



Type A, B and D Sediment Basin Design Course



Course overview

Topo's Type A, B & D sediment basin design course has been developed to support the finalised Appendix B (IECA, 2018) document and updated State Planning Policy (Qld). The 1 day course (8 PDUs) is focussed at practitioners responsible for the design and/or construction of sediment basins.

The course will provide attendees with valuable design, construction and operational insight into sediment basins including the newly adopted Type A, B & D basins. Aspects covered will include how to size sediment basin varieties (including using Topo's design tool), how to select appropriate coagulants and flocculants, how to maximise basin performance and efficiency and how to adapt to constrained site conditions.

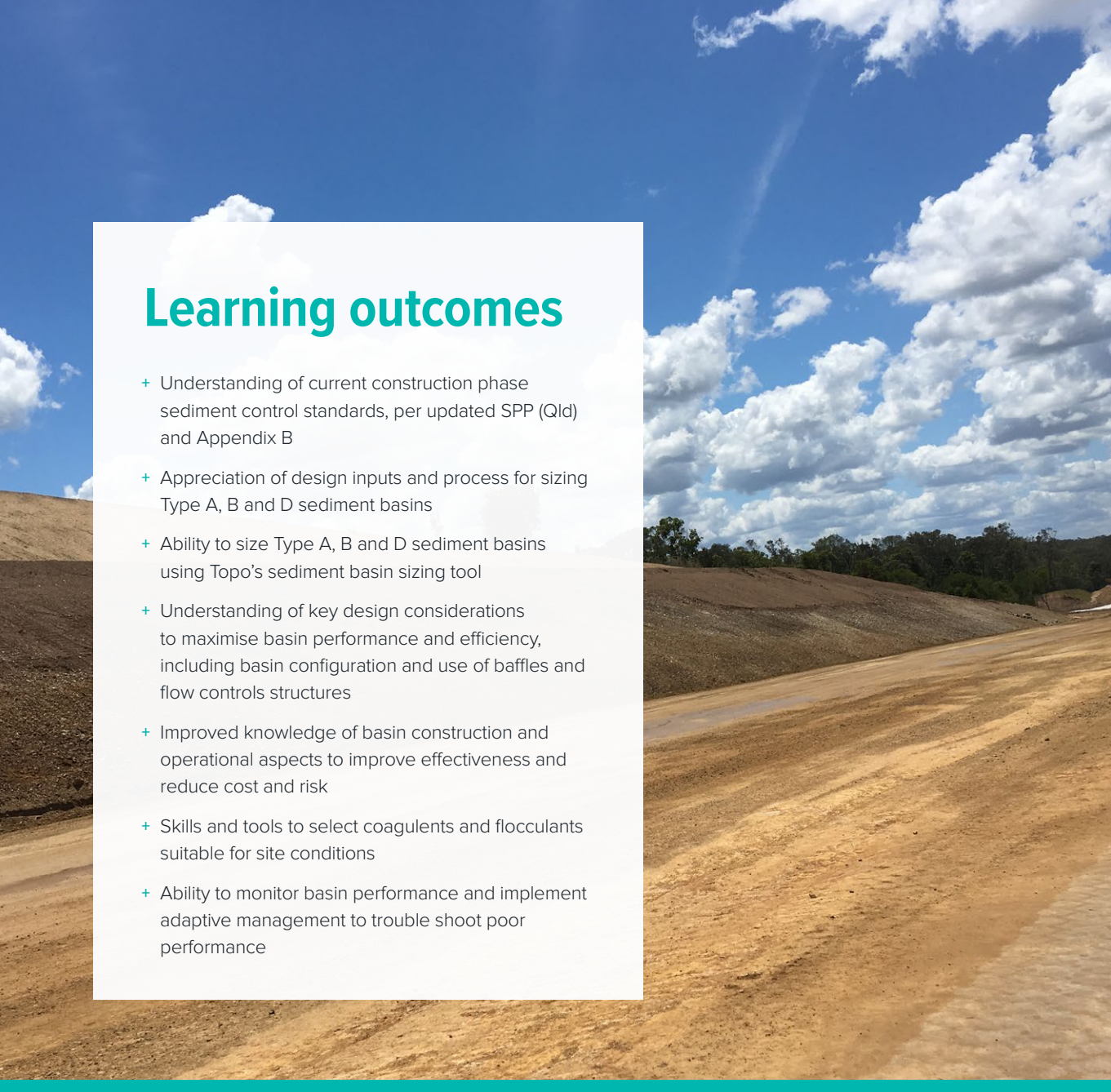
Attendees will gain an in-depth understanding of key design and operational parameters. The course will also provide guidance on construction and operation of Type A, B & D sediment basins, building on performance assessment and troubleshooting tools provided in the Appendix B document.

