

SECTION 10: REFERENCES

ABRAHAM, G *et al.* (1983) Discussion: Evaluation of selected initial dilution models. *Journal of Environmental Engineering, ASCE*: **190** (5).

AIREY, D D (1989) Development of methods for testing industrial effluent toxicity in a subtropical marine environment. Unpublished MSc thesis. University of Natal, Durban.

ARNOLD, D W and WOLFRAM, W E (1975) Ammonia removal and recovery from fertilizer complex wastewaters. In: Proceedings of the 30th Industrial Waste Conference, May 6-7, Purdue University Lafayette, Indiana. Ann Arbor Science Publishers Inc. pp 760-767.

AUSTRALIA AND NEW ZEALAND ENVIRONMENT AND CONSERVATION COUNCIL (ANZECC) (2000a) Australian and New Zealand guidelines for fresh and marine water quality. National Water Quality Management Strategy No 4. Canberra, Australia. ISBN 0 642 19562 5.

AUSTRALIA AND NEW ZEALAND ENVIRONMENT AND CONSERVATION COUNCIL (ANZECC) (2000b) Australian guidelines for water quality monitoring and reporting. National Water Quality Management Strategy No 7. Canberra, Australia. ISBN 0 642 19562 5.

BABINCHAK, J A, GRAIKOSKI, J T, DUDLEY, S and NITKOWSKI, M F (1977) Distribution of faecal coliforms in bottom sediments from the New York Bight. *Mar. Poll. Bull.* **8**: 150-153.

BADENHORST, P (1986) Effect of dredging on estuarine environments: alternative disposal sites and dredging guidelines. *CSIR Report T/SEA 8613*. CSIR, Environmentek, Stellenbosch, South Africa. 16 pp.

BARTLETT, P D and EAGLE, G A (1982) A chemical investigation of a marine sewage outfall: Assimilative capacity of the oceans for man's wastes, April 26-30, Scope/ICSU Academia Sinica, Taipei, Republic of China.

BARTLETT, P D, HENNIG, H F-K O and EAGLE, G A (1985) Table Bay - a marine chemical study. *CSIR Research Report 565*. CSIR Environmentek, Stellenbosch, South Africa.

BAUMGARTNER, D J, TRENT, D S and BYRAM, K V (1971) User's guide and documentation for outfall plume model. USEPA, Pacific Northwest Laboratory, Corvallis, Oregon, Working Paper No.80.

BEGG, S A, SIDDIQI, R H and ILIAS, S (1980) Effects of toxicants on biological nitrification for treatment of fertilizer industry wastewater. In: Proceedings of the 35th Industrial Waste Conference, May 13-15, Purdue University Lafayette, Indiana. Ann Arbor Science Publishers Inc. pp 826-834.

BILLINGS, R M and DEHAAS, G G (1971) Pollution control in the pulp and paper industry. In: Industrial Pollution Control Book. H F Lund (Ed.). McGraw-Hill Book Company, USA. Pp 18-1 to 18-28.

BINNIE AND PARTNERS (1986) Guide to water and waste-water management in the pelagic fishing industry. *WRC Project No. 97, TT 28/87*. 42 pp.

BOTES, W A M (1980) Application of digital time series analysis to a resonance study of Table Bay Harbour. *CSIR Report SEA 8006*. CSIR, Environmentek, Stellenbosch, South Africa.

BOTES, W A M (1986) 'n Ondersoek na hawe-resonansie met behulp van 'n numeriese model en sekere aspekte van tydserie-analise. Thesis for Laureatus in Technology, School of Civil Engineering, Cape Technicon, Cape Town, South Africa.

BOTES, W A M (1988) Lagrangian current measurements by using drifting radio transmitting buoys. *CSIR Report EMA-T 8811*. CSIR, Environmentek, Stellenbosch, South Africa.

BOTES, W A M and TALJAARD, S (1996) Comparison of predicted secondary dilutions to measured field data and the determination of prototype diffusion coefficients. *Water Research Commission Report No 675/1/96*. Pretoria, South Africa.

BOYER, D, COLE, J and BARTHOLOMEW, C (2000) Southwestern Africa: Northern Benguela Current region. *Marine pollution bulletin* **41**: 123-140.

BRADFORD, W L (1977) Urban stormwater pollutant loadings: a statistical summary through 1972. *J. Wat. Pollut. Control Fed.* **49**(4): 613-622.

BROWN, R C, PIERSE, R H and RICE, S A (1985) Hydrocarbon contamination in sediments from urban stormwater run-off. *Mar. Poll. Bull.* **16**(6): 236-240.

BROOKS, N H (1960) Diffusion of sewage effluent in an ocean current. Proceedings of the First International Conference on Waste Disposal in the Marine Environment. Pergamon Press. pp 246-267.

CANTILLO, A Y (1998) Comparison of results of mussel watch programmes of the United States and France with worldwide mussel watch studies. *Marine Pollution Bulletin* **36**(9): 712-717.

