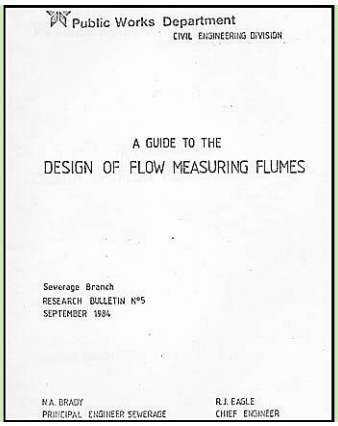
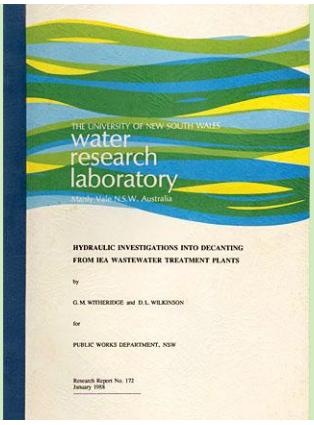
Publications, 1984–89



Public Works Department (NSW) 1984

A Guide to the Design of Flow Measuring Flumes

NSW Public Works Department, Sewerage Branch, Research Bulletin No.5, Sydney, September, 1984.



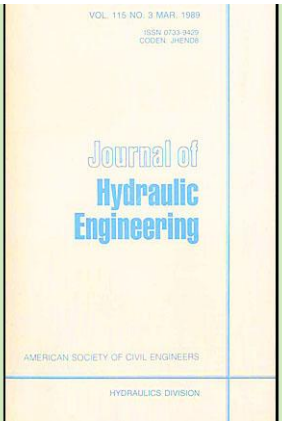
Water Research Laboratory (NSW) 1988

Hydraulic Investigations into Decanting from IEA Wastewater Treatment Plants

G.M. Witheridge and D.L. Wilkinson

Research Report No. 172, Water Research Laboratory, Manly Vale, NSW. January 1988.

Masters of Engineering Science, Major Project report on investigations into the selective withdrawal hydraulics of the decant system on the Intermittent Extended Aeration, Port Macquarie tank, Port Macquarie, NSW.



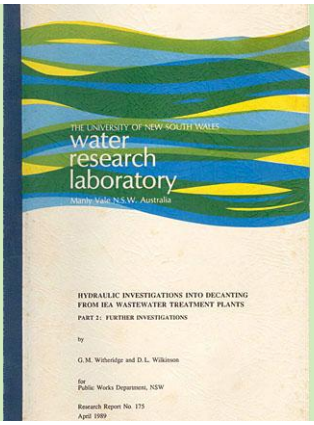
ASCE Hydraulics Division, 1989

Density Measurement of Particle and Floc Suspensions

Witheridge, G.M. and Wilkinson, D.L.

Journal of Hydraulic Engineering, Vol. 115, No. 3, March 1989, American Society of Civil Engineers, pp. 403–408.

Paper on the use of a Loch Exchange test to determine the density of a sewage floc that is very close to the density of clean water.



Water Research Laboratory (NSW) 1989

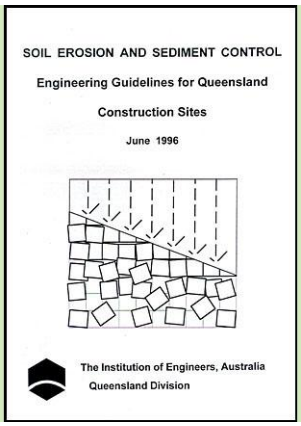
Hydraulic Investigations into Decanting from IEA Wastewater Treatment Plants, Part 2: Further Investigations

G.M. Witheridge and D.L. Wilkinson

Research Report No. 175, Water Research Laboratory, Manly Vale, NSW. April 1989.

Additional investigations into the selective withdrawal hydraulics of the decant system on the Intermittent Extended Aeration, Port Macquarie tank, Port Macquarie, NSW.

Publications, 1996–99



IEAust (Qld) 1996

Soil Erosion and Sediment Control – Engineering Guidelines for Queensland Construction Sites

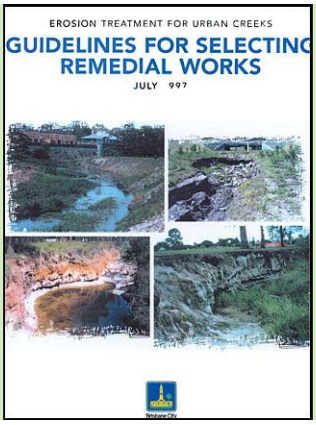
G. Witheridge and R. Walker (ed.), The Institution of Engineers Australia, Queensland Branch, June 1996 Brisbane, Queensland.

Written between 1993 and 1996.

Worked full time Aug 1994 to May 1995.

22 chapters, 540 pages

(co-author)



Brisbane City Council, 1997

Erosion Treatment for Urban Creeks – Guidelines for Selecting Remedial Works

Guidelines for Brisbane City Council, prepared by Griffith University and RUST PPK, July 1997, Brisbane, Queensland.

Joint winner of SIA Award for Excellence in Stormwater Management, 2004.

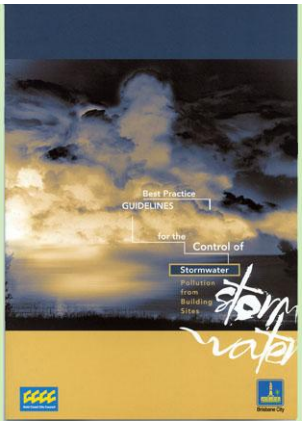
1st ed. 1997

2nd ed. 1999

3rd ed. 2003

185 pages

(co-author)



Brisbane City Council, 1998

Best Practice Guidelines for the Control of Stormwater Pollution from Building Sites

Brisbane City Council (BCC) and Gold Coast City Council (GCCC), 1998.

Originally developed by C&C in 1997.

Initially presented to Gold Coast Council.

Gold Coast Council took it to BCC.

BCC published the 1st edition as a 10-page booklet with 24 fact sheets.

2nd ed. 2000 (BCC).

3rd ed. 2002 (Healthy Waterways).

4th ed. 2004 (Healthy Waterways).

Catchments & Creeks Pty Ltd, 1999

Erosion and Sediment Control Training CD-ROM

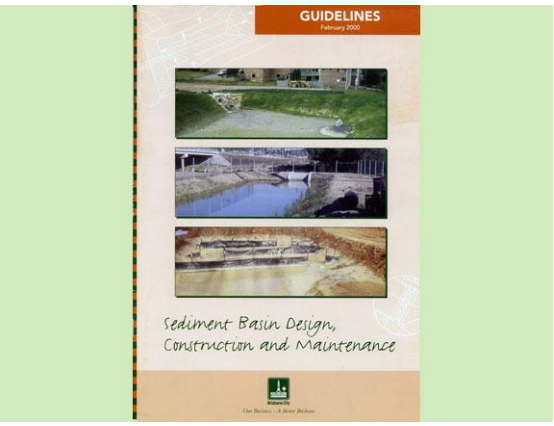
Catchments & Creeks Pty Ltd 1999, Brisbane, Queensland.

5 slide show training courses with notes

526 photos

No longer being distributed.

Publications, 2000–02

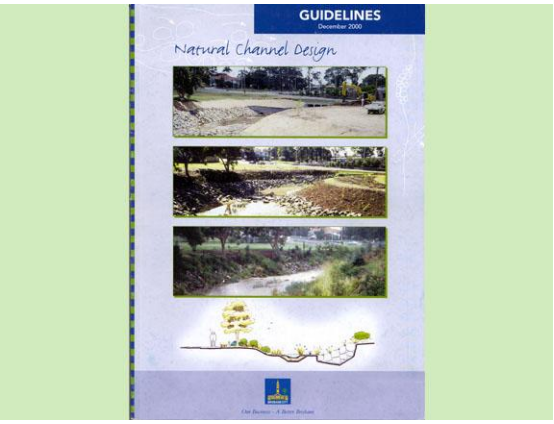


Brisbane City Council, 2000

Sediment Basin Design, Construction and Maintenance Guidelines

Brisbane City Council, 2000, Brisbane, Queensland.

