MATERIAL PROGRESSIVELY CUT FROM DUNE TO FILL NORTH EASTERN CUT TO FINSIH SURFACE SUBGRADE. VOLUME:222,000m3

EXISTING CHANNEL

SRP 1
SEDIMENT RETENTION POND

EXISTING WHAREMAUKU STREAM

EXISTING SAND DUNE

PROGRESSIVELY CUT ALL PEAT APPROXIMATELY 88,000m3 AND REMOVE FROM SITE.
CUT SOFT SAND APPROXMATELY 132,500m3
STOCKPILE RE-USABLE SOFT SAND MATERIAL AT 50% FOR COUNCIL RESERVE.
FILL REQUIRED TO FINISH SURFACE SUBGRADE : 262,800m3

EXISTING CHANNEL

EXISTING CHANNEL

STABILISED ENTRANCE

DIRTY WATER BUND

SRP 2
SEDIMENT RETENTION POND

EXISTING CHANNEL

BUNDED TOPSOIL STOCKPILE LOCATION. TOPSOIL TO BE PROGRESSIVELY STABILISED

EXISTING SAND DUNE

DUNE SAND STOCKPILE LOCATION AFTER PEAT UNDERCUT. USE TACKIFIER ON STOCKPILE FOR WIND AND EROSION.

EXISTING WHAREMAUKU STREAM

BUNDED SOFT SANDS STOCKPILE LOCATION
APPROXIMATELY 70,000m3
EXCESS TO BE REMOVED FROM SITE.

DIRTY WATER BUND

MATERIAL PROGRESSIVELY CUT FROM DUNE TO FILL NORTH EASTERN CUT TO FINSIH SURFACE SUBGRADE. VOLUME:222,000m3

LEGEND:

- PEAT STRIP CONTOURS SHOWN AT 1.0m INTERVALS
- EXTENT OF PROPOSED EARTHWORKS
- SILT FENCE
- RUNOFF DIVERSION DRAIN
- REDIRECTED CHANNEL
- OVERLAND FLOW DIRECTION
- CULVERT
- TOP SOIL STOCKPILE
- SRP - SEDIMENT RETENTION POND
- WETLAND UNDERCUT
- EMBANKMENT
- CUT
- DUNE SAND STOCKPILE

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PROJECT:

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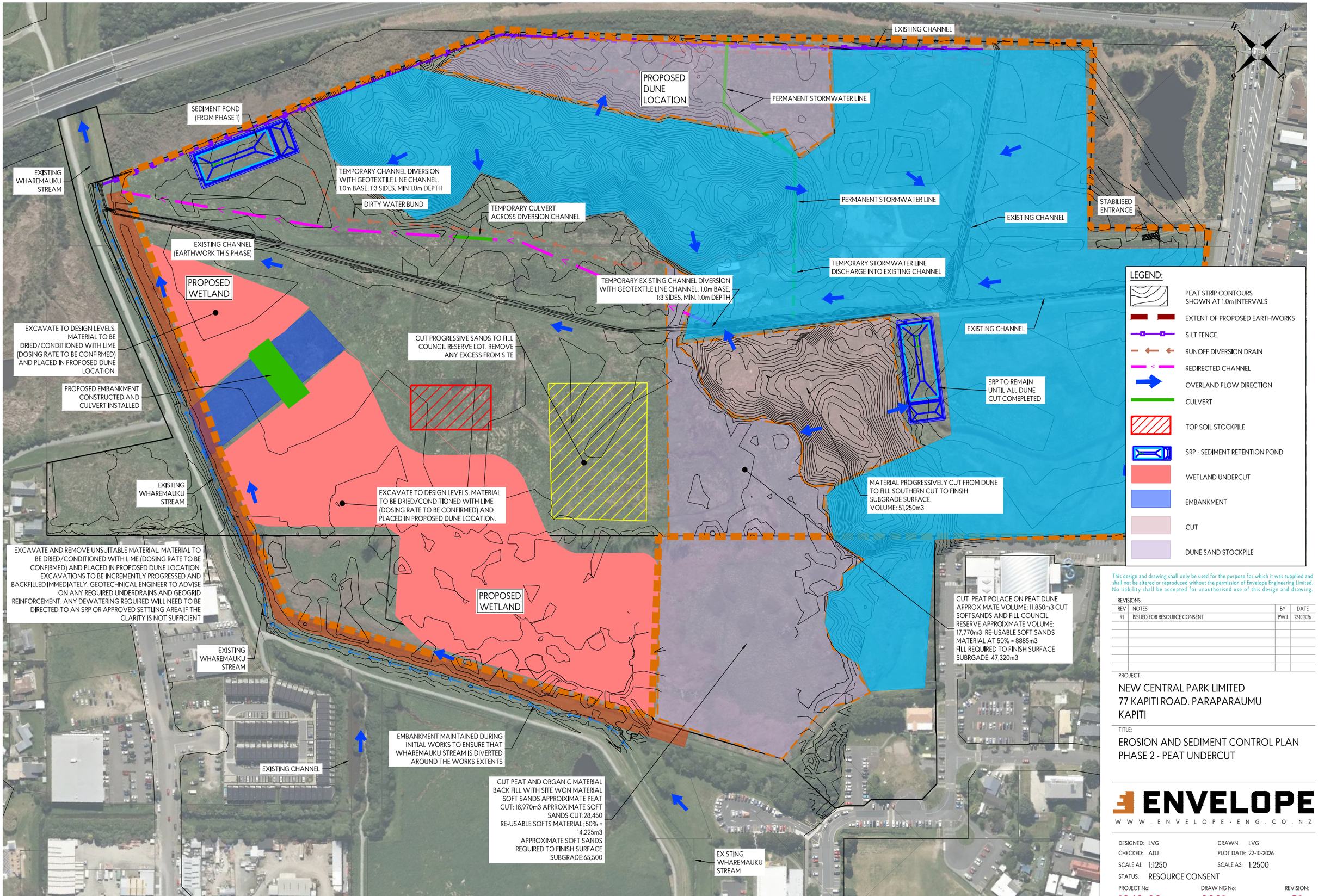
TITLE:

EROSION AND SEDIMENT CONTROL PLAN
PHASE 1 - EXCAVATE SAND DUNE TO STOCKPILE

ENVELOPE
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DESIGNED: LVG
DRAWN: LVG
CHECKED: ADJ
PLOT DATE: 22-10-2026
SCALE A1: 1:1250
SCALE A3: 1:2500
STATUS: RESOURCE CONSENT

PROJECT No: 1942-02
DRAWING No: 2300
REVISION: R1




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TITLE:

# EROSION AND SEDIMENT CONTROL PLAN PHASE 2 - PEAT UNDERCUT

ENVELOPE
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DESIGNED: LVG
CHECKED: ADJ
DRAWN: LVG
PLOT DATE: 22-10-2026
SCALE A1: 1:1250
SCALE A3: 1:2500
STATUS: RESOURCE CONSENT
PROJECT No: 1942-02
DRAWING No: 2301
REVISION: R1

EXCAVATE AND REMOVE UNSUITABLE MATERIAL. MATERIAL TO BE DRIED/CONDITIONED WITH LIME (DOSING RATE TO BE CONFIRMED) AND PLACED IN PROPOSED DUNE LOCATION. EXCAVATIONS TO BE INCREMENTLY PROGRESSED AND BACKFILLED IMMEDIATELY. GEOTECHNICAL ENGINEER TO ADVISE ON ANY REQUIRED UNDERDRAINS AND GEOGRID REINFORCEMENT. ANY DEWATERING REQUIRED WILL NEED TO BE DIRECTED TO AN SRP OR APPROVED SETTLING AREA IF THE CLARITY IS NOT SUFFICIENT

EARTHWORKS COMPLETED IN PHASE 2 (HATCHED AREA)

EXISTING CHANNEL

PERMANENT STORMWATER LINE CONSTRUCTED IN PHASE 2

PROPOSED DUNE LOCATION

AREA TO BE EXCAVATED TO PROPOSED SUBGRADE IN PHASE 1 (HATCHED AREA)

CONSTRUCT CULVERT UNDER ROAD

CONSTRUCT PERMANENT DIVERSION CHANNEL TO DESIGN LEVELS

CONSTRUCT CULVERT EXTENSION AND CONNECT TO EXISTING STORMWATER NETWORK ONCE ALL CONSTRUCTED AND PLANTED.

