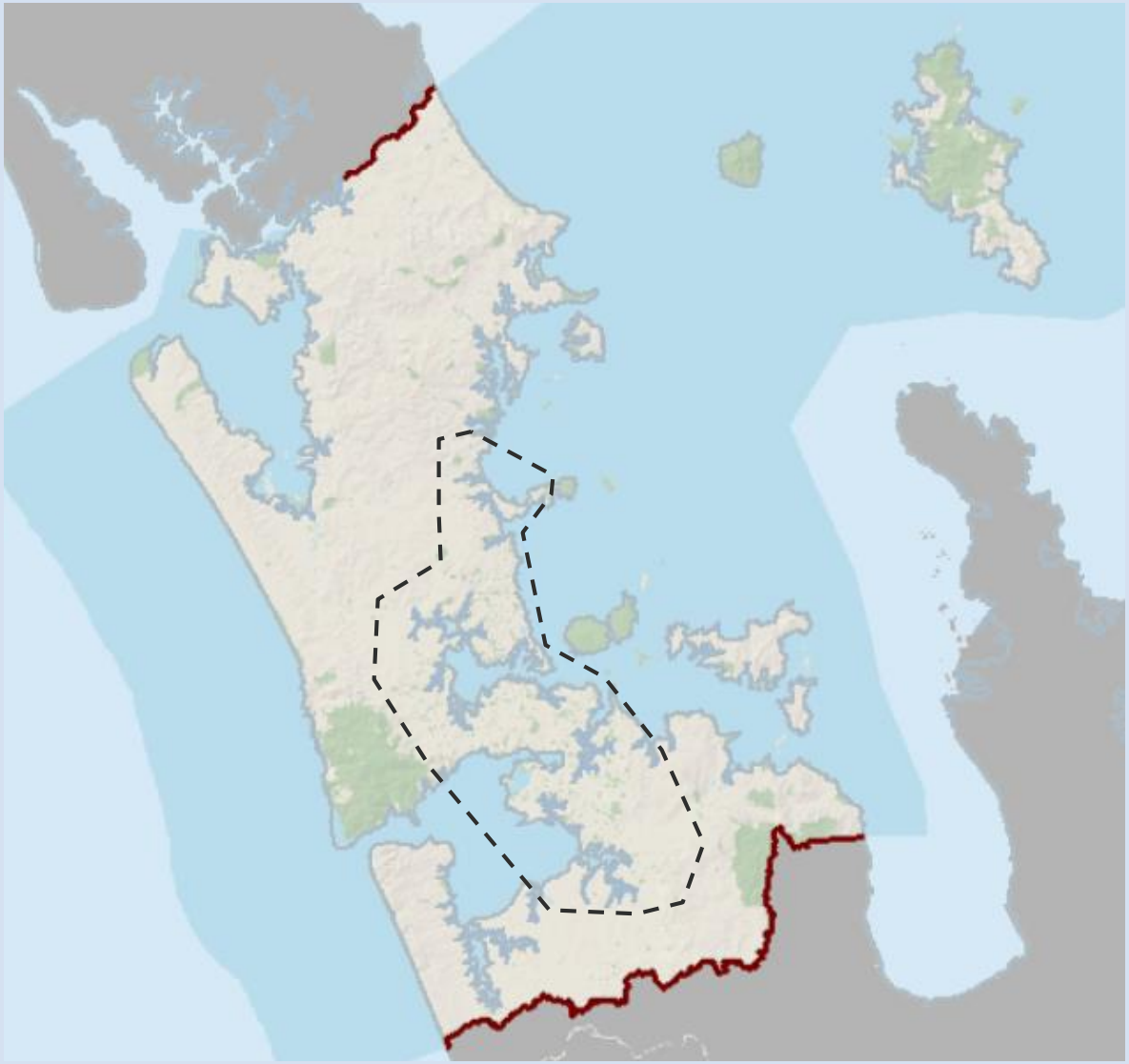
GD05

The new TP90 Erosion and Sediment Control Guideline

Michael Parsonson
SouthernSkies

Bridget Wild
Auckland Council



CREATING THE WORLD'S MOST LIVEABLE CITY

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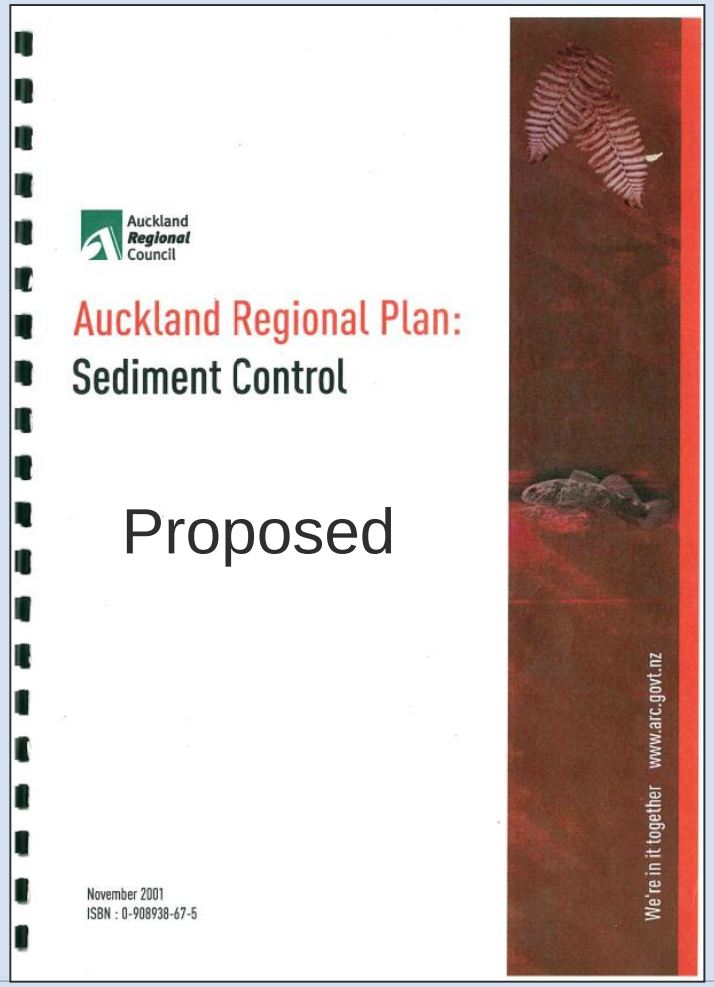
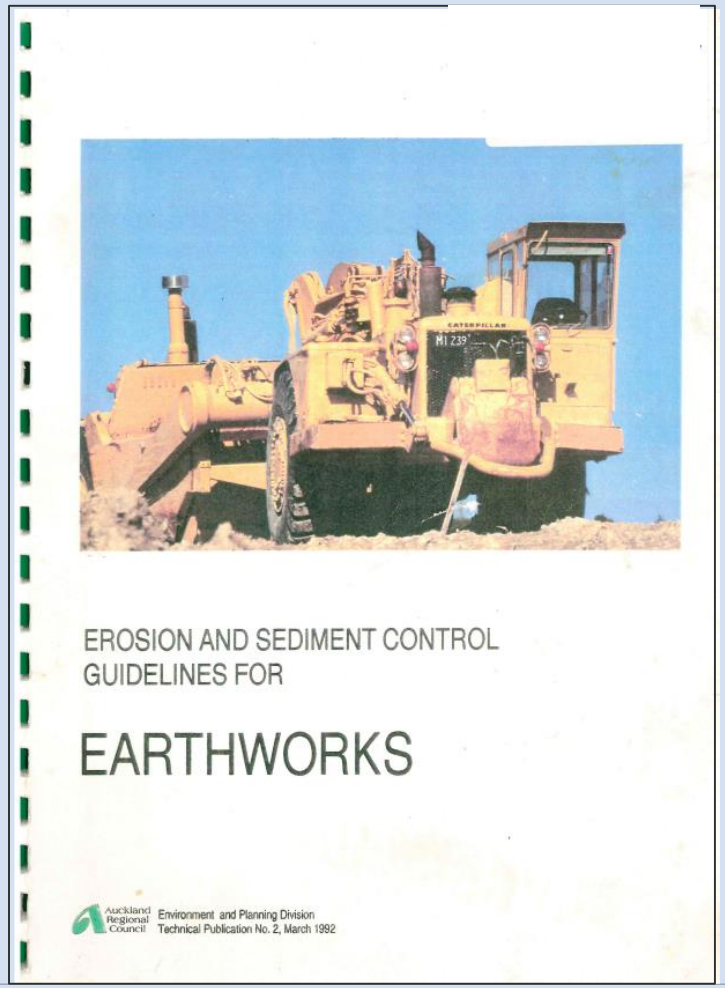
Development Pressure