50 page (colour) booklet



Brisbane City Council, 2000

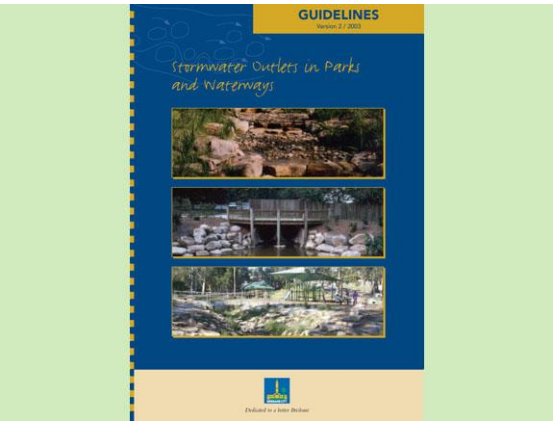
Natural Channel Design Guidelines

Brisbane City Council, 2000, Brisbane, Queensland.

Joint winner of SIA Award for Excellence in Stormwater Management, 2004.

152 page (colour) booklet

(co-author)



Brisbane City Council, 2002

Stormwater Outlets in Parks and Waterways

Brisbane City Council, 2002, Brisbane Queensland.

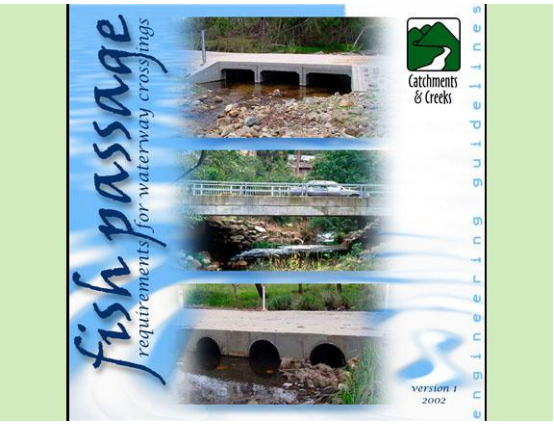
Joint winner of SIA Award for Excellence in Stormwater Management, 2004.

1st ed. 2002

2nd ed. 2003

40 page (colour) booklet

(co-author)



Catchments & Creeks Pty Ltd, 2002

Fish Passage Requirements at Waterway Crossings

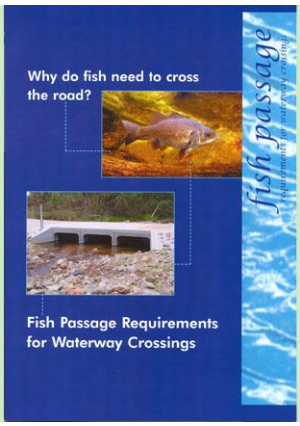
Catchments & Creeks Pty Ltd. 2002 (CD-ROM).

2005 Stormwater Industry Association Award - Stormwater Education (Highly Commended)

Includes a 286-page pdf.

This document was superseded by the 'Fish Passage Culvert Design' field guide first released in 2025 (see later in this list of publications).

Publications, 2003–08



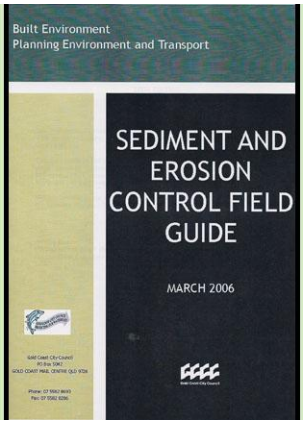
NSW Fisheries, 2003

Why do fish need to cross the road? – Fish Passage Requirements for Waterway Crossings

Fairfull and Witheridge, 2003, NSW Fisheries, Cronulla.

15 page (colour) booklet

(co-author)

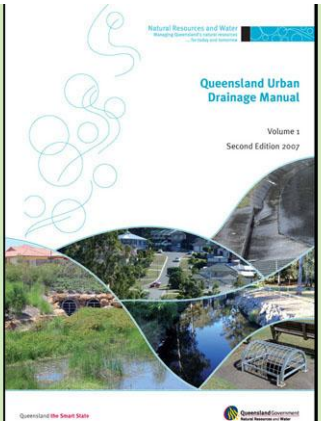


GCCC ESC Field Guide, 2006

Sediment and Erosion Control Field Guide

Built Environment, Planning Environment and Transport, Gold Coast City Council, March 2006.

95 page (B&W) booklet



Dept. of Natural Resources & Water, 2007

Queensland Urban Drainage Manual

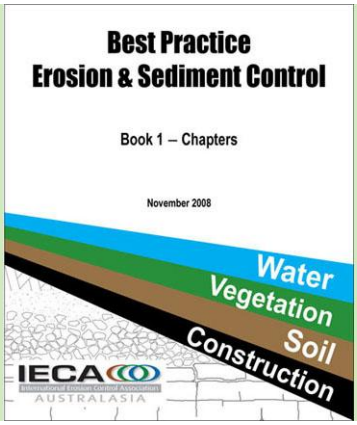
2nd edition, Department of Natural Resources & Water, Institute of Public Works Engineering Australia, Queensland Division Ltd. and Brisbane City Council, 2007, Brisbane, Australia.

Re-released 2008 (Volume 2 incorporated)

423 page (B&W)

153 figures

(co-author)



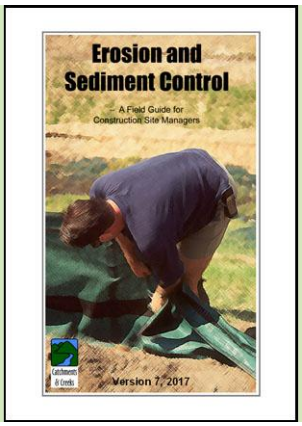
IECA (Australasia), 2008

Best Practice Erosion and Sediment Control International Erosion Control Association (Australasia), November 2008.

Written between 1997 and 2010.

- 1814 pages (six books)
- 964 figures
- 990 photos
- 647 tables
- 3 hardcopy books (Books 1 to 3, B&W)
- 137 design fact sheets (Book 4, colour)
- 77 page field guide (Book 5, 2010 edition)
- 136 standard drawings (Book 6, B&W)

Publications, 2010–12



Catchments & Creeks Pty Ltd, 2010

Erosion and Sediment Control – A Field Guide for Construction Site Managers

Witheridge, G., Catchments & Creeks Pty Ltd, 2010, Brisbane Queensland.

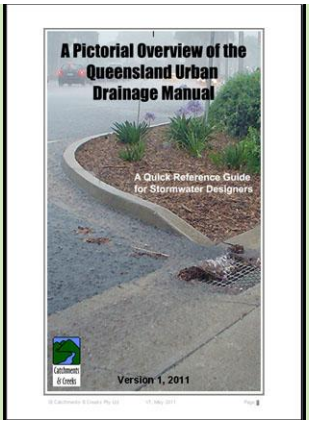
77 page PDF document

(This document is also distributed as Book 5 of the IECA's *Best Practice Erosion and Sediment Control* documents)

Version 5, 2012

Version 6, 2017

Version 7, 2024 (revised cover page)



Catchments & Creeks Pty Ltd, 2011

A Pictorial Overview of the Queensland Urban Drainage Manual

Witheridge, G., Catchments & Creeks Pty Ltd, 2011, Brisbane Queensland.

91 page PDF document

Removed from website upon the release of the 2013 edition of QUDM.

Catchments & Creeks Pty Ltd, 2011

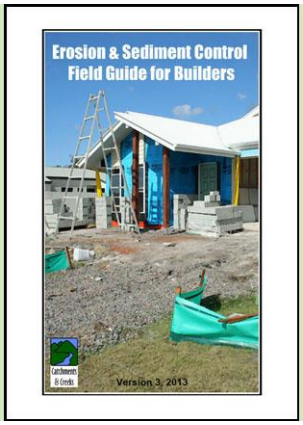
Background to Rock Sizing Equations

Witheridge, G., Catchments & Creeks Pty Ltd, 2011, Brisbane Queensland.