STABILISED ENTRANCE

RE-DIVERT TEMPORARY LINED CHANNEL INTO PROPOSED CHANNEL ALIGNMENT

REMOVE TEMPORARY STORMWATER LINE

AREA TO BE EXCAVATED TO PROPOSED SUBGRADE IN PHASE 1 (HATCHED AREA)

EARTHWORKS COMPLETED IN PHASE 2 (HATCHED AREA)

WETLAND WORKS COMPLETED IN PHASE 2 (HATCHED AREA)

ONCE STREAM REDIRECTION IS COMPLETE, CONTINUE UNDERCUT OF EMBANKMENT.

CONSTRUCT CULVERT UNDER ROAD

REDIRECT WHAREMAUKU STREAM INTO PROPOSED STREAM ALIGNMENT AND BLOCK FLOW PATH

EXCAVATE AND REMOVE UNSUITABLE MATERIAL. MATERIAL TO BE DRIED/CONDITIONED WITH LIME (DOSING RATE TO BE CONFIRMED) AND PLACED IN PROPOSED DUNE LOCATION. EXCAVATIONS TO BE INCREMENTLY PROGRESSED AND BACKFILLED IMMEDIATELY. GEOTECHNICAL ENGINEER TO ADVISE ON ANY REQUIRED UNDERDRAINS AND GEOGRID REINFORCEMENT. ANY DEWATERING REQUIRED WILL NEED TO BE DIRECTED TO AN SRP OR APPROVED SETTLING AREA IF THE CLARITY IS NOT SUFFICIENT

LEGEND:

- PEAT STRIP CONTOURS SHOWN AT 1.0m INTERVALS
- EXTENT OF PROPOSED EARTHWORKS
- SILT FENCE
- RUNOFF DIVERSION DRAIN
- REDIRECTED CHANNEL
- OVERLAND FLOW DIRECTION
- CULVERT
- TOP SOIL STOCKPILE
- SRP - SEDIMENT RETENTION POND
- WETLAND UNDERCUT
- EMBANKMENT
- CUT
- DUNE SAND STOCKPILE

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TITLE:

# EROSION AND SEDIMENT CONTROL PLAN PHASE 3 - SAND CUT TO FILL

ENVELOPE
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DESIGNED: LVG
DRAWN: LVG
CHECKED: ADJ
PLOT DATE: 22-10-2026
SCALE A1: 1:1250
SCALE A3: 1:2500
STATUS: RESOURCE CONSENT
PROJECT No: 1942-02
DRAWING No: 2302
REVISION: R1

