



# Campbell Island Sea lion Pup Mortality (Operation Endurance)

OBSERVATION'S AND PROPOSED REMEDIATION SOLUTIONS

## Presentation Content:

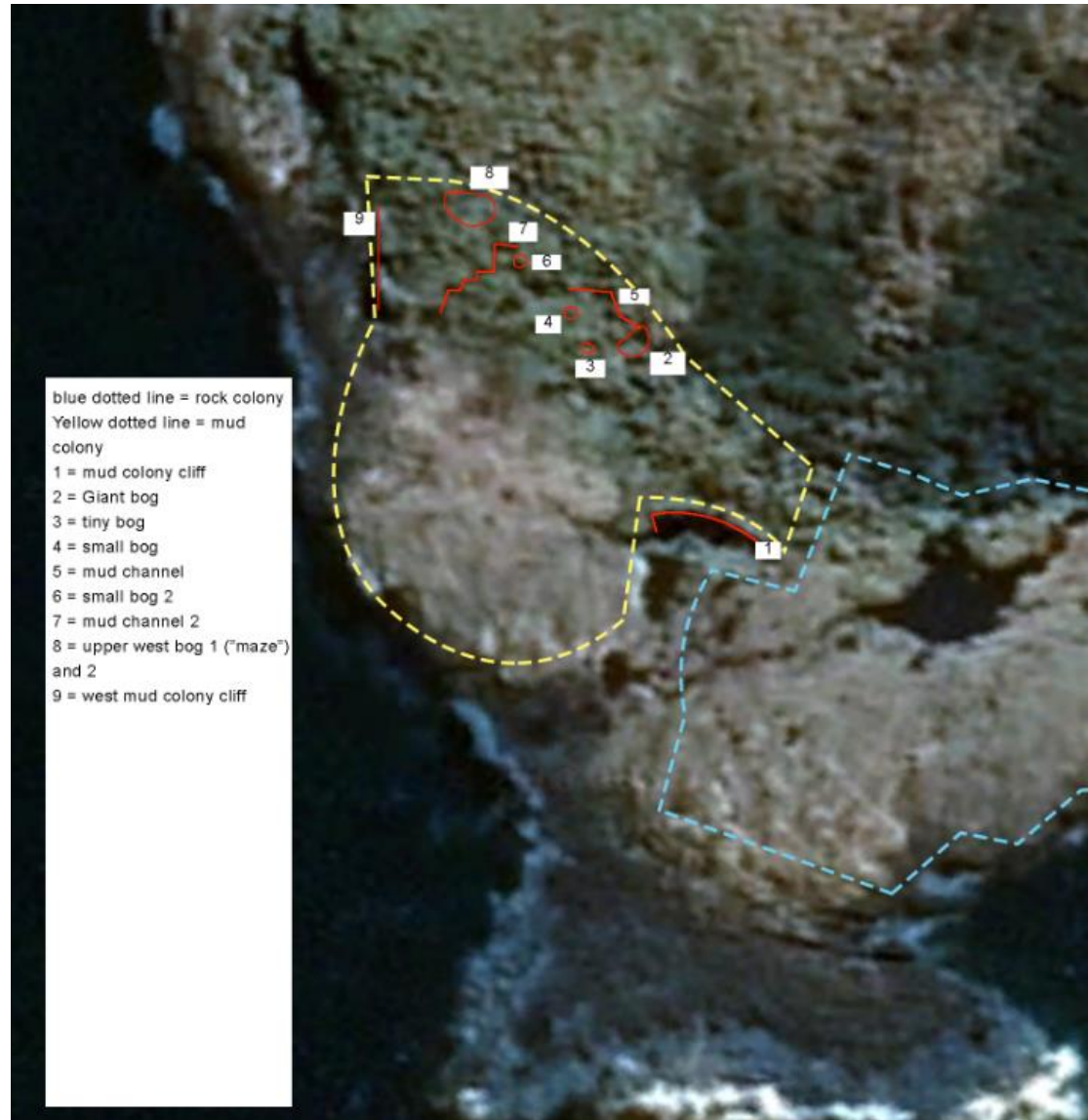
- Background (Team, Purpose/ Objectives)
  - General Observations (Davis Point, Paradise (Shoal) Point Colony)
  - Summary of observed risk factors
  - Mitigation Ideas
  - Risk Matrix / Efficiency of implementation work
  - Idea's for further engagement of other stakeholders
  - Closing comments and Questions
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## Background:

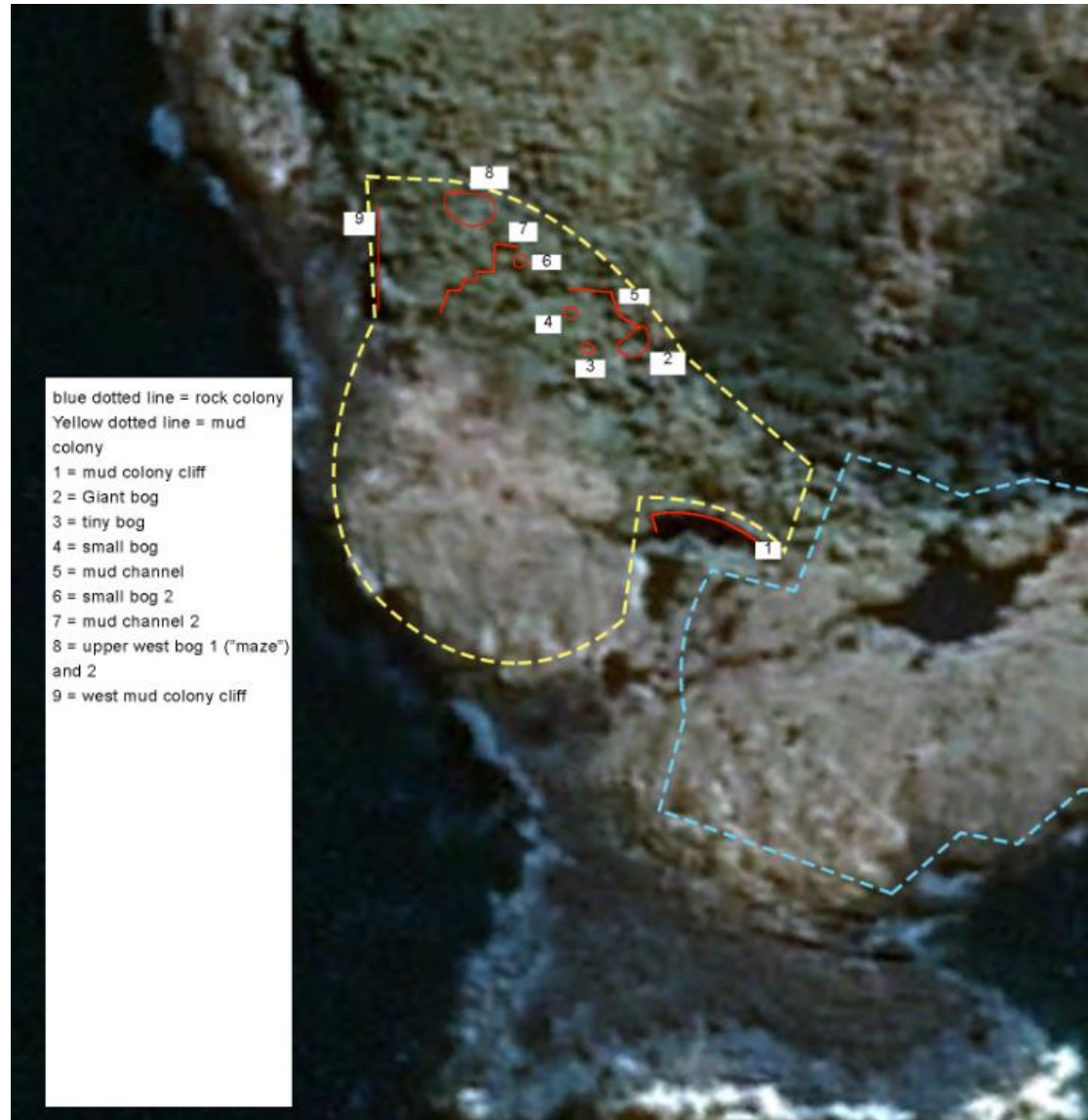
- Team
- Purpose / Objectives