Each attendee will be supplied with a copy of Topo's free sediment basin sizing tool as well as a jar testing kit to assist in selection and use of coagulants and flocculants. Our presenters will provide insight based on experience of designing and operating Type A, B & D basins to assist designers and operators in improving design and effectiveness of sediment basins whilst reducing risk and cost.

[View course dates & secure your spot for
Type A, B & D sediment basing design course here →](#)

Learning outcomes

- + Understanding of current construction phase sediment control standards, per updated SPP (Qld) and Appendix B
- + Appreciation of design inputs and process for sizing Type A, B and D sediment basins
- + Ability to size Type A, B and D sediment basins using Topo's sediment basin sizing tool
- + Understanding of key design considerations to maximise basin performance and efficiency, including basin configuration and use of baffles and flow controls structures
- + Improved knowledge of basin construction and operational aspects to improve effectiveness and reduce cost and risk
- + Skills and tools to select coagulents and flocculants suitable for site conditions
- + Ability to monitor basin performance and implement adaptive management to trouble shoot poor performance





Course program

1. INTRODUCTION

- + 'Why' sediment basin standards have changed
- + 'What' are the current basin standards specified within various specifications and guidelines and what do they mean for your site
- + 'What' the change in standards mean (80th%ile five day event Vs 80% hydrological effectiveness)
- + Overview of sediment basin options (Type A, B & D) to achieve new design standards
- + Basin selection and design triggers

2. BASIN DESIGN

- + Process for sizing Type A, B and D sediment basins
- + Designing basin inlet arrangements, including forebays and level spreaders
- + Designing basin outlets, including decants, risers and emergency spillways
- + Discussion of key design paramters to maximise performance and reduce potential for resuspension and short-circuiting, including clear water zone and baffles
- + Comparison of sizing for Type A, B and D basins

3. COAGULENTS AND FLOCCULANTS

- + Coagulation and flocculation process
- + Coagulant and flocculant types and effectiveness
- + How to determine what to use (attendee excercise to perform jar tests)
- + Active and passive dosing

4. BASIN OPERATION

- + Dosing systems (rainfall activated Vs flow activated)
- + Adaptive management and trouble shooting
- + Retro fitting existing basins and storage structures
- + Basin decommissioning

Course presenter

KYLE ROBSON

Kyle is recognised as a specialist and thought leader in the field of erosion and sediment control and has been involved in some of the largest projects in Australia, as well as policy and industry guideline preparation. Kyle is a Registered Professional Engineer of Queensland (RPEQ) and Certified Professional in Erosion and Sediment Control (CPESC). In addition, he is a former President of the Australasian Sector of the International Erosion Control Association (IECA).



Kyle has been at the forefront of high efficiency sediment basin design in Australia and was the Project Manager and member of the Technical Committee responsible for producing the revision of Appendix B, Sediment Basin Design and Operation (IECA, 2018). Kyle has presented a range of training courses and delivered a number of technical talks at industry events. He has also written and subsequently had published a paper titled “An assessment of the performance of current best practice sediment basins Vs high efficiency sediment basins based on modelling and field studies”.

Course fees

PUBLIC COURSE

- + Attendance at one of the advertised courses
- + Limited to 15 attendees
- + All training resources including course notes, copy of Topo's sediment basin sizing tool and a jar testing kit
- + Includes venue hire and catering (morning tea, lunch and refreshments)
- + Certificate of attendance (8 PDUs)

+ **\$750/person ex gst**

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