepayers
 | (What is the specific need here? – Levels of occupancy? Better estimates of household sizes/ densities?) | *Raised by Scott (TCDC)* |  |  |
| 1. Aligning CAU with Ward boundaries
 | Not use if title is correct – as not looking to adjust CAU’s - just having that ability to have projections done at other spatial boundaries (i.e. Ward)?If this is the case then same as point 5 below | *Raised Charan (HDC) /Niall (MPDC)* |  |  |
| 1. Processing projection outputs at other spatial areas (e.g. urban zones, Wards)
 | Can create land use outputs by any spatial delineations using the same process as used for CAU projections. Scope to improve efficiency/ automation of this process using more python/MySQL scripting.Question is how easy is it for UoW to spatially reallocate population to different set of ‘areas’ – can this be automated more to reduce turnaround time for scenarios? | *Input – Tony – WISE, Myk UoW for Population projections* |  |  |
| 1. Dsplay of data: pivot tables, interactive webmaps and visualization tools
 | Outputs from projections can be presented in many ways – aim to define and meets output information needs for TA’s by? | *Beat - WRC* |  |  |
| 1. Non-residential areas: projection of floor space
 | Is it possible to use WISE model outputs and/or other data to project future demand for floor space in non-residential areas. How would this be used ? as a development indicator?)  | *Michael Spurr - HCC/M.E.* |  |  |
| 1. Multi-owned Maori land
 | WDC are creating this layer for informing their planning – what are the implications/ opportunities to use this in WISE to project residential development (e.g. different household sizes)? | *Jenni - WDC* |  |  |
| 1. Duplication of economics data? Infometrics and Market Economics Ltd/WISE?
 | Is there any duplication between different sources of data? | *Beat – WRC* |  |  |
| 1. Improve ability to differentiate/accommodate for infill and greenfield development in WISE
 | Improve ability to model urban infill - by incorporate a land capacity layer or additional residential land use types into WISE | *Tony – WISE**Michael - HCC* |  |  |
| 1. Provide full District modelling for TA’s not completely in Waikato Region
 | Extend WISE boundaries outside Regional boundaries where only part of district within region to provide total district projection results (Taupo, Waitomo, maybe Rotorua). This would require changes to Land use Layer, Population Model and Economic model. | *Beat – WRC**Tony – WISE**Myk – UoW**Garry \_ M.E.* |  |  |
| 1. Improved migration modelling
 | Develop and use directional migration modelling (as proposed by peer reviewer) | *Beat - WRC**Myk – UoW/NIDEA* |  |  |
| 1. Consider data and monitoring requirements for NPS-UDC – *FP councils*.
 | Identify baseline data and ongoing monitoring and reporting needs for the NPS-UDC. | Council/FP Working Group? |  |  |
| 1. Update WISE economic model for TA level
 | Improve economic model in WISE so it is spatial and operates at a TA level and aggregates to Region – would provide better representation of productivity differences across region. | Beat – WRCGarry – M.E |  |  |