

Conservation and Management of Wetlands with Growth and Development



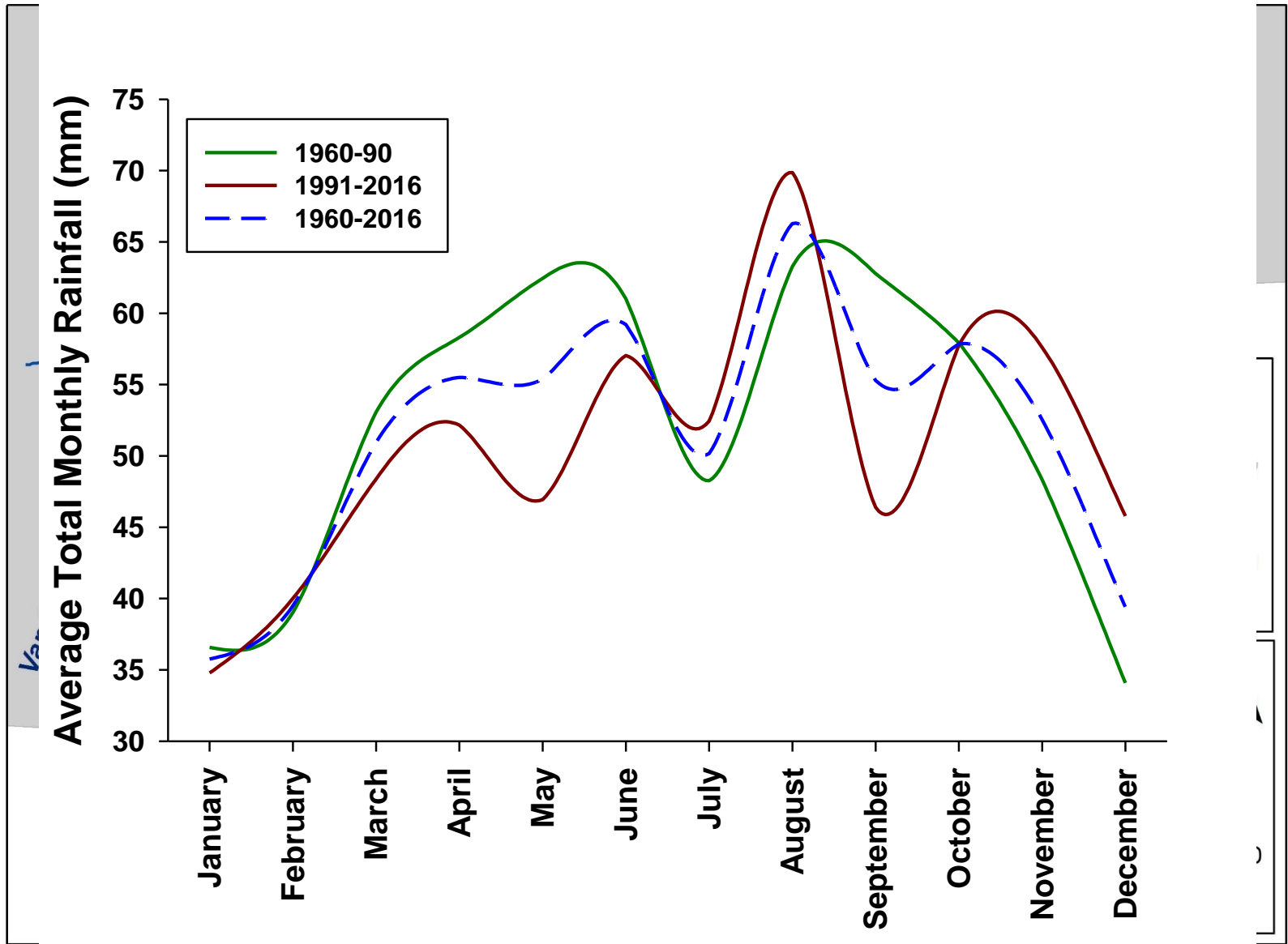
The Case of the Nelson Mandela Bay Metropolitan Area