- Late 1980s – early 1990s
- Coincided with RMA 1991

1992


Auckland Regional Council
Auckland Regional Plan:
Sediment Control
Proposed
November 2001
ISBN : 0-908938-67-5
We're in it together www.arc.govt.nz


EROSION AND SEDIMENT CONTROL
GUIDELINES FOR
EARTHWORKS
Auckland Regional Council
Environment and Planning Division
Technical Publication No. 2, March 1992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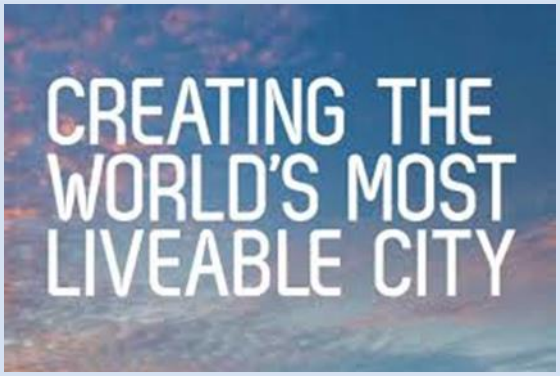
09/02/2016 14:35

Auckland Regional Council 1995 – 2005



- Sediment Management Programme
  - Policy/Regulation/Education/Investigation
- All functions managed / coordinated by single team.
- Resource consents processed and monitored by same people.
- Programme funded by charges

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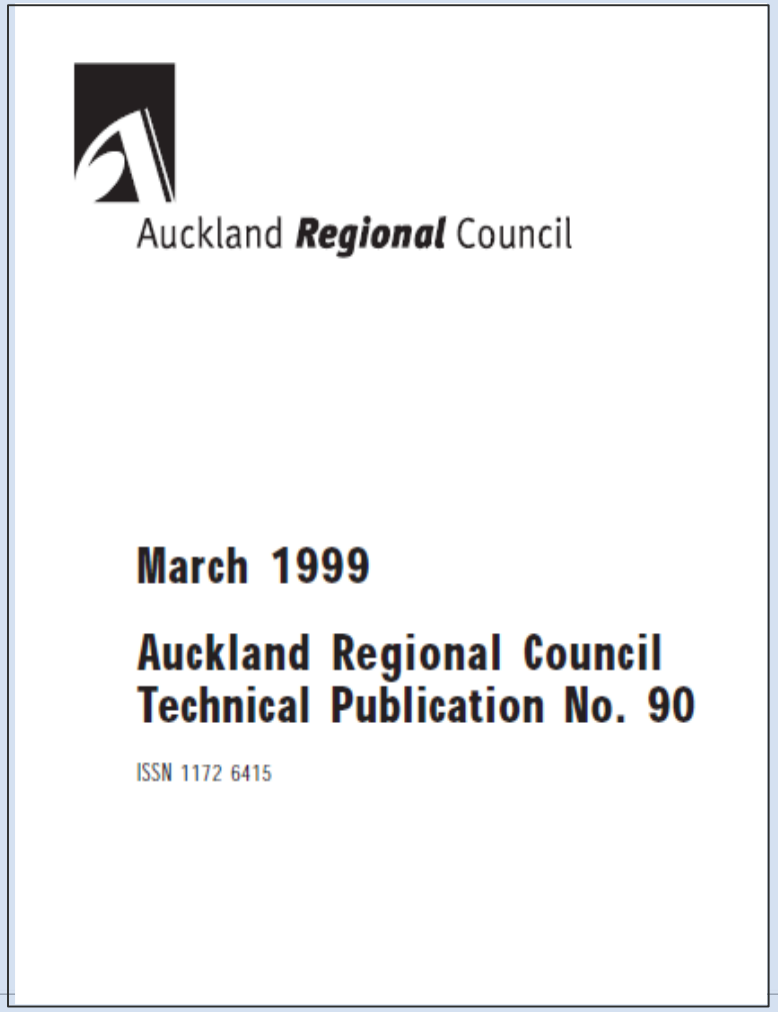
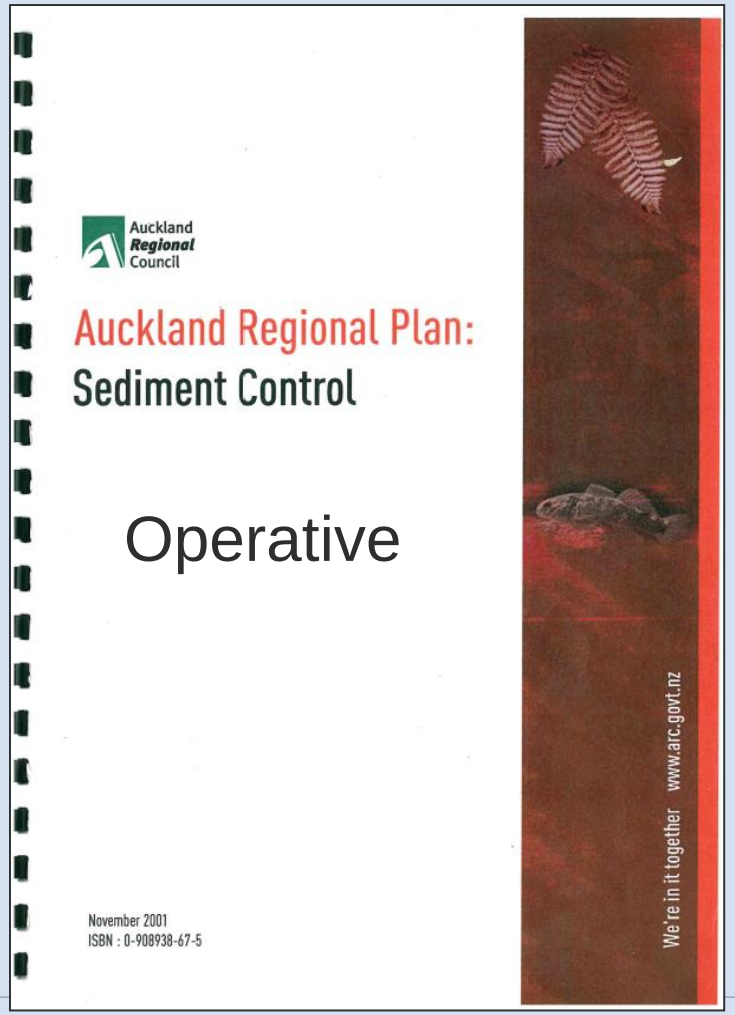
1999 - 2001


Auckland Regional Council
March 1999
Auckland Regional Council
Technical Publication No. 90
ISSN 1172 6415


Auckland Regional Council
Auckland Regional Plan:
Sediment Control
Operative
November 2001
ISBN : 0-908938-67-5
We're in it together www.arc.govt.nz

1999 - present

- Ongoing education and compliance monitoring
- Progressive development and refinement of ESC best practice
- Leveraging off large infrastructure and development projects and contractors
- Industry ownership of ESC
- Council amalgamation 2010

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Auckland Regional Council
TE RAUHITANGA TAIAO

The Use of Flocculants and Coagulants to Aid the Settlement of Suspended Sediment in Earthworks Runoff : Trials, Methodology and Design [draft]

