DR DAVID HAYNES

PRINCIPAL, GOINGTROPPO CONSULTING ABN 68 094 663 437

Phone: +61 0448331384

Email: goingtroppo@y7mail.com

Skype: samoadavid



DAVID HAYNES: Summary

David has around 30 years experience in management of environmental science programmes in temperate and tropical Australia and in the greater Pacific region. This includes extensive experience in the design, implementation and management of waste and pollution management programmes, and in marine and freshwater biological and water quality monitoring programs. He also has considerable experience in strategic planning and policy development in environmental management.

DAVID HAYNES: MOST RECENT EMPLOYMENT HISTORY

2010-2016:

Director, Waste Management and Pollution Control Division, Secretariat of the Pacific Regional Environment Programme (SPREP)

The Secretariat of the Pacific Regional Environment Programme (SPREP) is the Pacific region's major intergovernmental organisation charged with protecting and managing the environment and natural resources. It is based in Apia, Samoa, and works on behalf of its 21 Member countries and territories to protect and improve the Pacific environment for present and future generations.

Responsibilities

- Member of the organisation's Senior Management Team
- Provision of an integrated approach to strategic and organisational planning, budgeting and work programming within SPREP
- Lead and implement strategic direction to the Waste Management & Pollution Control programme and its team of 16 Professional Officers
- Establish and maintain national, regional and international partnership networks and represent SPREP at high level regional and international meetings

2009 - 2010:

Manager, Water Sciences, Great Barrier Reef Marine Park Authority (GBRMPA)

The Great Barrier Reef Marine Park Authority is the principal advisor to the Australian Federal Government on the care and development of the Great Barrier Reef World Heritage Area.

Responsibilities

- Identification and provision of expert advice on catchment and marine water quality issues concerning the Great Barrier Reef region
- Provision of advice in relation to permit applications and environmental impact assessments
- · Development and implementation of water quality policy on behalf of the GBRMPA
- Scientific coordination of Great Barrier Reef oil spill response
- Provision of strategically directed and well managed research programs

2008-2009:

Water Program Leader, Terrain (FNQ) Natural Resource Management (12 month secondment)

Terrain Natural Resource Management is the designated regional natural resource management body to work with, and represent the Wet Tropics community in managing the region's natural resources.

Responsibilities

- Development and implementation of strategies to improve water resource conditions in the Wet Tropics Region including WQIPs
- Development and maintenance of key partnerships with local councils and government agencies, research programs and institutions for improved catchment management planning

1996 - 2008:

Manager, Water Quality Research and Monitoring Coordination, Great Barrier Reef Marine Park Authority (GBRMPA)

The Great Barrier Reef Marine Park Authority is the principal advisor to the Australian Federal Government on the care and development of the Great Barrier Reef World Heritage Area.

Responsibilities

- Identification and provision of expert advice on catchment and marine water quality issues concerning the Great Barrier Reef region including provision of advice in relation to permit applications and environmental impact assessments
- Provision of strategically directed and well managed research programs to ensure that GBRMPA water quality information needs are addressed
- Development and management of a multi-million dollar reef wide ecosystem monitoring program under the Reef Water Quality Protection Plan (RWQPP)
- Scientific coordination of Great Barrier Reef oil spill response

1991-1995:

Senior Environmental Scientist, Catchment and Waterways Division, Gippsland Water

Gippsland Water is the supplier of bulk and reticulated water and wastewater disposal services to the greater Latrobe Valley, Victoria. It was also responsible for catchment and waterways management in the Latrobe River and south-eastern Victorian catchments until late 1995.

Responsibilities

- Development and implementation of long-term riverine biological and water quality monitoring programs for improved catchment management
- Development of routine data reporting protocols for water quality and biological monitoring programs for catchment management
- Management of the Gippsland Water freshwater biological laboratory and supervision and guidance of junior scientific staff

1987-1991:

Environment Officer, Latrobe Valley Water & Sewerage Board

The Latrobe Valley Water and Sewerage Board (LVWSB) was responsible for the operation of two major ocean outfalls which discharge treated wastewaters to the Ninety Mile Beach, Victoria. It also

managed two major water storage reservoirs and their associated catchments that supply bulk water to the towns and industries of the greater Latrobe Valley, Victoria.

