

EXPERIENCES OPERATING IN THE PACIFIC WATER INDUSTRY



Paper Presented by :

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A Note from the Workshop Organisers

We had a number of speakers pull out of the paper program at the last minute and David kindly agreed to travel from New Zealand to fill one of the vacant paper spots. Unfortunately, due to the late notice, David did not have time to produce a full manuscript and instead has provided the following details as background for his presentation.

Although this presentation is far from technical in nature, we think David's story is an amazing demonstration of what can be achieved with a bit of guts, determination and commitment. It may seem to many that David's rise through the PNG and then NZ water industries can't happen in Australia or Queensland for that matter. We would dispute this point strongly and know of many examples right across Australia where people have already achieved similar career outcomes.

The challenge for each and every person present is to listen to David's story and then compare it to your own situation. There are plenty of things you can do to progress your career if you have the determination and drive to make things better for yourself. All this prompts us to ask the question of all delegates present – is working in the water industry your job or your career? Only you can answer this question. If you “a job” then that is disappointing to us but you are entitled to an opinion. If you chose the latter option, keep in mind that one of WIOA's primary goals is to provide resources and opportunities for Members to reach their full potential and we will do everything we can to help you get where you want to be. Anyone from the WIOA Committee would be pleased discuss how we can help you achieve your goals!.



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David P Karrol, *Utilities Network Manager*, Western Bay of Plenty District Council (NZ)

Work History

I worked with the Papua New Guinea Waterboard for 16 years, starting as a water and wastewater treatment operator working up to a role at the head office in Port Moresby as the Water and Wastewater Senior Technical Officer and the Environmental Officer. (1980 – February 1997)



I moved to Opus International Consultants Ltd – Environmental Training Centre as a water industry Operator trainer for 3 years: (February 1997 – June 2000). (*Similar to Open Learning Institute in Qld - Editor*)

From 2000 to 2004, I was employed by DELTA Utility Services Ltd as the Contract Manager to manage the Central Otago District Council (CODC) Utilities and Services contract.

I am currently employed by the Western Bay of Plenty District Council (NZ) as the Utilities Network Manager.

Current Job Role

My primary responsibility is to manage and monitor all assets, including carrying out valuation etc, and managing all existing utilities services, including water, wastewater, storm-water and solid waste operations.

I report to the Utility Manager on a daily basis.

I receive daily and monthly reports from Duffill Watts and King, the Council Professional Service Provider (PSP),

Below are some of my duties:

- Contract Management of Utility contracts including independently auditing data and performance reviews;
- Management of the Council's Service Request System relating to utilities including direct customer contacts, and resolving conflicts between customer expectations and councils Level of Services;
- Research and preparation of reports on issues relating to Utility services;
- Proactive liaison with stakeholders including Department of Conservation, Environment Bay of Plenty, Historic Places Trust, Iwi groups, Ratepayer groups, Community Boards, Councillors and sub-divider representatives, on issues related to Councils Utility Services.

Specialisations

Over the years, I have undertaken a wide range of training and am regularly called on to provide advice or to undertake projects relating to a variety of water industry issues. Some of my specialisation areas are listed below:

- Water and wastewater treatment and disposal (investigation, troubleshooting, maintenance operations and advise);
- Water and wastewater distribution system (investigation, troubleshooting, maintenance, operations and advise);
- Design and supervise the construction and/or installation of water and wastewater treatment upgrades and extensions;
- Design and Supervise the construction of new water distribution upgrade and supervise wastewater distribution upgrades;
- Stormwater investigation, maintenance and operations.
- Water and wastewater analysis and interpretation.
- In-house – General and operator training.
- Swimming Pool – operations, maintenance and advice
- Registered by Water Industry Training as a Water Distribution On-site Assessor
- Environmental consultancy and advise

Training/Qualifications Achieved

1989 - New Zealand Water and Wastewater "C" Grade Qualification Certificate (NZ Trade Certificate Equivalent)