June 2004 Technical Publication 227

Auckland Council

2013 / 2016


Auckland Council
THE PROPOSED AUCKLAND
UNITARY PLAN
NOTIFIED 30 SEPTEMBER 2013
PROPOSED AUCKLAND UNITARY PLAN
PLANNING ENQUIRY
HELP
AUCKLAND DESIGN MANUAL
TEXT
MAPS
PRINT VERSION
Home page
Mayor's Foreword
Table of contents
PART 1 - INTRODUCTION AND STRATEGIC DIRECTION
Chapter A: Introduction
Chapter B: Regional Policy Statement - Kupu Kaupapa ā-Rohe
PART 2 - REGIONAL AND DISTRICT OBJECTIVES AND POLICIES
Chapter C: Auckland-wide objectives and policies
Chapter D: Zone objectives and policies
Chapter E: Overlay objectives and policies
Chapter F: Precinct objectives and policies
PART 3 - REGIONAL AND DISTRICT RULES
Chapter G: General provisions
Chapter H: Auckland-wide rules
Chapter I: Zone rules
Chapter J: Overlay rules
Chapter K: Precinct rules
PART 4 - DEFINITIONS
Interpreting the definitions
Abbreviations and acronyms
Nesting tables
A
B
C
D
E
F
G
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I
Home page
Home page
The Proposed Auckland Unitary Plan text (notified 30th September 2013, updated 16th March 2016)
The electronic text enables you to view the Proposed Auckland Unitary Plan provisions for activities and development in the Auckland region. For a simple explanation of what the zones, precincts and overlays mean for you, click here.
We have also provided html versions of the plan for users accessing the plan using screen reading software.
How to use this tool:
1. The left hand pane shows the table of contents of the Proposed Auckland Unitary Plan. By clicking on the symbols, you can navigate through the plan to view whole sections or individual pages. When you click on a page title in the table of contents, the sub pages of that section will be shown.
To view the text on those pages, please click on the icon in the tool bar above.
2. You can search the Proposed Auckland Unitary Plan for specific terms or topics. The search function will show you:
a. any definitions that match your searched term
b. any page headers that include your searched term
c. all content on pages that match your searched term.
3. You can save any section of the Proposed Auckland Unitary Plan and print it by clicking on the icon in the tool bar above. For ready-made PDF and HTML versions of the plan, click here.
4. To bookmark your search, select the icon above.
Planning Enquiry
If you would like to use the Planning Enquiry, you can click here. For more information on the Planning Enquiry, a how-to guide has been developed.
You have reached the end of the page.
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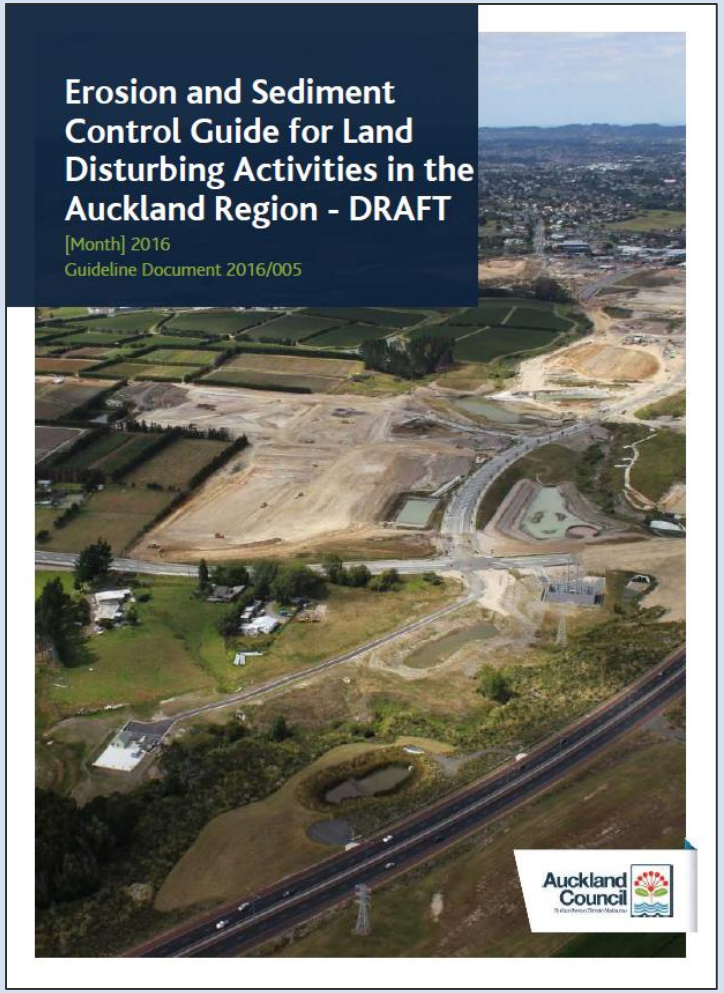
Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region - DRAFT
[Month] 2016
Guideline Document 2016/005
Auckland Council

Project Overview

- Scope of the rewrite

  Prepare a new technical guidance document for erosion and sediment control (ESC) for land disturbing activities in the Auckland region.

- Objectives

  Provide a user-friendly guidance document, which provides practical methodologies and technologies, suitable for the current market and (ideally) proven to work in the field of ESC.

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Evolution not Revolution

- GD05 reflects current industry best-practice
- Incorporates measures now being implemented within Auckland and elsewhere
- Updates format and document style (Ecan e.g.)
- Recognises new and proprietary technologies

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The process


PHASE A
PRE-DRAFTING
National and international comparison and gap analysis
Industry pre-drafting consultation workshop
Define scope and content of guideline (including peer and Council review)
PHASE B
DRAFT GUIDELINE
Drafting by project team
Peer review
Auckland Council project team review
PHASE C
POST DRAFTING CONSULTATION
Auckland Council stakeholder review workshop
External industry workshop
PHASE D
FINAL GUIDELINE
Consider feedback and revise draft
90% peer review
Finalise guideline
FUTURE UPDATES AS REQUIRED

So what's changed?

- Designed for web access with sections and links e.g. Unitary Plan
- A new 2-part structure
  - Principles
  - Techniques and Practices
- Lots of colour – more photos

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Contents

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Principles

- Focus on designers
- Identification of project and site parameters
- ESC principles and options

So what's changed?