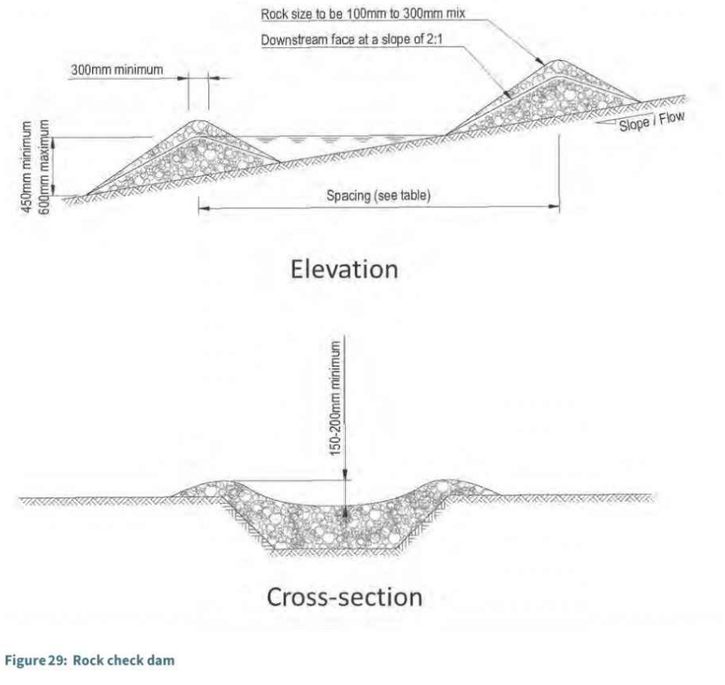
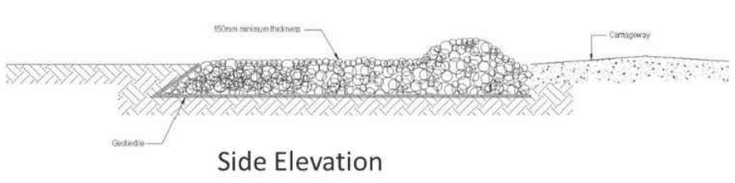



Figure 29: Rock check dam



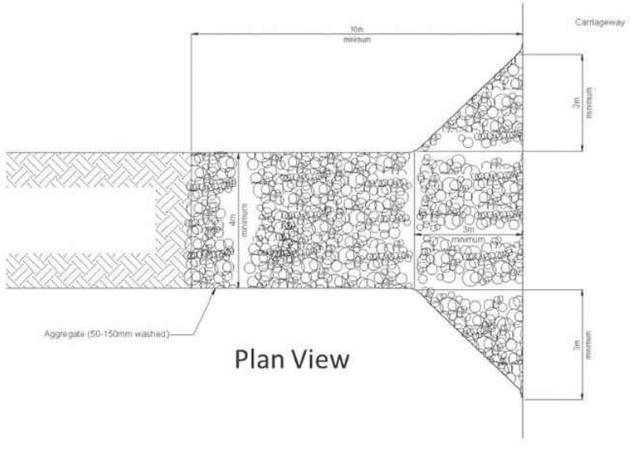
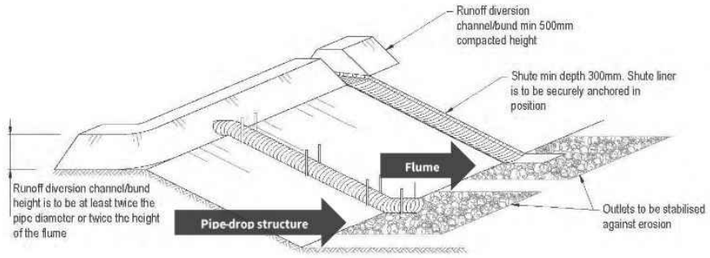