- 1991** - New Zealand Water and Wastewater “B” Grade Qualification Certificate (NZ Intermediate Certificate Equivalent). Currently converting the “B” grade Water Certificate to New Zealand Diploma in Water Treatment Technology
- 1992** - New Zealand Water “A” Grade Qualification Certificate (NZ Certificate of Science Equivalent) - *Certificate #16.*
- 1993** - New Zealand Wastewater “A” Grade Qualification Certificate (NZ Certificate of Engineering Equivalent) - *Certificate # 31.*

Other Training

- “Train the Trainers” Certificate
- NZ Drinking Water Assessor Certificate (almost complete)
- Dangerous Goods Licence

Projects and Investigations David has been Involved In:

Opus International Consultants Ltd. Environmental Training Centre. Trentham. Upper Hutt. New Zealand		
1	Palmerston North City Water Treatment Plant Carrying out trials on existing rapid sand filters (12) using different stand-alone coagulants and combining with different flocculants to determine good flocculation in order to achieve good filter effluent quality. <u>Project Aim:</u> To economically access weather conventional treatment or direct filtration using same coagulant and flocculants achieve good filter effluent quality.	Senior Technical Officer <i>(Carrying out trials)</i>
Roadex, a division of Delta Utility Services Ltd. Alexandra. Central Otago. New Zealand		
1	Flood Bank Project Designing and Relocation of the Alexandra Water treatment plant to higher elevation, this includes designing and changing gas chlorine to Liquid chlorine operations	Project/Team Leader
2	Flood Bank Project Relocation of 700m of 160mmOD HDPE gravity sewer pipe and flood proofing 8 manholes	Project Leader
3	NZDWS 2000 Compliance Designing, installing and Upgrading all water treatment monitoring equipments, like installing, on-line chlorine analyser, pH monitor, on-line turbidimeters	Project/Team Leader
4	Treated Water Reservoirs Design and install 3 x 25m ³ urban tank installation of Patearoa Township	Project/Team Leader
5	CODC Water Treatment Plants Upgrading and Uprating water treatment production	Project/Team Leader
6	CODC Wastewater Treatment Plants Upgrading/Uprating and improving the overall plant efficiencies and effluent quality to comply with the required resource consent	Project/Team Leader 2 years for all 8 wastewater plants,

	permits. Especially. Alexandra's Extended Aeration, Activated Sludge Plant and Ranfurly's Secondary treatment processes,(Imhoff and biological filter)	especially Alexandra's Extended Aeration Activated Sludge Plants, design to remove N.
7	Dunstan Hospital Wastewater Treatment Plant Aim: <u>To comply with resource consent requirement.</u> Upgraded the plant, by carrying out total maintenance, operating and monitoring the plant operation ensuring plant discharges the required level of parameters. It is now well under its requirements.	Project/Team Leader
8	Managed all Major and Minor works, including upgrading and installing new water & wastewater reticulation pipelines, this includes pricing the project	Project/team Leader Continuous
9	Commissioned Several Projects Clyde Town Water supply Bore pump installation – 1 weeks Alexandra Town Water supply Bore pump installation – 1 week All Water and wastewater reticulation upgrade and extensions, including pressure testing, mains disinfections in compliance with the Water supply protection Regulation 1961.	
DELTA Utility Service Ltd. Alexandra. Central Otago District.		
10	Construction of Final Oxidation pond effluent Sub-surface wetland at Ranfurly Town Wastewater treatment plant	Project/Team Leader
11	Design and Construction of Final effluent from the Imhoff tank wastewater treatment system to a Infiltration gallery before entering waterways at Lake Roxburgh Village	Project/Team Leader
12	Source, Supply and Install a Mechanical step screen at Cromwell Oxidation pond	Project/Team Leader
13	Design and Built 6 x 20x x 30m Sand drying beds for the Alexandra Wastewater Treatment plant for dewatering process.	Designer & Project Leader
14	Supply and Install Alexandra Wastewater Renewals project, including design and install new wastewater pump station for a new Central Otago museum	Overall Project Manager
15	Design and Install 90 degree “V” notch weir at all Oxidation Ponds	Project/Team Leader
16	Manage, operate and maintain all utility Asset and Services for four (4) years for the Central Otago District Council	Contracts Manager 4year

If you are interested in talking with David, please introduce yourself at any time during the Workshop or he can be contacted at:

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