52 page (colour) PDF documents

Version 1, 2011

- Provides details on:
  - the assessment of existing (pre 2011) rock sizing equations
  - the mathematical development of new equations for the sizing of rock and the field data used to check the equations.



Catchments & Creeks Pty Ltd, 2012

Erosion and Sediment Control Field Guide for Builders

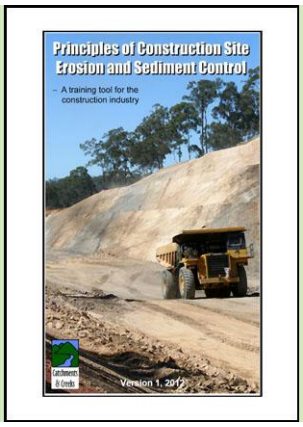
Witheridge, G., Catchments & Creeks Pty Ltd, 2012, Brisbane Queensland.

47 page PDF document

Version 3, 2012

This document provides an overview of Erosion and Sediment Control (ESC) practices on small building sites. The document discusses how the ESC practices promoted on building sites are different from those commonly adopted on larger construction sites.

Publications, 2012–14



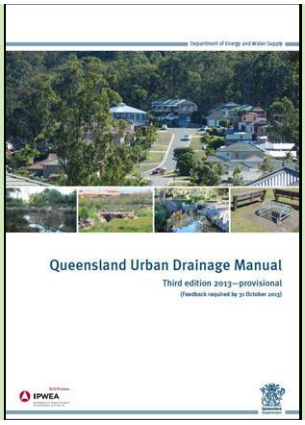
Catchments & Creeks Pty Ltd, 2012

Principles of Construction Site Erosion and Sediment Control – A training tool for the construction industry.

Witheridge, G., Catchments & Creeks Pty Ltd, 2012, Brisbane Queensland.

Version 2, 2026

This field guide has been prepared specifically to provide Erosion and Sediment Control (ESC) trainees with general information to assist them in preparing for their certification exams, such as: a Certified Professional in Erosion and Sediment Control (CPESC).



Dept. Energy and Water Supply, 2013

Queensland Urban Drainage Manual.
Provisional 3rd edition, Department of Energy and Water Supply, and Institute of Public Works Engineering Australia, Queensland Division Ltd., 2013, Brisbane, Australia.

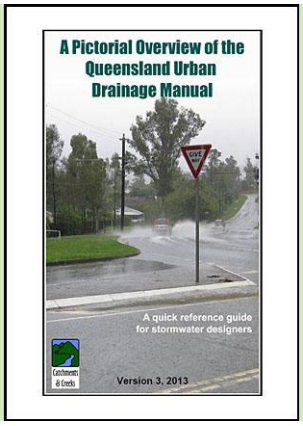
Document update in response to the recommendations of the final report of the Queensland Floods Commission of Inquiry.

Free-download PDF document

459 pages

310 figures (incl. 55 A4 design charts)

(co-author)



Catchments & Creeks Pty Ltd, 2013

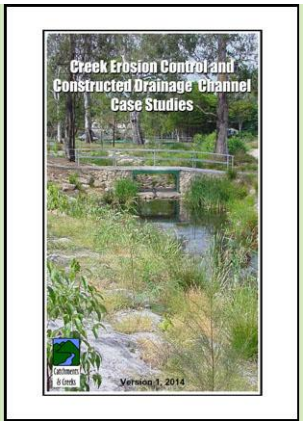
A Pictorial Overview of the Queensland Urban Drainage Manual – V3

Witheridge, G., Catchments & Creeks Pty Ltd, 2013, Brisbane Queensland.

Revised publication based on the 2013 edition of QUDM

101 page PDF document

Removed from website upon the release of the 2017 edition of QUDM.



Catchments & Creeks Pty Ltd, 2014

Creek Erosion Control and Constructed Drainage Channel Case Studies

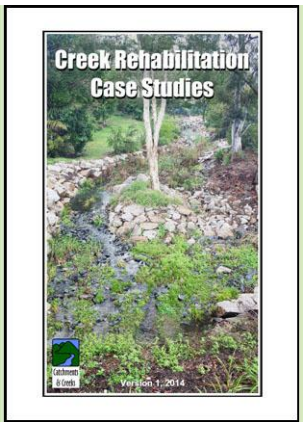
Catchments & Creeks Pty Ltd, 2014, Brisbane Queensland.

77 page PDF document

Version 2, September 2022

This document provides a pictorial review (before and after images) of various creek erosion repairs, and examples of constructed drainage channels located in and around Brisbane, Queensland.

Publications, 2014



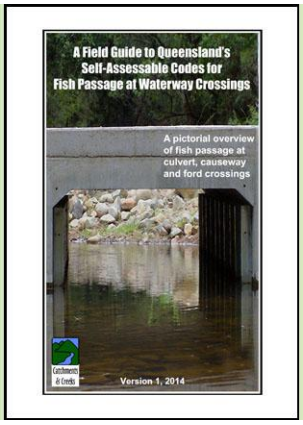
Catchments & Creeks Pty Ltd, 2014

Creek Rehabilitation Case Studies

Catchments & Creeks Pty Ltd, 2014, Brisbane Queensland.

71 page PDF document

This document provides a pictorial review (before and after images) of various creek rehabilitation projects located in and around Brisbane, Queensland.



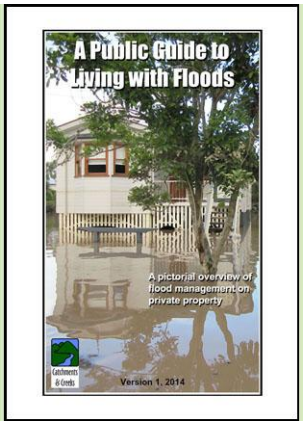
Catchments & Creeks Pty Ltd, 2014

A Field Guide to Queensland's Self-Assessable Codes for Fish Passage at Waterways Crossings

Catchments & Creeks Pty Ltd, 2014, Brisbane Queensland.

46 page PDF document

This document was replaced by 'A Guide to Queensland Fisheries State Code 18 – Fish Passage at Waterway Crossings' in 2024.



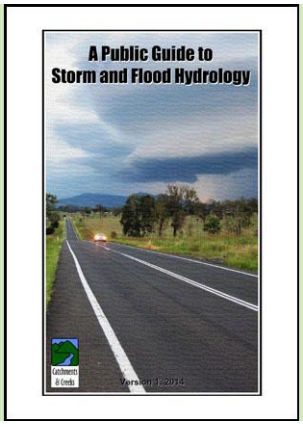
Catchments & Creeks Pty Ltd, 2014

A Public Guide to Living with Floods

Catchments & Creeks Pty Ltd, 2014, Brisbane Queensland.

78 page PDF document

This document provides general advice on living in flood-prone areas, preparing for a flood, and post-flood clean-up.



Catchments & Creeks Pty Ltd, 2014

A Public Guide to Storm and Flood Hydrology

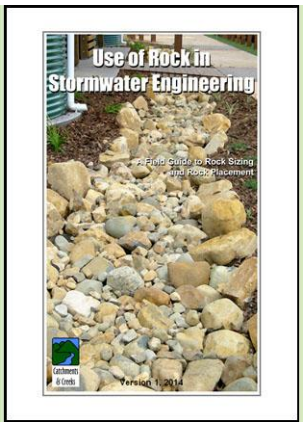
Catchments & Creeks Pty Ltd, 2014, Brisbane Queensland.

69 page PDF document

Version 3, November 2023

This document provides a non-technical pictorial guide to understanding storm and flood hydrology.

Publications, 2014–17



Catchments & Creeks Pty Ltd, 2014

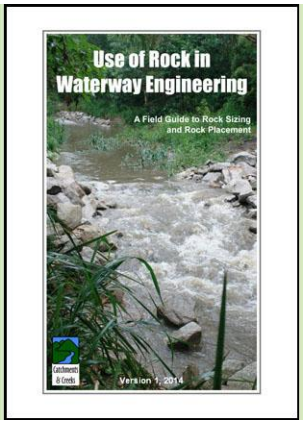
Use of Rock in Stormwater Engineering

Catchments & Creeks Pty Ltd, 2014, Brisbane Queensland.