Responsibilities

- Negotiation of EPA Works Approval and License requirements for marine outfall monitoring programs
- Design and implementation of marine monitoring programs associated with assessment of LVWSB operated ocean outfalls
- Assessment of wastewater quality and wastewater treatment efficiencies using the Microtox toxicity test and algal (Phaeodactylum and Hormosira) bioassay techniques
- Management of marine outfall wastewater discharge license compliance assessment, including monitoring database management

1985-1987:

Marine Biologist, Marine Science & Ecology

DAVID HAYNES: QUALIFICATIONS

B.Sc Monash University, 1978-1980, (Botany and Zoology majors).

B.Sc (honours), Monash University, 1984, (Marine Botany).

M.Sc (external and un-supervised), Monash University (1992-1995). Research thesis: *Spatial and temporal dynamics in the structure of a sandy intertidal community, Cape Paterson, Victoria*. **Ph.D** (external and remote enrollment), University of Queensland (1997-2000). Research thesis: *Pesticide and heavy metal concentrations in Great Barrier Reef sediment, seagrass and dugong (Dugong dugon*).

1997: Commercial SCUBA Diving AS2185.1 2000: Unrestricted Coxswains Certificate

2005: MF/HF Standard Australian radio operator's license Current: Senior First Aid, CPR and Advanced Resuscitation

DAVID HAYNES: SELECTED PROJECTS AND GRANTS

Donor Projects Secured 2011-2015	Donor	Value
Regional uPOPS reduction	GEF/UNEP	\$US 3,000,000
Used pesticide container management	GEF/FAO	\$US 300,000
Improved uLABS management	Basel	\$US 50,000
Improved E-waste regional management	SAICM	\$US 180,000
Improved hazardous waste management	EU	€ 7,850,000
Regional marine litter management	UNEP	\$US 150,000
Marine litter modeling	Noumea	\$US 70,000
Marine pollution response support	AusDFAT	\$Aus 400,000
Improved landfill design	AusDFAT	\$Aus 300,000
Regional waste and pollution strategy review	JICA	\$US 100,000
Fire Ant and water management	Fonds Pacifique	€ 200,000
ODS Management	UNEP	\$US 35,000
Regional OCT pollution management	Integre	\$US 180,000
Waste management training and used oil	AFD	\$US 1,400,000
management		
EDF11 Waste and pollution management	EU	€ 17,000,000

DAVID HAYNES: PUBLISHED PAPERS

Richardson, K., Talouli, A. Donoghue[,] M. and Haynes, D. (2015). *Marine pollution originating from purse seine fishing vessel operations in the Western and Central Pacific region, 2004-2014.*Secretariat of the Pacific Regional Environment Programme, Apia, Samoa.

Haynes, D. (2015). *Integrated waste and pollution management strategy for the Pitcairn Islands*. Unpublished report to the Pitcairn Island Administration. Secretariat of the Pacific Regional Environment Programme, Apia, Samoa.

Richards, E. and Haynes, D. (2014). Solid Waste Management in Pacific Island Countries and Territories. In P. Agamuthu and M. Tanaka (eds.): Municipal Solid Waste Management in Asia and the Pacific Islands, Environmental Science and Engineering, Springer-Verlag Singapore.

Haynes, D and Vanderburg, E. (2013). *Cost-benefit analysis of used oil management options for Samoa*. Secretariat of the Pacific Regional Environment Programme, Apia, Samoa. 28pp.

Richards, E. and Haynes, D. (2013). *Boosting Natural Resilience through Integrated Solid Waste Management*. 12th Pacific Science Inter-Congress Scientific Programme, Fiji.

Haynes, D., Richards, E. and B. Quinqui (2013). A model integrated waste management plan to minimise the risk of transportation of the Little Fire Ant (Wasmannia auropunctata) from Mahina Commune, Tahiti, French Polynesia. Secretariat of the Pacific Regional Environment Programme. Apia, Samoa. 18pp.

Haynes, D. (2012). *Management of Healthcare Waste in the Pacific: A Regional Strategy and Action Plan.* Secretariat of the Pacific Regional Environment Programme, Apia, Samoa. 32pp.