Figure 36: Stabilised entranceway



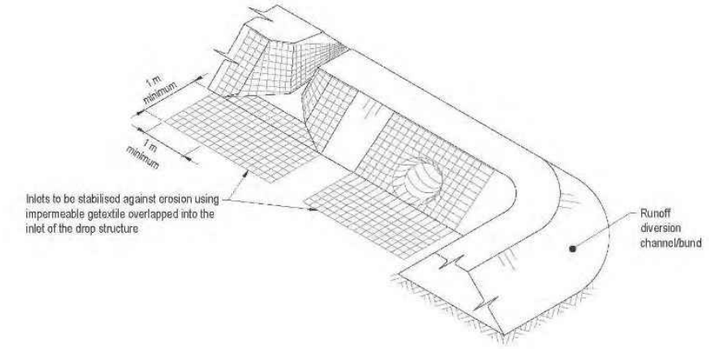




Figure 33: Pipe-drop structure and flumes

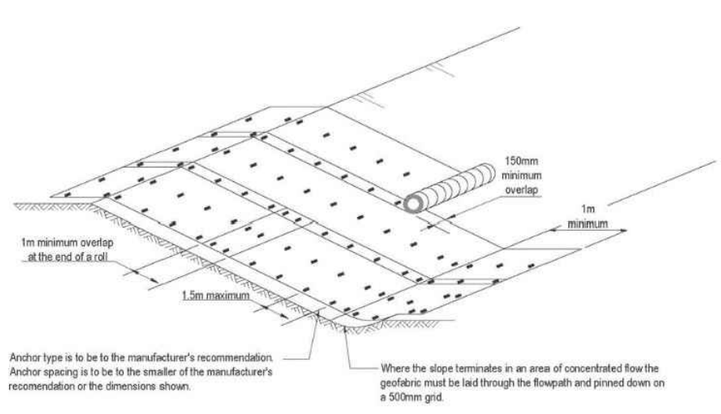



Figure 59: Geotextile design – outfalls

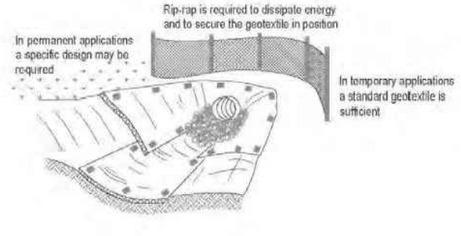



Figure 60: Geotextile design – on slopes

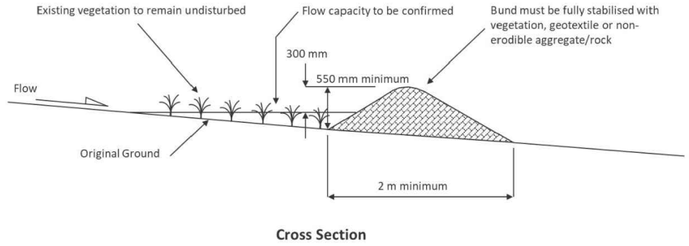



Figure 17: Cross-section of clean water diversion bund

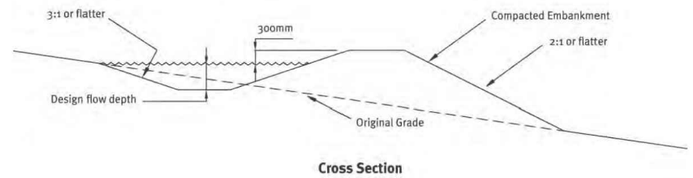



Figure 19: Cross-section of a dirty water diversion

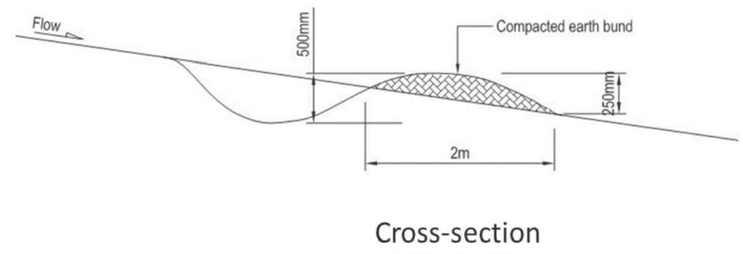



Figure 24: Contour drain cross-section

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TITLE:

EROSION AND SEDIMENT CONTROL DETAIL
SHEET 1 OF 3

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SCALE A3:
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PROJECT No: 1942-02
DRAWING No: 2400
REVISION: R1