71 page PDF document

Version 4, 2020

This document provides a pictorial guide to the sizing and placement of rock within stormwater drainage systems.



Catchments & Creeks Pty Ltd, 2014

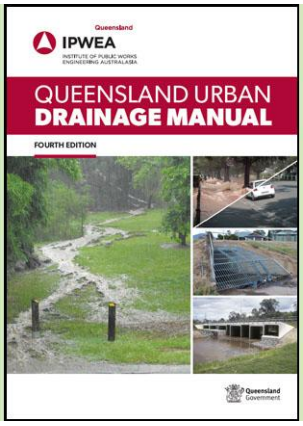
Use of Rock in Waterway Engineering

Catchments & Creeks Pty Ltd, 2014, Brisbane Queensland.

72 page PDF document

Version 3, 2020

This document provides a pictorial guide to the sizing and placement of rock within waterways.



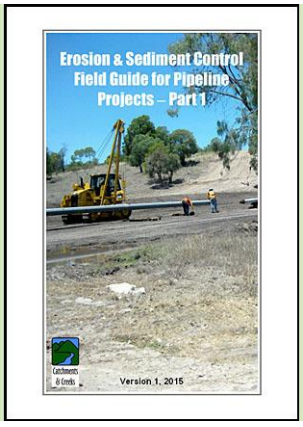
IPWEA (Queensland), 2017

Queensland Urban Drainage Manual

4th edition, Institute of Public Works Engineering Australia, Queensland Division Ltd., and Department of Energy and Water Supply, 2017, Brisbane, Australia.

391 page PDF document

(co-author/editor of 2nd, 3rd and 4th editions)



Catchments & Creeks Pty Ltd, 2017

Erosion & Sediment Control Field Guide for Pipeline Projects – Part 1

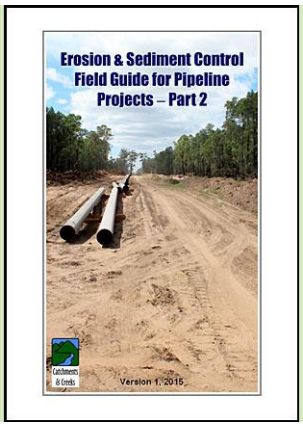
Catchments & Creeks Pty Ltd, 2017, Brisbane Queensland.

94 page PDF document

This document provides guidelines on the management of soil erosion and sediment control on pipeline construction projects.

Part 1 of this two-part document provides advice on the key aspects of temporary drainage, erosion and sediment control practices.

Publications, 2017



Catchments & Creeks Pty Ltd, 2017

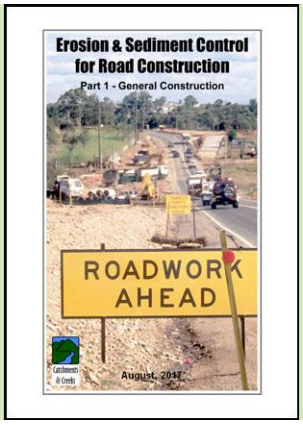
Erosion & Sediment Control Field Guide for Pipeline Projects – Part 2

Catchments & Creeks Pty Ltd, 2017, Brisbane Queensland.

70 page PDF document

This document provides guidelines on the management of soil erosion and sediment control on pipeline construction projects.

Part 2 of this two-part document provides guidelines on site planning, site rehabilitation, and the management of soil erosion and sediment control at waterway crossings.



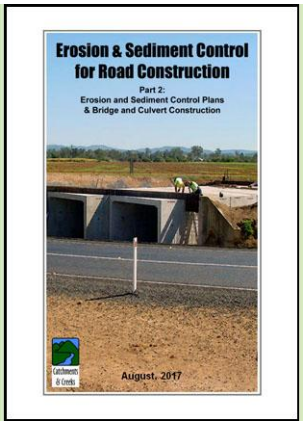
Catchments & Creeks Pty Ltd, 2017

Erosion & Sediment Control Field Guide for Road Construction – Part 1

Catchments & Creeks Pty Ltd, 2017, Brisbane Queensland. 123 page PDF document

This field guide has been prepared specifically to provide guidelines on the management of soil erosion and sediment control on road construction projects.

Part 1 of this two-part document provides advice on the key aspects of temporary drainage, erosion and sediment control practices.



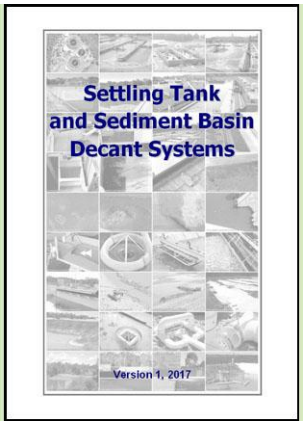
Catchments & Creeks Pty Ltd, 2017

Erosion & Sediment Control Field Guide for Road Construction – Part 2

Catchments & Creeks Pty Ltd, 2017, Brisbane Queensland. 79 page PDF document

This field guide has been prepared specifically to provide guidelines on the management of soil erosion and sediment control on road construction projects.

Part 2 of this document provides guidelines on the preparation of ESC Plans, and the management of bridge and culvert construction projects.



Catchments & Creeks Pty Ltd, 2017

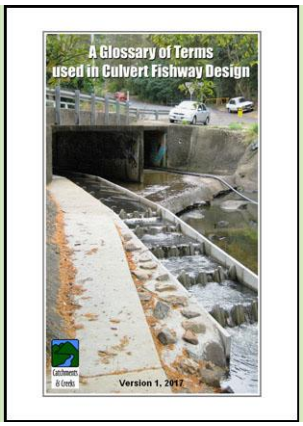
Settling Tank and Sediment Basin Decant Systems

Catchments & Creeks Pty Ltd, 2015, Brisbane Queensland.

23 page PDF document

The field guide describes the results of research into the selective withdrawal of supernatant from settled wastewater tanks, and how this research was used to further the design and operation of construction site sediment basins.

Publications, 2017–20



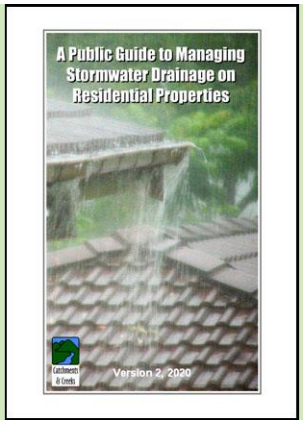
Catchments & Creeks Pty Ltd, 2017

A Glossary of Terms used in Culvert Fishway Design

Catchments & Creeks Pty Ltd, 2017, Brisbane Queensland.

51 page PDF document

This field guide provides photos and definitions of terms commonly used by engineers and biologists in the fish passage industry with specific reference to culvert design.



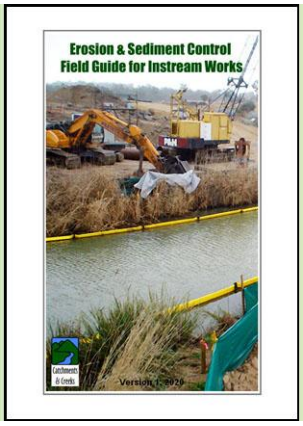
Catchments & Creeks Pty Ltd, 2017

A Public Guide to Managing Stormwater Drainage on Residential Properties

Catchments & Creeks Pty Ltd, 2017, Brisbane Queensland. A 92 page PDF document.

Version 2, 2020

This public guide provides a non-technical discussion on the design and management of stormwater drainage on residential properties, including the resolution of common drainage problems, and the legal aspects of inter-allotment drainage.



Catchments & Creeks Pty Ltd, 2020

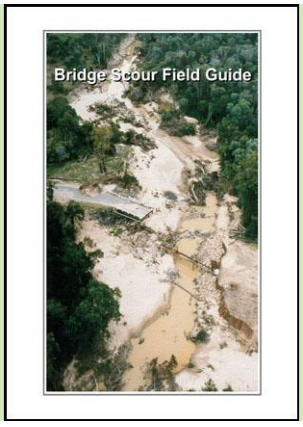
Erosion and Sediment Control Field Guide for Instream Works

Catchments & Creeks Pty Ltd, 2020, Bargara Queensland.