CEDERWALL, K (1967) Jet diffusion: Review of model testing and comparison with theory. Chalmers University of technology, Division of Hydraulics, Publication No.35, Goteborg, Sweden.

CHAMBERLAIN, C E and MITCHELL, R (1978) A decay model for enteric bacteria in natural waters. In Ralph Mitchell [Ed.]. *Water Pollution Microbiology* **2**: 325. New York Wiley.

CHARLTON, J A, DAVIES, P A and BETHUNE, G N M (1987) Seawater intrusion and purging in multi-port sea outfalls. *Proc Institution of Civil Engineers. Part 2*.

CLARKE, K R and GREEN, R H (1988) Statistical design and analysis for a 'biological effects' study. *Mar. Ecol. Prog. Ser.* **46**: 213-226.

CLOETE, F and WISSINK, H (Eds.) (2000) *Improving public policy*. Van Schaik, Pretoria. 316pp.

COASTAL ENGINEERS RESEARCH CENTRE (CERC) (1984) Shore protection manual. Volumes I & II (Fourth Edition). Department of the Army, US Army Corps of Engineering, Washinton DC.

CONNELL, A D and AIREY, D D (1981) The chronic effects of fluoride on the estuarine amphipods *Grandidierella lutosa* and *G. lignorum*. *Water Research* **16**: 1313-1317.

CONNELL, A D, AIREY, D D and RATHBONE P-A (1991) The impact of Titanium Dioxide waste on fertilization in the sea urchin *Echinometra mathaei*. *Marine Pollution Bulletin* **22**: 119-122.

CRUICKSHANK, R (Ed.) (1965). *Medical microbiology*. E & S Livingstone Limited, Edinburgh and London. 1067 pp.

CSIR (1985). Ocean outfall studies at Saldanha. Report No 6. Physical data acquisition in North West Bay. Volume 1. Description and analysis. *CSIR Report C/SEA 8542/1*. CSIR Environmentek, Stellenbosch, South Africa.

CSIR (1986). Hout Bay outfall studies. Report No 2. Physical data interpretation and summaries. *CSIR Report C/SEA 8611*. CSIR Environmentek, Stellenbosch, South Africa.

CSIR (1988). Mossel Bay outfall studies. Report No 4. Physical data interpretation and summaries. *CSIR Report C/SEA 8849*. CSIR Environmentek, Stellenbosch, South Africa.

CSIR (1995) Physical impacts of the disposal of dredger spoil on the northern beaches of Richards Bay. Report to Protekon and Portnet. CSIR Report **EMAS-C 95026**. CSIR Environmentek, Stellenbosch, South Africa.

CSIR (1991a) Ocean outfall studies in False Bay. Report No 4. Shoreline discharges: Dilutions in the surf zone. *CSIR Report* **EMA-C 9152**. CSIR, Environmentek, Stellenbosch, South Africa.

CSIR (1991b) Ocean outfall studies in False Bay. Report No 2. Offshore data interpretation and initial assessment of possible offshore pipeline discharges into False Bay. *CSIR Report* **EMA-C 9117**. CSIR, Environmentek, Stellenbosch, South Africa.

CSIR (1992) Natal North Coast outfall studies. Report No 2. Physical data interpretation and summaries. *CSIR Report* **EMA-C 92003**. CSIR, Environmentek, Stellenbosch, South Africa.

CSIR (1996) Preliminary dispersion modelling for a possible extension of the Sappi Saiccor Pipeline to 7,5 km. Report **ENV-S-C 96059**. CSIR, Environmentek, Stellenbosch, South Africa.

CSIR (1998) Second Mombasa and Coastal Water Supply Engineering and Rehabilitation Project: Sewerage, drainage and sanitation. Report to Gibb Eastern Africa Ltd. *CSIR Report* **ENV-S-C 98106**. CSIR, Environmentek, Stellenbosch, South Africa.

CSIR (1999) Surveys monitoring the sea and beaches in the vicinity of Durban. Report No 28: Surveys made in 1998. *CSIR Report* **ENV/ECPI/EXT:98-JX001**. CSIR Environmentek, Durban, South Africa.

CSIR (2001a) Sea disposal of sewage: Environmental Surveys in the Durban Outfalls Region. Report No. 20 Surveys made in 2001. CSIR, Environmentek, Durban, South Africa.

CSIR (2001b) The effects of water abstraction on the estuaries of the Eerste and Lourens rivers. Report to Ninham Shand Consulting Engineers *CSIR Report* **ENV-S-C 2001-007**. CSIR, Environmentek, Stellenbosch, South Africa.

CSIR (2001c) *Guidelines for human settlement planning and design - The Red Book*. CSIR Report BOU/E2001. Pretoria, South Africa.

CSIR (2002) Intermediate Determination of Resource Directed Measures for the Breede River Estuary. Appendix C: Specialist Report on physical dynamics and water quality. Report submitted to Ninham Shand Consulting Engineers as part of a project for the Department of Water Affairs and Forestry, Pretoria. *CSIR Report* **ENV-S-C 2002-020/B**. CSIR, Environmentek, Stellenbosch, South Africa.

