Paula Jane McNamara

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Nationality:	New Zealand
Education:	1999 Massey University, Palmerston North, NZ **Postgraduate Diploma Geographic Information Systems**
	1995-1998 Massey University, Palmerston North, NZ **Bachelor of Science – Earth Science and Environmental Science**
Countries of Project Experience:	Australia, New Zealand, Portugal, Angola Saudi Arabia, United Kingdom, USA

Overview

I am a highly experienced professional with 15 years experience working in various fields of GIS, this includes renewable energy, urban development, environmental planning, network analysis, demographics and spatial statistics. I hold a Bachelor of Science and a Postgraduate Diploma in GIS in addition to extensive professional development.

I excel at delivering innovative solutions, this includes for complex multidisciplinary projects and the provision of strong spatial quantitative and qualitative analysis. During my professional employment I have developed an impressive set of skills and experience in the urban development, infrastructure and environment sectors. In nearly all of my roles I have developed GIS within the company, building the profile and setting up the software.

Core capabilities and experience:
- Leading the delivery of GIS services to clients
- Environmental Impact Assessments
- Developing and delivering strategic and urban plans
- Managing projects, teams and sub-consultants
- Working with multiple stakeholders – internal and external
- Training and internal marketing
- Research & Development of new tools and capabilities

Technical GIS Program Skills:
- ArcGIS 10.2 and ArcGIS 9.3.1
- 3D Analyst
- Spatial Analyst
- Network Analyst
- Spatial Statistics
- Model Builder
- Maplex
- Geocortex
- Python
- ArcPublisher and ArcReader
- MapInfo 7.8
- ET GeoWizards and ET GeoTools
- Xtools Pro
- FME
- ERDAS Imagine

Employment History

Feb 2010 – Oct 2017 Australia Post Melbourne, Australia
GIS Analyst

Australia Post is an eCommerce company with one of the largest networks of retail stores and distribution centres in Australia. It provides delivery services, retail products, financial services (such as bill payment and banking through its retail network), logistics and fulfilment services, and direct marketing and database management services.

At Australia Post I am responsible for delivering GIS mapping, analysis, support and training to all of Australia Post divisions. I also provide training, education and internal marketing at Australia Post such as organising and hosting two-day GIS training events and the development of training manuals.   Our team supports web based and desktop users in multiple locations.

Selected project achievements:
- Intensive Location-Allocation analysis to optimise the Post Office network. This includes statistical weighting of the facility variables and generating meaningful demand points to capture the customers. Target Market Share was used to help make decisions and provide evidence for shareholder meetings.

- Use of ABS census data for demographic mapping and analysis. This included finding target areas for marketing material, and allowing postal outlets to know their area demographic for stocking their post shop with relevant products for purchase
- Detailed analysis for parcel locker locations required analysis to show the coverage of populations that could reach parcel lockers within a certain drive time. Gaps and overlaps could be clearly seen and locations of parcel lockers evaluated
- Delivery Round Optimisation (DRO) project. This included training the DRO Planners in ArcGIS Desktop so they can complete their round optimisation, as well as creating models using Model Builder in ArcGIS to automate the data extraction process when the planners request data
- Use of Network Analyst for routing & route optimisation, drive-time catchment areas & optimising deliveries.
- Hotspot analysis for retail and marketing teams, showing business hotspots by industry
- New initiative research i.e. Hot Spot & Cluster Analysis using Spatial Statistics Tools & Spatial Analyst
- Created enterprise templates and basemaps for company standardised mapping use
- Created a time series animation for credit card fraud using ArcGIS 10
- Creation of models for other team members to use for new analysis techniques
- Developed print templates for the web mapping software Geocortex and published them in the system. Also helped to develop the web mapping for the company using the Geocortex application.
- Acted in managerial role when manager was away, and mentored junior staff

April 2007 – July 2009 Happold Consulting London, UK
Senior GIS Analyst

Happold Consulting is a multi-disciplinary consultancy, part of the larger Buro Happold Group. Happold Consulting provides project planning and delivery advice to the public and private sectors in infrastructure and transportation, development, environment and sustainable development, economic development, asset management, health and social services, master planning and strategic planning.

As Senior GIS Analyst I was responsible for GIS for Happold Consulting International, the Olympics team, environment team, sustainability team, transport team, and the CoSA (Computational Simulation and Analysis) team (wind modelling). GIS was a new discipline at Buro Happold. I led the introduction and training of staff in ArcReader and conducted internal marketing throughout the company.