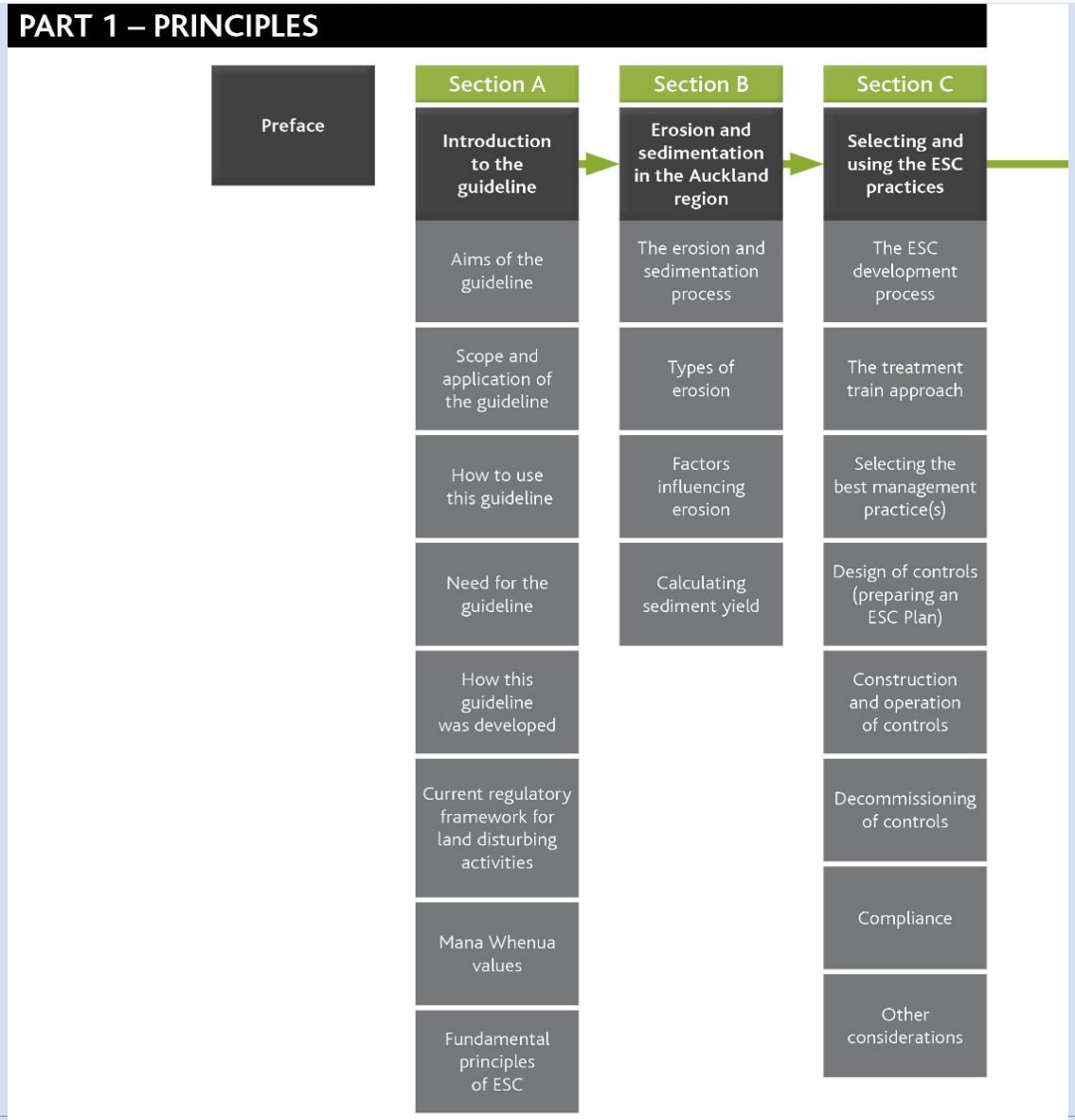


Figure 1a Guideline structure and content – Part 1

Structure

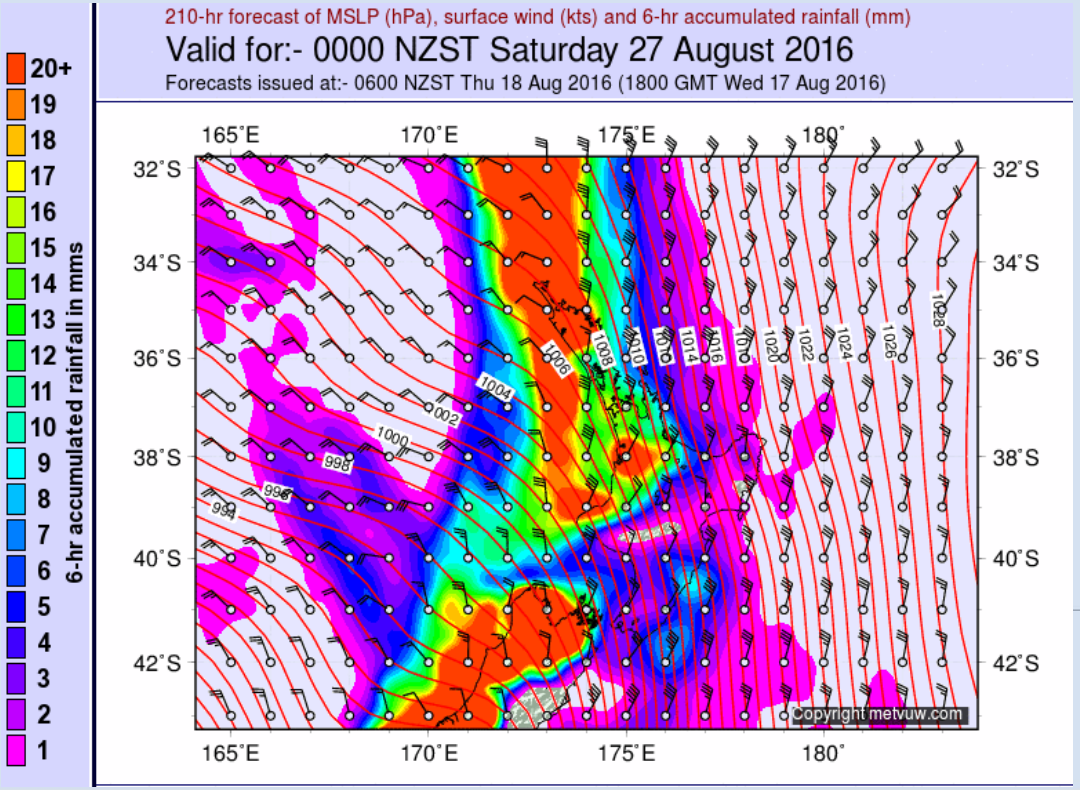
- Guideline 2 part structure
  - split between users; designers/engineers and constructors
- Design content includes more background detail
- Constructor content is in “how to” format

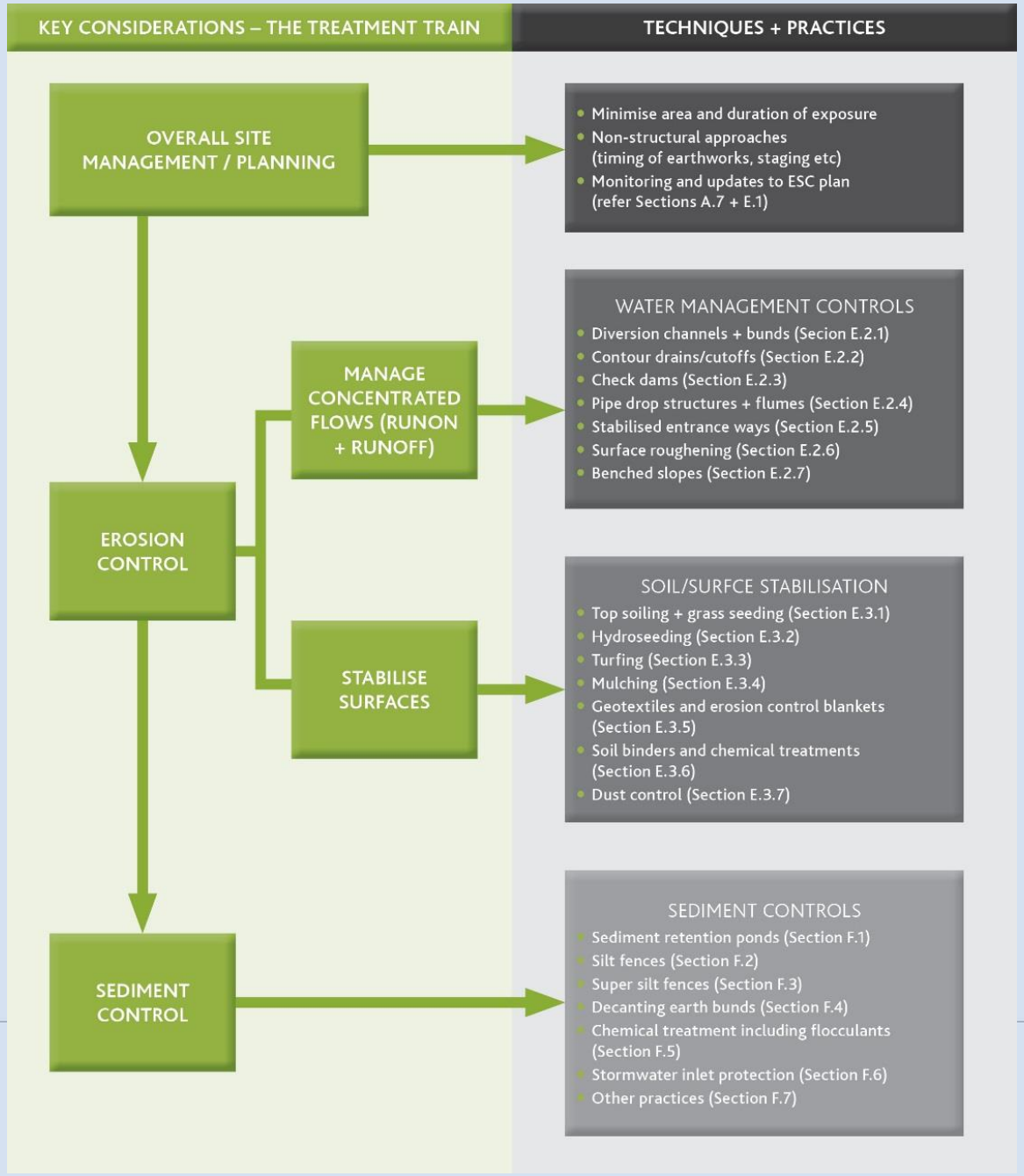
Fundamental principles

Principles largely unchanged – but more emphasis on non-structural approaches

- Protect the perimeter
  - cleanwater diversions
- Plan for a “treatment train” approach
- Overall site management

- Working to the conditions
  - Both site and weather
- Minimise open area and stage site disturbance
  - Protect slopes and watercourses
    - Stabilise – ASAP and on going





New flowcharts

This one to help select the best practice treatment option(s)

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Practices

- Sizing and construction of individual ESC practices and measures
- Contractor focused
- Specific activities