CSIR (2003a) Caltex marine outfall Milnerton: Follow-up chemical and biological investigation in the mixing zone and adjacent marine environment done in March/April 2003. Report prepared for Caltex Oil (Pty) Limited. *CSIR Report* No. **ENV-S-C 2003-127**. CSIR Environmentek, Stellenbosch, South Africa.

CSIR (2003b) Great Brak Estuary Management Programme. Review Report – March 2003. *CSIR Report* No. **ENV-S-C 2003-092**. CSIR Environmentek, Stellenbosch, South Africa.

DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND TOURISM (DEAT) (1998) Guideline document: EIA Regulations. Implementation of Sections 21, 22 and 26 of the Environmental conservation Act. Pretoria: Department of Environmental Affairs and Tourism, South Africa.

DEVORE, J L and FARNUM, N R (1999). *Applied statistics for engineers and scientists*. Duxbury Press. ISBN 053435601X.

DINNEL, P A (1984) Development, refinement and validation of a sperm cell bioassay for toxicity assessment of marine waters. *Wash. Univ. Diss. Abst. Int. Pt. B-Sci and Eng.* 45: 1-226.

DUDA, A M (1982) Municipal point source and agricultural non-point source contributions to coastal eutrophication. *Wat. Resour. Bull.* **18**(3): 397-407.

EAGLE, G A, BARTLETT, P D and LONG, M V (1982) The behaviour of sewage from the Green Point sewage outfall and its effect on Table Bay - A preliminary study. *CSIR Research Report* **571**. CSIR Environmentek, Stellenbosch, South Africa.

ENVIRONMENT CANADA (2002) Canadian Water quality Guidelines. <http://www.ec.gc.ca/cegg-rcqe/English/Cegg/Water/default.cfm>

EPA VICTORIA (2002) Disinfection of Treated Waste Water: Guidelines for environmental management. EPA Victoria, Australia. September 2002.

FAN, L N and BROOKS, N H (1969) Numerical solutions of turbulent buoyant jet problems. W M Keck Laboratory Report No KH-R-18. California Institute of Technology.

FAUST, S D and ALY, A M (1981) *Chemistry of natural waters*. Ann Arbor Science Publishers Inc, Michigan. ISBN 0-250-40387-0.

FOOD AND AGRICULTURE ORGANISATION OF THE UNITED NATIONS (FAO) (1992) Wastewater treatment and use in agriculture. *FAO Irrigation and Drainage Paper* **4**. Prepared by M.B. Pescod. ISBN 92-5-103135-5.

GYORY, J, MARIANO, A J and RYAN, E H (2000) The Agulhas Current
<http://oceancurrents.rsmas.miami.edu/atlantic/agulhas.html>

GENTHE, B (1996) Health risks associated with polluted marine water. In: Monitoring marine water quality in South Africa. Proceedings of a workshop co-ordinated by the Pollution Division of the Sea Fisheries Research Institute. Department of Environmental Affairs and Tourism. Grabouw, 5-7 August.

GIBB EASTERN AFRICA (1997) Second Mombasa & Coastal Water Supply and Engineering & Rehabilitation Project. Volume 1: Feasibility Study for sewage, drainage & sanitation. Report prepared for the National Water Conservation & Pipeline Corporation, Republic of Kenya.

GLIDE, L C (1971) Pollution control in food industries. In: *Industrial pollution control handbook*. H F Lund (Ed.). McGraw-Hill Book Company, USA. pp 16-1 to 16-46.

GRABOW, W O K, IDEMA, G K, COUBROUGH, P and BATEMAN, B W (1989) Selection of indicator systems for human viruses in polluted seawater and shellfish. *Wat. Sci. Tech.* **21**(3): 111-117.

GRABOW, W O K, VAN DER VEEN, A and DE VILLIERS, J C (1999) Marine pollution pathogenic microorganisms in shellfish. *WRC Report No.* **411/1/99**. Pretoria.

GRACE, R A (1978) *Marine outfall systems*. Prentice Hall, Englewood Cliffs, New Jersey.

GREEN, I R A, STEPHENSON, D and LAMBOURNE, J J (1986) Urban hydrology and drainage: Stormwater pollution analysis. Report to the Water Research Commission. *WRC Report No.* **115/10/86**.

GUNNERSON, C G (Ed.) (1988) Waste water management in coastal cities: The ocean disposal option. World Bank Technical Paper No WTP77, Washington D.C., USA ISBN 0-8213-0989-7.

GURNHAM, C F (1955) Principles of Industrial Waste Treatment. John Wiley and Sons, Inc, New York, USA. 399 pp.

HADEED, S J (1976) Ocean dumping phase-out in EPA Region II. *Jnl. WPCF.* **48**(10): 2246-2248.

HANSEN, J and SCHRODER, H (1968) Horizontal jet dilution studies by use of radioactive isotopes. Acta Polytechnica Scandinavia, Copenhagen, Publication No 49.

