

Glossary of Terms used in the Stormwater Industry

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**Catchments
& Creeks**

Introduction

Terms are listed in alphabetical order. Each term is presented with a key identifying code that indicates the principle category, profession or field of science within which the presented terminology is most commonly associated. The Code does not imply that the definition is applicable only to that profession. If a term has a different meaning or usage within different professions, then alternative definitions are presented under each category.

The key categories are defined as:

- Agr – Agronomy
- Bio – Biology
- Bot – Botany
- Coa – Coastal
- Eco – Ecology
- Eng – Engineering
- Esc – Erosion and sediment control
- Gen – General
- Geo – Geography
- Gel – Geology
- Hyd – Hydrology
- Lfm – Landform
- Met – Meteorological
- Min – Mining
- Rur – Rural
- Sci – Science
- Sol – Soil science
- Sto – Stormwater
- Top – Topography
- Res – Water resources
- Wat – Water testing
- Wwy – Waterways

Description of codes

Code	Category	Description
Agr	Agronomy	The applied aspects of both soil science and the several plant sciences, often limited to applied plant sciences dealing with crops.
Bio	Biology	The science of life or living matter in all its forms and phenomena especially in reference to growth, reproduction, structure, etc.
Bot	Botany	The science of plants; the branch of biology that deals with plant life.
Coa	Coastal	The science or engineering of the management of coastal regions.
Eco	Ecology	The branch of biology which studies the relations between organisms and their environment.
Eng	Engineering	The art or science of making practical application of the knowledge of pure sciences such as physics, chemistry, biology, etc.
Esc	Erosion and sediment control	The study and application of short-term soil erosion and sediment control measures within building and construction industry.
Gen	General	Non specific commonly usage.
Geo	Geography	The study of the areal differentiation of the earth's surface, as shown in the character, arrangement, and interrelations over the world of elements such as climate, relief, soil, vegetation, population, land use, industries, or states, and of the unit areas formed by the complex of these individual elements.
Gel	Geology	The science studying the earth, the rocks of which it is composed, and the changes which it has undergone or is undergoing.
Hyd	Hydrology	The science dealing with water on the land, or under the earth's surface, its properties, laws, geographical distribution, etc. Includes the science of Hydraulic analysis.
Lfm	Landform	Any of the numerous features which make up the surface of the earth, as plain, plateau, canyon.
Met	Meteorological	The science dealing with the atmosphere and its phenomena, especially as relating to weather.
Min	Mining	The action, process, or industry of extracting ores, etc. from mines.
Rur	Rural	Pertaining to, or characteristic of the country (as distinguished from towns or cities), including agricultural engineering and sciences, and rural soil conservation practices.
Sci	Science	The systematic study of man and his environment based on the deductions and inferences which can be made, and the general laws which can be formulated, from reproducible observations and measurements of events and parameters within the universe.
Sol	Soil science	The science which studies that portion of the earth's surface in which plants grow.
Sto	Stormwater	The science or engineering of the management of surface run-off of water resulting from a storm.
Top	Topography	The detailed description and analysis of the features of a relatively small area, district, or locality.
Res	Water resources	The collection, treatment, distribution, disposal and recycling of water for human use and/or benefit.
Wat	Water testing	The science or mechanics associated with the testing of water.
Wwy	Waterway	The science or engineering of the management and hydraulic design of waterways and other major water bodies including wetlands. It including the science and engineering of floodplain management.