Haynes, D., Richards, E and Talouli, T. (2012). *Management of E-waste in the Pacific: A Regional Strategy and Action Plan.* Secretariat of the Pacific Regional Environment Programme, Apia, Samoa. 31pp.

Kennedy, K., Schroeder, T., Shaw, M., Haynes, D., Lewis, S., Bentley, C., Paxman, C., Carter, S., Brando, V., Bartkow, M., Mueller, J. (2012). Long-term monitoring of photosystem-II herbicides – Correlation with freshwater extent explored as a novel technique to monitor improvement in water quality entering the Great Barrier Reef, Australia. *Marine Pollution Bulletin* 65, 292-305.

Haynes, D., Richards, E and Talouli, T. (2011). *An Asbestos-Free Pacific: A Regional Strategy and Action Plan.* Secretariat of the Pacific Regional Environment Programme, Apia, Samoa. 29pp.

Brodie, J.E., Devlin, M.J., Haynes, D. & Waterhouse, J. (2011). Assessment of the eutrophication status of the Great Barrier Reef (Australia). *Biogeochemistry* 106, 281-302.

Shaw, M., Furnas, M.J., Fabricius, K., Haynes, D., Carter, S., Eaglesham, G., Mueller, J.F. (2010). Monitoring pesticides in the Great Barrier Reef. *Marine Pollution Bulletin* 60, 113-12.

Barron, F. & Haynes, D. (2009). *Barron River and Trinity Inlet Water Quality Improvement Plan*. Terrain Natural Resource Management Board, Innisfail. 85pp.

Prange, J., Johnston, J. & Haynes, D. (2009). *Marine Monitoring 2007-2008 Synthesis Report*. Great Barrier Reef Marine Park Authority, Townsville. 76pp.

Honchin C., Gray L., Brodie J., Haynes D., & Moss A. (2008). Water Quality Guidelines for the Great Barrier Reef Marine Park. Great Barrier Reef Marine Park Authority, Townsville. 125pp.

Kapernick, A., Shaw, C., Dunn, A., Komarova, T., Mueller, J., Carter, S., Eaglesham, G., Alberts, V., Masters, B., Rhode, K., Packett, R., Prange, J., & Haynes, D. (2007). River Pesticide Loads and GBR Lagoon Pesticide Data (2006-2007): *Great Barrier Reef Water Quality Protection Plan (RWQPP) – GBR Monitoring Partnership (2006-2007)*. Report to the Great Barrier Reef Marine Park Authority. 64pp.

Prange, J., Haynes, D., Schaffelke, B. & Waterhouse, J. (2007). *Annual Marine Monitoring Report*. Great Barrier Reef Marine Park Authority, Townsville. 156pp.

Haynes, D., Brodie, J., Waterhouse, J., Bainbridge, Z., Bass, D. & Hart, B. (2007). Assessment of the water quality and ecosystem health of the Great Barrier Reef (Australia), Part I: Conceptual models. *Environmental Management* 40, 993-1003.

Devlin, M., Best, M. & Haynes, D. (2007). Implementation of the Water Framework Directive in European Marine Waters. *Marine Pollution Bulletin* 55, 1-2.

Kapernick, A., Shaw, M., Dunn, A., Komarova, T., Mueller, J., Carter, S., Eaglesham, G., Schaffelke, B., Bass, D. & Haynes, D. (2006). River Pesticide Loads and GBR Lagoon Pesticide Data. In: CRC Reef Consortium. *Water Quality and Ecosystem Monitoring Programs—Reef Water Quality Protection Plan. Final Report August 2006*. CRC Reef Research, Townsville. pp. 105-170.

Haynes, D., Waterhouse, J., Innes, J., Vella, K., Furnas, M. & Schaffelke, B. (2005). *Great Barrier Reef Water Quality Protection Plan (Reef Plan). First Annual Marine Monitoring Report.* Great Barrier Reef Marine Park Authority, Townsville. 65 pp.

Hutchings, P. & Haynes, D. (2005). Marine Pollution Bulletin Special Edition Editorial. *Marine Pollution Bulletin* 51, 1-2.

Hutchings, P., Haynes, D., Goudkamp, K., & McCook, L. (2005). Catchment to Reef: Water quality issues in the Great Barrier Reef. *Marine Pollution Bulletin* 51, 3-8.