140 page PDF document

Version 2, December 2020

This field guide has been prepared specifically to provide guidelines on the management of temporary soil erosion and sediment control measures while conducting instream maintenance or construction activities.



Catchments & Creeks Pty Ltd, 2020

Bridge Scour Field Guide

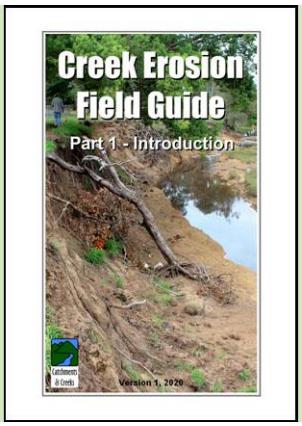
Catchments & Creeks Pty Ltd, 2020, Bargara Queensland.

115 page PDF document

Version 1, 2020

This document provides an overview of scour control under bridges with a focus on rock sizing and rock placement.

Publications, 2021



Catchments & Creeks Pty Ltd, 2021

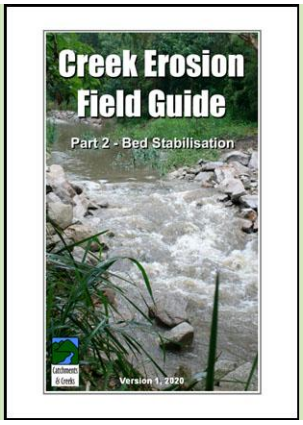
Creek Erosion Field Guide Part 1 – Introduction

Catchments & Creeks Pty Ltd, 2021, Bargara Queensland.

143 page PDF document

Version 1, April 2021

Part 1 discusses the types of creeks, the types of creek erosion, the mechanics of creek erosion, the hydraulics of creeks, the causes of creek erosion, and the response of creeks to floods.



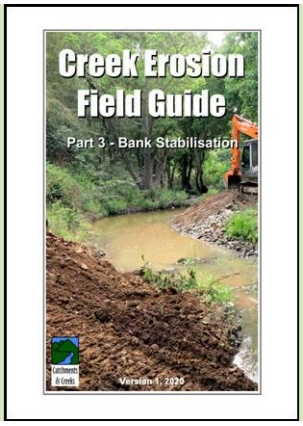
Catchments & Creeks Pty Ltd, 2021

Creek Erosion Field Guide Part 2 – Bed Stabilisation

Catchments & Creeks Pty Ltd, 2021, Bargara Queensland. A 123 page (colour) PDF.

Version 2, February 2022

Part 2 discusses the planning of creek erosion treatments, fish-friendly bed treatment, common properties of rock, the hydraulics of grade control structures, fish-friendly and non fish-friendly bed stabilisation techniques.



Catchments & Creeks Pty Ltd, 2021

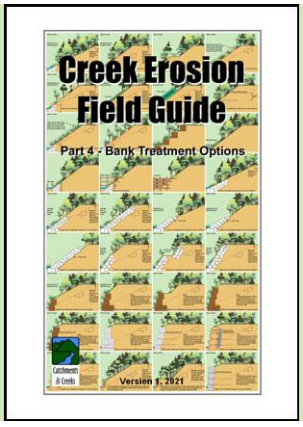
Creek Erosion Field Guide Part 3 – Bank Stabilisation

Catchments & Creeks Pty Ltd, 2021, Bargara Queensland.

148 page PDF document

Version 1, April 2021

Part 3 discusses the design of soft and hard engineering bank stabilisation techniques, the management of dispersive soils, lateral bank erosion, flow diversion techniques, and creek revegetation.



Catchments & Creeks Pty Ltd, 2021

Creek Erosion Field Guide Part 4 – Bank Treatment Options

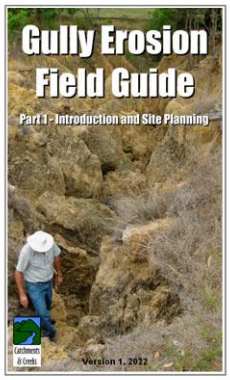
Catchments & Creeks Pty Ltd, 2021, Bargara Queensland.

69 page PDF document

Version 1, April 2021

Part 4 provides a short review of parts 1 to 3, then presents a single page summary of each of the bank stabilisation options presented in Part 3. The field guide ends with a discussion of the staging of instream works, and a glossary of terms.

Publications, 2022



Gully Erosion Field Guide

Part 1, Introduction and Site Planning

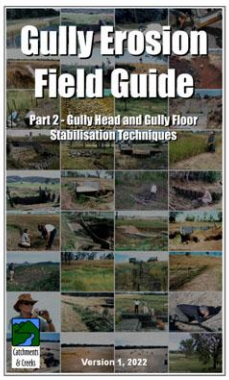
Catchments & Creeks Pty Ltd, 2022, Bargara Queensland.

157 page PDF document

Version 1, February 2022

Part 1 of this three-part document discusses gully erosion processes and treatment options.

Catchments & Creeks Pty Ltd, 2022



Gully Erosion Field Guide

Part 2, Gully Head and Gully Floor Stabilisation Techniques

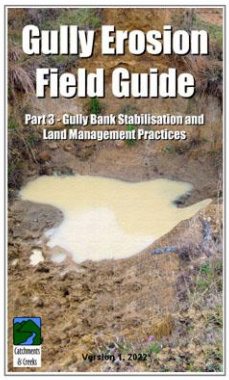
Catchments & Creeks Pty Ltd, 2022, Bargara Queensland.

129 page PDF document

Version 1, February 2022

Part 2 of this three-part document presents design information on gully head and gully bed stabilisation.

Catchments & Creeks Pty Ltd, 2022



Gully Erosion Field Guide

Part 3, Gully Bank Stabilisation and Land Management Practices

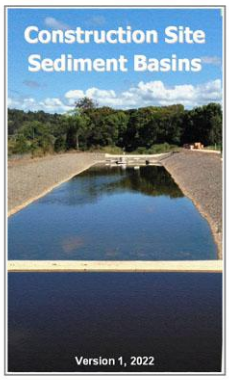
Catchments & Creeks Pty Ltd, 2022, Bargara Queensland.

87 page PDF document

Version 1, February 2022

Part 3 of this three-part document presents design information on the stabilisation of gully banks.

Catchments & Creeks Pty Ltd, 2022



Construction Site Sediment Basins

Catchments & Creeks Pty Ltd, 2022, Bargara Queensland.

108 page PDF document

Version 1, July 2022

This document provides information on the design and construction of construction site sediment basins.

Catchments & Creeks Pty Ltd, 2022

Publications, 2016–22

Grant Witheridge, 2016

Le Mans 24-hour 1950 to 2016

Grant Witheridge, 2016, Bargara Queensland.

77 page PDF document

Version 1, August 2016

This pictorial document provides the outright and class winners of the 24 Hours of Le Mans 1950 to 2016.

Grant Witheridge, 2017

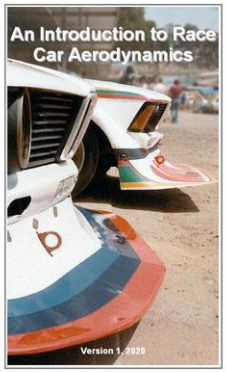
Grand Prix Winners 1966 to 2016

Grant Witheridge, 2017, Bargara Queensland.

153 page PDF document

Version 1, 2017

This pictorial document provides the Formula 1 motor racing Grand Prix winners from 1966 to 2016.



Grant Witheridge, 2020

An Introduction to Race Car Aerodynamics

Grant Witheridge, 2020, Bargara Queensland.

160 page PDF document

Version 1, 2020

An introduction to the aerodynamics of race cars and the fluid mechanics of the air flow associated with race car aerodynamics.

