

A photograph of a rugged coastline on Campbell Island. The sea is dark and choppy, meeting a steep, grassy hill. In the foreground, a sea lion pup is resting on a rocky outcrop, partially obscured by clumps of tall, dry grass. The sky is overcast and grey.

# 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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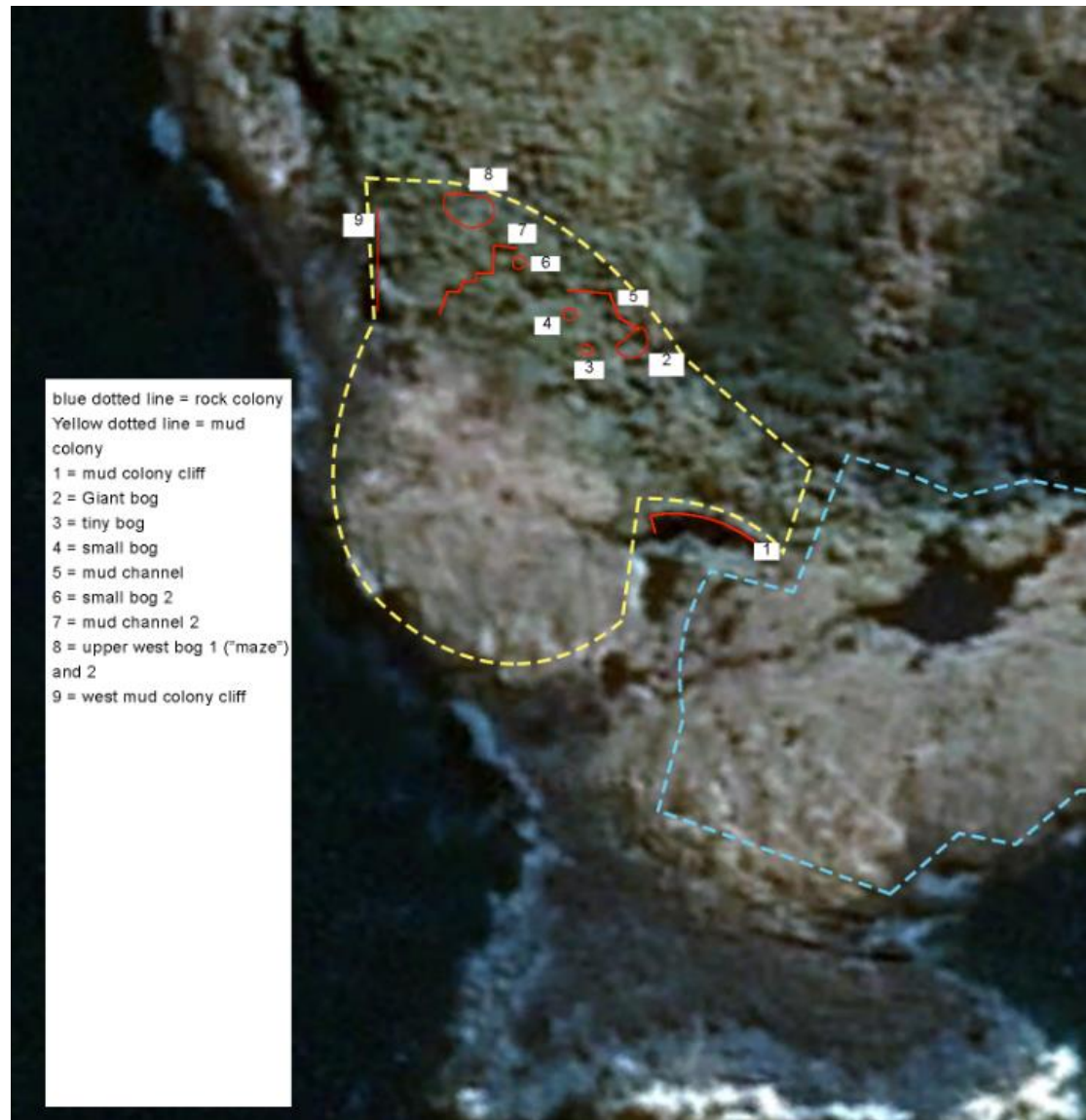
## Background:

- Team
- Purpose / Objectives

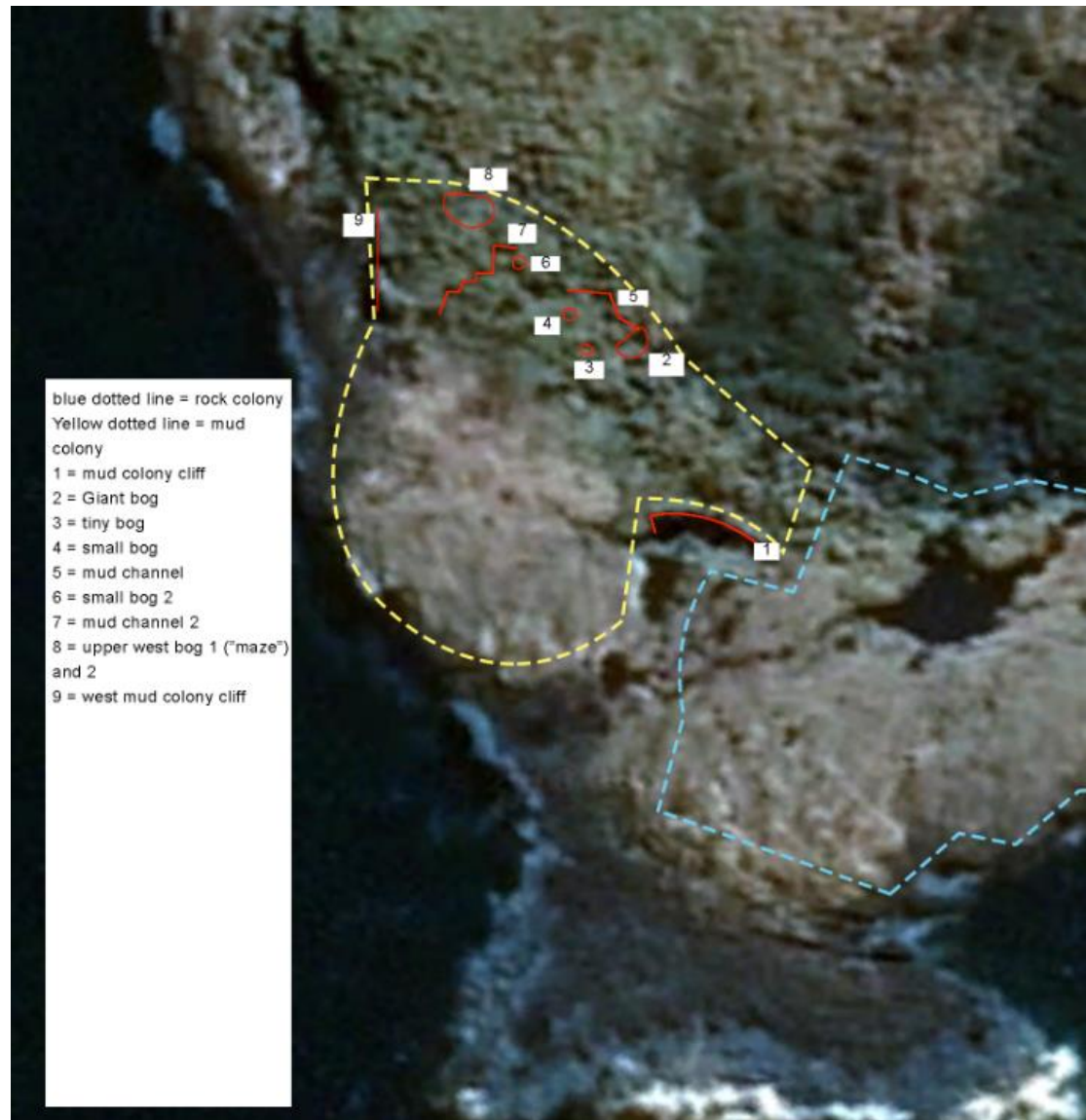