Smith, L.D., Devlin, M., Haynes, D. & Gilmour, J.P. (2005). A demographic approach to inshore coral reef population health assessment on the Great Barrier Reef (Australia). *Marine Pollution Bulletin* 51, 399-407.

O'Reagain, P.J., J. Brodie, G. Fraser, J.J. Bushell, C.H. Holloway, J.W. Faithful & Haynes, D. (2005). Nutrient loss and water quality under extensive grazing in the upper Burdekin river catchment, North Queensland. *Marine Pollution Bulletin* 51, 37-50.

Greiner, R., Herr, A., Brodie, J., & Haynes, D. (2005). A multi-criteria approach to Great Barrier Reef catchment (Queensland, Australia) risk assessment. *Marine Pollution Bulletin* 51, 128-137.

Haynes, D., Carter, S., Gaus, C., Müller, J. & Dennison, W. (2005). Organochlorine and heavy metal concentrations in blubber and liver tissue collected from Queensland (Australia) dugong (*Dugong dugon*). *Marine Pollution Bulletin* 51, 361-369.

Müller, J., Muller, R., Goudkamp, K., Shaw, M., Mortimer, M., Haynes, D., Burniston, D., Symons, R., Correll, R. & Moore, M.R. (2004). Evaluation of the reproducibility of sampling and analysis in a large scale study on dioxin-like chemicals in soil in Australia. *Organohalogen Compounds* 66, 94-100.

Müller, J., Muller, R., Goudkamp, K., Shaw, M., Mortimer, M., Haynes, D., Paxman, C., Hyne R., Burniston, D., Symons, R. & Moore, M.R. (2004). Dioxin-like chemicals in bivalves and sediment collected from around Australia. *Organohalogen Compounds* 66, 1770-1778.

Haynes, D. & Schaffelke, B. (2004). *Catchment to Reef: Water quality issues in the Great Barrier Reef Region*. CRC Reef Research Centre Technical Report No 53. CRC Reef Research Centre, Townsville.

Gaus, C., O'Donohue, M., Connell, D., Müller, J., Haynes, D., & Päpke, O. (2004). Exposure and potential risks of dioxins to the marine mammal dugong. *Organohalogen Compounds* 66:1559-1566.

Greiner, R., Herr, A., Brodie, J., Haynes, D., Audas, D., & Roth, C. (2003). *Profiling and assessment of basins with respect to sediment, nutrients and other diffuse source loads they export to the great Barrier Reef WHA*. CSIRO Sustainable Ecosystems, Townsville, Australia. 78 pp.

Müller, J., Muller, R., Goudkamp, K., Mortimer, M., Shaw, M., Haynes, Paxman, C., Hyne, R., McTaggart, A., Burniston, D., Symons, M., & Moore, M. (2003). *Determination of ambient environmental concentrations of dioxins in Australia:* 2. *Determination of the concentrations of dioxins in aquatic environments in Australia*. National Dioxins Program, Environment Australia, 84pp.

Müller, J., Muller, R., Goudkamp, K., Shaw, M., Mortimer, M., Haynes, D., Muller, W., Moore, M., McTaggart, A., Burniston, D., & Symons, M. (2003). *Determination of ambient environmental concentrations of dioxins in Australia: 3. Determination of the concentrations of dioxins in soils in Australia*. National Dioxins Program, Environment Australia, 55pp.

Marsh, H., Arnold, P., Freeman, M., Haynes, D., Kasuya, T., Read, A. & Reynolds, J. (2003). Strategies for conserving marine mammals. In *Marine Mammals: Fisheries, Tourism and Management Issues*. Ed Gales, N., Hindell, M. and Kirwood, R. CSIRO, Australia. pp 1-19.

Jones, R., Müller, J., Haynes, D. & Schreiber, U. (2003). The effects of the herbicides diuron and atrazine on corals of the Great Barrier Reef (Australia). *Marine Ecology Progress Series* 251, 153-167.

Haynes, D. and Kwan, D. (2002). Trace metals in sediments from Torres Strait and the Gulf of Papua: concentrations, distribution and water circulation patterns. *Marine Pollution Bulletin* 44, 1309-1313.

