



## JOHN FORREST AND ASSOCIATES Engineering and General Consulting

# Curriculum Vitae of John Forrest

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| <b>FULL NAME:</b>      | John Alexander FORREST  |
| <b>DATE OF BIRTH:</b>  | 24th August,1949  |
| <b>PLACE OF BIRTH:</b> | Mildura, Victoria, Australia  |
| <b>NATIONALITY:</b>    | Australian  |
| <b>MARITAL STATUS:</b> | Married, 2 daughters Tanya and Anik   |
| <b>EDUCATION:</b>      | Red Cliffs Central Primary School, Victoria 1959—1960<br>Mildura Technical School, Victoria, 1961— 1966<br>Ballarat School of Mines and Industries , Victoria, 1967—1971<br>University of Melbourne, Victoria, 1973—1974<br>University of Aberdeen, Scotland, UK, 1978—1980       |
| <b>QUALIFICATIONS:</b> | Master of Science (MSc), University of Aberdeen, Scotland, UK , 1980<br>Bachelor of Engineering (Civil) (BE (Civil), University of Melbourne, Australia, 1974<br><br>Diploma of Civil Engineering (Dip CE)<br>School of Mines & Industries<br>Ballarat, Victoria, Australia, 1971 |
| <b>MEMBERSHIPS:</b>    | Fellow, Institution of Engineers, Australia (FIEAust)<br>Chartered Practicing Engineer (CPEng)<br>Member, American Society of Civil Engineers (MASCE)   |

### BACKGROUND OF JOHN FORREST:

John Forrest is currently a semi retired Consulting Engineer providing general consulting services in project management, town planning and irrigation advice. He has a general background in Civil Engineering including some time in the public service, academia, and for many years managed his private consulting practice. This is all detailed in the following curriculum vitae.

His interest in infrastructure investment led him to serve for 20 years as the Member for Mallee in the Federal Parliament from 1993 to 2013. In this period he worked assiduously to establish a reputation for representing with decency and integrity to build confidence in the political system so recently undermined. Upon his retirement from the Parliament he served as a Non Executive Director of the Australian Grape and Wine Authority till 2015. This was a fledgling Federal Government Authority resulting from a merger of the organizations representing the wine sector. His fifteen months service provided oversight of the governments interests in this sensitive industry to set it on the right path. Following the fledgling period, It now operates with a new Board of industry representatives. Whilst on the Board he served on Committees of the Board as Chair of the Audit Committee and participant of the Research Development and Extension Committee.

### CURRENT VOCATIONAL EXPERIENCE:

He is now the principal of the Engineering and General Consultancy practice of John Forrest and Associates providing consultancy services to irrigation businesses in major remodelling of supply systems resulting from the Murray Darling Basin plan and provision of sundry other advice in regard to town planning, dispute resolution, and in particular advice to horticulture especially to struggling wine grape growers

Consultant and advisor to the Board of Management of Dodgshun Medlin who are a financial advisory business supporting general business and agribusiness. Advice provided in regards to public relations and building extension advice.

#### PREVIOUS VOCATIONAL EXPERIENCE:

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| 1970—1980 | State owned Electricity Utility organization State Electricity Commission of Victoria, Australia as design engineer and construction engineer with experience in Hydro-electricity, particularly pumped storage, brown coal open cut mining and river diversions |
| 1980—1982 | Lecturer, Ballarat College of Advanced Education, University of Ballarat, Department of Civil and Mining Engineering lecturing in fluid mechanics, hydraulics, soil and rock mechanics   |
| 1990—1993 | Member, Swan Hill Water Board<br>Elected Municipal Councillor, City of Swan Hill<br>Victorian State Region Chairman, Murray Darling Association  |
| 1993—2013 | Federal Member of the Australian Parliament<br>Member for Mallee, for the National Party of Australia<br>Chair, Family and Community Affairs House Committee   |

#### FIELDS OF COMPETENCE:

Fields of competence as a Civil Engineer include project appraisal and contract management, structural engineering, general consulting in the building and construction industry, road works, geotechnical engineering, building industry and design, irrigation and water resources management, contract and general dispute resolution, advice in insurance loss adjustment assessments.

Interests include irrigation, water and natural resource management, hydro-electric power generation, environmental sustainability, and dispute resolution in general.