HATCHER, P G, BERBERIAN, G A, CANTILLO, A Y, MCGILLIVARY, P A, HANSON, P and WEST, R H (1981) Chemical and physical processes in a dispersing sewage sludge plume. In: *Ocean dumping of industrial wastes*. B H Ketchum, D R Kester and P Khilo Park (Eds). Plenum Press, New York. 525 pp.

HELSEL, D R, KIM, J I, GRIZZARD, T J, RANDALL, C W and HOEHN, R C (1979) Land-use influences on metals in storm drainage. *J. Wat. Pollut. Control Fed.* **51**(4): 709-717.

HENRY, J L, MCGIBBON, S, DAVIS, G, MACKAY, R M and MOLDAN, A G S (1989) Heavy metals, carbon and hydrocarbons in the sediments of Table Bay harbour. *Sea Fisheries Research Institute Special Report No 4*. 26pp.

HOFFMAN, E J (1986) Urban run-off pollutant input to Narragansett Bay: Comparison to point sources. Perspectives on non-point source pollution. Proceedings of a National Conference, Kansas City, Missouri. Pp 159-164.

HOSHINA, R and FEATHERSTONE, J (2001) Improvements in submarine cable protection systems. Sub-Optic 2001 Conference, Kyoto, Japan. Paper P 6.1.

HOUSE, M A (1989) A Water Quality Index for River Management. *Journal of IWEM*. **3**: 336 – 343.

HR WALLINGFORD (1997) Sour sea outfall, Lebanon: Assessment of bacterial dispersion. Report to Rafik El-Khoury and Partners. Report EX3766.

HUNTER, J V, SABATINO, T, COMPERTS, R and MACKENZIE M J (1979) Contribution of urban run-off to hydrocarbon pollution. *J. Wat. Pollut. Control Fed.* **51**(8): 2129-2138.

HYDROGRAPHIC OFFICE (1994) South African sailing directions. Volume 1 – General information. The Hydrographer, SA Navy, Publication SAN HO-21.

IDEMA, G K and KFIR, R (1990) Marine viral pollution. In: Final report of the Foundation for Research Development on health related projects covering the period April 1987 to March 1990. Pretoria.

IMHOFF, K, MULLER, W J and THISTLETHWAYTE, D K B (1971) Disposal of sewage and other water-borne wastes. Publishers: Butterworths, London. 405 pp.

INMAN, D L, TAIT, R J and NORDTSTROM, C E (1971) Mixing in the surf zone. *Journal Geophys. Res.* **76**(15): 3493-3514.

KLEINBLOESEM, W C H and VAN DER WEIJDE, R W (1983) A special way of dredging and disposing of heavily polluted silt in Rotterdam. In: Papers presented at the World Dredging Congress 1983. H S Stephens and D H Goodes (Eds.).

LAROE, E T (1977) Dredging - Ecological impacts. In: Coastal Ecosystem Management. J R Clark (Ed.). John Wiley and Sons, New York. 928 pp.

LEAR, D W, O'MALLEY, M.L. and SMITH, S K (1981) Effects of ocean dumping on a temperate midshelf environment. In: *Ocean dumping of industrial wastes*. B H Ketchum, D R Kester and P Khilo Park (Eds.). Plenum Press, New York. 525 pp.

LISETH, P (1970). Mixing of merging buoyant jets from a manifold in stagnant receiving water of uniform density. University of California, Berkeley, Hydraulic Eng. Laboratory, Technical Report HEL 23-1.

LIU, S H (1974) Stochastic analysis and control of urban estuarine water quality systems. Volume 1. Estimation and prediction. *New York City Rand Institute Report R-N16221NYC*.

LORD, D A and GELDENHUYS N D (1986) Richards Bay effluent pipeline. South African National Scientific Programme Report No. 129. 30 pp.

LUGER, S., VAN BALLEGOOYEN R. and MONTEIRO P M S (1999) A Modelling-driven environmental baseline assessment for the proposed New Hood Point outfall in East London: Hydrodynamic and water quality modelling study. *CSIR Report ENV-S-C 99109B*. CSIR Environmentek, Stellenbosch, South Africa.

MARTIN, P *et al.* (2000) *Sustainable Urban Drainage Systems - Design Manual for Scotland and Northern Ireland*. Produced by CIRIA, UK. ISBN: 0 86017 521 9.

McGLASHEN, J E (1989) Characteristics of waste discharges. In: Marine pollution - A 1988 Perspective. A G S Moldan and J H Ridder (Eds.). South African Scientific Programmes Report No 161. pp 11-20.

MEYER, J L (1985) A detention basin/artificial wetland treatment system to renovate stormwater run-off from urban, highway, and industrial areas. *Wetlands* 5: 135-147.

MILES, L C (1984) Stormwater drainage for low-income group townships. In: Municipal engineer July/August. Pp 29-39.

MOLDAN, A G S (1989) Response to oil spills. In: Marine pollution - A 1988 perspective. A G S Moldan and J H Ridder (Eds.). *South African National Scientific Programmes Report No. 161*: 69-73.