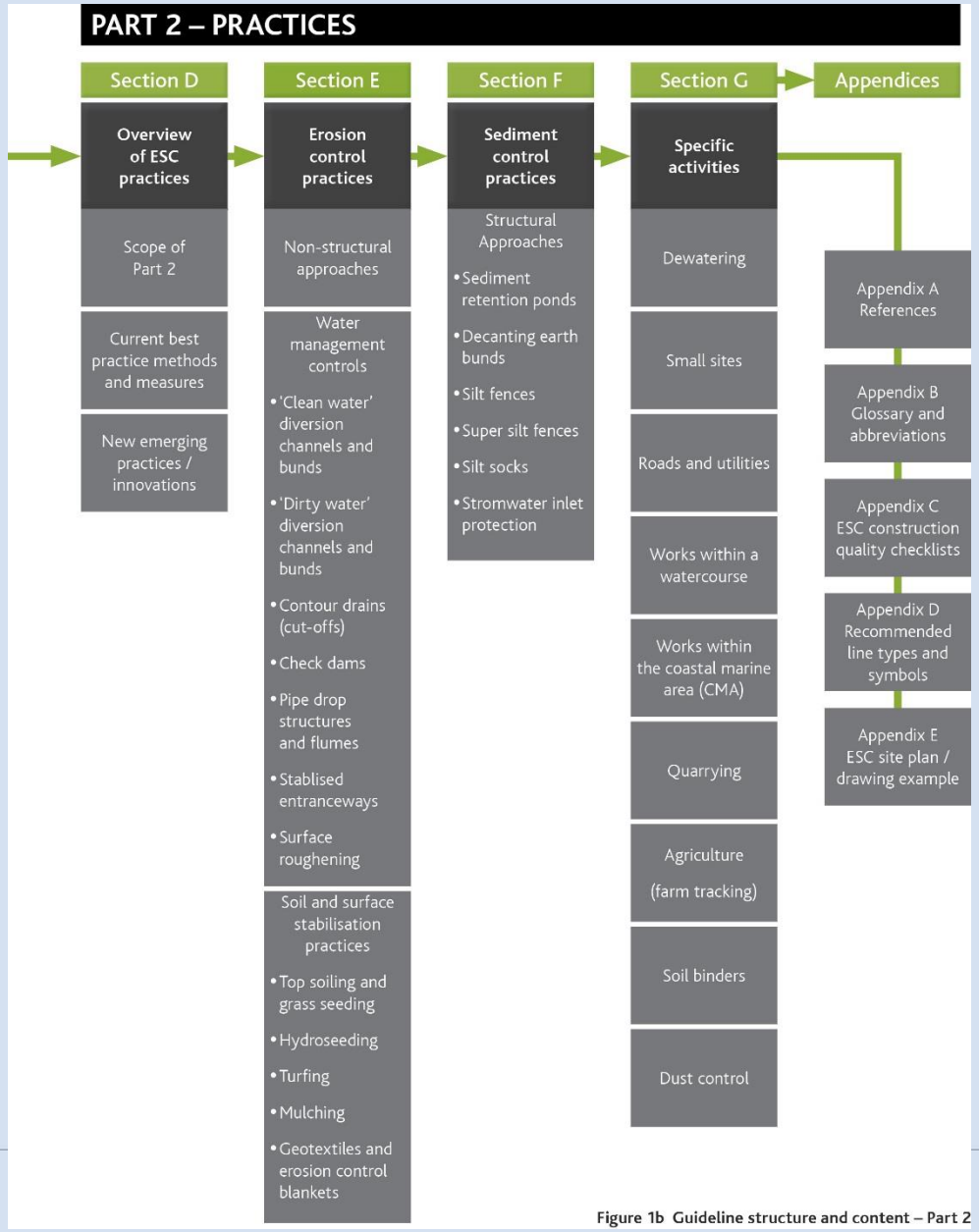
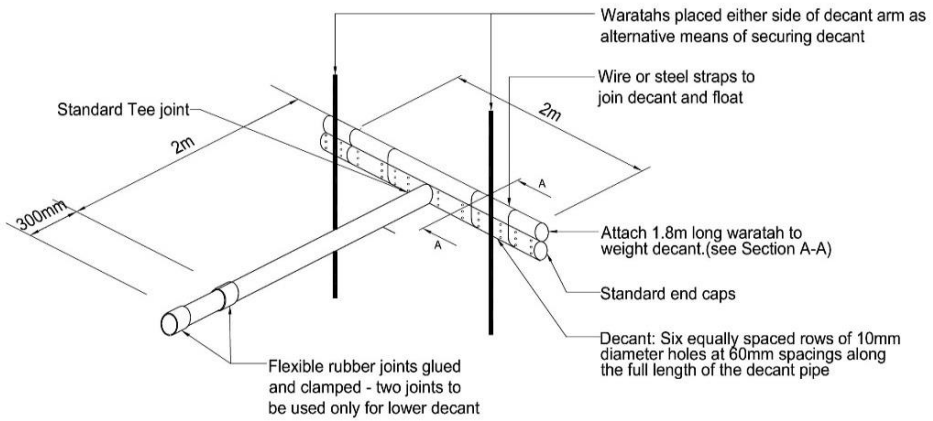
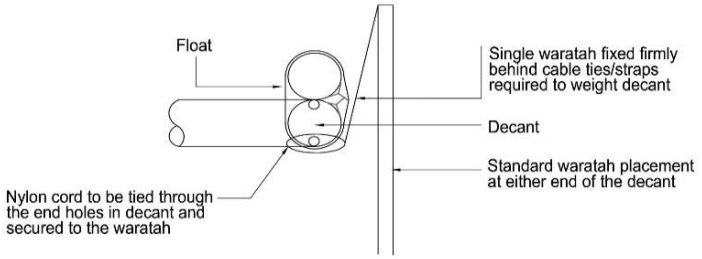


Figure 1b Guideline structure and content – Part 2

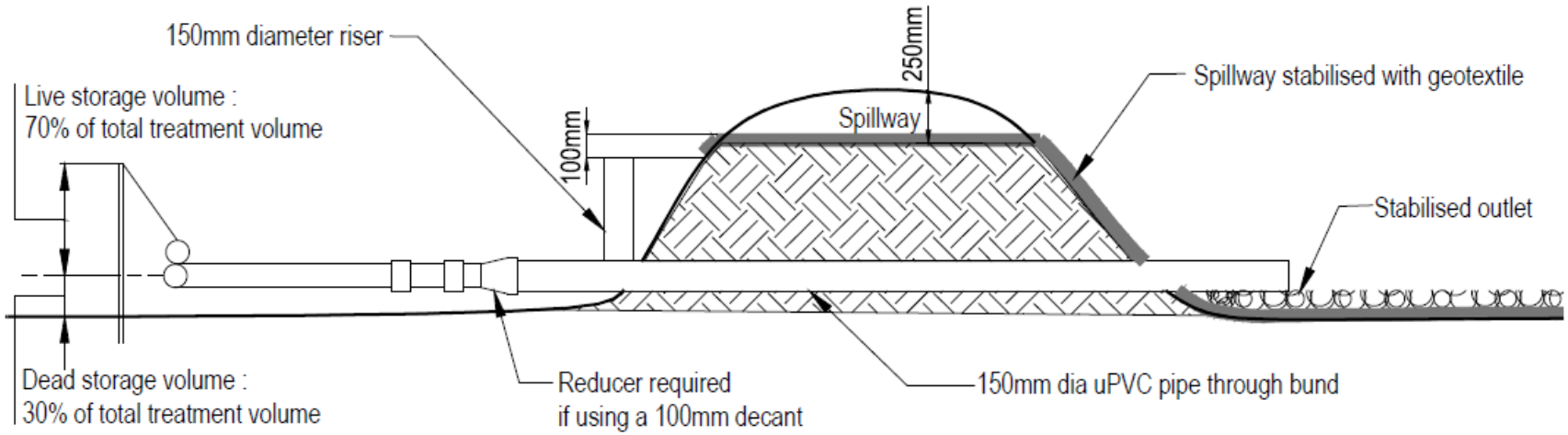
Decanting Earth Bunds (DEB)

- Inclusion of recent advancements in best practice
- Flocculant treatment
- T-bars and riser
- Sizing for the catchment 1% or 2%
- 3:1 length to width ratio
- Minimum width
- “Mini pond”
- All designed to increase efficiency