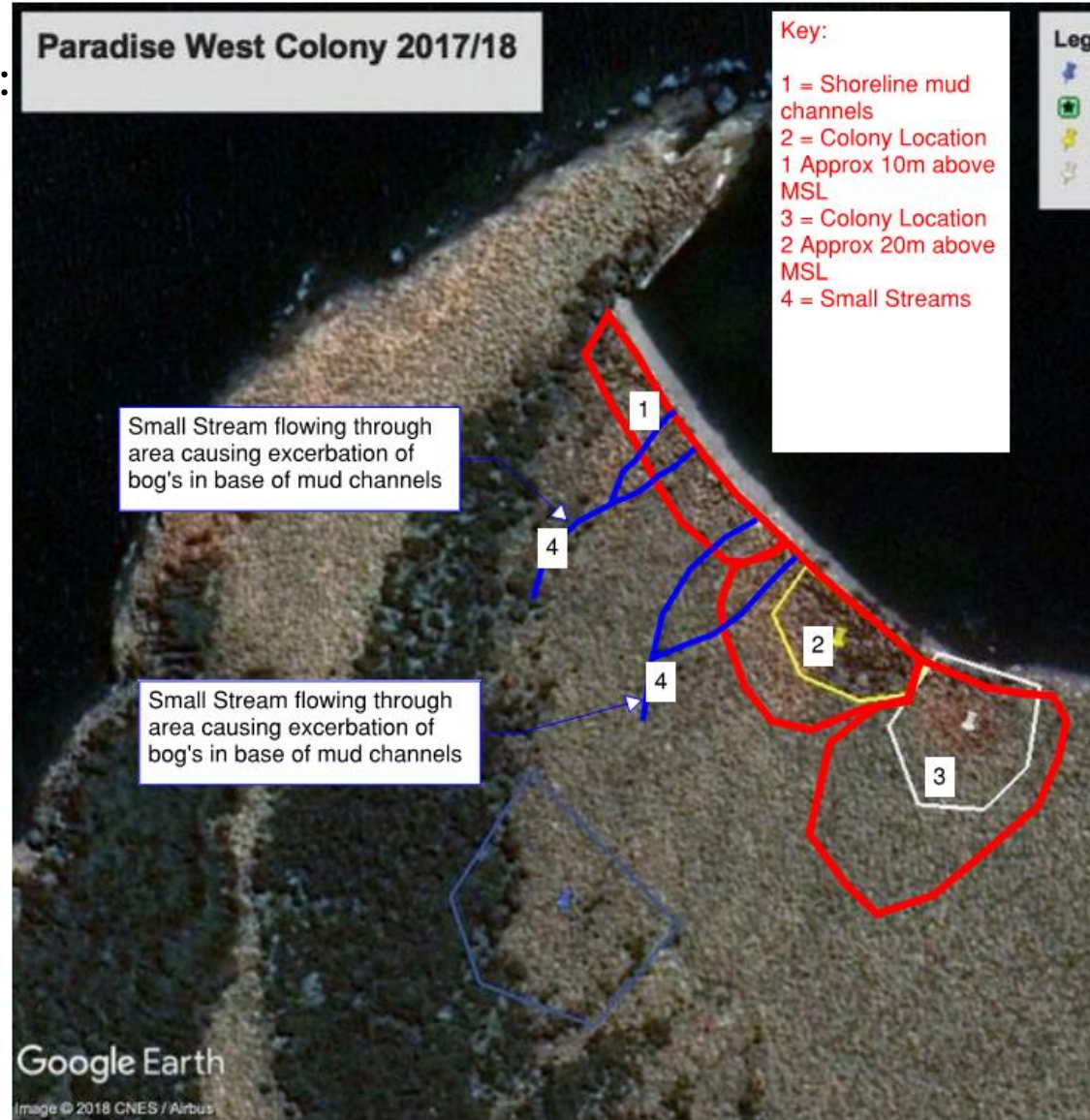
## Davis Point Observations:



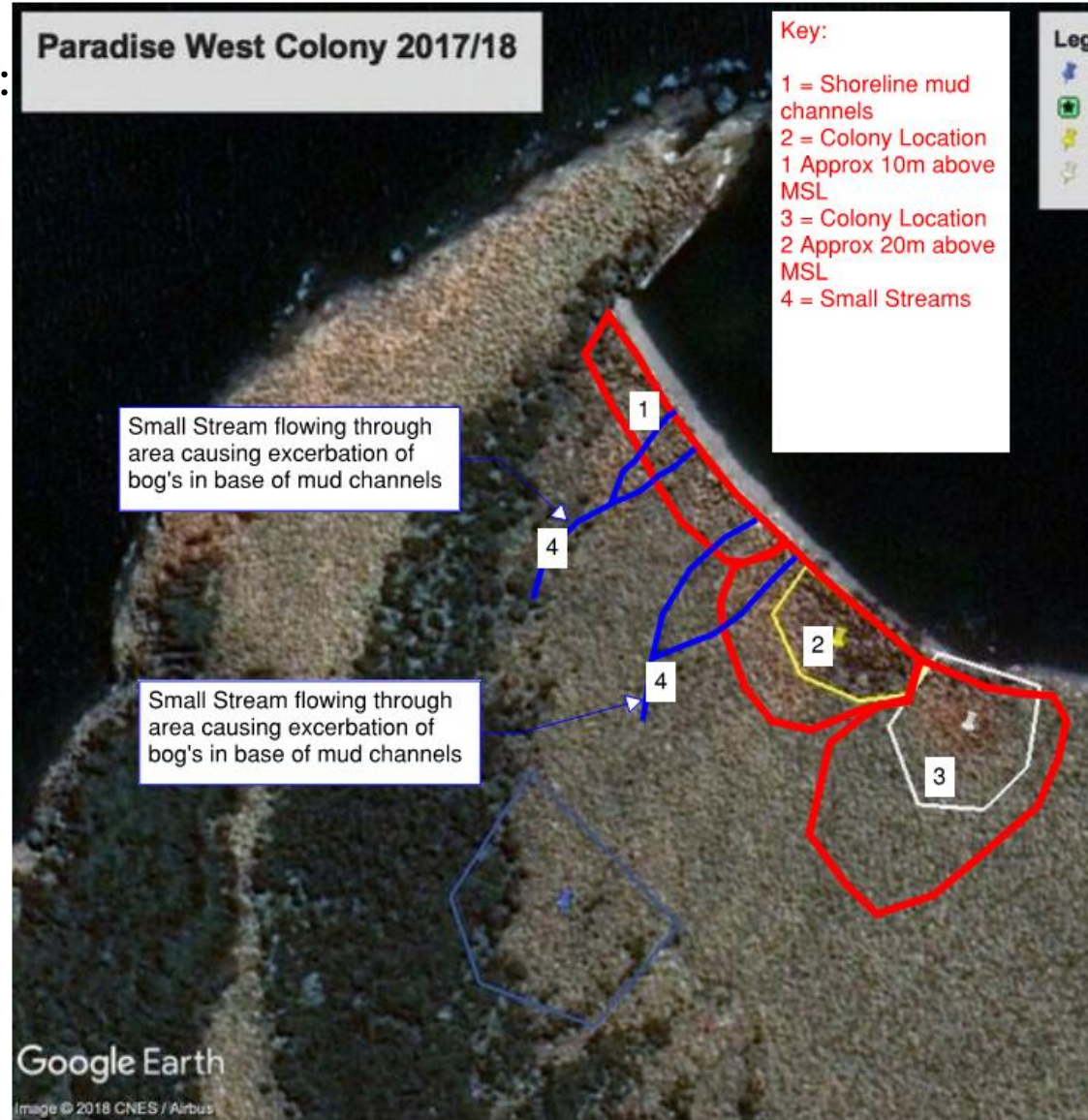
## Davis Point Observations:



## Paradise Point Observations:



## Paradise Point Observations:



## Summary of observed risk factors: Bog's





## Summary of observed risk factors: Mud Channels



## Summary of observed risk factors: Cliff's



Summary of observed risk factors: Area's of Bare dirt (Vegetation eroded away)