References

1. Erosion Control - IECA magazine March/April 2004 pp 41.
2. Standards Association of Australia, 1972. *"Terms Used in Road Engineering"* Australian Standard 1348-1972. Standards Association of Australia, North Sydney, NSW.
3. Young, W.J., 2001. *"Rivers as Ecological Systems – The Murray Darling Basin"*. Edited by W.J. Young CSIRO Land and Water, published by the Murray Darling Basin Commission, ACT.
4. Houghton, P.D. and Charman, P.E.V., 1986. *"Glossary of terms used in Soil Conservation"*. Soil Conservation Service of NSW. ISBN 0 7305 1525 7.
5. Defined by author and/or commissioned editor.
6. Institution of Engineers Australia, Qld., 1996. *Soil Erosion and Sediment Control – Engineering Guidelines for Queensland Construction Sites*. ISBN 0 85814 153 1.
7. North Carolina SCC & DEHNR, 1993. *Erosion and Sediment Control Planning and Design Manual*. North Carolina Sediment Control Commission, and the North Carolina Department of Environment, Health, and Natural Resources, and the North Carolina Agricultural Extension Service, Raleigh, North Carolina, USA.
8. Texas Natural Resource Conservation Commission, 1999.
9. Macquarie Library, 1982. *Macquarie Dictionary*. Macquarie Library Pty. Ltd. McMahons Point, NSW. ISBN 0 949757 00 4.
10. EPA Victoria
11. Chanson, H., 1999. *The Hydraulics of Open Channel Flow – An Introduction*. published by Arnold, (Hodder Headline Group) London. ISBN 0 340 74067 1.
12. Brisbane City Council
13. ASCE, 1992. *Design and Construction of Urban Stormwater Management Systems* Water ASCE Manuals and Reports of Engineering practice No. 77, WEF Manual of Practice FD-20. Environment Federation, American Society of Civil Engineers, USA.
14. ARMCO, 1958. *Handbook of Drainage and Construction Products*. The Armco International Corporation, Middletown, Ohio, USA.
15. ARMCANZ & ANZECC, 2000b. *Australian Guidelines for Urban Stormwater Management*. National Water Quality Management Strategy, prepared by Agriculture and Resources Management Council of Australia and New Zealand & Australian and New Zealand Environment and Conversation Council, Canberra. ISBN 0 642 24465 0.
16. Department of Environment, 1997. *User's Guide to Queensland Environmental Protection (Water) Policy 1997*. Department of Environment, Queensland. ISBN 0 7242 6396 9.
17. CIRIA, 1992. *Scope for control of urban runoff – Volume 1: Overview*. Report 123, Ed. A.D. Maskell. Construction Industry research and Information Association (CIRIA) London.
18. Department of Environment, 1997. *Environmental Protection (Water) Policy 1997*. Department of Environment, Queensland.
19. Lewis, B., 2002. *Farm Dams – Planning, Construction and Maintenance*. Landlinks Press, Collingwood, Victoria. ISBN 0 643 06576 8.
20. Frobel, R.K., 1987. *Geosynthetics Terminology – an interdisciplinary treatise*. Industrial Fabrics Association International, St Paul, Minnesota, USA.
21. Brisbane City Council, 2000. *Water Quality Management Guidelines*. Version 1, Brisbane City Council, Brisbane.
22. ANCOLD, 1986. *Guidelines on Design Floods for Dams*. Australian National Committee on Large Dams (ANCOLD), Leederville WA. ISBN 0 9599836 5 1.

23. ANZECC, 1992. *Australian Water Quality Guidelines for Fresh and Marine Waters*. National Water Quality Management Strategy, prepared by Australian and New Zealand Environment and Conversation Council, Canberra. ISBN 0 642 18297 3.
24. Neville Jones & Associates, and Australian Water Engineering, 1994. *Queensland Urban Drainage Manual*. Prepared Department of Primary Industries (Water Resources), Institute of Municipal Engineering Australia, Queensland Division, and Brisbane City Council. Department of Primary Industries, Brisbane. ISBN 1 875513 74 4.
25. Witheridge, G.M. (2002), *Fish Passage Requirements at Waterway Crossings – Engineering Guidelines*. Catchments & Creeks Pty Ltd, Brisbane.
26. QDLGP and QDES, 2002. *DRAFT State planning Policy including Guideline – Natural Disaster Mitigation*. Department of local Government and Planning, and Department of Emergency Services, Queensland Government, Brisbane.
27. US Bureau of Reclamation, 1992 *Design Standards No. 13 - Embankment Dams Chapter 19 - Geotextiles*. Denver, Colorado, US Department of the Interior.
28. Brisbane City Council, 1999. *Design Guidelines for Stormwater Quality Improvement Devices*. Final Draft, November 1999, prepared by Geo-Eng Australia and City Design – Brisbane City Council, Brisbane.
29. Livingston, E.H., Shaver, E., Skupien, J.J. 1997. *Operation, Maintenance and Management of Stormwater Management Systems*. Watershed Management Institute, Inc. Maryland, USA.
30. Horner, R.R., Skupien, J.J., Livingston, E.H. and Shaver, H.E., 1994, *Fundamentals of Urban Runoff Management – Technical and Institutional Issues*. Terrene Institute, Washington DC.
31. Victoria Stormwater Committee, 1999. *Urban Stormwater – Best Practice Environmental Management Guidelines*. CSIRO Publishing, Collingwood, Victoria. ISBN 0 643 06453 2.
32. Pilgrim D.H., 1987. *Australian Rainfall and Runoff – A Guide to Flood Estimation*. Revised Edition, The Institution of Engineers, Australia, Barton, ACT. ISBN 085825 434 4.
33. Karssies, L.E. and Prosser, I.P., 1999. *Guidelines for Riparian FILTER strips for Queensland Irrigators*. Technical Report, CSIRO Land and Water.
34. Department of Land and Water Conservation, 1998. *The Constructed Wetlands Manual*. New South Wales Department of Land and Water Conservation (DLWC), Parramatta, NSW.
35. The Institution of Engineers, Australia, 2003. *Australian Runoff Quality*. Draft discussion document, The Institution of Engineers, Australia and North East Catchment Management Authority, Victoria.
36. Department of Natural Resources and Water (draft) 2005, *Queensland Urban Drainage Manual*. Early draft of second edition (unpublished).
37. Environmental Protection Agency, 2001. *Queensland Water Recycling Strategy*. Environmental Protection Agency, Brisbane.
38. Caltrans, 2003. “*Construction Site Best Management Practice (BMP) Field Manual and Troubleshooting Guide*”. CTSW-RT-02-007, Department of Transportation, State of California, USA.
39. Landcom 2004, *Managing Urban Stormwater: Soils and Construction – Volume-1*, Landcom, New South Wales Government, ISBN 0-9752030-3-7.
40. Wong, T.H.F., 2005. *Australian Runoff Quality – A Guide to Water Sensitive Urban Design*, Engineers Australia, ACT.
41. MUSIC User Guide
42. South Australia – River Murray Catchment Water Management Plan.
43. Department of Main Roads 2002, *Road Drainage Manual*. Department of Main Roads, Queensland.