Selected project achievements:
- Developing new methods of analysis for Happold Consulting such as spatial analysis with weighted and reclassified rasters, suitability modelling, and land use analysis for access to services
- Regional economic analysis including transport analysis such as flight time service areas
- Urban Planning and City modelling, including land use capabilities, and economic population analysis and future projections for city growth
- Viewshed and terrain analysis using 3D Analyst for the impact of development on a UNESCO site
- Transport projects to enhance existing poor quality, using transport scenarios to calculate Public Transport Accessibility levels (PTALs), taking into account walk access time and service availability
- Air Quality Assessments, Noise Assessments and other EIA mapping requirements

Sept 04 – April 07 Environmental Resources Management Ltd (ERM), London, UK
GIS Consultant II

ERM is a leading global provider of environmental, health, safety, risk, and social consulting services. As a GIS Consultant I was responsible for delivering GIS analysis and reporting to support the projects undertaken by ERM's divisions. I also undertook training and internal marketing.

Selected project achievements:
- Provided mapping for many Environmental Impact Assessments (EIA) & Environmental Social & Health Impact Assessments (ESHIA)
- Supported ESIA for proposed pipeline in Angola which had significant impact on mangrove habitats and local villages, especially fishermen
- On-shore and off-shore mapping for windfarm planning and development, bird flight paths, collision risk assessment, visibility analysis and 3D modelling
- Processing and interpretation of satellite imagery for land classifications
- Marine, Oil and Gas projects involving proposed plants, pipelines, wells, vegetation analysis, environmental and social impacts, and offshore exploration
- Transport studies and assessments, including traffic analysis and route options analysis, and airport extensions
- National statistics maps, population and deprivation analysis for Health Impact Assessments (HIA)

- Site Investigation Remediation (SIR) work for borehole analysis
- Constraints mapping for review of Waste site assessments, including air quality, environment, ecology, conservation and archaeology
- Various projects - digitising, registering & rectifying, data translations, spatial analysis, & map production

April 03 – June 04 Beca Carter Hollings & Ferner Ltd, Wellington, NZ
GIS Specialist

Beca is one of the largest employee-owned professional services consultancies in the Asia Pacific. Beca delivers a variety of consultancy services across the Buildings, Government, Industrial, Power, Transport and Water market segments. I was employed as a GIS specialist to support the delivery of their projects.

Selected project achievements:
- Geological Borehole Analysis of a landfill site in a 3D model using ESRI's ArcMap, ArcScene & 3D analyst
- Predicting best time to fly for an area for suitable conditions to gain optimal photo quality. Hillshade and Slope models were analysed using ArcMap, ArcScene, and 3D analyst software
- Flood Plain Mapping showing Existing Flood Plains, District Plan Flood Plains, and Catchments
- Mapping for an Irrigation Scheme and outputting data for analysis
- Project for land review to evaluate and locate areas of clients land that could be developed in accordance with the district plans
- Digitising, registering and rectifying, data translations, crystal reports, and map production
- Promoting Beca Services for in-house Orthophoto Conversion Software

May 2000 – April 03   Terralink International Limited, Wellington NZ
GIS Technician

Terralink International specialises in delivering mapping, property information and imagery, as well as geographical and spatial information. I was employed as a GIS Technician to support the delivery of their projects.

Selected project achievements:
- Supported various projects with Arc Macro Language (AML) script writing
- Trained staff in ArcGIS desktop products ArcMap, ArcCatalog, and ArcToolbox
- Project management of digital topographic data capture and database construction for overseas client
- Capture and maintenance of Landbase dataset in Smallworld
- Integration of NRCD road centreline database with TIL Landbase using Smallworld
- Capture and supply of Scheme Plans for client in ArcInfo
- Data translations between different software
- Use of Idrisi, ERDAS imagine, and FME

Nov 1999 – April 2000   Central Hawkes Bay District Council, Hawkes Bay NZ
Assets and Auditing Officer

Central Hawke's Bay District covers an area of 333,450 hectares with a population of 12,948.