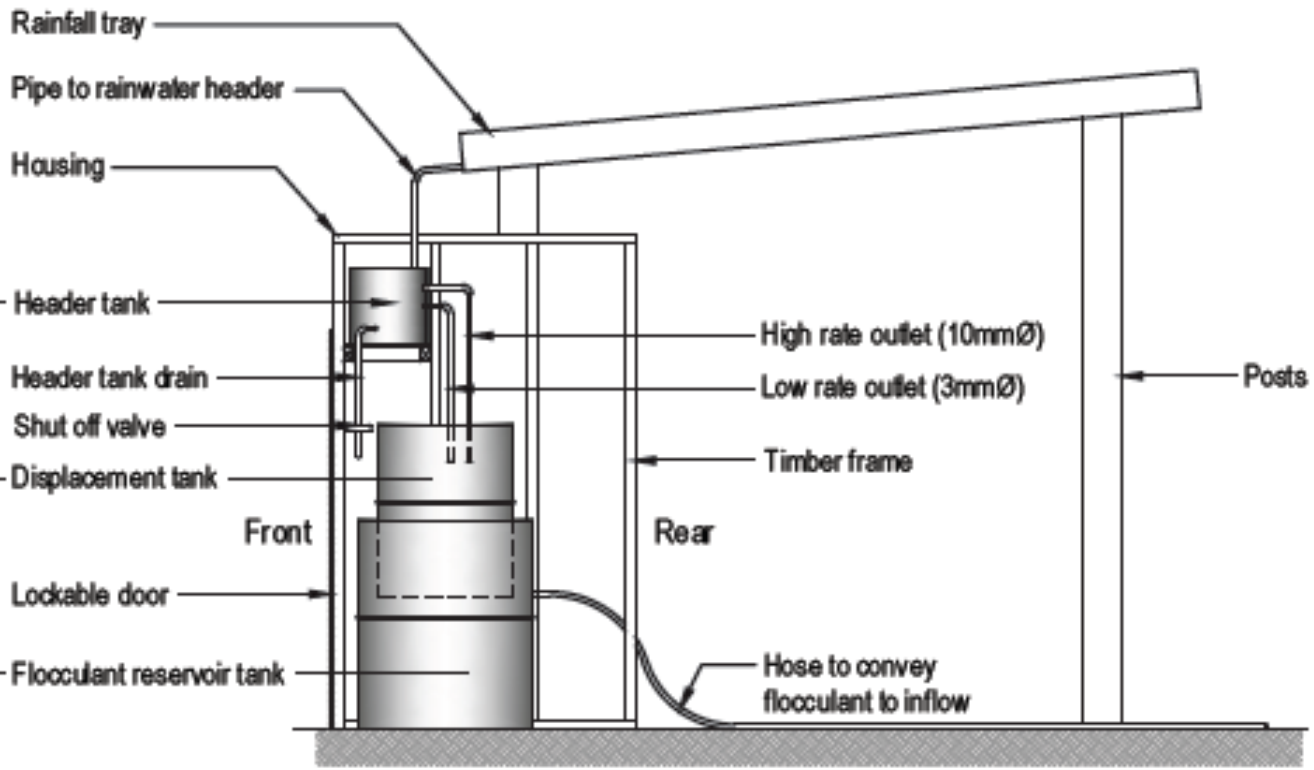

Waratahs placed either side of decant arm as alternative means of securing decant
Wire or steel straps to join decant and float
Standard Tee joint
2m
2m
300mm
A
A
Attach 1.8m long waratah to weight decant.(see Section A-A)
Standard end caps
Decant: Six equally spaced rows of 10mm diameter holes at 60mm spacings along the full length of the decant pipe
Flexible rubber joints glued and clamped - two joints to be used only for lower decant


Float
Single waratah fixed firmly behind cable ties/straps required to weight decant
Decant
Standard waratah placement at either end of the decant
Nylon cord to be tied through the end holes in decant and secured to the waratah

Section A-A



Cross - section



Rain Activated Treatment System

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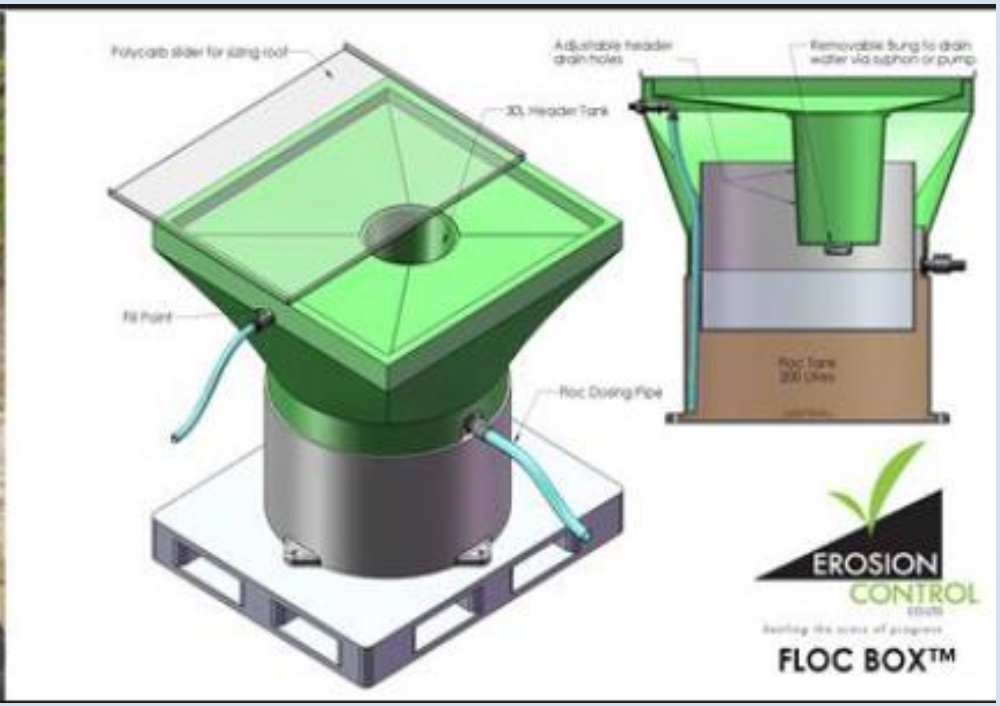
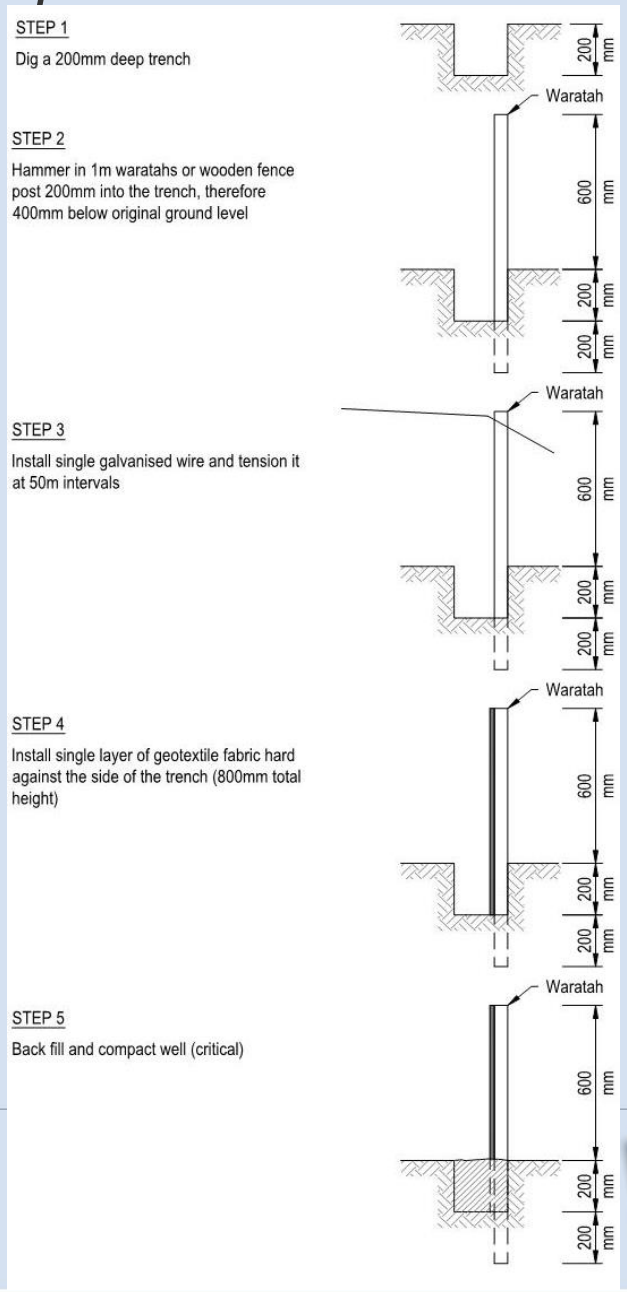
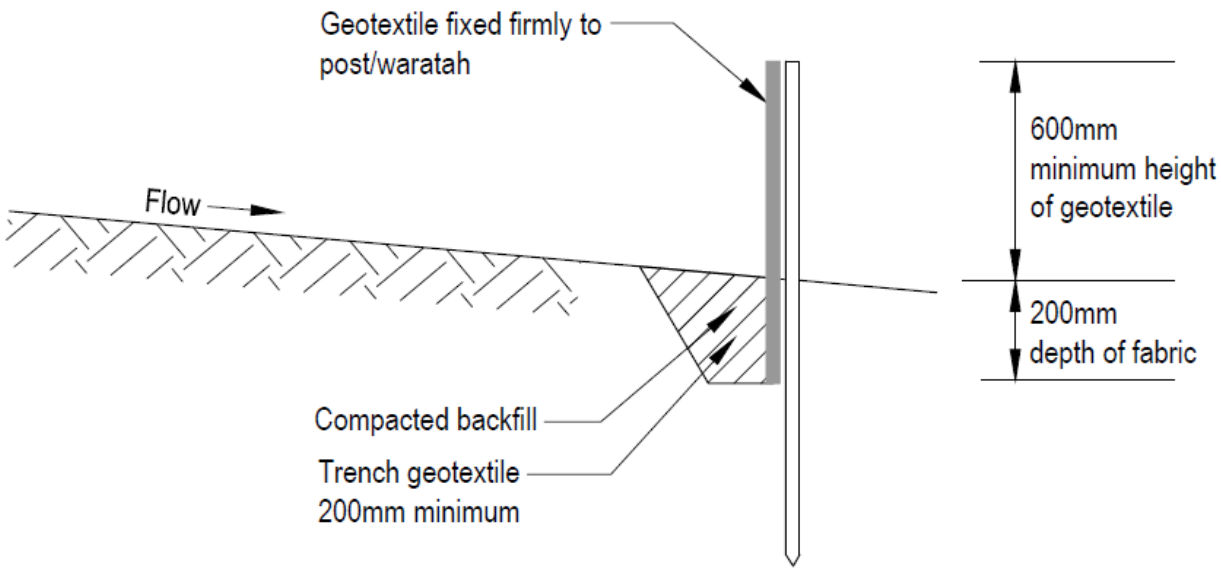