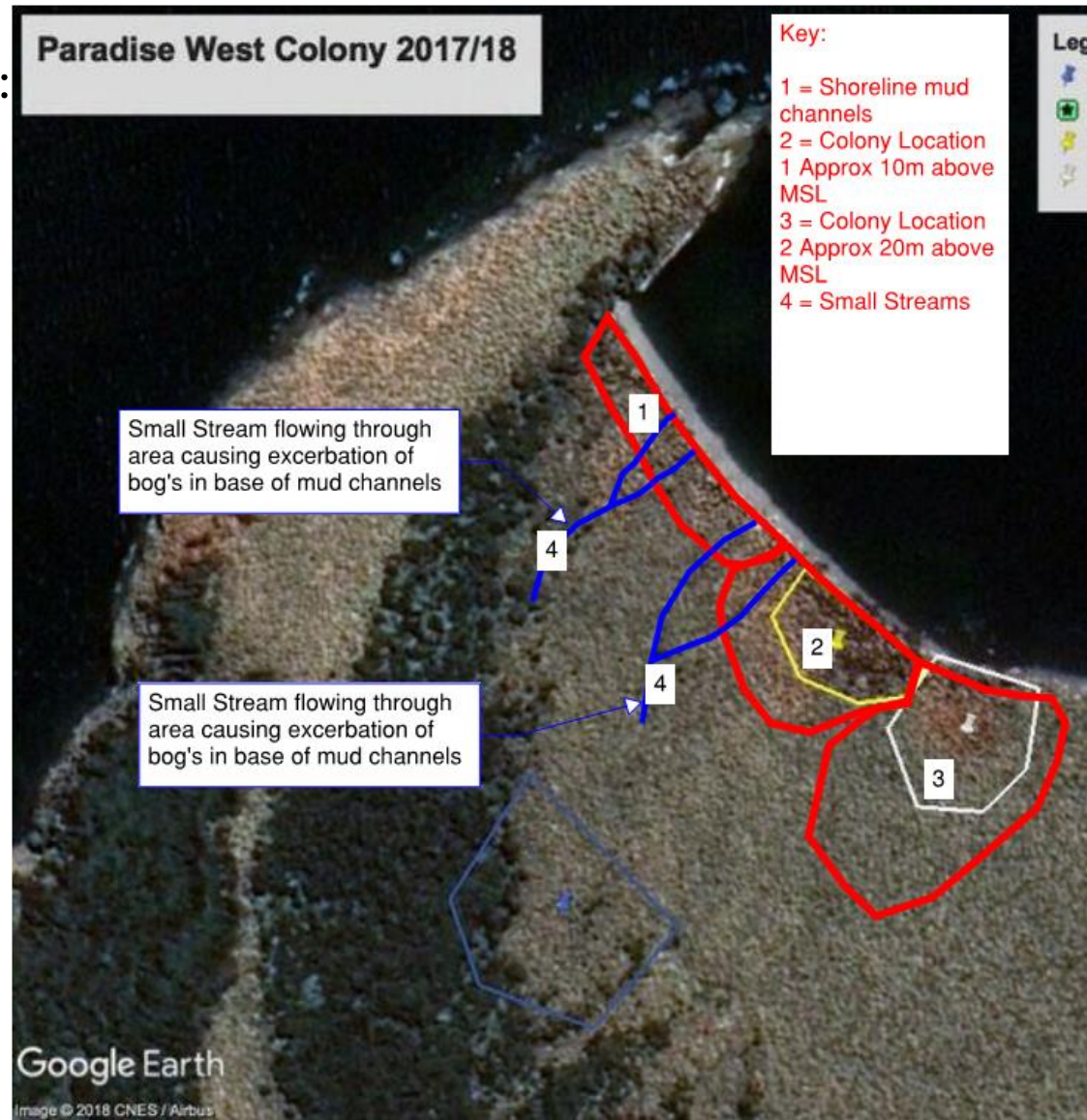
## Davis Point Observations:



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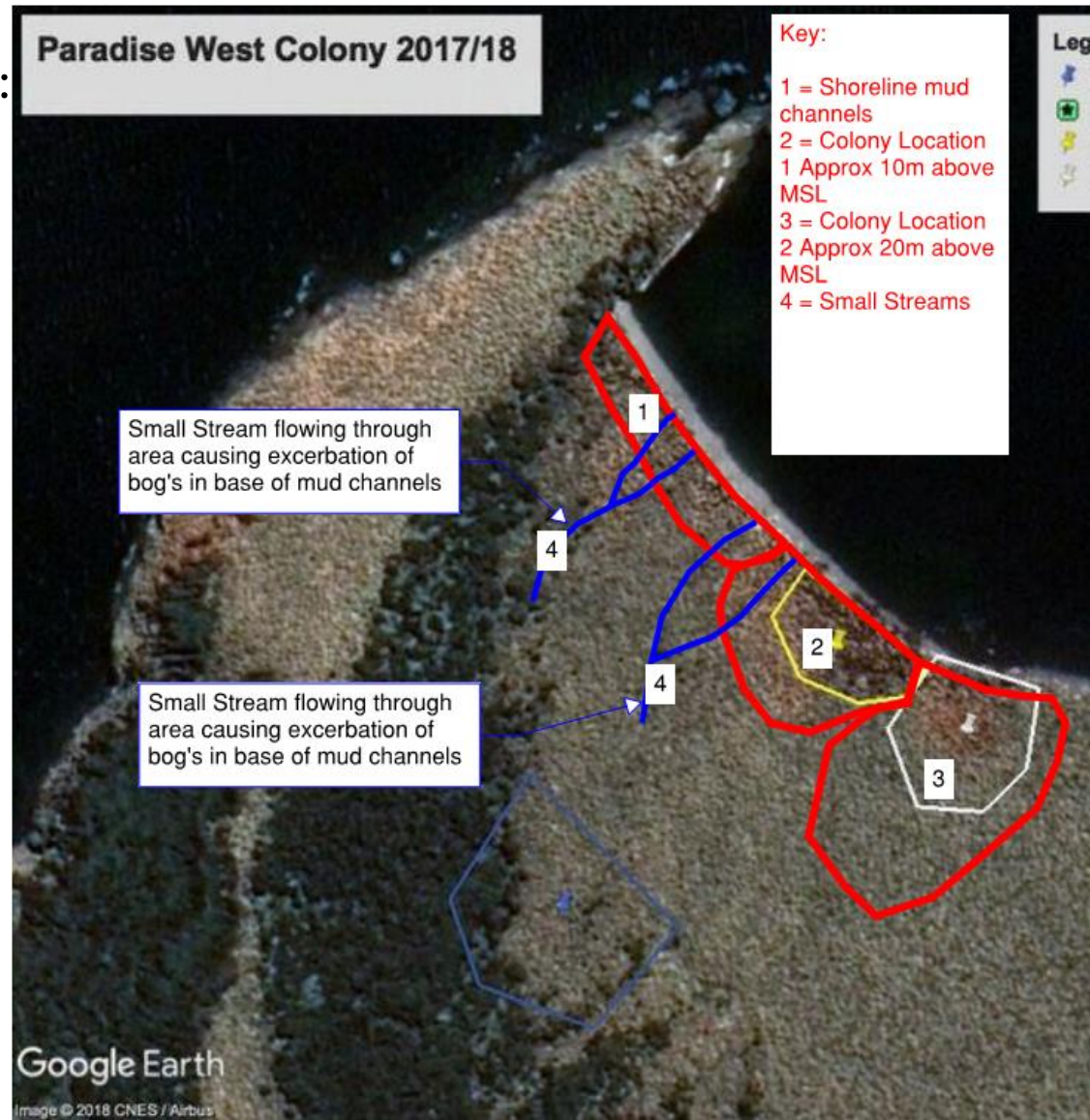