Haynes, D., Christie, C., Marshall, P. & Dobbs, K. (2002). Antifoulant concentrations at the site of the *Bunga Teratai Satu* grounding, Great Barrier Reef, Australia. *Marine Pollution Bulletin* 44, 968-972.

Marshall, P., Christie, C., Dobbs, K., Green, A., Haynes, D., Brodie, J., Michalek-Wagner, K., Smith, A., Storrie J., & Turak, E. (2002). Grounded ship leaves TBT-based antifoulant on the Great Barrier Reef: an overview of the environmental response. *Spill Science and Technology Bulletin* 7, 215-221.

Haynes, D. & Kwan, D. (2002). *Trace metal concentrations in the Torres Strait environment and traditional seafood species, 1997-2000.* Torres Strait Regional Authority, Thursday Island. 92 pp.

Jones, G.B., Reichelt-Brushett, A.J., Muslin, A., Mercurio, P., Doherty, G., and Haynes, D. (2002). Chemical contaminants in Cleveland Bay: water quality and ecotoxicological issues. In *Cleveland Bay consortium Cleveland Bay status report*, ed Anderson, C., Battershill, C., Carter, R.M., Cruz, J.,

Doherty, G., Ericson, G., Evansillidge, E., Haynes, D., Hesse, A., Jones, G., Larcombe, P., Lough, J., Neil, K., Orpin, A., Reichelt-Bruschett, A., Ridd, P., Roche, M. and Veitch, V. pp 66-92.

Doherty, G., Cruz, J., Neil, K. & Haynes, D. (2002). Review of investigations into the marine environmental quality and air quality of Cleveland Bay. In *Cleveland Bay Consortium Cleveland Bay Status Report*, ed Anderson, C., Battershill, C., Carter, R.M., Cruz, J., Doherty, G., Ericson, G., Evansillidge, E., Haynes, D., Hesse, A., Jones, G., Larcombe, P., Lough, J., Neil, K., Orpin, A., Reichelt-Bruschett, A., Ridd, P., Roche, M. and Veitch, V. Cleveland Bay Consorteum. pp. 92-115.

Haynes, D. & Loong, D. (2002). Antifoulant (copper and butyltin) concentrations in sediments from the Great Barrier Reef World Heritage Area, Australia. *Environmental Pollution* 120, 391-396.

Brodie, J., Furnas, M., Ghonim, S., Haynes, D., Mitchell, A., Morris, S., Waterhouse, J., Yorkston, H. & Audas, D. (2001). *Great Barrier Reef catchment water quality action plan: A report to Ministerial Council on targets for pollutant loads*. Great Barrier Reef Marine Park Authority, Townsville.116 pp.

Haynes, D., Brodie, J., Christie, C., Devlin, M., Michalek-Wagner, K., Morris, S., Ramsay, M., Storrie, J., Waterhouse & Yorkston, H. (2001). *Great Barrier Reef water quality: current issues.* Great Barrier Reef Marine Park Authority, Townsville. 96pp.

Vetter, W., Scholz, E., Luckas, B., Gaus, C., Müller, J. & Haynes, D. (2001). Anthropogenic and natural organohalogen compounds in blubber of dolphins and dugong (*Dugong dugon*) from Australia. *Archives of Environmental Contamination and Toxicology* 41, 221-231.

Brodie, J., Christie, C., Devlin, M., Haynes, D., Morris, S., Ramsay, M., Waterhouse, J. & Yorkston, H. (2001). Catchment management and the Great Barrier Reef. *Water Science and Technology* 43, 203-211.

Gaus, C., Päpke, O., Denisson, N., Haynes, D., Shaw, G., Connell, D.W. & Müller, J. F. (2001). Evidence for the presence of a widespread PCDD source in coastal sediments and soils from Queensland, Australia. *Chemosphere* 43, 549-558.

Gaus, C., Päpke, O., Blanchard, W., Haynes, D., Connell, D.W., Müller, J.F. (2001) Bioaccumulation and pathways of PCDDs in the lower trophic marine system. *Organohalogen Compounds* 52:95-99.