Denise Schael

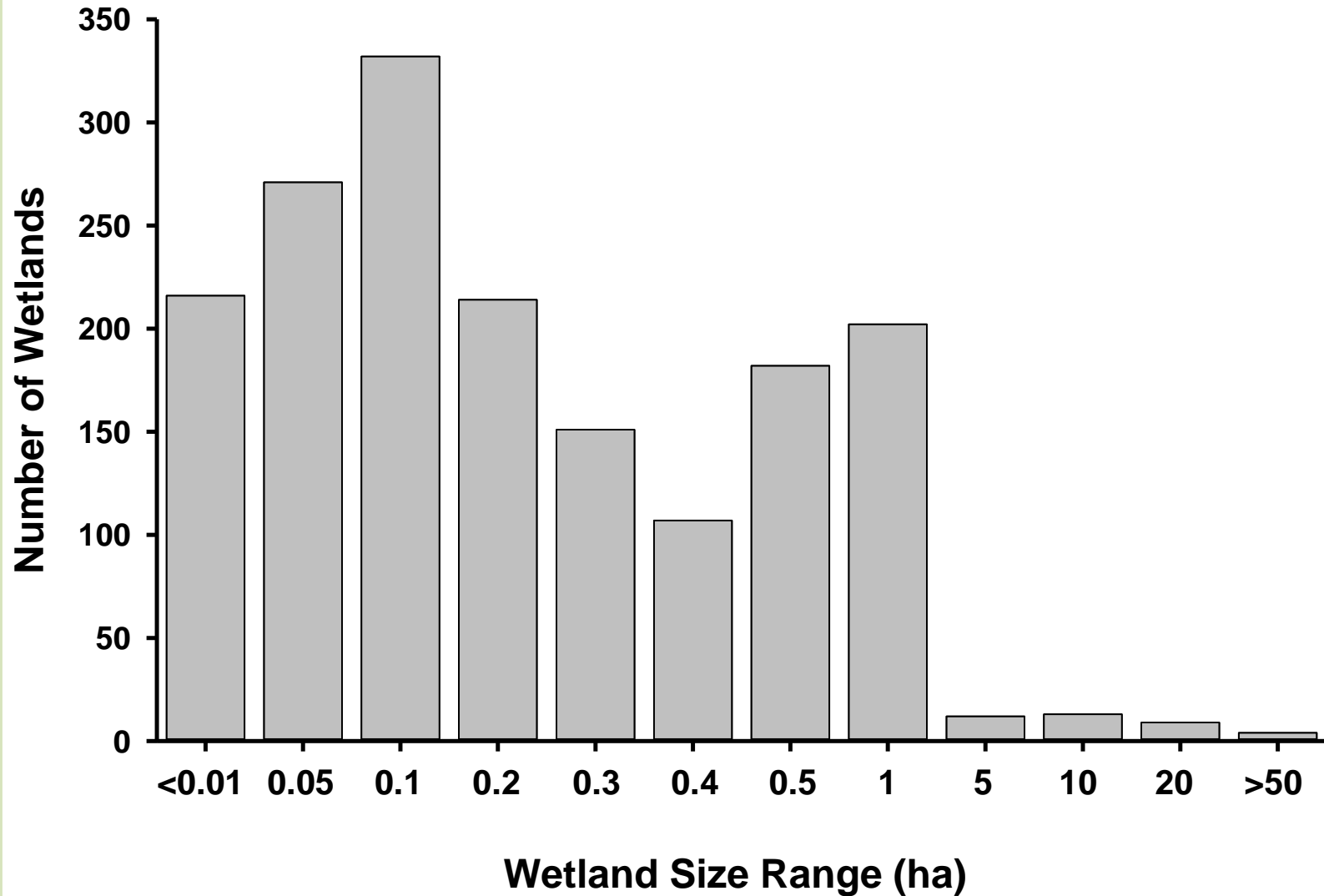
Phumelele Gama and Brigitte Melly