## Paradise Point Observations:





## 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)

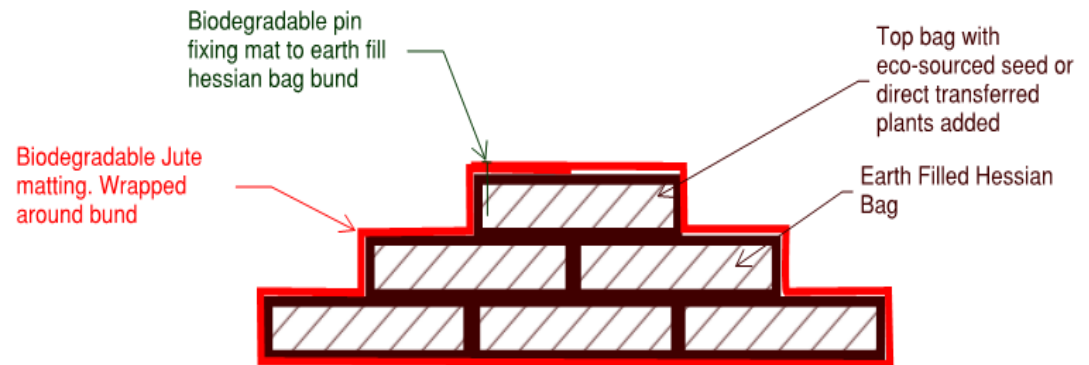


Diagram: Earth Filled Hessian Bag Bund



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





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



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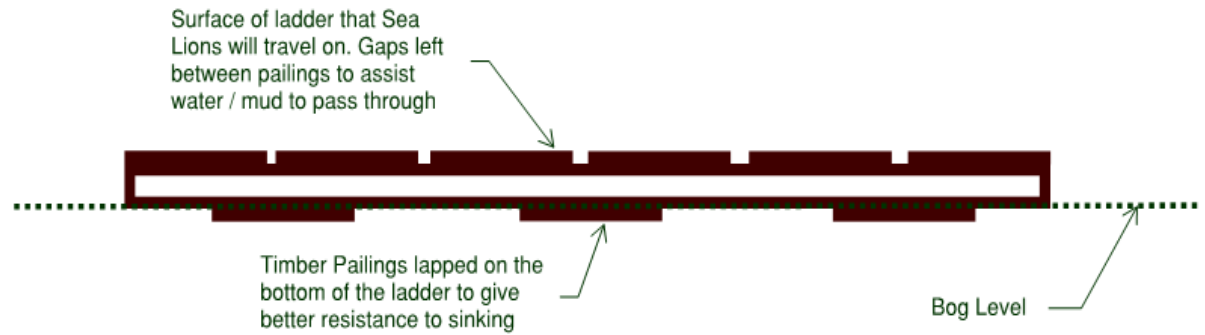
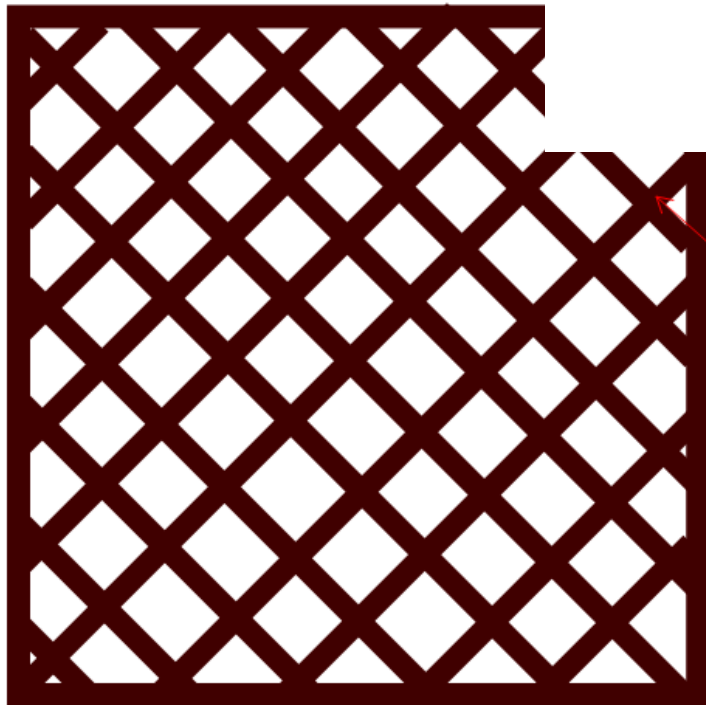