44. Department of Natural Resources and Mines 2002, *Queensland Dam Safety Management Guidelines*. QNRM02013, Queensland Government, Department of Natural Resources and Mines, ISBN 0-7345-2633-4.
45. The NEW OXFORD Dictionary OF ENGLISH
46. Neville Jones, Pine Rivers Shire Council (unpublished notes).
47. Department of Natural Resources and Water 2007, *Queensland Urban Drainage Manual*. Second edition, Department of Natural Resources and Water, Brisbane, Queensland.
48. Mays, L.W. 2005, *Water Resources Engineering*. John Wiley & Sons Inc. USA. ISBN 0-471-70524-1
49. O'Loughlin, G. 2005, *DRAINS Design & Investigation Workshop*. Training course notes, Anstad Pty Ltd.
50. Lawrence, I. and Breen, P. 1998, *Design guidelines: Stormwater pollution control ponds and wetlands*. Cooperative Research Centre for Freshwater Ecology. ISBN 1-876144 20 3.
51. Claridge, G. 1994, *Caring for Wetlands – A Practical Guide to Urban Landcare Projects*. Landcare Queensland, Department of Primary Industries, Brisbane. ISSN 0727-6273.
52. Queensland Government, 1997, *Draft Wetlands and Waterways Local Planning Policy*. Queensland Government, Brisbane.
53. Hoban, A. and Rowlands, L. 2007, *Delivering Best Practice WSUD on Flat Sites*. Stormwater Industry Association of Queensland, State Conference, "Mimicking Nature", 20-21 September 2007, Twin Waters, Queensland.
54. Bureau of Reclamation (1992) Design Standards No. 13 - Embankment Dams Chapter 19 - Geotextiles. Denver, Colorado, US Department of the Interior.
55. Standards Australia 2004, *Risk Management*. AS/NZS 4360:2004 Standards Australia/Standards New Zealand. ISBN 0 7337 5904 1
56. Thorne C.R., Hey R.D. and Newson M.D. 2003, *Applied Fluvial Geomorphology for River Engineering and Management*. John Wiley & Sons, Chichester, UK.
57. WBM Oceanics Australia 1999, *Stormwater Recycling Background Study*. Prepared on behalf of Queensland Water Recycling Strategy, Department of Natural Resources, Brisbane, Queensland. ISSN 1441-8479
58. Minerals Council 1997, *Minesite Water Management Handbook*. Minerals Council of Australia, ACT. ISBN 0 909276 73 0
59. Ingles, O.G. and Metcalf, J.B. 1972, *Soil Stabilization – Principles and Practice*. Butterworths. ISBN 0 409 48215 3.
60. Surface Observations Handbook, 1993. Bureau of Meteorology.
61. Weather and ocean Services Handbook, Bureau of Meteorology.
62. Eyre Peninsula Catchment Water Management Board 2005, *Eyre Peninsula Catchment Water Management Plan* Eyre Peninsula Catchment Water Management Board, South Australia.
63. CE News, 2007, *Effective Drainage Channel Stabilization and Design with Turf Reinforcement Mats*. (attributed to the Erosion Control Technology Council, 2005, *Standard Specifications for Rolled Erosion Control Products, Rev 4904*), CE News, Volume 19, Number 3, April 2007, Chicago, USA.