McLachlan, M.S., Haynes, D. & Müller, J. (2001). Bioaccumulation of PCDDs in the water/sediment-seagrass-dugong (*Dugong dugon*) food chain on the Great Barrier Reef, Australia. *Environmental Pollution* 113, 129-134.

Haynes, D., Ralph, P., Müller, J., Prange, J., Michalek-Wagner, & Waterhouse, J. (2000). The occurrence and impact of herbicides in the Great Barrier Reef, Australia. *Reef Research* 10, 3-5.

Haynes, D. and Lally, K. (2000). Supporting research on the Great Barrier Reef - SPIRT grants. *Reef Research* 10, 15-18.

Michalek-Wagner, K., Haynes, D., Kwan, D. & Wright, S. (2000). The Torres Strait heavy metal monitoring project – background and update. *Reef Research* 10, 6-7.

Hutchings, P. & Haynes, D. (2000). Sources, fates and consequences of pollutants in the Great Barrier Reef. *Marine Pollution Bulletin* 41, 265-266.

Haynes, D. & Johnson, J. (2000). Organochlorine, heavy metal and polyaromatic hydrocarbon pollutant concentrations in the Great Barrier Reef (Australia) environment: a review. *Marine Pollution Bulletin* 41, 267-278.

Haynes, D., Müller, J., & Carter, S. (2000). Pesticide and herbicide residues in sediments and seagrasses from the Great Barrier Reef World Heritage Area and Queensland coast. *Marine Pollution Bulletin* 41, 279-287.

Haynes, D., Ralph, P., Prange, J. & Dennison, B. (2000). The impact of the herbicide diuron on photosynthesis in three species of tropical seagrasses. *Marine Pollution Bulletin* 41, 288-293.

Haynes, D. & Michalek-Wagner, K. (2000). Water quality in the Great Barrier Reef World Heritage Area: current issues and new research directions. *Marine Pollution Bulletin* 41, 428-434.

Vetter, W., Scholz, E., Luckas, B., Gaus, C., Müller, J. & Haynes, D. (2000). Anthropogenic and natural persistent, bioaccumulative organohalogen compounds in dugongs (*Dugong dugon*) and a bottlenose dolphin (*Tursiops truncatus*) from Australia. *Organohalogen Compounds* 46, 310-313.

Müller, J.F., Gaus, C., Dennison, N., Haynes, D., McLachlan, K. Manonmanii & Cumming, J. (1999). Octachlorodibenzodioxin in sediment from coastal areas and irrigation drains of Queensland – an indication of an unknown PCDD source. *Organohalogen Compounds* 43 285-288.

O'Reagain, P., Devlin, M. & Haynes, D. (1999). Reducing sediment and nutrient loss from the pastoral lands of northern Australia: sustainable grazing strategies for the seasonally variable tropical savannas. *Reef Research* 3, 25-28.

Müller, J.F., Haynes, D., McLachlan, M., Böhme, F., Wil, S., Shaw, G., Mortimer, M., Sadler, R. & Connell, D.W. (1999). PCDDs, PCDFs, PCBs and HCB in marine and estuarine sediments from Queensland, Australia. *Chemosphere* 39, 1707-1721.

Devlin, M., Waterhouse, J. & Haynes, D. (1999). Long-term monitoring of chlorophyll in the Great Barrier Reef: an update. *Reef Research* 9, 21-24.

Haynes, D., Müller, J.F. & McLachlan, M.S. (1999). Polychlorinated dibenzo-*p*-dioxins and dibenzofurans in Great Barrier Reef (Australia) dugongs (*Dugong dugon*). *Chemosphere* 38, 255-262.

Müller, J.F., Haynes, D. & McLachlan, M.S. (1998). PCDD/Fs in the Great Barrier Reef environment of Australia. *Organohalogen Compounds* 39, 105-108.

Haynes, D. & Toohey, D. (1998). The use of transplanted cultured mussels (*Mytilus edulis*) to monitor pollutants along the Ninety Mile Beach, Victoria, Australia; III. Heavy metals. *Marine Pollution Bulletin* 36, 396-399.

Haynes, D., Slater, J., Devlin, M. & Makey, K. (1998). Great Barrier Reef water quality monitoring and dugong protection areas. *Reef Research* 8, 10-15.