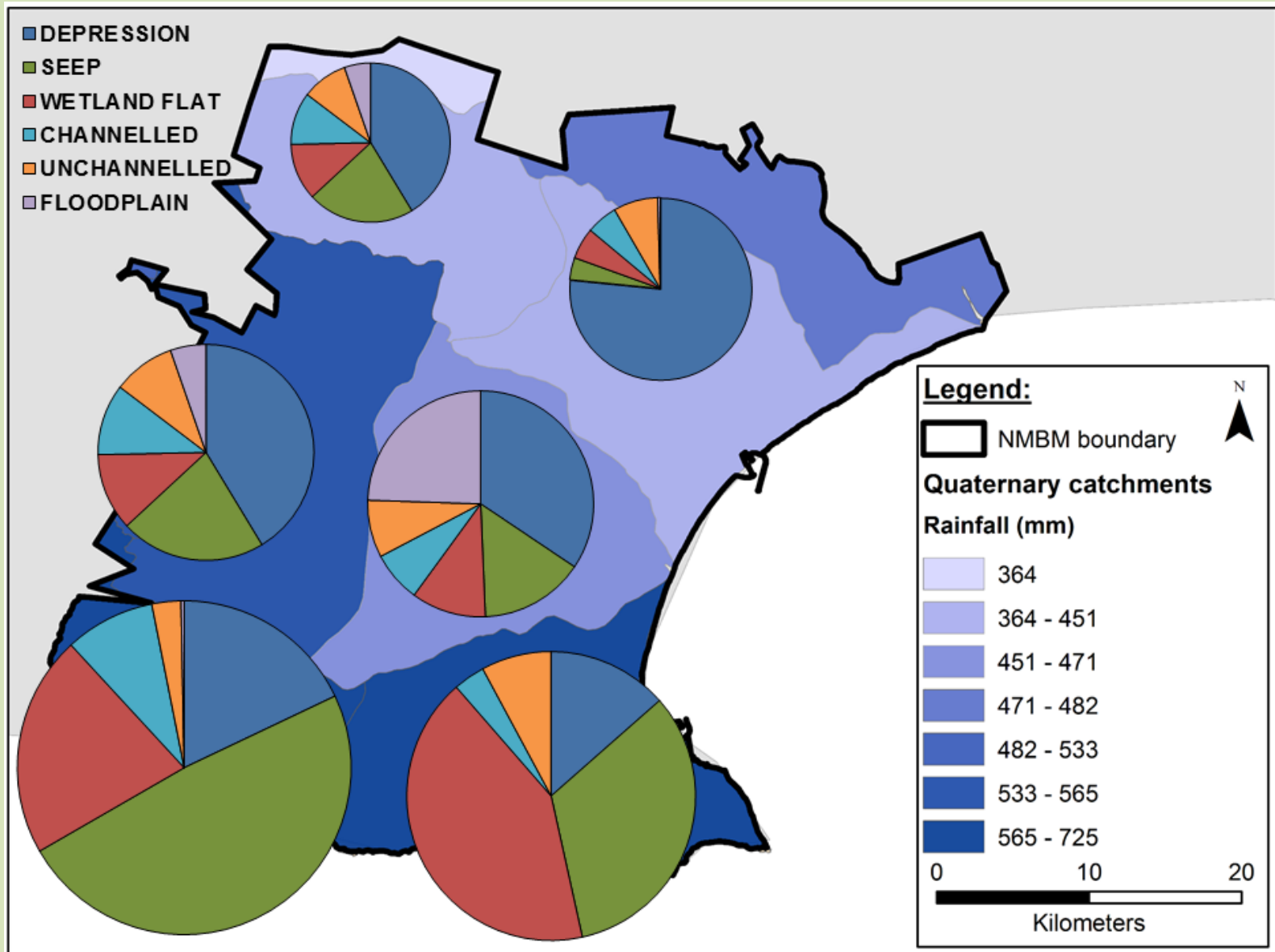
Nelson Mandela Bay Metro