Selected project achievements:
- Worked with MapInfo and Mits-Hansen database, to maintain and update asset data to facilitate the provision of quality, timely and complete information concerning all of the Council owned assets
- Effectively input 'as built' plans, new asset details and removed assets to and from the asset database
- Liaised with contractors, public and councillors
- Compiled different asset maps in MapInfo for various services, including the fire department
- Completed Intermediate course on MapInfo for Windows with Critchlow Associates Ltd

Conferences:
- Locate Conference, 2016
- OZRI Conference 2011
- ESRI Europe, Middle East and Africa User Conference 2008
- AGI Marine and Coastal Zone GIS Conference, March 2006
- NZ MapInfo User Group Conference 2003
- NZ ESRI User Group Conference 2003
- NZ ESRI User Group Conference 2001

Additional Training:
- Spatial Statistics training 1:1 with ESRI, 2015
- ESRI 10.1 Training Course, 2014
- Project Management Course, 2006
- Smallworld Advanced User course, 2003
- Smallworld Magik course, 2003
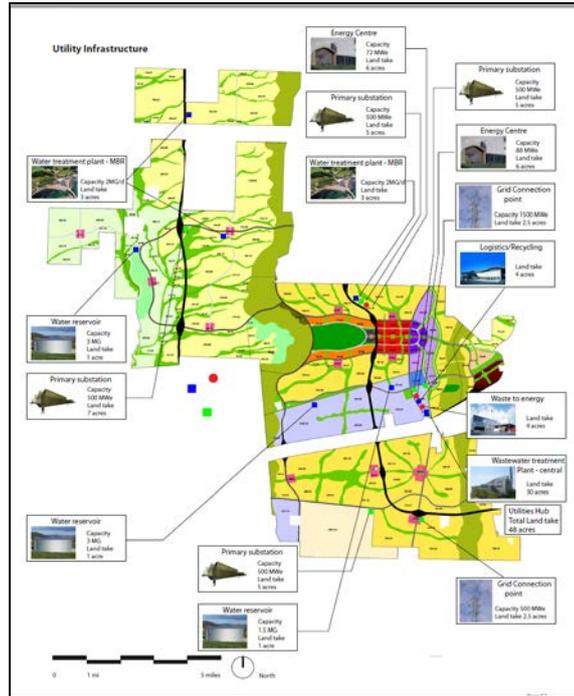
Referees:

Available on request

Project Examples

Westland Project, Albuquerque, New Mexico, United States of America
Client: SunCal

Project Description

The Atrisco Land Grant site is a massive 55,000 acre site, which was granted by the Spanish government to colonials in New Mexico in the 17th Century. Located on the outskirts of the city of Albuquerque, the site is now under immense pressure for development, as a combination of natural and physical constraints have meant that it finds itself in one of the few places left for the city to expand.

GIS Analysis Undertaken:

- Demographic analysis
- Transport analysis (Cycling, bus routes, and roads)
- Network analysis, using varying lane capacities, varying car loads and varying public transport load scenarios
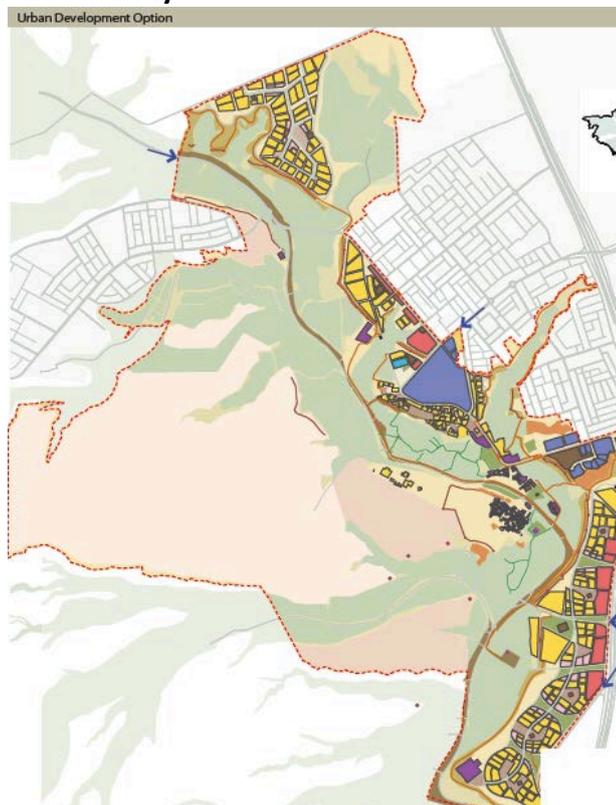- Transport, infrastructure and utilities optimisation

Addiriyah Historical District: Comprehensive Development Plan
Client: Arriyadh Development Authority

Project Description

Addiriyyah is a stunning set of historic oasis towns, in Wadi Hanifah - an area of outstanding natural beauty outside of Riyadh, the capital of the Kingdom of Saudi Arabia.