Grant Witheridge, 2022

A Guide to Reproducing 'Real Car Paint' in GT7 using HSV Settings

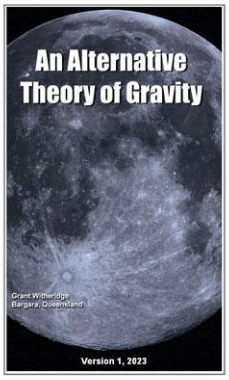
Grant Witheridge, 2022, Bargara Queensland.

160 page PDF document

Version 1, September 2022

The presentation of HSV settings for Real Car Paints to assist Gran Turismo (GT7) Gamers to better utilise the GT Auto / Livery Editor features of GT7.

Publications, 2023



Grant Witheridge, 2023

An Alternative Theory of Gravity

Grant Witheridge, 2023, Bargara Queensland.

80 page PDF document

Version 2, July 2023

Discussion on how fluid mechanics can explain aspects of astrophysics, and help explain the cause of gravity.

This document was replaced with a document titled: ***An Explanation of Gravity as a Force.***

Catchments & Creeks, 2023

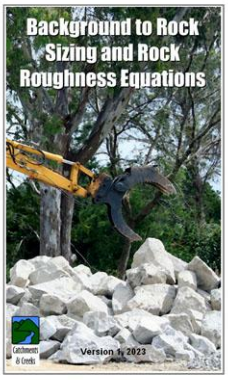
A Public Guide to Storm and Flood Hydrology

Catchments & Creeks Pty Ltd, 2023, Brisbane Queensland.

Version 3 issued August 2023, major update

69 page PDF

This document provides a non-technical pictorial guide to understanding storm and flood hydrology.



Catchments & Creeks, 2023

Background to Rock Sizing and Rock Roughness Equations

Catchments & Creeks Pty Ltd, 2023, Bargara Queensland.

130 page PDF document

Version 1, October 2023

Explanation of how the various rock sizing procedures (as presented in various C&C fact sheets and field guides) were developed, the reference documents. Plus the development of a Manning's roughness equation for deep and shallow water conditions.

Catchments & Creeks, 2023

Rational Method Hydrology

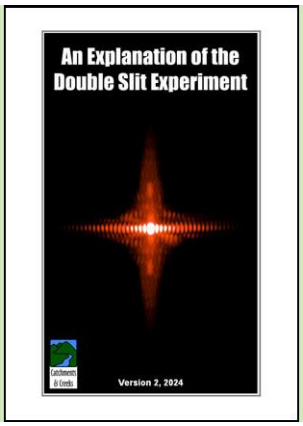
Catchments & Creeks Pty Ltd, 2023, Bargara Queensland.

70 page PDF document

Version 1, November, 2023

A guide to the application of the Rational Method in catchment hydrology.

Publications, 2024



Catchments & Creeks, 2024

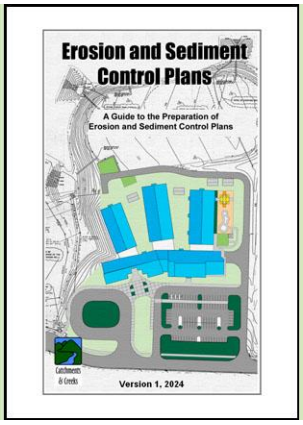
An Explanation of the Double Slit Experiment

Catchments & Creeks Pty Ltd, 2024, Bargara Queensland.

93 page PDF document

Version 2, October 2024

A detailed explanation of how light travels with a shock wave, and how this shock wave explains the outcomes of the double slit experiment and the true (not Einstein) properties of light.



Catchments & Creeks, 2024

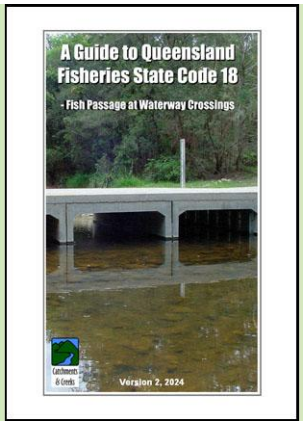
Erosion and Sediment Control Plans – A Guide to the Preparation of Erosion and Sediment Control Plans.

Catchments & Creeks Pty Ltd, 2024, Bargara Queensland.

182 page PDF document

Version 1, June 2024

This document has been prepared specifically to: provide training for ESC practitioners on the preparation of Erosion and Sediment Control Plans, and provide examples of Erosion and Sediment Control Plans (ESCPs).



Catchments & Creeks, 2024

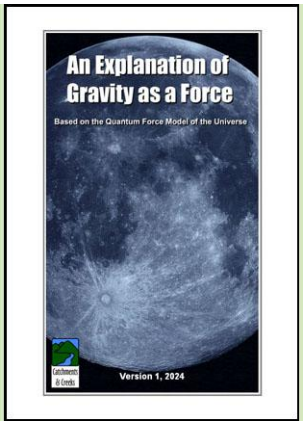
A Guide to Queensland Fisheries State Code 18 – Fish Passage at Waterway Crossings

Catchments & Creeks Pty Ltd, 2024, Bargara Queensland.

88 page PDF document

Version 1, September 2024

An overview of Queensland Fisheries' State Code 18 which deals with fish passage at watercourse crossings. The relevance of this document depends on the continued operation of State Code 18.



Catchments & Creeks, 2024

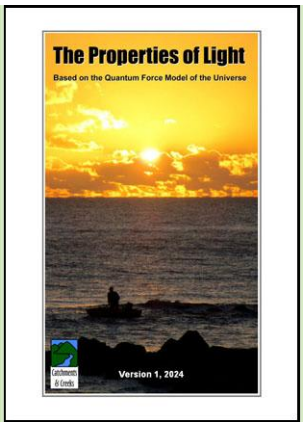
An Explanation of Gravity as a Force – Based on the Quantum Force Model of the Universe.

Catchments & Creeks Pty Ltd, 2024, Bargara Queensland. 25 page PDF document

Version 1, November 2024

An Explanation of Gravity using the Quantum Force Model of the Universe, which demonstrates that gravity is in fact a force, while also demonstrating the errors in Einstein's theories of gravity and curved spacetime.

Publications, 2024–25



Catchments & Creeks, 2024

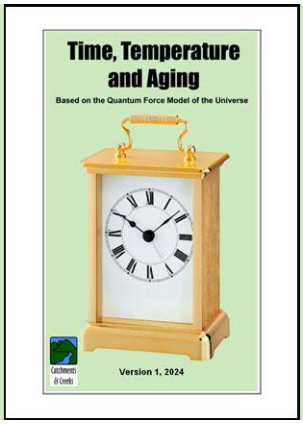
The Properties of Light – Based on the Quantum Force Model of the Universe.

Catchments & Creeks Pty Ltd, 2024, Bargara Queensland.

52 page PDF document

Version 1, November 2024

Discussion of the true (non-Einstein) properties of light as a longitudinal compression wave, including an explanation of the double slit experiment, and the triple filter experiment.



Catchments & Creeks, 2024

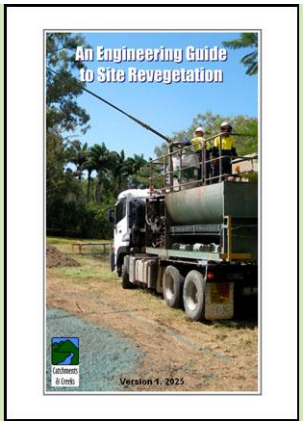
Time, Temperature and Aging – Based on the Quantum Force Model of the Universe.

Catchments & Creeks Pty Ltd, 2024, Bargara Queensland.

10 page PDF document

Version 1, November 2024

This document was replaced by a document titled: ‘The Origin of Time’.



Construction Site Revegetation, 2025

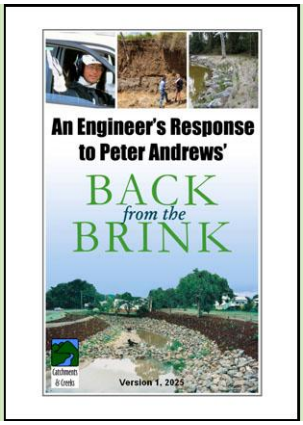
An Engineering Guide to Site Revegetation

Catchments & Creeks, 2025, Bargara Queensland.