Diagram: Timber Ladder for placement in bogs

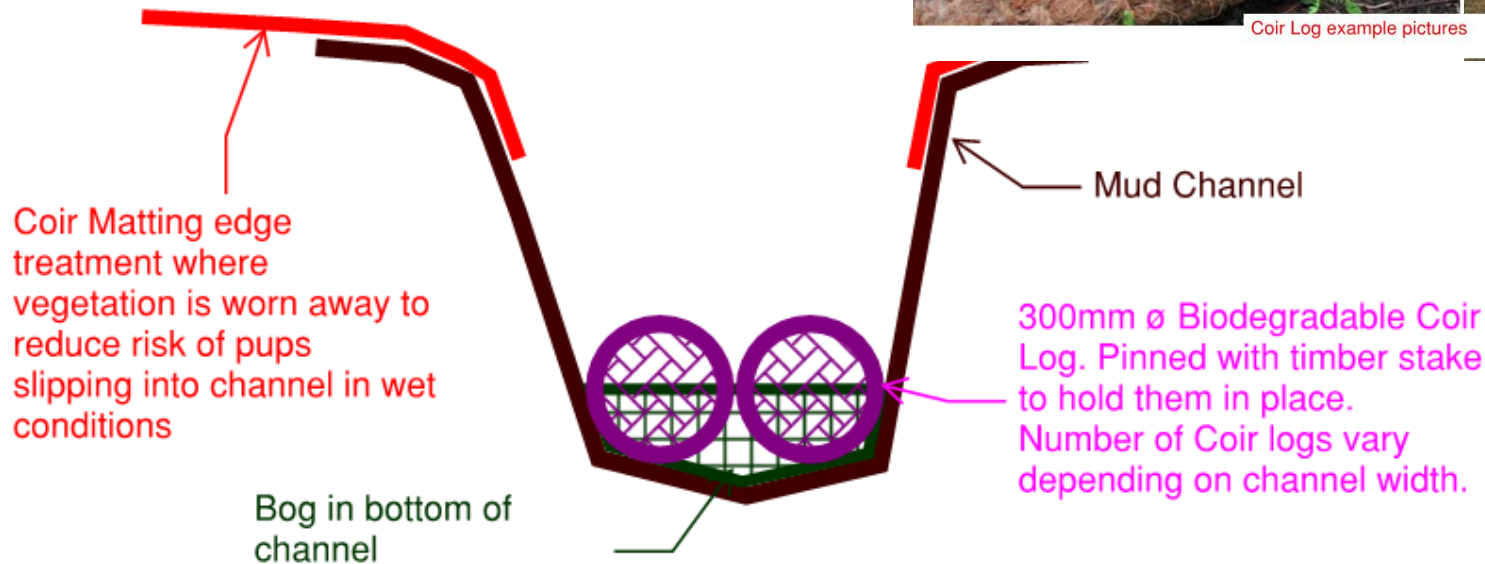


Timber Trellis angles at 45deg at 90deg orientation with each other

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

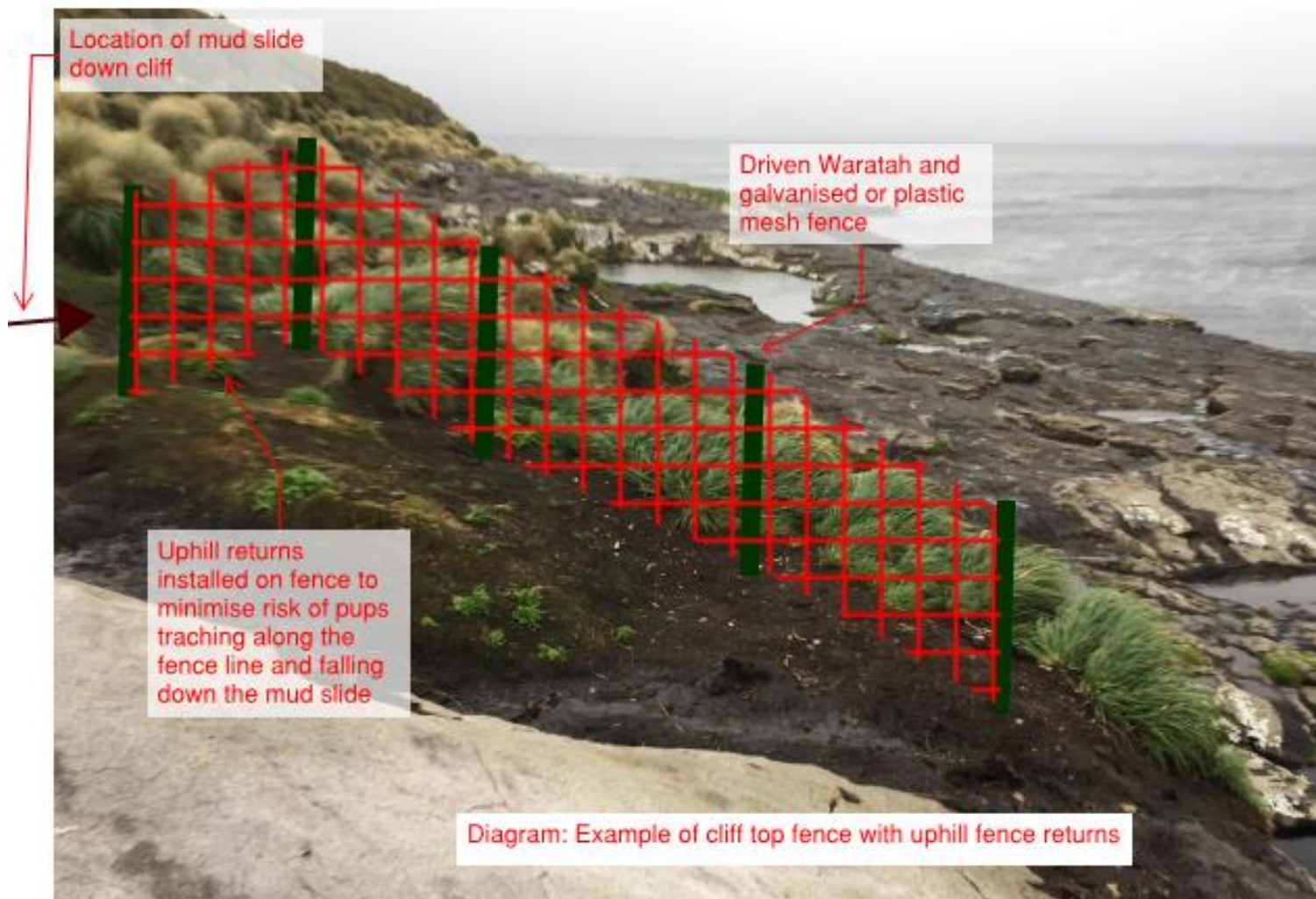




## Mitigation Idea's: Hand Cut channels to drain bog's

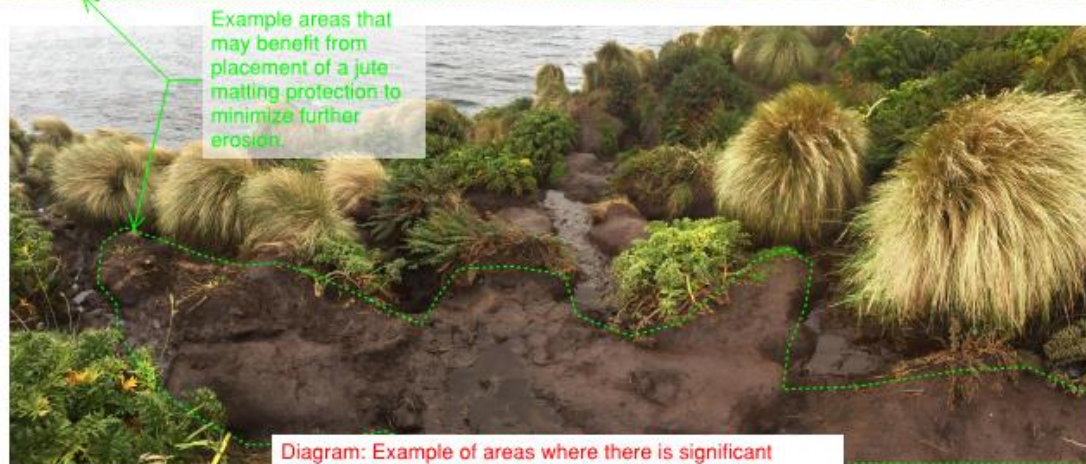


## Mitigation Idea's: Cliff's (Davis Point Mud colony Cliff 1 & 2)





## 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 photograph of Campbell Island, showing a large, grassy mountain in the background, a body of water in the middle ground, and a rocky shoreline in the foreground. The sky is overcast with soft light.

Closing comments & Questions

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