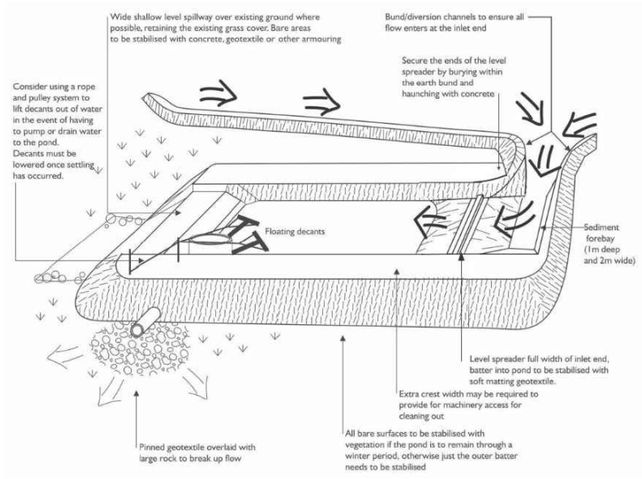
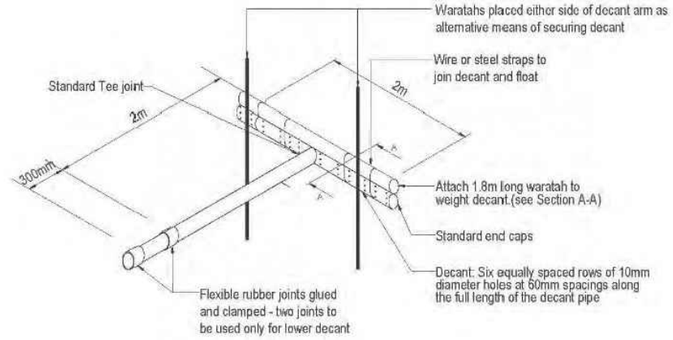