97 page PDF document

Version 1, June 2025

This document provides a review of construction site revegetation techniques.



Peter Andrews’ Back from the Brink, 2025

An Engineer’s Response to Peter Andrews’ ‘Back from the Brink’

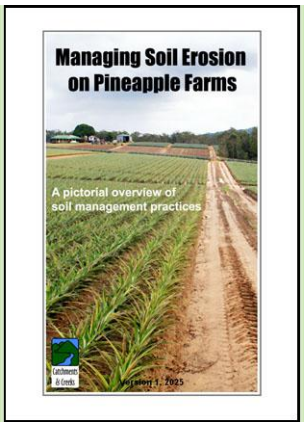
Catchments & Creeks, 2025, Bargara Queensland.

158 page PDF document

Version 1, June 2025

A civil engineer's feedback on the various claims made by Peter Andrews in his successful publication: *'Back from the Brink'.*

Publications, 2025



ESC on Pineapple Farms, 2025

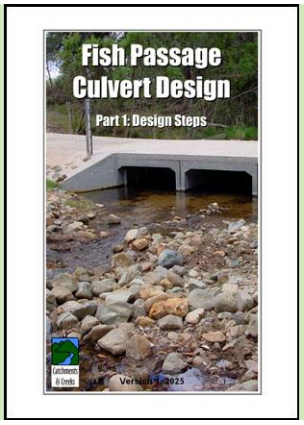
Managing Soil Erosion on Pineapple Farms – A pictorial overview of soil management practices

Catchments & Creeks, 2025, Bargara Queensland.

42 page PDF document

Version 1, June 2025

This pictorial guide discusses the management of stormwater runoff and soil erosion on pineapple farms.



Fish Passage Culvert Design, Part 1

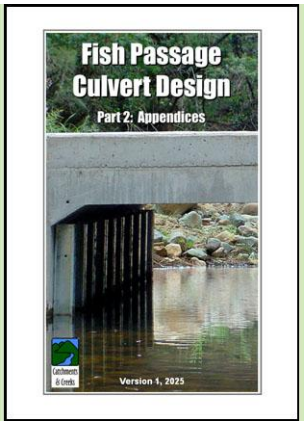
Fish Passage Culvert Design – Part 1: Design Steps

Catchments & Creeks, 2025, Bargara Queensland.

163 page PDF

Version 2, 2026

This document provides an overview of the design of fish friendly waterway culverts. The document presents a stepped procedure for the design of culverts, but does not provide structural design information.



Fish Passage Culvert Design, Part 2

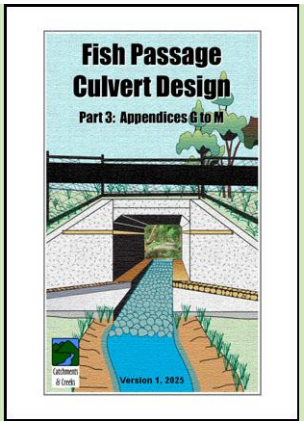
Fish Passage Culvert Design – Part 2: Appendices A to F

Catchments & Creeks, 2025, Bargara Queensland.

135 page PDF

Version 2, 2026

Part 2 of this three-part document provides information on State-specific issues in Australia, and detailed discussion of fish passage baffle design.



Fish Passage Culvert Design, Part 3

Fish Passage Culvert Design – Part 3: Appendices G to K

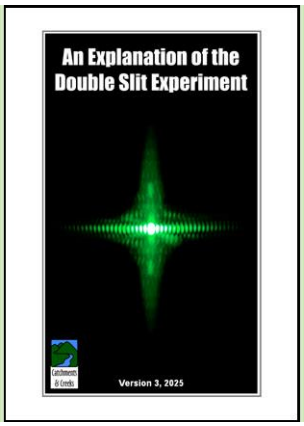
Catchments & Creeks, 2025, Bargara Queensland.

112 page PDF

Version 2, 2026

Part 3 of this three-part document provides information on debris blockage, safety risks at culvert crossings, culverts located in problem soils, terrestrial passage at culvert crossings, and culvert upgrades.

Publications, 2025



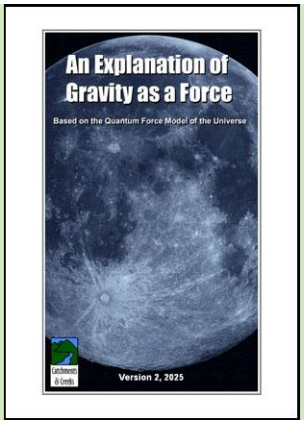
Explanation of the Double Slit V3, 2025

An Explanation of the Double Slit Experiment

Catchments & Creeks, 2025, Bargara Queensland.

Version 3, August 2025

A detailed explanation of how light travels with a shock wave, and how this shock wave explains the outcomes of the double slit experiment and the true (not Einstein) properties of light.



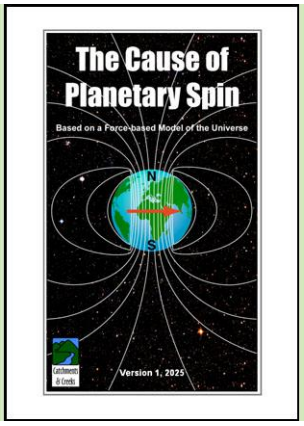
Explanation of Gravity as a Force V2, 2025

An Explanation of Gravity as a Force – Based on the Quantum Force Model of the Universe.

Catchments & Creeks, 2025, Bargara Queensland. 25 page PDF

Version 2, August 2025

An Explanation of Gravity using the Quantum Force Model of the Universe, which demonstrates that gravity is in fact a force, while also demonstrating the errors in Einstein's theories of gravity and curved spacetime.



The Cause of Planetary Spin, 2025

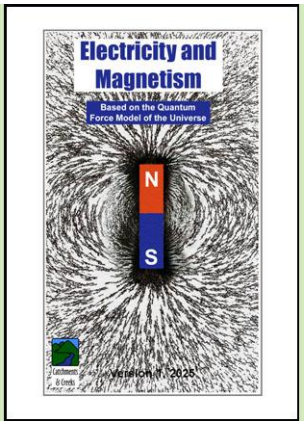
The Cause of Planetary Spin – Based on a Force-based Model of the Universe

Catchments & Creeks, 2025, Bargara Queensland.

Version 1, August 2025

34 page PDF

An explanation of how Earth's magnetic field interacts with Earth's attached quantum forces to cause the planet to spin.



Electricity and Magnetism, 2025

Electricity and Magnetism – Based on a Force-based Model of the Universe

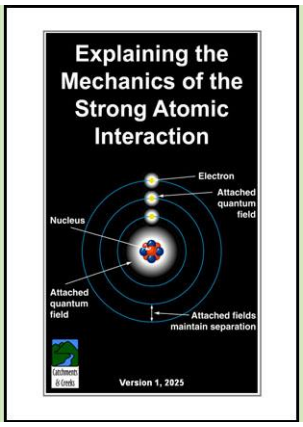
Catchments & Creeks, 2025, Bargara Queensland.

Version 1, August 2025

66 page PDF

A discussion on how a force-based model of the universe can be used to explain the properties of electricity and magnetism, which ends with an explanation of the cause of planetary spin.

Publications, 2025



The Strong Atomic Interaction, 2025

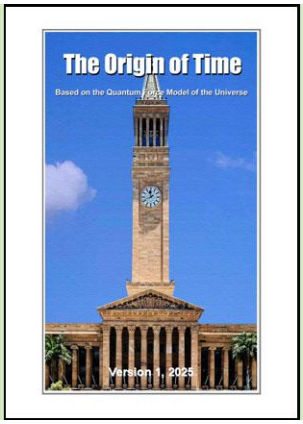
Explaining the Mechanics of the Strong Atomic Interaction

Catchments & Creeks, 2025, Bargara Queensland.

Version 1, August 2025

47 page PDF

An explanation of the strong atomic interaction based on a force-based model of the universe filled with quantum forces as the building blocks of the universe.