## Mitigation Idea's: Bog Holes & Mud Channels (Locally Source Rock)



## Mitigation Idea's: Hessian Bag (Wrapped in Jute matting)

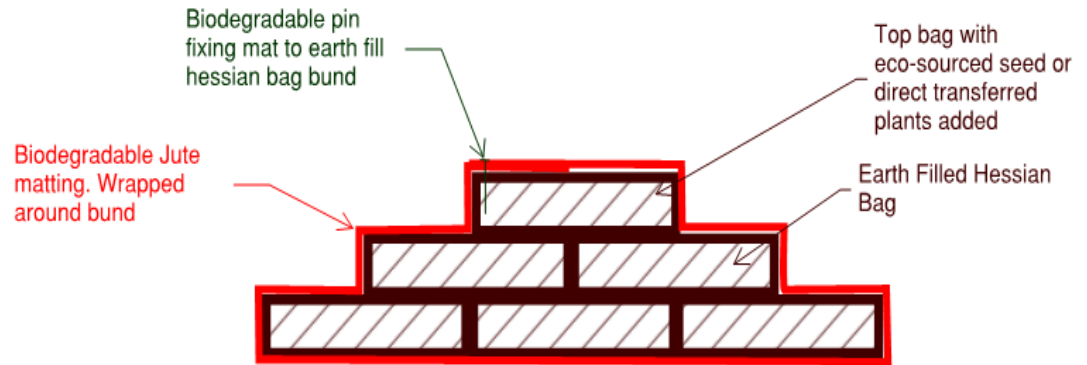


Diagram: Earth Filled Hessian Bag Bund

Mitigation Idea's: Revegetation (Restoration of eroded plants)



