

# Tom Hamilton – Curriculum Vitae

0415 204 602 | tom@geographicaconsulting.com.au | www.geographicaconsulting.com.au | Tathra, NSW

## CAREER SUMMARY

Tom Hamilton runs an independent consultancy, Geographica Consulting, which specialises in utilising GIS to undertake land use, infrastructure and environmental planning projects. Tom is a qualified Urban and Regional Planner and GIS Analyst with strong analytical skills, planning knowledge and design creativity. His broad experience and skills allow him to quickly adapt to and succeed at a diverse range of work. Tom utilises ArcGIS, MapInfo, QGIS and other GIS software to undertake GIS work.

Tom's work experience and skills include interpretation and creation of strategic planning documents; GIS analysis and modelling; professional map making; data integration and cleansing; and setup of mobile GIS data capture solutions. Tom has extensive experience working with multi-disciplinary teams (often whilst based remotely), mentoring other staff, and managing projects.

## MAJOR CONSULTING PROJECTS

### **NPWS South Coast Bitou Bush Spatial Data Aggregation and Management Project 2019-21**

- Ongoing Validation, Integration and Analysis of South Coast Bitou Bush and Bone Seed spatial data from NPWS and associated contractors and Bega Valley, Eurobodalla and Shoalhaven local councils.
- Production of mapping showing survey effort, occurrence and treatment of Bitou Bush and Bone Seed weeds.

### **Light to Light Walk (Ben Boyd National Park) Development Biodiversity Assessment and REF 2019/20**

- Vegetation and biodiversity survey mapping
- Production of range of field maps, results maps and constraints maps

### **BVSC Water and Sewer GIS Updates 2019/20**

- Creation of water and sewer GIS features from dwg 'as constructed' drawings.
- Fully attributed Water and Sewer updates are provided back to council that can easily be integrated into councils QGIS water and sewer GIS database.

### **BVSC Aboriginal Cultural Heritage Mapping Project 2019**

- Worked closely with council planners to create 'Cultural Landscapes' and 'High Value Cultural Landscapes' GIS layers for future planning purposes.
- This work followed an innovative approach and integrated cultural sites, traditional pathways, and other significant landscape features.

### **BVSC Urban Stormwater Catchment Delineation Project 2018**

- Generation of DEM, streams and catchment areas from LIDAR
- Review of stream derived catchment areas against the stormwater network

### **Cape York United One Claim Native Title Determination 2017/18**

- Worked closely with senior legal staff and 7 anthropologists to map anthropological report areas.
- Analysed range of Aboriginal land tenure and native title GIS data, and prepared large A0 size maps.

### **Cairns Shipping Development EIS 2017 and Scoping Study 2016**

- Coordinated GIS data and mapping for the project team.
- Utilised GIS during workshops to examine site constraints and opportunities and to refine designs.
- Produced mapping for the EIS and Scoping Study Reports.

### **Cassowary Coast Regional Council Water Meter Data Integration Project 2015/16**

- Integrated range of water meter data from rating dataset, asset management GIS dataset and other survey data in order to create a single water meter dataset with XY coordinates.

**Douglas Shire Council Planning Scheme Mapping 2015/16**

- Created corporate data structure and mapping which met the aspirations and needs of Council planners, incorporated previous GIS work and was consistent the Queensland Planning Provision Requirements.
- Delivered mapping in PDF 'map-book' format, ArcGIS Map Documents and Shapefiles, and MapInfo Workspaces and Tab Files.

**ArcGIS Online mobile mapping for Cassowary Coast Regional Council (CCRC) 2015**

- Setup, testing and ongoing management of CCRC's ArcGIS Online software platform, including Collector IPAD app and Operations Dashboard desktop app.
- Resolved issues and made enhancements such as creation of dedicated offline maps and customised zoom levels.
- Integration of ArcGIS online datasets with Councils corporate MapInfo GIS software.

**Refinement of Water, Sewer and Parks and Community Facilities GIS datasets for Cassowary Coast Regional Council 2015**

- Desktop validation and modification of existing datasets where appropriate.
- Creation of new attribute schemas to record significant council assets.
- Held numerous workshops with experienced field staff to validate and append existing datasets.

**Aquis Great Barrier Reef Resort Environmental Impact Assessment 2013/14**

- Collated and reviewed GIS data provided by various environmental consultants and Government Agencies.
- Analysed, updated and created GIS datasets to support the EIS team.
- Prepared the final maps for the EIS Report and EBPC Act Issues Report.

**Cassowary Coast Regional Council Planning Scheme and Priority Infrastructure Plan Mapping 2014**

- Compiled and reviewed previous GIS work, set up a corporate Planning Scheme/PIP data structure, and created and managed GIS data consistent with QPP mapping requirements.
- Developed the full range of planning scheme and priority infrastructure plan maps.
- Categorised CCRC Roads, Water Supply, Sewerage and Stormwater Trunk Infrastructure.

**Cassowary Coast Regional Council Infrastructure Revaluation 2014**

- Integrated and updated transport datasets in order to produce a single fully attributed dataset for each infrastructure type. Linear Referencing functionality (within ArcGIS) was utilised.

**Mission Beach Aquatic Centre Evidence Based Analysis 2014**

- Calculated population and dwellings within varying travel distances from each of three proposed sites. This involved aligning mesh block figures from the 2011 ABS Census with current broad-scale CCRC projections.
- Prepared a range of infrastructure and demographic GIS datasets as a combined AutoCad (.dwg) file to assist in the preparation of an Evidence Based Analysis report comparing the three proposed sites.