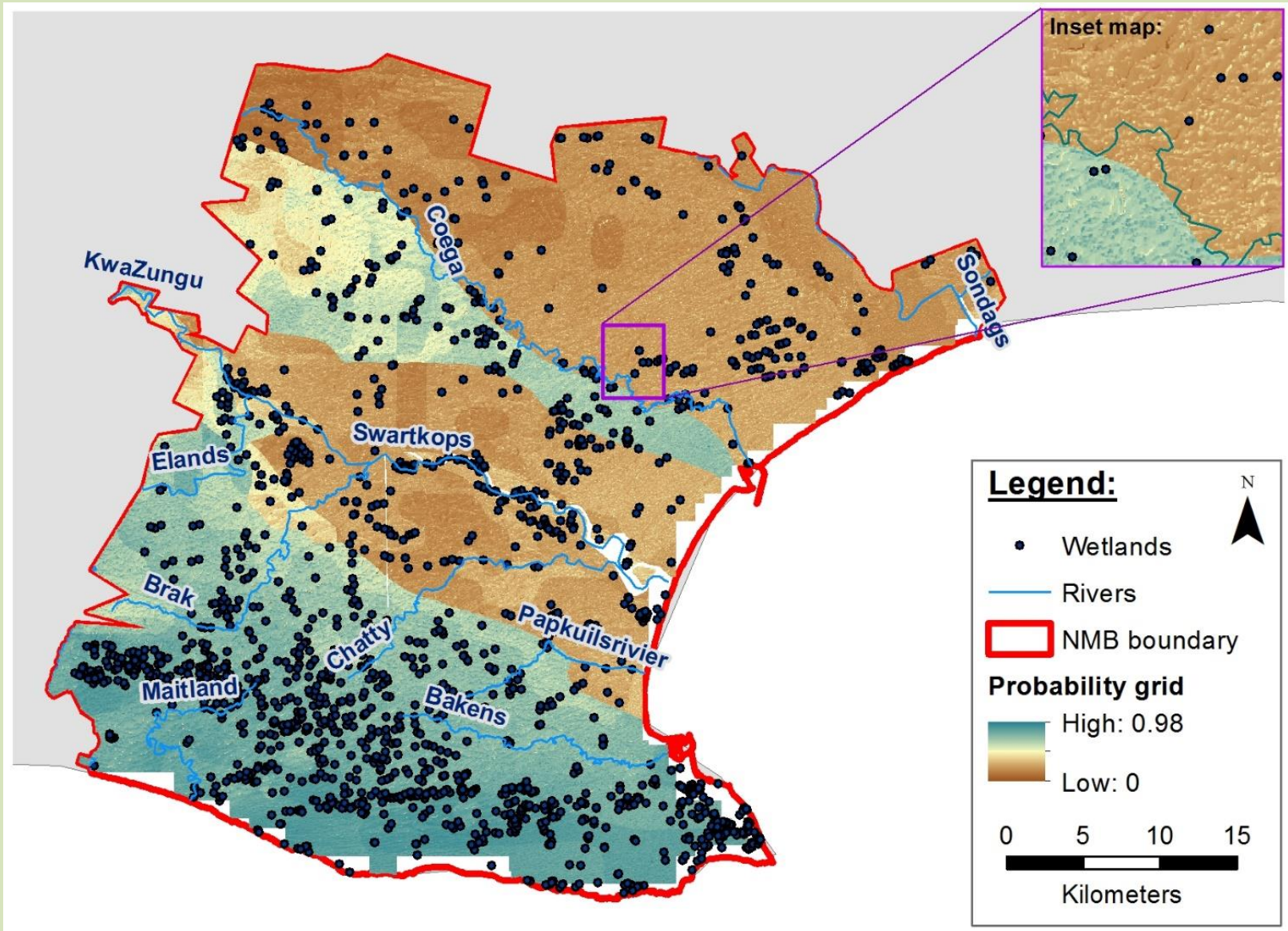
Delineation and Classification



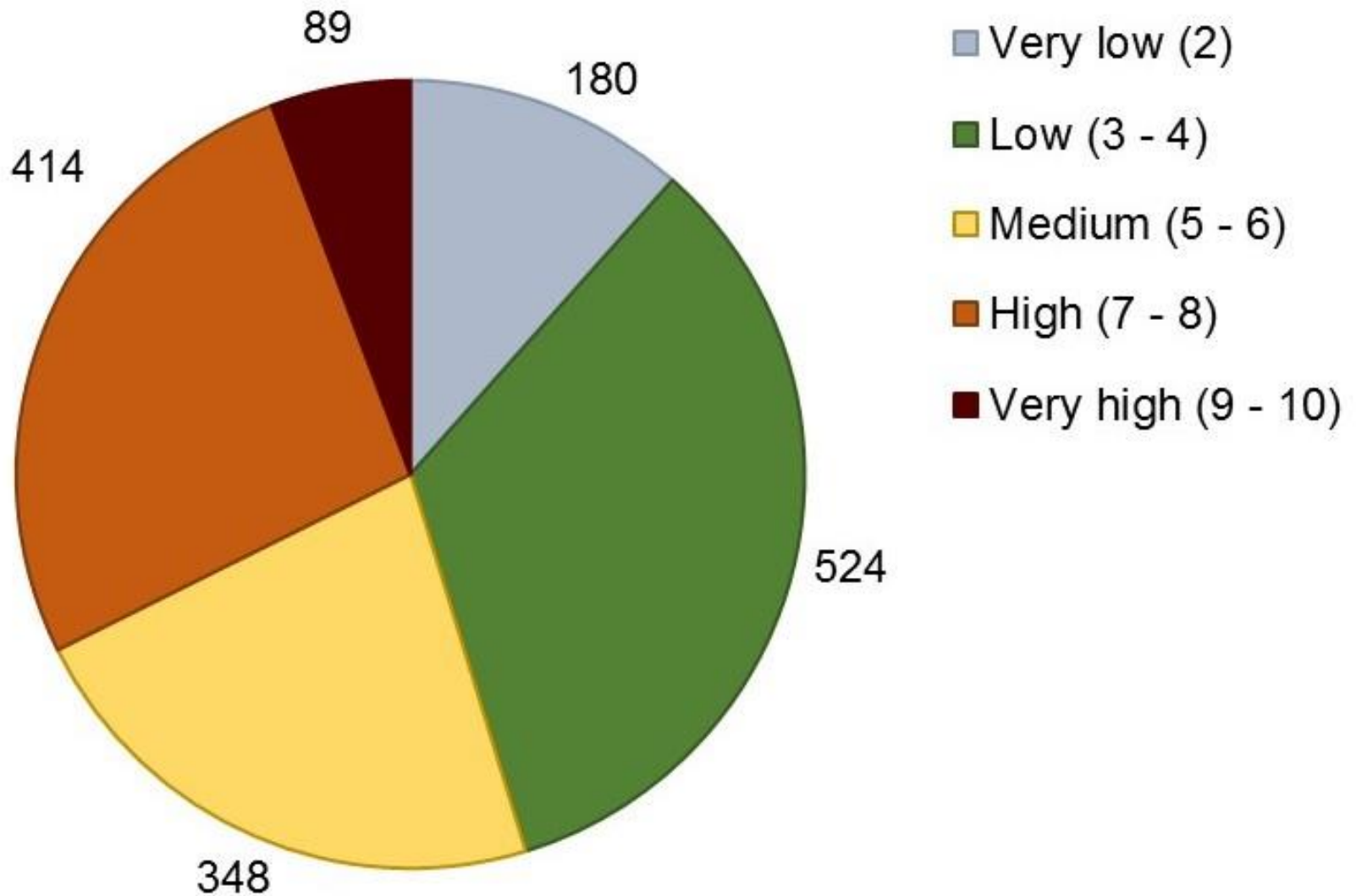