The Origin of Time, 2025

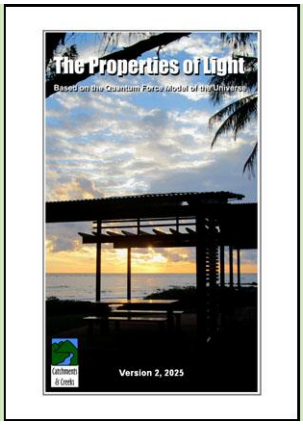
The Origin of Time – Based on a Force-based Model of the Universe

Catchments & Creeks, 2025, Bargara Queensland.

Version 1, August 2025

31 page PDF

A possible explanation of the role that time plays in astrophysics that does not require it to be a 'real' property of space, which shows how the assumed time-velocity relationship is actually a 'speed of causality' vs velocity relationship.



The properties of Light V2, 2025

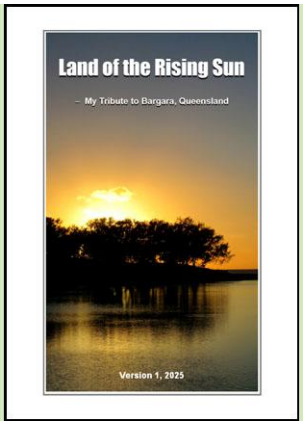
The Properties of Light – Based on the Quantum Force Model of the Universe.

Catchments & Creeks, 2025, Bargara Queensland.

Version 2, August 2025

52 page PDF

Discussion of the true (non-Einstein) properties of light as a longitudinal compression wave, including an explanation of the double slit experiment, and the triple filter experiment.



Land of the Rising Sun, 2025

Land of the Rising Sun

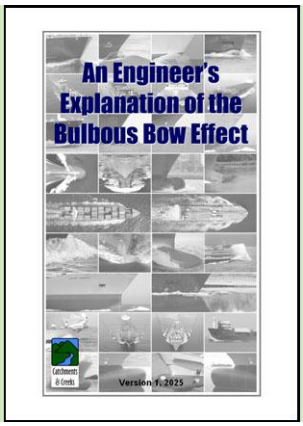
Catchments & Creeks, 2025, Bargara Queensland.

Version 1, October 2025

30 page PDF

A tribute the sun rises over the Wide Bay, Bargara, Queensland fro 2019 to 2025.

Publications, 2025



The Bulbous Bow Effect, 2025

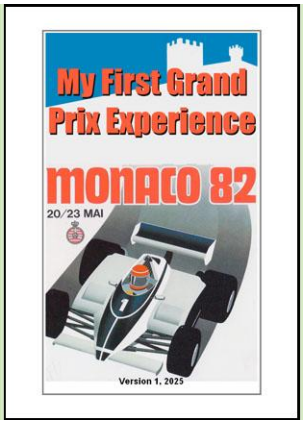
An Engineer's Explanation of the Bulbous Bow Effect

Catchments & Creeks, 2025, Bargara Queensland.

Version 3, March 2026

60 page PDF

An explanation of the hydraulic mechanics of a bulbous bow on ships as presented by a water engineer. This explanation is a odds to the currently reported explanation of the bulbous bow effect.



My First Grand Prix Experience, 2025

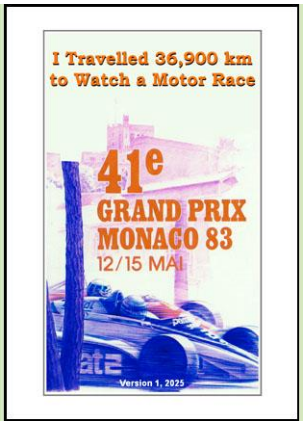
My First Grand Prix Experience, Monaco 82

Grant Witheridge, Bargara, Queensland.

Version 1, October 2025.

27 page PDF

A pictorial review of my first attendance at a Grand Prix, that being Monaco in 1982.



I Travelled 36,900 km to a Motor Race

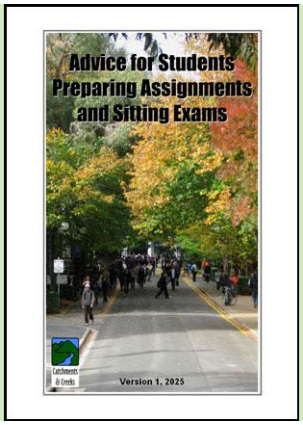
I Travelled 36,900 km to Watch a Motor Race – 41e Grand Prix Monaco 83

Grant Witheridge, Bargara, Queensland.

Version 1, October 2025.

27 page PDF

A pictorial reflection of my travels from Sydney, Australia to Monaco, and return, in order to watch the 1983 Monaco Grand Prix.



Advice for Students Sitting Exams, 2025

Advice for Students Preparing Assignments and Sitting Exams

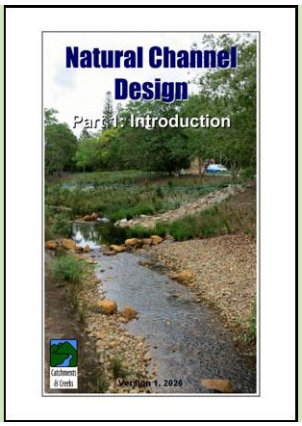
Catchments & Creeks, 2025, Bargara Queensland.

Version 1, October 2025

25 page PDF

Advice for university students on the preparation of assignments and the sitting of exams, and the application of a 'customer focus' while at university.

Publications, 2026



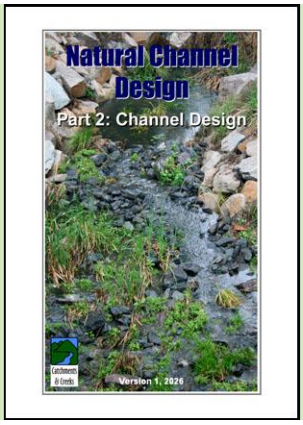
Natural Channel Design, Part-1, 2026

Natural Channel Design, Part 1 – Introduction

Catchments and Creeks, 2026, Bargara, Queensland.

89 page (colour) PDF document

Introduces the philosophy of Natural Channel Design (NCD). Introduced the different types of waterway projects that can benefit from the principles of Natural Channel Design. Discusses the potential steps involved in the planning of creek rehabilitation projects. And discusses the issues that should be addressed within waterway management policies.



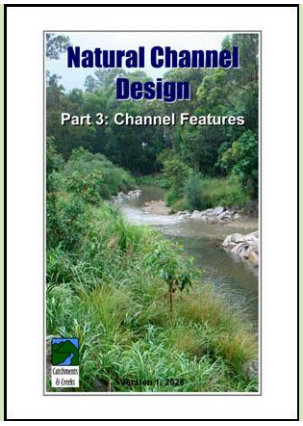
Natural Channel Design, Part-2, 2026

Natural Channel Design, Part 2 – Channel Design

Catchments and Creeks, 2026, Bargara, Queensland.

176 page (colour) PDF document

Part 2 provides guidance on the design of vegetated drainage channels; repairing flood damaged waterways; the hydraulics of natural waterways; the properties of rock; and the design of fish-friendly bed stabilisation structures.



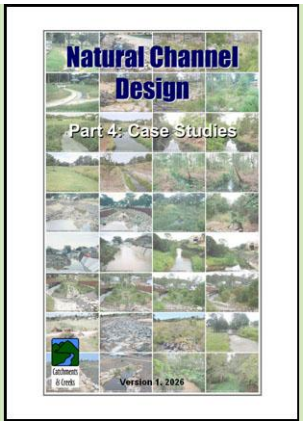
Natural Channel Design, Part-3, 2026

Natural Channel Design, Part 3 – Channel Features

Catchments and Creeks, 2026, Bargara, Queensland.

158 page (colour) PDF document

Part 3 provides general information on channel features and creek engineering.



Natural Channel Design, Part-4, 2026

Natural Channel Design, Part 4 – Case Studies

Catchments and Creeks, 2026, Bargara, Queensland.

79 page (colour) PDF document

This document provides case studies on Natural Channel Design projects, creek rehabilitation projects, and the management of river systems.