## Mitigation Idea's: Timber Ladder's / Trellis



## Mitigation Idea's: Timber Ladder's / Trellis

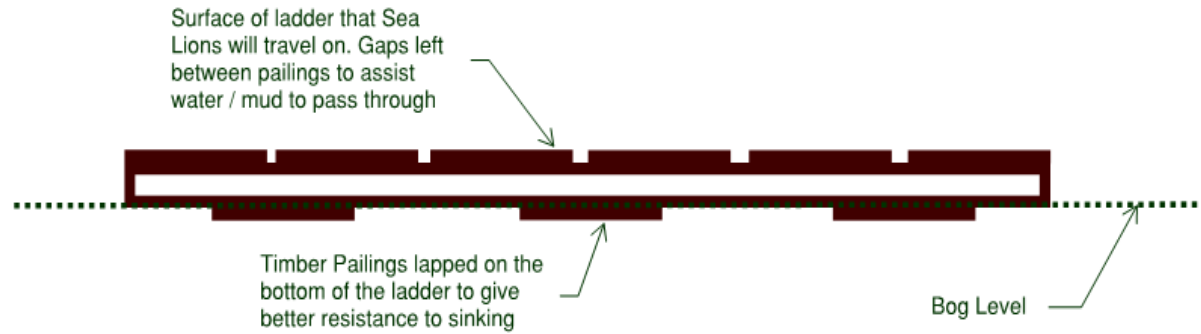


Diagram: Timber Ladder for placement in bogs

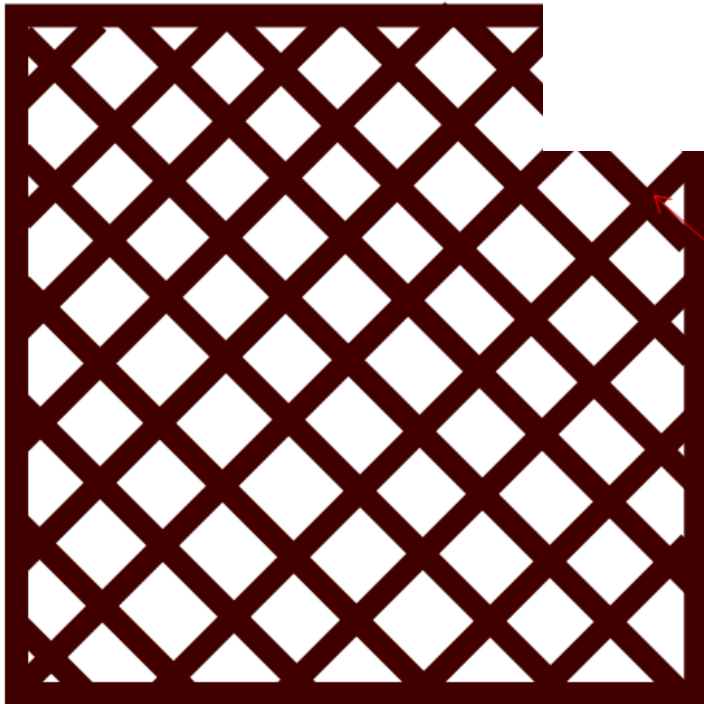


Diagram: Timber trellis for placement in bogs



## Mitigation Idea's: Coir Log Pathway



Coir Log example pictures

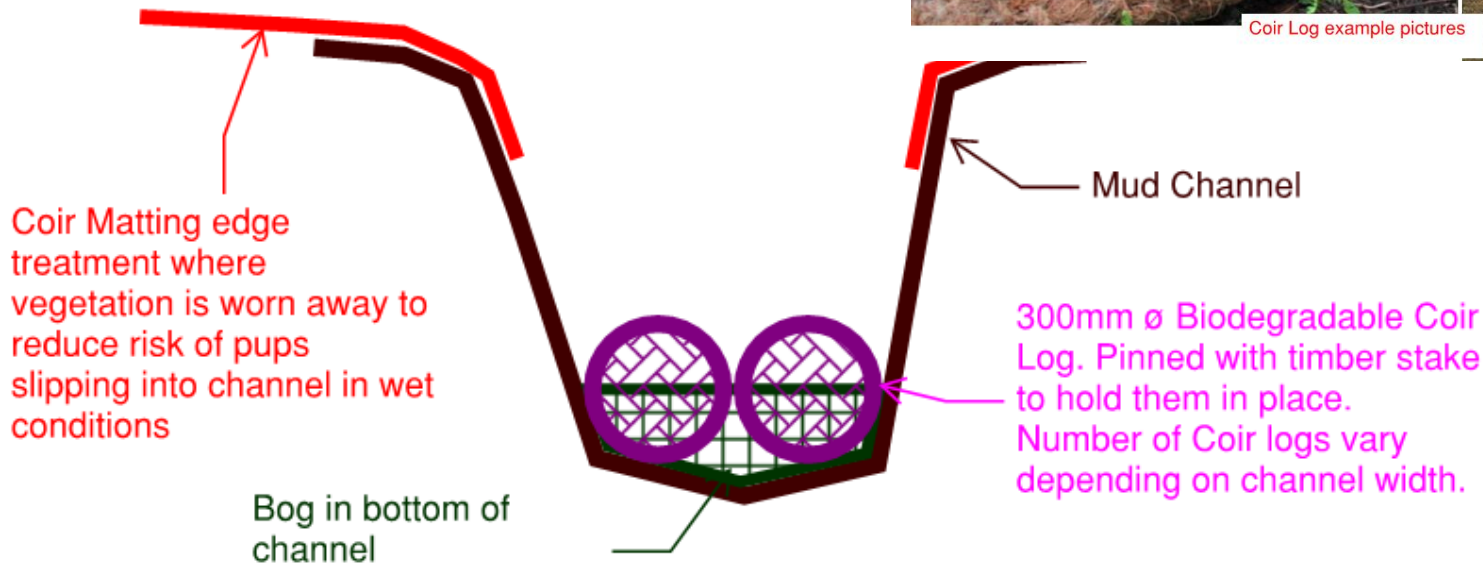


Diagram: Coir Log bridge in mud channel

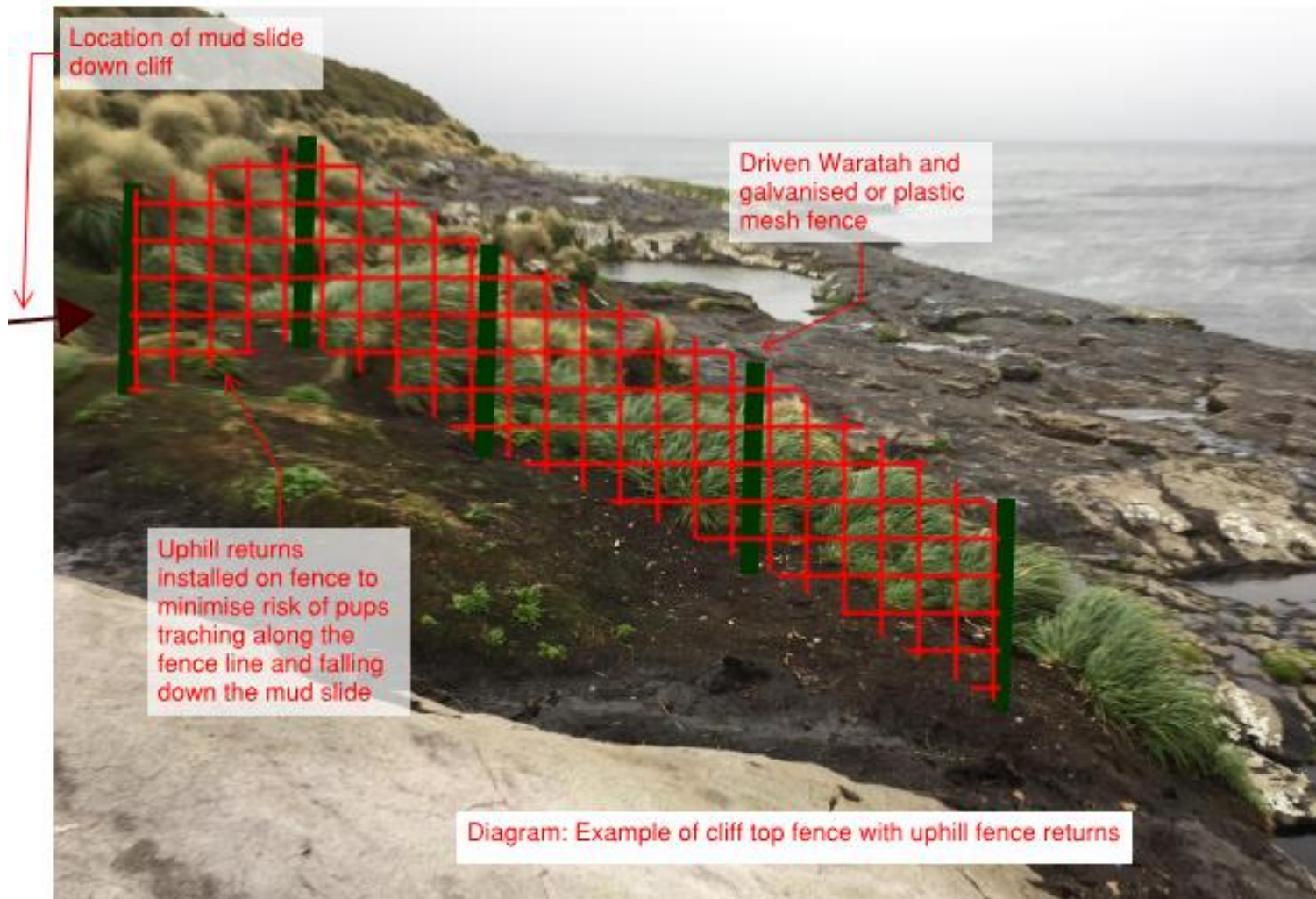
Mitigation Idea's: Woven Jute (or other natural sourced product) rope mats



## Mitigation Idea's: Hand Cut channels to drain bog's



## Mitigation Idea's: Cliff's (Davis Point Mud colony Cliff 1 & 2)



## Mitigation Idea's: Areas of bare dirt (Vegetation eroded away)



Example areas that may benefit from placement of a jute matting protection to minimize further erosion.

Diagram: Example of areas where there is significant vegetation loss which may be further exacerbated by erosion causing more bogs and mud channels

## Mitigation Idea's: Translocation of Sea Lion's



A wide-angle landscape photograph of Campbell Island. The foreground shows dark, layered rock formations sloping down towards the water. The middle ground is a calm body of water reflecting the sky. In the background, a large, grassy mountain with a flat top dominates the horizon under a cloudy sky. The text "Closing comments & Questions" is overlaid in white serif font on the water.

Closing comments & Questions

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**Fulton Hogan**