MONTEIRO, P M S (1997) Table Bay sediment studies. Phase III (1997) A quantitative assessment of the impacts of land-based discharges of organic matter and trace metals on the sediment characteristics in Table Bay, Cape Town. *CSIR Report ENV-S-C 97085*. CSIR, Environmentek, Stellenbosch, South Africa.

MONTEIRO, P M S (1999) A Modelling-driven environmental baseline assessment for the proposed new Hood Point outfall in East London: Sediment biogeochemistry baseline study. *CSIR Report ENV-S-C 99109C*. CSIR Environmentek, Stellenbosch, South Africa.

MONTEIRO, P M S, PASCALL, A, and BROWN, S (1999) The biogeochemical status quo of sediments in Saldanha Bay in 1999. *CSIR Report ENV-S-C 99093A*. CSIR Environmentek, Stellenbosch, South Africa.

MONTEIRO, P M S and SCOTT, D (2000) Sediment assessment programme for the Port of Cape Town: 2000. *CSIR Report ENV-S-C-117*. CSIR, Environmentek, Stellenbosch, South Africa.

MOORE, L W, MATHENY, H, TYREE, T, SABATINI, D and KLAINE, S J (1988) Agricultural run-off modelling in a small West Tennessee watershed. *J. Wat. Pollut. Control Fed.* 60(2): 242-249.

MUELLER, J A and ANDERSON, A R (1983) Municipal Sewage Systems. In: Ocean Disposal of Municipal Wastewater: Impacts on the coastal environment. Volume 1. E P Myers and E T Harding (Eds.). Sea Grant College Program, Massachusetts Institute of Technology, Cambridge, Massachusetts. Pp 39-92.

MURRAY, K A (1987) Wastewater treatment and pollution control. Heer Printing Co (Bophuthatswana) (Pty) Ltd. Obtainable from WRC, Pretoria. 367 pp.

NATAL TOWN AND REGIONAL PLANNING COMMISSION (NTRPC) (1969) The disposal of effluents into the sea off the Natal Coast. Natal Town and Regional Planning Report – Volume 14. 139 pp.

NATIONAL RESEARCH COUNCIL (1990) Managing troubled waters: The role of environmental monitoring. National Academy of Sciences. Marine Board. Committee on a Systems Assessment of Marine Environmental Monitoring. National Academy Press, Washington DC. ISBN 0-309-07478-9. www.nap.edu/catalog/1439.html.

NEFF, J R (1979) Polycyclic aromatic hydrocarbons in the aquatic environment. Applied Scientific Publishers Ltd, London.

NEUMANN, G (1968) *Ocean currents*. Elsevier Publishing Co., New York.

NEW ZEALAND WATER ENVIRONMENT RESEARCH FOUNDATION (NZWERF) (2002) New Zealand Municipal wastewater monitoring guidelines. Ray, D (Ed.) Published by the New Zealand Water Environment Foundation, Wellington. ISBN 1-877134-40-6.

NORSKE VERITAS (1981) *Rules for submarine pipelines*. Det Norske Veritas, Hovik, Norway.

O'CONNOR, J M and RACHLIN, J W (1982) Perspectives on metals in New York Bight organisms: factors controlling accumulation and body burdens. In: Ecological Stress and the New York Bight: science and management. G F Mayer (Ed.). Estuarine Research Federation, Colombia, South Carolina, pp 655-673.

ORREN, M J (Ed.) (1977) Green Point sewage outfall: A pollution survey. Marine Pollution Monitoring Group of the NRIO. Report **SEA IR 7702**. CSIR Environmentek, Stellenbosch, South Africa.

ORREN, M J, FRICKE, A H, EAGLE, G A, GREENWOOD, P J and GLEDHILL, W J. (1979) Preliminary pollution surveys around the south-western Cape coast. *S. Afr. J. Sci.* **75**: 456-459.

PEGRAM, G C and GÖRGENS, A H M (2001) A guide to non-point source assessment. *Water Research Commission Report No. TT 142/01*. Pretoria.

RATHBONE, P-A, LIVINGSTONE, D J and CALDER, M M (1998) Surveys monitoring the sea and beaches in the vicinity of Durban, South Africa: A case study. *Wat. Sci. Tech.* **38** (12): 163-170.

RAWN, A M, BOWERMAN, F R and BROOKS, N H. (1960) Diffusers for disposal of sewage in seawater. *Journal Sanitary Engineering Division, American Society of Civil Engineers* **86**.

REED, A W. (1975) Ocean waste disposal practices. Noyes Data Corporation, London, England. 336 pp.

REPUBLIC OF SOUTH AFRICA DEPARTMENT OF WATER AFFAIRS AND FORESTRY (RSA DWAF) (1995) South African water quality guidelines for coastal marine waters. Volume 1: Natural Environment; Volume 2: Recreation; Volume 3: Industrial use; Volume 4: Mariculture. Pretoria.

REPUBLIC OF SOUTH AFRICA DEPARTMENT OF WATER AFFAIRS AND FORESTRY (RSA DWAF) (1999a). A framework for implementing non-point source management under the National Water Act. *DWAF Report No. WQP 0.1 (Water Research Commission Report No. TT 115/99)*. Pretoria.