Rainfall Pattern



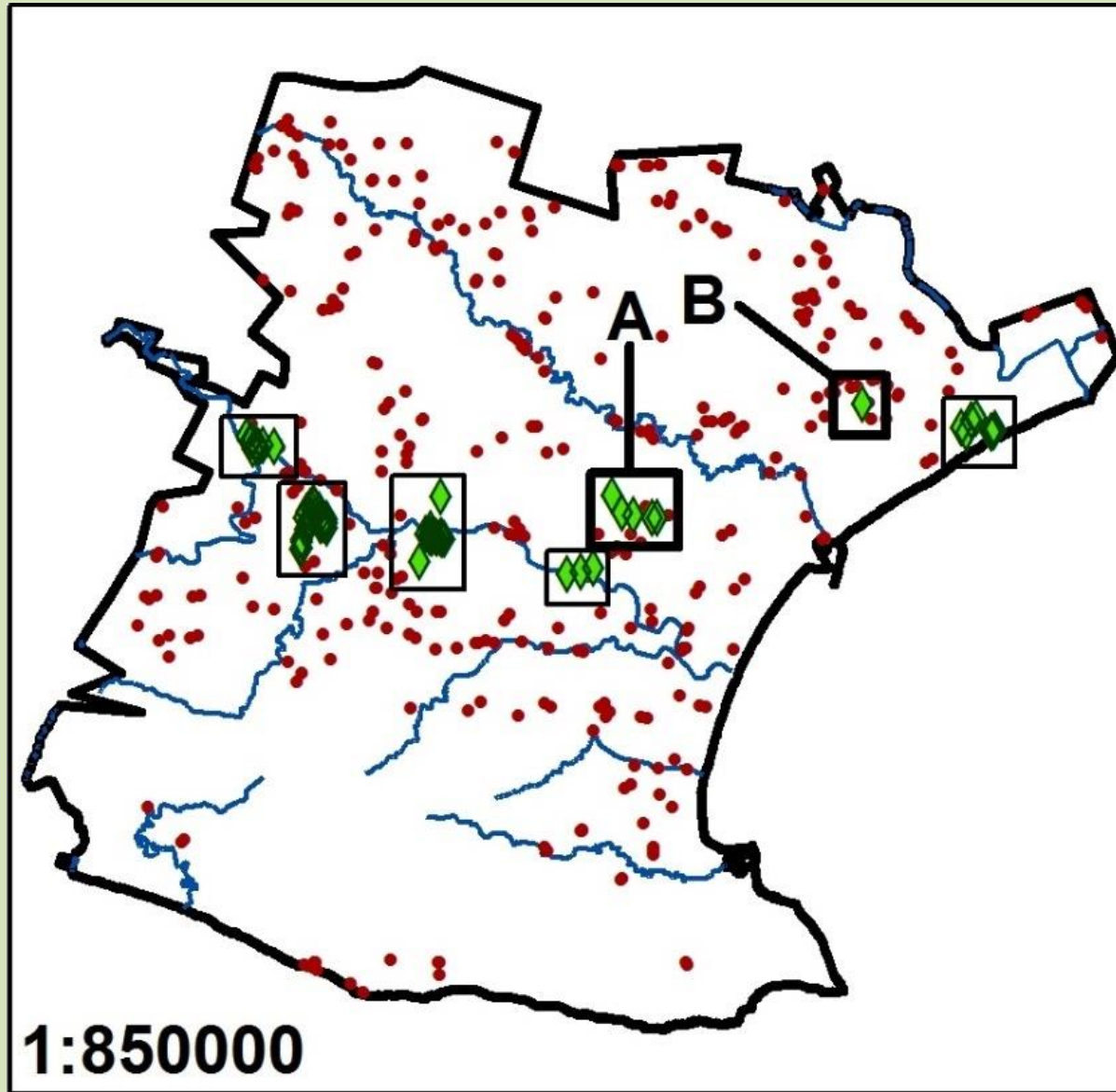
Wetland Occurrence Modelling



Wetland Risk Model



Priority Areas: Model Criteria



Legend:

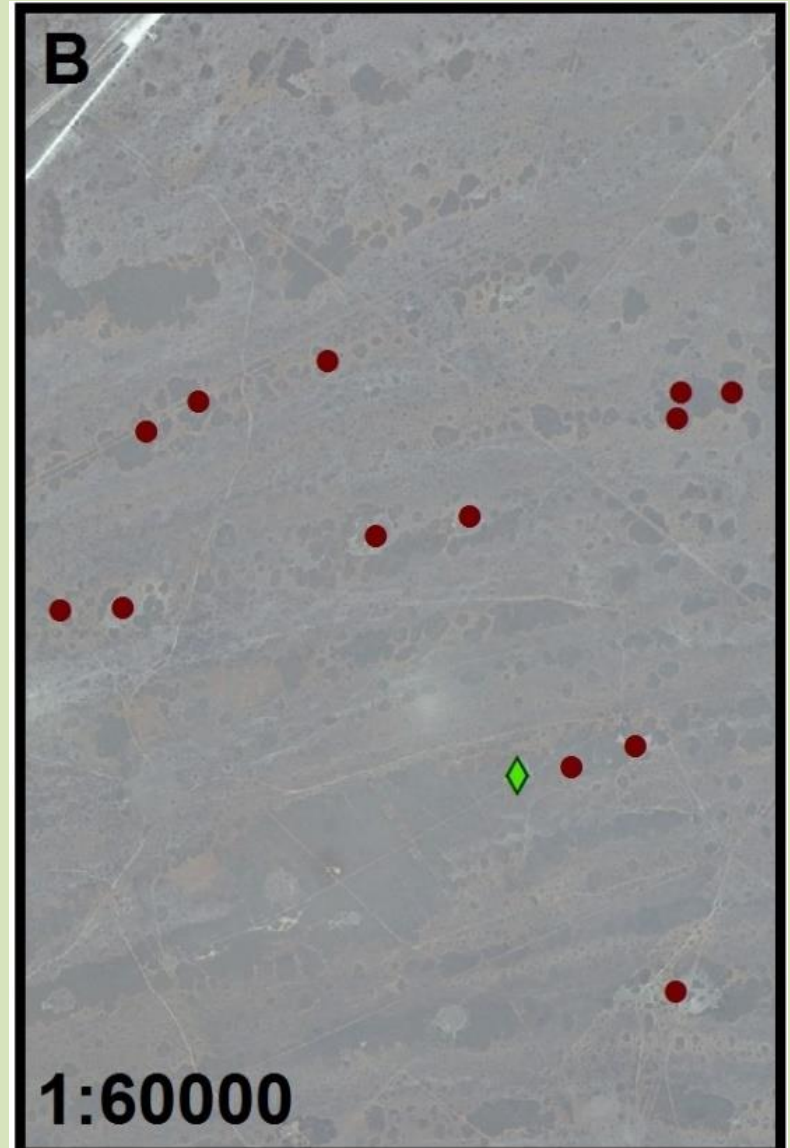
- ◆ Key wetland
 - Wetland potentially at risk
 - River
 - NMBM boundary
- N

Urban Setting: Motherwell



Coega IDZ

- **Depressions**
- **Vulnerable Bontveld & Spekboom Thicket Vegetation**
- **Small-scale mining, power lines, agriculture**
- **Proposed new airport**



Knowledge Transfer

- **NMBM has the GIS layer in both its Conservation Planning and Urban Planning departments**
- **SANBI has integrated the GIS layer into the national wetlands database**
- **Integrated into the latest Bioregional and Conservation plan for NMBM**



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Carla Hazel

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Coega Development Agency

Publication Links

- Schael, D. M., P. T. Gama, and B. L. Melly. 2015. Ephemeral wetlands of the Nelson Mandela Bay Metropolitan area: Classification, biodiversity and management implications. www.wrc.org.za/Pages/KnowledgeHub.aspx; <http://dx.doi.org/10.13140/RG.2.1.2029.9122>
- Melly, B. L., D. M. Schael, N. Rivers-Moore, and P. T. Gama. 2016. Wetlands Ecology and Management 24:1-18. <http://dx.doi.org/10.1007/s11273-016-9518-7>
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- Stewart, W. 2014. Nelson Mandela Bay Municipality Final Bioregional plan for the Nelson Mandela Bay Municipality, Port Elizabeth Report No. 400919/3. http://www.nelsonmandelabay.gov.za/datarepository/documents/Atvli_400919-3%20NMBM%20Final%20Bioregional%20Plan%20-%202013November2014.pdf