**Regional Transport Planning Queensland (including for Far North Queensland, Northern, North-West and Central-West Regions) 2010-13**

- Analysed GIS data and produced mapping showing the functions and performance of the existing and future transport network.
- Drafted substantial sections of these reports including Regional Context, Situation Analysis, Transport and Freight Estimates and Projections, Options Analysis and Strategy.

**Ok Tedi Development Foundation Roads and Bridges Feasibility Studies 2012**

- Provided GIS analysis and mapping support to the project team, including terrain and route analysis.
- Sourced range of topographic GIS data, high resolution satellite imagery and DEM data.
- Prepared a range of mapping to include within the Feasibility Study reports.

**Planning Institute of Australia Sri Lanka Post Tsunami Planning Support Project 2010**

- Prepared local development plans and associated mapping for 3 districts. This involved working with Sri Lankan town planners and GIS officers, and a multi-disciplinary Australian volunteer team.

## EMPLOYMENT HISTORY

- |   |  |
|---|--|
| <b>Principal, GIS Analyst and Planner</b>   | Geographica Consulting<br>October 2009 to present  |
| <b>Senior Project Officer (part-time)</b>   | Balkanu Cape York Development Corporation<br>April 2014 to present   |
| <ul style="list-style-type: none"><li>• Project management of State Land Dealings within the Cape York Region. This involves facilitating negotiations between Traditional Owners and the State Government to transfer existing State Lands to Aboriginal Ownership.</li><li>• Provision of mapping and GIS support to the project team as required.</li></ul>  |  |
| <b>Spatial Information Services (SIS) Teacher</b>   | Tropical North Queensland Institute of TAFE, Cairns<br>April 2008 to June 2009   |
| <ul style="list-style-type: none"><li>• Online and face to face delivery of SIS Diploma and Certificate 3 courses.</li><li>• Program management including course design, development of course materials, customisation of online learning system, marketing of course and staff mentoring.</li></ul>   |  |
| <b>Spatial Research and Support Officer</b>   | NSW Rural Fire Service, Sydney, NSW<br>July 2007 to March 2008   |
| <ul style="list-style-type: none"><li>• Facilitated the development and roll-out of a Bush Fire Risk Register GIS application to 71 Bush Fire Management Committees, and provision of ongoing technical support.</li><li>• Contributed to Bush Fire Risk Management Planning Guidelines and Bush Fire Coordinating Committee Policy documents.</li></ul>  |  |
| <b>GIS Officer</b>  | City of Sydney Council, NSW, February 2007 to June 2007  |
| <ul style="list-style-type: none"><li>• Created 3D Floor Space GIS dataset of Sydney City within an ArcGIS SDE Geodatabase.</li></ul>   |  |
| <b>Technical Officer</b>  | Science Division, Department of Environment and Conservation, Perth, Manjimup and Kununurra, WA, February 2003 to October 2006 |
| <ul style="list-style-type: none"><li>• Worked with senior researchers to design and establish a Bushfire CRC research project, which examined the relationship between bushfire history and biodiversity in the forests of south west WA.</li><li>• Produced scientific publications dealing with: bushfire history GIS data capture and analysis procedures; and bushfire research and management applications (see Publications below).</li><li>• Re-designed methods of GPS data collection and input of data for use by the Cane Toad Management Team. Planned and undertook remote fieldwork.</li></ul> |  |

## QUALIFICATIONS

- |  |                                     |
|--|-------------------------------------|
| <b>Graduate Diploma in Urban and Regional Planning</b> | University of New England 2011      |
| <b>Certificate 4 in Training and Assessment</b>        | Tropical North Queensland TAFE 2008 |
| <b>Bachelor of Science (Geography/GIS)</b>             | Australian National University 2002 |
| <b>Higher School Certificate</b>                       | Bega High School 1996               |

## CONFERENCES AND SHORT COURSES

- **ESRI GIS Directions Seminar** – 1 day 2015 and 2016 ESRI, Townsville
- **Living and Working on Country Conference** – 1 day 2015 JCU, Cairns
- **QCON14 SSSI State Conference** - 3 days 2014 (including Remote Sensing and LIDAR workshops) SSSI, Cairns
- **Northern Group SSSI Conference** - 2 days 2013 (including open source GIS workshop) SSSI, Townsville
- **Far North GIS Users Group Conference** - 2 days 2013 FUNGIS/SSSI, Cairns
- **Planning Institute of Australia National Congress** - 3 days 2013 (including Managing Urban Growth study tour) PIA, Canberra
- **Complete Streets** - 1 day training workshop 2011 IPWEA, Cairns
- **Urban Design** - 2 day course 2010 Chifley Business School, Cairns
- **Aboriginal and TSI Cultural Awareness** - 2 day course 2009 TAFE, Cairns

## PUBLICATIONS

- Wittkuhn R. & Hamilton T. 2010, 'Using Fire History Data to Map Temporal Sequences of Fire Return Intervals and Seasons', *Fire Ecology*, Vol 6, No 2, pp.97-114
- Hamilton T., Wittkuhn R. & Carpenter C. 2009, 'Creation of a fire history database for southwestern Australia: giving old maps new life in a geographic information system'. *Conservation Science Western Australia*, Vol 7, No 2, pp. 429-450
- Wittkuhn R., Hamilton T. & McCaw L.W. 2009, 'Fire interval sequences to aid in the site selection for biodiversity studies: mapping the fire regimes', *Proceedings of the Royal Society of Queensland*, Vol 115, pp. 101-110
- McCaw L.W., Hamilton T. & Rumley C. 2005, 'Application of fire history records to contemporary management issues in south-west Australian forests', *A Forest Conscienceness: Proceedings 6th National Conference of the Australian Forest History Society Inc*, pp. 555-564

## REFEREES

Referee details can be provided upon request.