REPUBLIC OF SOUTH AFRICA DEPARTMENT OF WATER AFFAIRS AND FORESTRY (RSA DWAF) (1999b). Managing the water quality effects of settlements (Edition 1). The national strategy (Policy document U 1.1), Guidelines for implementation (Operational guideline U 1.2), A guide to problem analysis. (Operational guideline U 1.3), Information booklet to support community efforts to minimise water pollution from their settlements - Working towards a clean and healthy community (www.dwaf.gov.za/Documents/)

REPUBLIC OF SOUTH AFRICA DEPARTMENT OF WATER AFFAIRS AND FORESTRY (RSA DWAF) (2000). Water use authorisation process for individual applications. Edition 1: Final Draft for implementation and use. Revision 3. Pretoria. ISBN 0-620-26602-3 ([http://www-dwaf.pwv.gov.za/Documents/](http://www.dwaf.pwv.gov.za/Documents/))

REPUBLIC OF SOUTH AFRICA DEPARTMENT OF WATER AFFAIRS AND FORESTRY (RSA DWAF) (2002) National Water Quality Management Framework. Water Quality Management Sub-series No. MS 7. Draft 2. Pretoria.

REPUBLIC OF SOUTH AFRICA DEPARTMENT OF WATER AFFAIRS AND FORESTRY (RSA DWAF) (2003a) Aide Mémoire for the preparation of a water quality management report to support the application for licences for sewage treatment works in terms of the requirements of the National Water Act, 1998 (Act 36 of 1998). Management Series. Operational Guideline No. U2.1. First Edition. February 2003. Pretoria.

REPUBLIC OF SOUTH AFRICA DEPARTMENT OF WATER AFFAIRS AND FORESTRY (RSA DWAF) (2003b) The management of complex industrial wastewater discharges. Introducing the direct estimation of ecological effect potential (DEEEP approach). A discussion document. January 2003. Pretoria.

REPUBLIC OF SOUTH AFRICA DEPARTMENT OF WATER AFFAIRS AND FORESTRY (RSA DWAF) (2003c) Towards a strategy for a waste discharge charge system. Water Quality Management Series. Sub-series No. MS 11. First Edition. 30 September 2003. Pretoria ([www-dwaf.pwv.gov.za/Documents/](http://www.dwaf.pwv.gov.za/Documents/)).

REPUBLIC OF SOUTH AFRICA DEPARTMENT OF WATER AFFAIRS AND FORESTRY (RSA DWAF) (2004) Methodology for the Determination of the preliminary ecological reserve for Estuaries. Version 2. DWAF, Pretoria, South Africa.

ROBERTS, P W J (1977) Dispersion of buoyant waste water discharged from outfall diffusers of finite length. W M Keck Laboratory. California Institute of Technology, Report No **KH-R-35**.

ROSSOUW, J (1984) Review of existing wave data, wave climate and design waves for South African and Namibian coastal waters. *CSIR Report T/SEA 8401*. CSIR, Environmentek, Stellenbosch, South Africa.

RUDOLFS W (Ed.) (1953) *Industrial wastes: Their disposal and treatment*. Reinhold Publishing Corporation, New York, USA. 497 pp.

SCHLESINGER, H A, DUL, E F and FRIDY, T A (1971) Pollution Control in Textile Mills. In: *Industrial pollution control handbook*. H F Lund (Ed.). McGraw-Hill Book Company, USA. pp 15-1 to 15-30.

SCHMIDT, S D and SPENCER, D R (1986) The magnitude of improper waste discharges in an urban stormwater system. *J. Wat. Pollut. Control Fed.* **58**(7): 744-748.

SCOTTISH ENVIRONMENTAL PROTECTION AGENCY (SEPA) (1998) Policy No. 28. Initial dilution and mixing zones for discharges from coastal and estuarine outfalls. Version 1. Scotland (www.sepa.org.uk/policies/pdf/28.pdf).

SCOTTISH ENVIRONMENTAL PROTECTION AGENCY (SEPA) (2002) Modelling discharges to tidal waters – key points. Technical guidance manual for licencing discharges to waters. Scottish EPA (Doc.Ref. DLM/COPA/MOD2).

SHAND, M J (1993) *Pumping principles and pipeline characteristics*. South African Institute of Civil Engineers - Short course in pumping station design, Cape Town, September 1993.

SHANNON, L V (1985) The Benguela ecosystem, I. Evolution of the Benguela, physical features and processes. *Oceanography and marine biology* **23**: 105-182.

SIMPSON, D E (1986) A study of run-off pollution from an urban catchment. M.Sc.(Ing) Thesis, Department of Civil Engineering, University of Natal. 188 pp.

SKIBBE, E (1991) Impact assessment of the sewage effluent at Zeekoevlei, False Bay. *Transactions of the Royal Society of South Africa* **47** (4/5): 717-730.

SKIBBE, E (1992) Pollution assessment of several beaches along the South-Western Cape Coast. *CSIR Research Report* **702**. CSIR Environmentek, Stellenbosch, South Africa.