Polycarb slider for sizing roof
Adjustable header drain holes
Removable flung to drain water via syphon or pump
30L Header Tank
Fill Point
Floc Dosing Pipe
Floc Tank
200 Litres
EROSION
CONTROL
FLOC BOX™

Steps to install a silt fence

Practical and clear guidance

- Flowcharts
- Photos
- Diagrams
- Checklists
- Examples





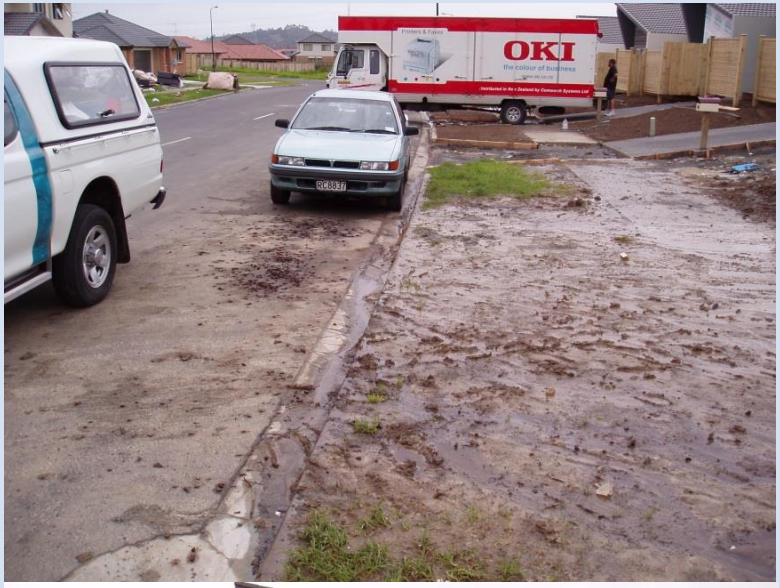
Cross - section

Guidance on specific land disturbing activities

- Dewatering
- Dust management
- Roads and utilities
- Small sites
- Farm tracks

Small sites

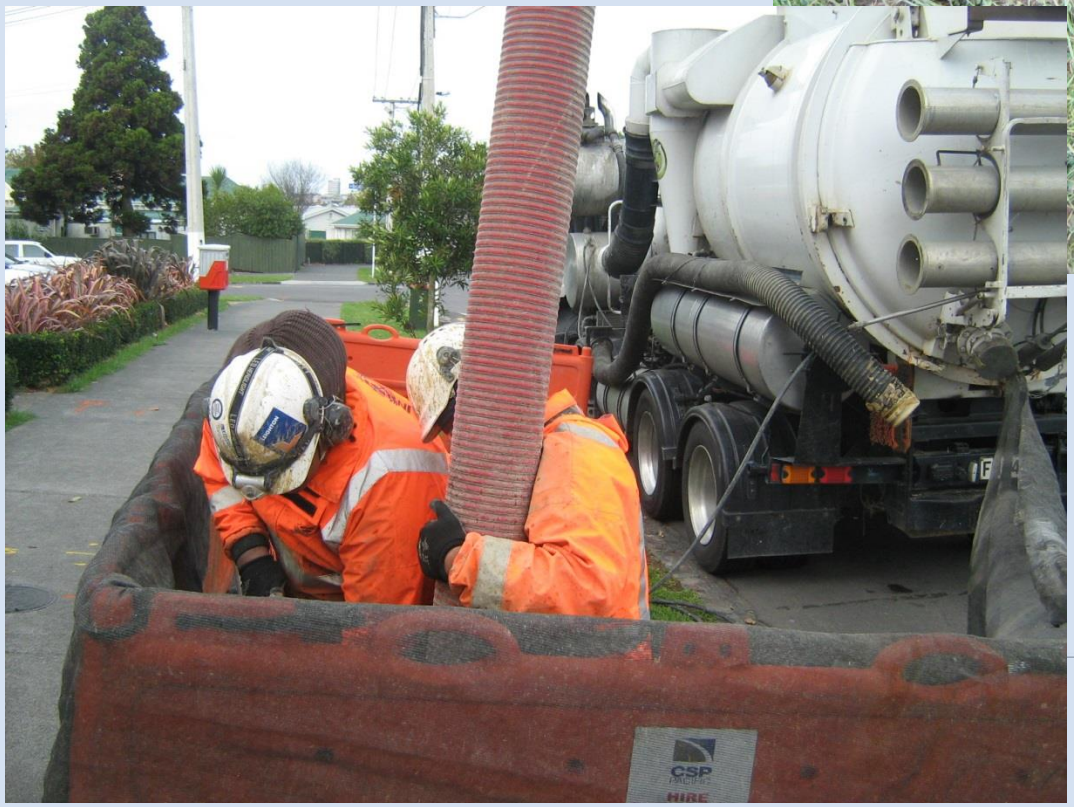
- Outlining appropriate controls
- Simple, repeatable guidance
- Ability to translate it
- Links to specific booklet and videos



Roads and utilities

- GD05 recognises utilities works as a specific activity
- Dewatering
- Site constraints; time and space
- Minimise disturbance
- Manage cesspit protection carefully

Hydrovac excavation



Dust

Practices including:

- Minimising drop heights
- Water sprinkling
- Soil binders
- Controlling vehicle speed
- Covering loads and stock piles
- Providing shelter

- Ref to MfE guidance
- Dust previously a District issue and not included in TP90.
- Now included in GD05 now a Unitary Authority guideline.