#### PAPERS PUBLISHED:

- (i) “*New Design Charts for Air Chambers*”, Fifth Australasian Conference on Hydraulics and fluid Mechanics, Christchurch, New Zealand, December, 1974, H.R. Graze and J.A. Forrest
- (ii) “*Analysis of Fluid Measurements of Air Chamber Installations*”, Second International Conference on Pressure Surges, London, September, 1976, H.R. Graze and J.A. Forrest
- (iii) “*Field Data Analysis of Large Air Chamber Installations*”, Sixth Australasian Conference on Hydraulics And Fluid Mechanics, Adelaide, December, 1977, H.R. Graze, J. Schubert and J. Forrest
- (iv) “*Morwell River Diversion*”, The Institution of Engineers Australia, Civil Engineering Transactions, Vol CE 20, No. 2, 1978, A.R. Curry, J.A. Forrest, D.F. Nicholls and R.M. Reilly
- (v) “*Versche an Windkesseln*” (Druckluftwasserebehalter) in *Wasserversorgungsanlagen*”, GWF— wasser/abwasser, J. Scubert, H.R. Graze, and J.A. Forrest, September, 1979 (in German)
- (vi) “*Mass Oscillation Prediction—A Comparative Study of Surge and Water Hammer Methods*”, Third International Conference on Pressure Surges, London, March 1980, J.F. Robbie and J.A. Forrest
- (vii) “*A Comparative Study of Surge Chamber Designs*”, Master of Science Thesis, University of Aberdeen, Scotland, UK, November, 1979, J.A. Forrest
- (viii) “*Harvesting The Skies*”, A Report Tabled in the House of Representatives of the Australian Parliament as a result of a study tour to Texas in the USA on the science of cloud seeding for precipitation enhancement, July, 2002, J.A. Forrest
- (ix) “*Hope for The Hopeless*”, A Report Tabled in the House of Representatives of the Australian Parliament as a result of a study tour to northern Thailand to assist with the construction of an orphanage with Rotary International and report on the problem of homeless children on the border of Burma and the Mekong delta region, January, 2009

## DETAILS OF EXPERIENCE:

1970—1980

(a) **Hydro Electric Power Station investigations**

Preliminary investigation and design for various 1000 MW pumped storage hydro-electric sites around Victoria. Sub-surface investigation of geotechnical conditions, design of dams and underground works, preparation of capital and operational cost estimates, and economic analysis of various sites. This work was part of an overall cost benefit study of pumped storage to the Victorian grid system.

(b) **Water Resources, Flood Mitigation and Drainage**

Water resources investigations for various proposed thermal power stations within Victoria. Flood control studies for water releases from the 180 MW Dartmouth Hydro-electric power station, including river bank stability and rehabilitation.

Field investigation and geotechnical design of earth embankments including hydraulic control structures associated with brown coal open cut mines and associated power stations in the Latrobe Valley Victoria. This work included open cut dewatering and ash disposal and the design and construction supervision of the Loy Yang high level storage reservoir and overburden drainage siltation pond, and the Morwell open cut siltation and drainage pond. This work included design, preparation and assessment of tenders.

(c) **River Diversions**

Design and construction site Engineer for the Morwell River diversion project in the Latrobe Valley. Project included extensive flood control and erosion protection works. Responsibility on site included the supervision of contractors for large diameter concrete pipe construction and extensive earthworks. The total contract value was \$A7Million. This work resulted in the publication in the Institution of Engineers Australia, learned journal.

(d) **Environmental Effects Study**

Team member in preparation of environmental effects statement and evidence to the Victorian State Parliamentary Public Works Committee Inquiry into the proposed Driffield Power Station and open cut brown coal project with an estimated capital cost of \$A3500 Million. In particular, Special design attention was required for a major diversion of the Morwell River. Aspects Considered included flood control embankments, erosion protection, construction of a new river morphology and preservation of flora and fauna.

(e) **Cooling Water Systems for Power Stations**

Design and performance analysis of works associated with cooling water systems for brown coal power stations at Hazelwood, Yallourn, and Loy Yang in the Latrobe Valley, and gas powered station at Newport in Melbourne. Cooling facilities included ponds, cooling towers and sea water.