HC delivered a masterplan for the site including drawing up and implementing Planning regulations and Design Guidelines for the site.

GIS Analysis Undertaken:

- Mapping for planning subdivisions, proposed landuse, land use zones, services, land ownership and planning zones
- Viewshed analysis for key features, such as the historic Addirryyah wall
- 3D analysis using the terrain and overlay of CAD files of the proposed developments
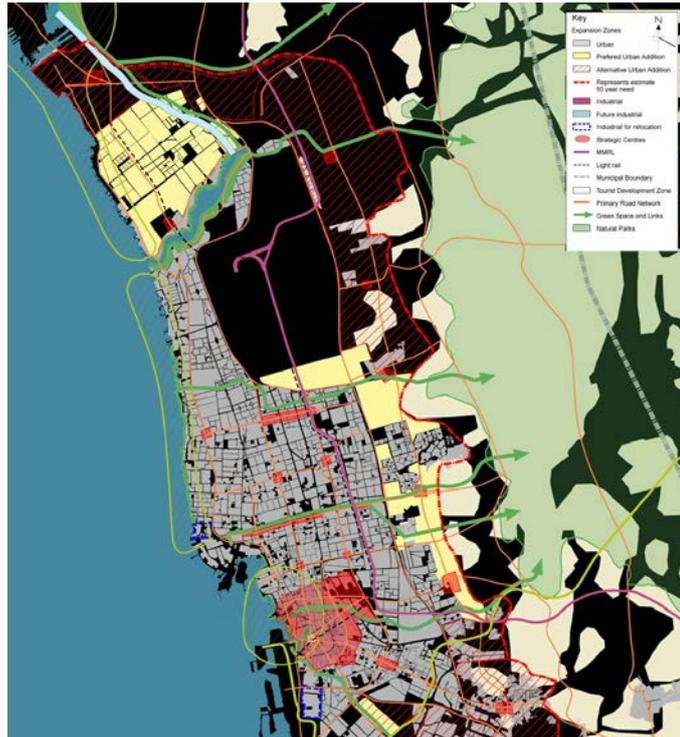- Flight time analysis to neighbouring airports

Jeddah Strategic Development Plan, KSA
Client: Municipality of Jeddah
Project Description

The Municipality of Jeddah is facing the management of a huge population growth, with unplanned settlements and urban sprawl suffering from a lack of basic infrastructure.

HC developed a comprehensive 20 year Strategic Plan setting out policies for the city region, urban structure, economics, environment, transport, infrastructure and public realm.
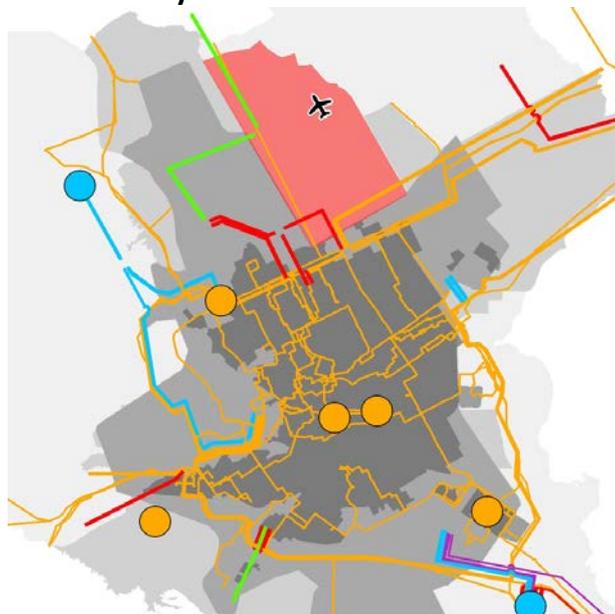

GIS Analysis Undertaken:

- Landuse Mapping
- Public transport accessibility analysis
- Asset and utility analysis using weighted raster analysis
- Travel distance analysis
- Visualisation of future growth and projections

King Khaled International Airport (KKIA) and Environs, KSA
Client: Ar Riyadh Development Authority
Project Description

Expansion of major air transport hub and development of the large area of land surrounding it was a unique opportunity for Riyadh. They required a viable unified development fulfilling the city's strategic objectives.

GIS Analysis Undertaken:

- Mapping of environmental features, planning concerns and strategic infrastructure locations