SKOGEN, M D (1999) A biophysical model applied to the Benguela upwelling system. *South African Journal of Marine Science* **21**: 235-249.

SOLOMONS, W and FÖRSTNER, U (1984) *Metals in the hydrocycle*. Springer-Verlag Berlin. ISBN 3-540-12755-0.

SOUTH AFRICAN NAVY (SAN) (2003) South African tide tables. Published by the Hydrographer, Tokai, South Africa. ISBN 0-9584318-3-3.

SOUTHGATE, B A (1948) *Treatment and disposal of industrial waste*. London: His Majesty's Stationery Office. 327 pp.

SPENCER, E F (jr) (1971) Pollution control in the chemical industry. In: *Industrial pollution control handbook*. H F Lund (Ed.). McGraw-Hill Book Company, USA. pp 14-1 to 14-31.

SPIEGEL, M R (1972) *Theory and problems of statistics*. Schaum's Outline Series. McGraw-Hill Book Company.

STUMM, W and MORGAN, J J (1970) *Aquatic chemistry. An introduction emphasising chemical equilibria in natural waters*. Wiley-Interscience, a division of John Wiley & Sons Inc, New York. ISBN 0 471 83496 3.

SWEENEY, R E, KALIL, E K and KAPLAN, I R (1980) Characterisation of domestic and industrial sewage in southern California coastal sediments using nitrogen, carbon, sulphur and uranium tracers. *Marine Environmental Research* **3**: 225-243.

SWANN, J M, NEFF, J M and YOUNG, P C (Eds.) (1994) Environmental implications of offshore oil and gas development in Australia. Published by the Australian Petroleum Exploration Association Limited, Sydney, Australia. 696 pp.

TALJAARD, S and ROSSOUW, M (1999) Environmental Impact Assessment for the commercialisation of the SFF Milnerton Tank Farm. Specialist study S6: Marine Water Quality. *CSIR Report ENV-S-C 99038*. CSIR Environmentek, Stellenbosch, South Africa.

TALJAARD, S, VAN BALLEGOOYEN, RC and MORANT, P D (2000) False Bay Water Quality Review. Volume 2: Specialist Assessments and Inventories of Available Literature and Data. Report to the False Bay Water Quality Advisory Committee. *CSIR Report ENV-S-C 2000-086/2*. CSIR Environmentek, Stellenbosch, South Africa.

TALJAARD, S and MONTEIRO, P M S (2002) Saldanha Bay marine water quality management plan. Phase I: Situation Assessment. Report to the Saldanha Bay Water Quality Forum Trust. *CSIR Report ENV-S-C 2002-115/1*. CSIR Environmentek, Stellenbosch, South Africa.

TALJAARD, S, VAN NIEKERK, L, HUIZINGA, P and JOUBERT, W (2003) Resource monitoring procedures for estuaries for application in the Ecological Reserve determination and implementation process. *Water Research Commission Report No. 1308/1/03*. Water Research Commission, Pretoria, South Africa.

THATCHER, F S and CLARK, D S (1968) *Microorganisms in Foods: Their significance and methods of enumeration*. University of Toronto Press, Canada. 234 pp.

UNITED NATIONS ENVIRONMENTAL PROGRAMME (UNEP) (1982) Waste discharge into the marine environment: Principles and guidelines for the Mediterranean action plan. Published under the joint sponsorship of the World Health Organisation and the United Nations Environment Programme. Pergamon Press. 422 pp.

UNITED NATIONS ENVIRONMENTAL PROGRAMME (UNEP) (1996) Awards for improving the coastal environment: The Blue Flag example. Joint project: UNEP, World Tourism Organisation and Foundation for Environmental Education in Europe. United Nations Publication. ISBN 92-80701625-5. UNITED NATIONS ENVIRONMENTAL PROGRAMME (UNEP) (GPA) (2002) Guidelines on Municipal Wastewater Management. Version 2.1. Report ad UNEP/GC.22/INF/4. (www.gpa.unep.org/documents/sewage-docs.htm)

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION, WORLD HEALTH ORGANISATION & UNITED NATIONS ENVIRONMENTAL PROGRAMME (UNESCO/WHO/UNEP) (1992) *Water Quality Assessments - A Guide to Use of Biota, Sediments and Water in Environmental Monitoring*. Second Edition. (www.who.int/docstore/water_sanitation_health/wqassess/begin.htm#Contents)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (US-EPA) (1985) Initial mixing characteristics of municipal ocean discharges. Environmental Research Laboratory, Narragansett, Report No **EPA/SW/MT-86/012**(a & b).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (US-EPA) (1994) Amended Section 301(h) Technical support document. EPA842-B-94-007. Office of Water (www.epa.gov/owow/oceans/regs/sec301tech/)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (US-EPA) (1999) Understanding variation in partition co-efficient, K_d , Values. EPA 402-R-99-004A&B. August 1999 (<http://www.epa.gov/radiation/cleanup/partition.htm>)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (US-EPA) (2002a) Water quality criteria. www.epa.gov/waterscience/criteria/