**Figure 65: Schematic of a sediment retention pond**



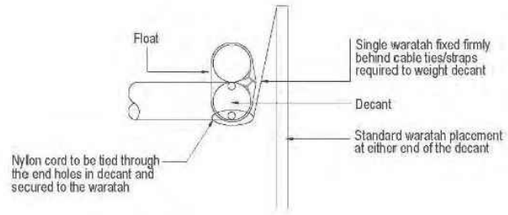




**Figure 67: Schematic of standard T-bar design**

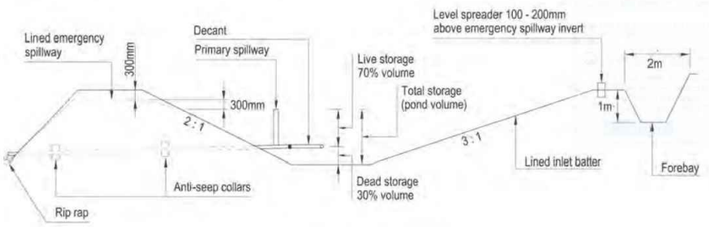



**Figure 66: A sediment retention pond cross-section**

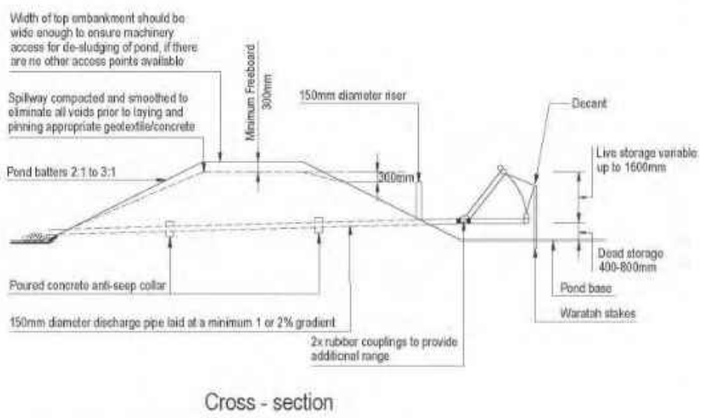



**Figure 72: Sediment retention pond for <1.5 ha catchment**

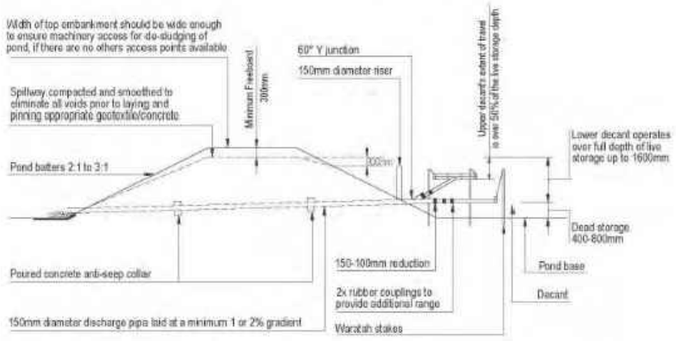



**Figure 73: Sediment retention pond for 1.5 to 3 ha catchment**

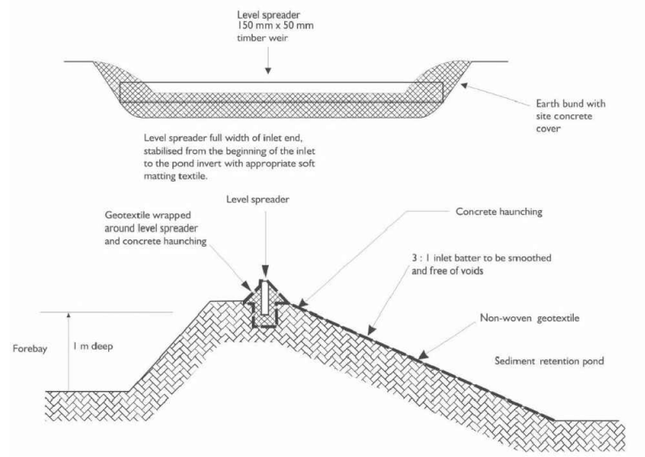



**Figure 70: Level spreader**

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SCALE A1: NTS
SCALE A3:
STATUS: RESOURCE CONSENT

PROJECT No: 1942-02
DRAWING No: 2401
REVISION: R1

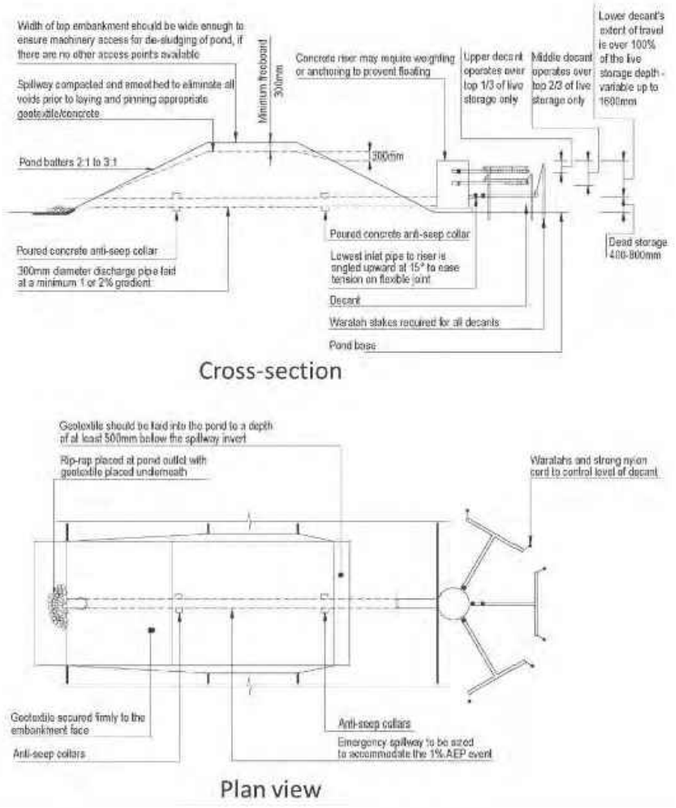
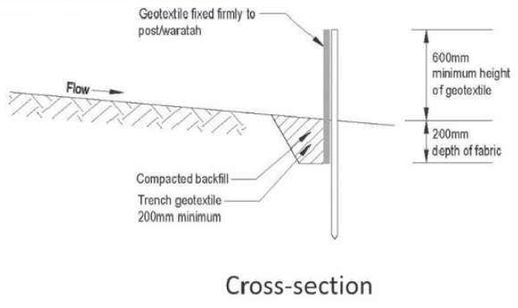