Haynes, D., Kellaway, D. & Davis, K. (eds) (1998). *Protection of Wetlands Adjacent to the Great Barrier Reef*. Proceedings of a Workshop, Babinda, September 1997. Great Barrier Reef Marine Park Authority Workshop Series No. 24. 124pp.

Haynes, D. (1997). Marine park debris in the far northern section of the Great Barrier Reef. *Reef Research* 7, 26-28.

Haynes, D., Lee, K. & Oswald, L. (1997). Macroinvertebrate community structure and water quality variation in an effluent impacted wetland (Lake Coleman), Victoria, Australia. *Wetlands (Australia)* 17, 1-13.

Haynes, D. (1997). Marine debris contamination on continental islands and sand cays in the far northern section of the Great Barrier Reef Marine Park, Australia. *Marine Pollution Bulletin* 34, 276-279.

Haynes, D., Leeder, J. & Rayment, P. (1997). A comparison of the use of the bivalve species *Donax deltoides* and *Mytilus edulis* as monitors of effluent discharges along the Ninety Mile Beach, Victoria, Australia. *Marine Pollution Bulletin* 34, 326-331.

Quinn, G.P. & Haynes, D. (1996). *Recommendations for Boags Rocks biological monitoring*. Fisheries Resource Assessment Series. NSW Fisheries. 30pp.

Haynes, D. Rayment, P. & Toohey, D. (1996). Long term variability in pollutant concentrations in coastal sediments from the Ninety Mile Beach, Bass Strait, Australia. *Marine Pollution Bulletin* 32, 823-827.

Haynes, D., Leeder, D., Oswald, L. & Reinfeld, I. (1996). Sediment pollutants from a river meander reinstatement site: concentrations and management implications. *Regulated Rivers: Research and Management* 12, 585-595.

Haynes, D. & Quinn, G. (1995). Temporal and spatial variation in community structure of a sandy intertidal habitat at Cape Paterson, Victoria. *Journal of Marine and Freshwater Research*, 46, 931-942.

Haynes, D. & Toohey, D. (1995). Temporal variation in polychlorinated dibenzo-p-dioxins, dibenzofurans, extractable organohalogens (EOX) and heavy metals in commercially cultured mussels (*Mytilus edulis*) from Port Phillip Bay, Victoria, Australia. *Marine Pollution Bulletin* 30, 885-891.

Haynes, D., Lee, K., Palmer, D. & Stauber, J. (1995). A multi-species toxicity comparison on a complex effluent discharged from the Latrobe Valley, Victoria, Australia. *Australasian Journal of Ecotoxicology* 1, 37-47.

Haynes, D., Leeder, J. & Rayment, P. (1995). Temporal and spatial variation in heavy metal concentrations in the bivalve *Donax deltoides* from the Ninety Mile Beach, Victoria, Australia. *Marine Pollution Bulletin* 30, 419-424.

Haynes, D., Toohey, D. & Marney, D. (1995). Temporal and spatial variation in background concentrations of trace metals in coastal sediments from the Ninety Mile Beach, Victoria, Australia. *Marine Pollution Bulletin* 30, 414-418.

Haynes, D., Mosse, P. & Levay, G. (1995). The use of transplanted cultured mussels (*Mytilus edulis*) to monitor pollutants along the Ninety Mile Beach, Victoria, Australia; I. Extractable Organohalogens (EOX). *Marine Pollution Bulletin* 30, 463-469.

Haynes, D., Mosse, P. & Oswald, L.(1995). The use of transplanted cultured mussels (*Mytilus edulis*) to monitor pollutants along the Ninety Mile Beach, Victoria, Australia; II. Polychlorinated dibenzo-*p*-dioxins and dibenzofurans. *Marine Pollution Bulletin* 30, 834-839.

Haynes, D., Rayment, P., Raynes, K., & Mosse, P. (1994). Laboratory based investigation into the potential for algal proliferation in Lake Coleman, Victoria. *Australian Journal of Marine and Freshwater Research* 45, 625-634.

Mosse, P. & Haynes, D. (1993). Dioxin and furan concentrations in uncontaminated waters, sediments and biota of the Ninety Mile Beach, Bass Strait, Australia. *Marine Pollution Bulletin* 26, 465-468.