Stabilisation

Construction checklists for all practices

- Provides for all measures
- Can be used as a *guide* for as-builts
- Similar to some construction company's in-house check lists. Aim to improve the quality of devices and compliance with GD05 and consent conditions

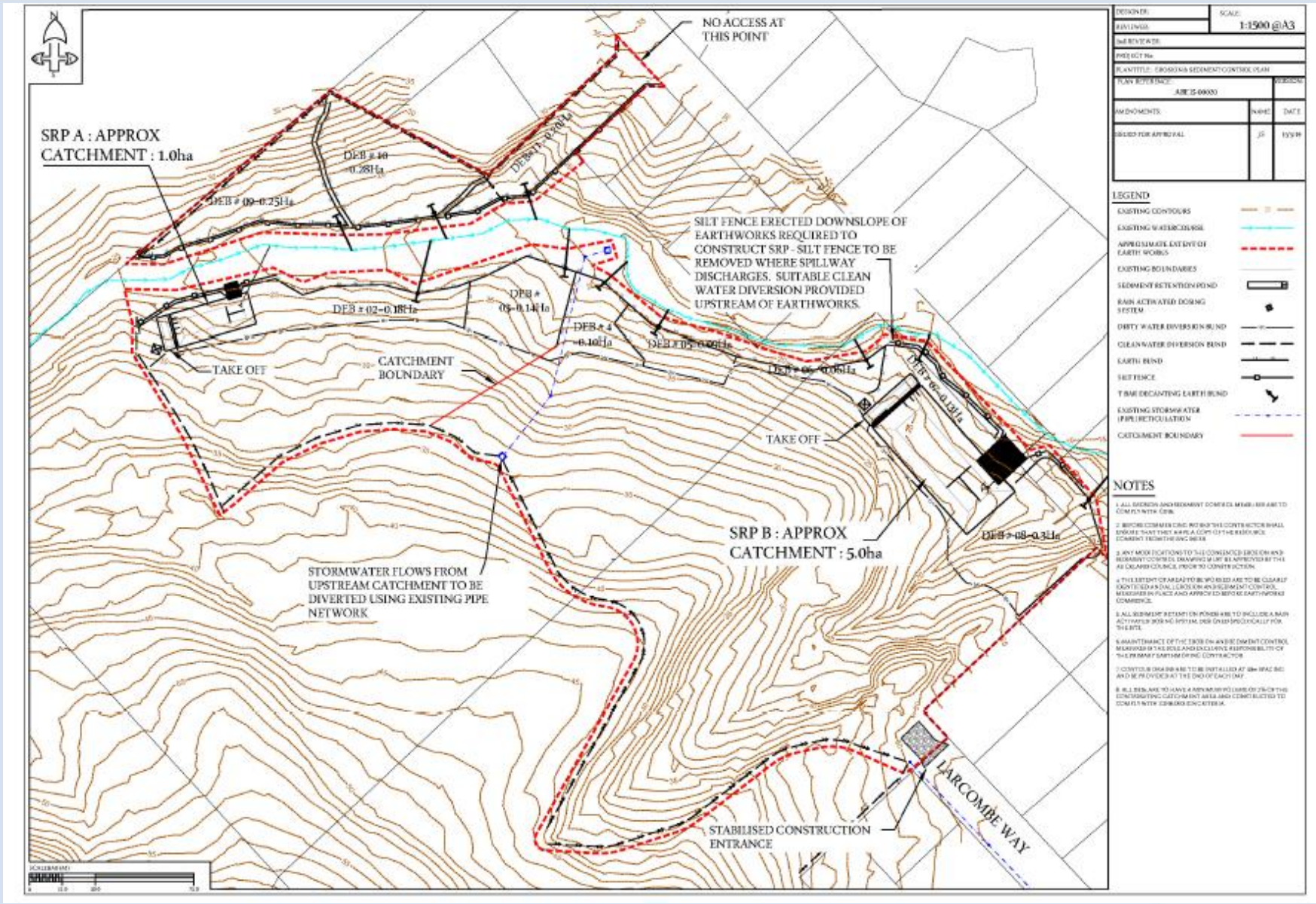
Erosion and sediment control construction
Quality checklist

Contour drain (cut-off)

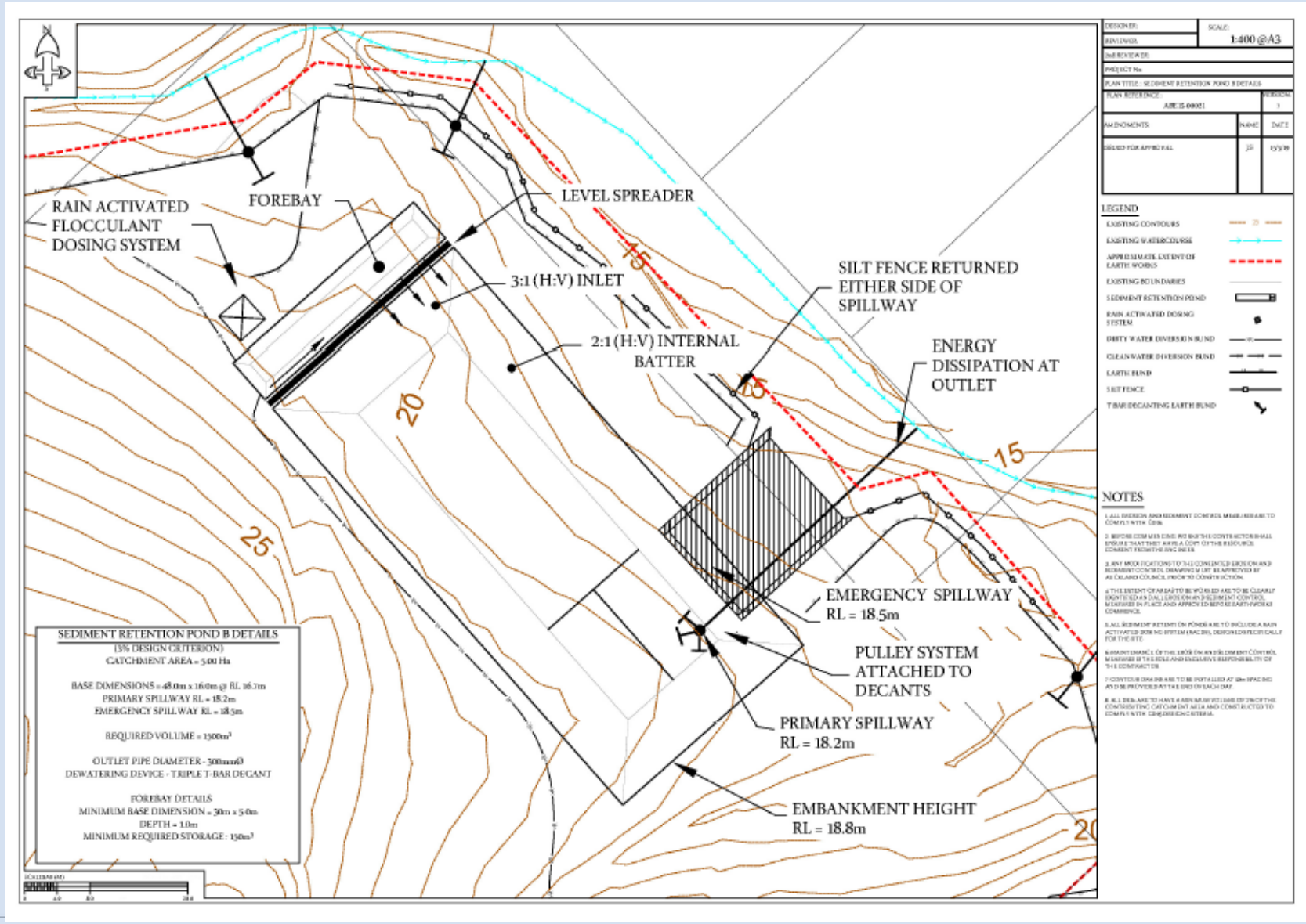
Contractor:	Date: Time:	Consent #:	Site:

Construction checklist (refer Figures below and Section E2.3 of GD05 for further details)	**Yes** (✓)	**No (X)** (Add comments to explain)
Minimum compacted height is 250 mm		
Minimum total depth is 500 mm		
Longitudinal grade is < 2% (unless lined)		
Catchment area is < 0.5 ha		
Flow are is parabolic and not V-shaped		
Drains are as short as possible		
Earth windrows and banks are compacted		
Temporary contour drains are constructed across unprotected slopes at the end of the day's work and/or before forecast rain		

Note: The purpose of this checklist is for contractors to complete on-site self-checks of construction quality for ESC practices. This is not a compliance or as-built checklist.



- Example ESCPs



Example SRP detail plan

Adoption

- Auckland Council is working through formal adoption process
- ESC Plans will be accepted based on both TP90 and GD05
- Encourage the use of it as it reflects current best practice

Conclusion

- GD05 represents an update and reflects advances we have seen in the field.
- Not a drastic change from TP90, but more user friendly and accessible.
- Specifically addresses a wider range of activities.
- More navigable and supported by examples and checklists.
- Further emphasis on wider site management, non-structural controls and how to select controls that suit a site.

Questions?