Figure 74: Sediment retention pond for 3 to 5 ha catchment



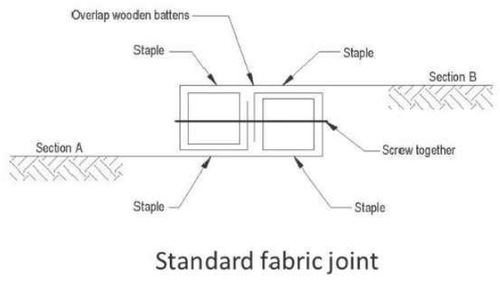
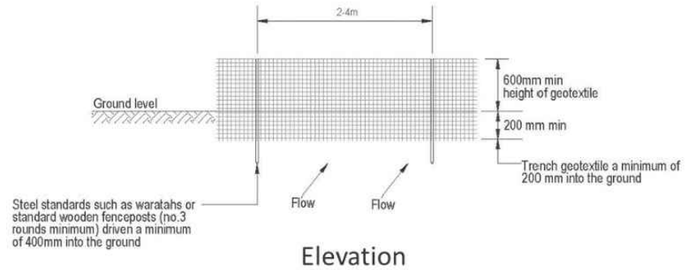




Figure 83: Silt fence cross-section



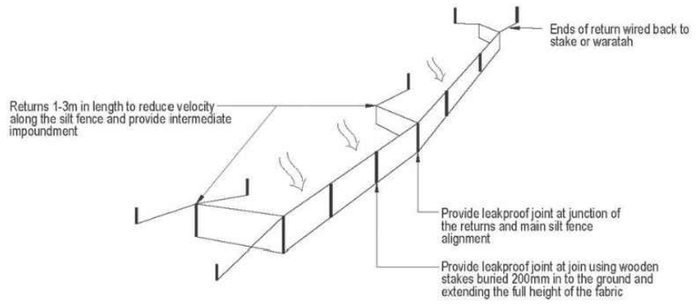
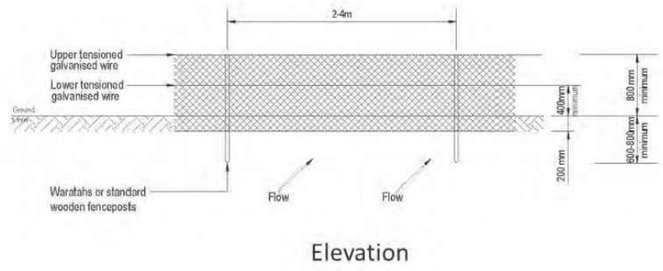




Figure 82: Schematic of a silt fence



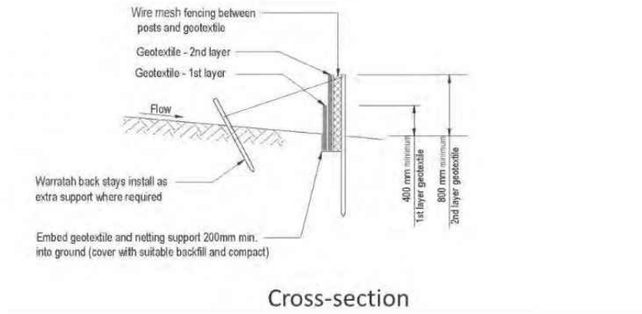




Figure 88: Schematic of a super silt fence

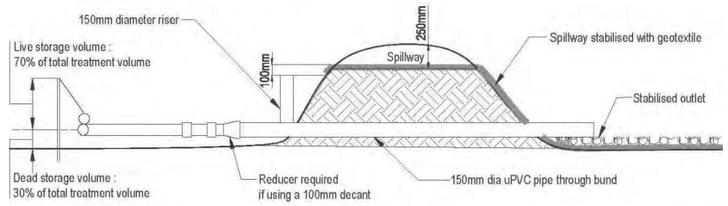



Figure 79: Decanting earth bund

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TITLE:

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SHEET 3 OF 3

ENVELOPE
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DRAWN: LVG
CHECKED: ADJ
PLOT DATE: 22-10-2026
SCALE A1: NTS
SCALE A3:
STATUS: RESOURCE CONSENT

PROJECT No: 1942-02
DRAWING No: 2402
REVISION: R1