(f) **Lecturing and Tutoring in Engineering**

Lecturer in post graduate and under graduate level in the fields of Civil and Mechanical Engineering at the University of Aberdeen (UK) whilst researching for MSc degree, University of Melbourne (Australia) and full time position at University of Ballarat (Australia) from 1979—1982.

**(g) Research and Software Development**

Detailed design work and computer model simulation in the use of air chambers for the suppression of water hammer and surge transients. This work involved international projects in the German Federal Republic and the development of extensive computer software to handle the tedious computations to simulate surge behaviour. Research and development led to the publication of several papers with co-researchers and conference attendances at various international locations and led to the undertaking of a Master of Science Degree.

1980—1993

**(a) Private Consulting as Principal with Forrest Cadd & Associates**

General consulting activities were quite general and varied. Subjects included water and natural resource management, project appraisal, project and contract management, structural engineering, general consulting to the building and construction industry, road works, geotechnical engineering, building engineering and design, irrigation developments, contract and general dispute resolution and advise to insurance loss adjusters.

Feasibility study for the Merran Creek Water Trust in respect to upgrading and allocation of water rights, and representations to the Water Resources Commission, NSW.

Design and project supervision of monitoring for ash disposal dump, Zinc Corporation, Broken Hill Consolidated Mines.

Management of site supervisory staff for manufacture and testing reinforced concrete pipes and in-situ pressure testing for Water Resources Commission of NSW.

Design of subsurface drainage of new and rehabilitated vineyards and design of trickle irrigation systems for Brown Brother Winery at Mystic Park, Victoria.

Design and installation supervision of subsurface drainage in horticultural application for Pistachio Producers Australia Pty Ltd, Robinvale , Victoria

Computer aided design of many broad acre flood irrigation projects throughout the Murray Valley up to 2000 Ha including design and project management of large scale supply channels, hydraulic structures, drainage, pumping plants and large scale centre pivot installations.

Design of 1500 Ml/d automatic gate regulator for Nap Nap Station irrigation project in NSW.

Preparation of feasibility study for the modernisation of the Curlwaa Irrigation District, NSW to an on order Supply. Consultancy to Department of Water Resources , NSW. The district included an area of some 4500 Ha consisting of 96 farms. Feasibility study included horticultural, drainage, pipe and pump design aspects to an estimated project value of \$A13 million. Study included community consultation and preparation and collation of a detailed community questionnaire .

Deputy team leader with Dwyer Leslie Pty Ltd of Canberra as integrating consultant for Kerang Lakes Working Group for development of management strategy for the whole of the Kerang Lakes system in Northern Victoria for the Rural Water Commission, Victoria. Consideration of salinity, drainage, flood control, conservation of sensitive flora and fauna, and recreation issues.

Design of spray, trickle, drip and subsurface drainage for many small to large irrigation holdings in the Murray Valley and Riverina regions of Victoria and NSW.

(b) **Overseas Projects**

Preparation of proposed work program, detailed costing for World Bank tube well project for installation of 34 deep tube wells for irrigation water supply for His Majesty's Government of Nepal.

Preparation of contractual bids for construction of 960 tube wells in Bangladesh on behalf of Australian drilling contractor.

**1993—2013 as Federal Member for Mallee, Australian Federal Parliament**

**Committee Service**

**House of Representatives Standing Committees**

Library from 1993—1996

Publications from 1993—1996

F Chair of Family and Community Affairs from 1996—1998

Procedures from 1997—2001

Industry Science and Technology from 1996—1998

Primary Industry, Rural and Regional Affairs from 1996

Primary Industries and Regional Services 2001

Agriculture, Fisheries and Forestry 2002—2007

Aboriginal and Torres Strait Islander Affairs from 1996 to 1998

Science and Innovation 2001

**Joint Statutory Committees**

Public Works from 1996 to 2013 (Deputy Chair in 2013)

Broadcasting of Parliamentary Proceedings 1998

Securities and Intelligence from 1999 to 2002

Treaties from 2007—2013

**Joint Select Committees**

Intelligence Services 2001

Securities and Intelligence 2011—2013

**Executive Positions**

Chief National Party Whip from 1998—2007

**Constituency Work**

In Representing constituent interests it is amazing how the Members previous consulting reputation followed the Members career with an enormous amount of time involved in problem solving and dispute resolution, particularly in regard to debt resolution and disputes with major lenders with borrowers.