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (US-EPA) (2002b) Methods for measuring the acute toxicity of effluents and receiving waters to fresh water and marine organisms. www.epa.gov/waterscience/WET/disk2/

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (US-EPA) (2002c) Statistical primer. www.epa.gov/bioindicators/primer/.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (US-EPA) (2003) Elements of a State water monitoring and assessment program. Assessment and Watershed Protection Division. Office of Wetlands, Oceans and Watershed. United States Environmental Protection Agency. EPA 841-B-03-003. (www.epa.gov/owow/monitoring/repguid.html)

VAN BALLEGOOYEN, R C, BOTES, W A M and TALJAARD, S (2003) Durban North Marine outfall study: Part 1: Preliminary assessment of a proposed marine outfall. Report prepared for eThekweni Municipality, Durban. CSIR Report No. **ENV-S-C 2003-013**. CSIR Environmentek, Stellenbosch, South Africa.

VAN BALLEGOOYEN, R C and BOTES W A M (2003) Gansbaai Marine Outfall Study: Preliminary assessment of a proposed marine outfall. Report prepared for Kwezi V3 Engineering. *CSIR Report No. ENV-S-C 2003-071*. CSIR Environmentek, Stellenbosch, South Africa.

VAN BALLEGOOYEN, R C, TALJAARD, S, VAN NIEKERK, L and HUIZINGA, P (in press) Using 3d-modelling to predict physico-chemical responses to variation in river inflow in smaller, stratified estuaries typical of South Africa. Accepted for publication in *Journal of Hydraulic Research*.

VAN DRIEL, D and BOTES, W A M (2003) A Visual Presentation of the Water Quality in the Cape Metropolitan Area's urban rivers using a water quality index. Proceedings of the 2nd International Symposium on Integrated Water Resources Management (IWRM). January 2003. Stellenbosch, South Africa.

VAN EEDEN P G (1982) A survey of marine discharges along the South African coastline. Ad hoc report, Department of Water Affairs. 65 pp.

VIVIA, C M G (1986) Tracers of sewage sludge in the marine environment: A review. *Science of the Total Environment* **53**: 5–40.

WALDICHUK, M (1977) Settleable organic wastes. In: *Coastal ecosystem management*. Clark, J R (Ed.). John Wiley and Sons, New York. 928 pp.

WAMTECHNOLOGY (1996) Marine outfall: Assessment of the diffuser hydraulics and achievable dilutions. Report to Sappi Saiccor. Report PW16/96/SS1. Stellenbosch, South Africa.

WAMTECHNOLOGY (1997) Proposed Coega Development Zone: Preliminary assessment of an offshore marine outfall. Report to African Environmental Solutions. Report PW23/97/AES1. 26 pp. Stellenbosch, South Africa.

WANIELISTA, M P, YOUSEF, Y A and McLELLON, W M (1977) Non-point source effects on water quality. *J. Wat. Pollut. Control Fed.* 49(3): 441-451.

WATER RESEARCH CENTRE (WRc) (1990) Design guide for marine treatment schemes. Volume I: Introduction, Volume II: Environmental design and data collection, Volume III: Materials, construction and structural design, and Volume IV: Operations and maintenance and cost functions. Report No. UM 1009. Swindon, UK.

WEDEPOHL, P M, LUTJEHARMS, J R E and MEEUWIS, J M (2000) Surface drift in the south-east Atlantic Ocean. *South African Journal of Marine Science* **22**: 71-79.

WEST, R H and HATCHER, P G (1980) Polychlorinated biphenyls in sewage sludge and sediments of the New York Bight. *Mar. Poll. Bull.* **11**: 126-129.

WHITFIELD, A K (1992) A characterisation of southern African estuarine systems. *Southern African Journal of Aquatic Sciences* **12**: 89-103.

WIGINGTON, P J, RANDALL, C W and GRIZZARD, T J (1983) Accumulation of selected trace metals in soils of urban run-off detention basins. *Wat. Resour. Bull.* **19**(5): 709-718.

WILLIAMS, B L (1985) Ocean Outfall Handbook: A manual for the planning, investigation, design and monitoring of ocean outfalls to comply with water quality management activities. Water & soil miscellaneous publication No **76**. National Water & Soil Conservation Authority, Wellington, New Zealand.

WORLD HEALTH ORGANISATION (WHO) (1982) Waste discharge into the marine environment: Principles and guidelines for the Mediterranean Action Plan. Published under the joint sponsorship of the World Health Organisation and the United Nations Environment Programme. Pergamon Press, Oxford, United Kingdom. ISBN 0-08-026194-9.

WORLD HEALTH ORGANISATION (WHO) (1999) Health-based monitoring of recreational waters: The feasibility of a new approach (The "Annapolis Protocol"). World Health Organisation. **WHO/SDE/WSH/99.1**. Geneva.

WRIGHT, S J (1984) Buoyant jets in density stratified cross-flow. *Journal Hydraulic Division, ASCE*: **110** (HY5).