Continuing the Care

As part of the DPLUS206 Freshwater Project, we conducted for freshwater monitoring to support ongoing data collection and equipment maintenance.

This work forms part of our broader goal to establish consistent, long-term environmental baselines that support scientific research and guide freshwater resource management.

We extend our sincere thanks to our project partners and local landowners for supporting this important monitoring work and enabling continued site access.

UK Centre for Ecology & Hydrology

Together for Water Security

Healthy freshwater systems are key to the Falklands' future. Monitoring and working together ensures water for people, wildlife, and future generations.

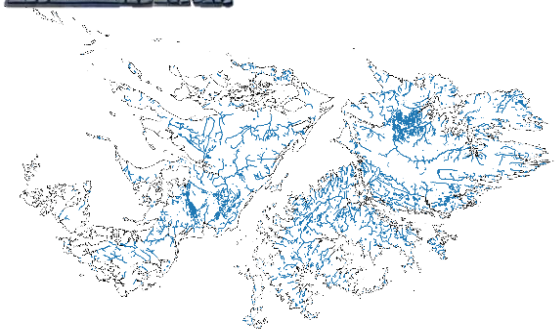
We are especially interested in collaborating with local landowners to better understand how freshwater availability and soil moisture has changed at the farm level. These insights will help ensure the project reflects real-world, on-the-ground conditions and contributes meaningfully to local land and water management strategies. If you're a landowner and would like to share observations or discuss changes you've noticed over time, we would love to hear from you!

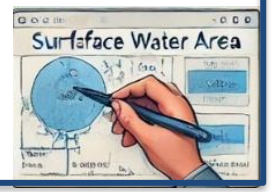
NKo@saeri.ac.fk

FALKLAND ISLANDS GOVERNMENT

DARWIN PLUS

Freshwater Report Card Falkland Islands





Integrated Freshwater Report Card – Falkland Islands

Introduction

The Falkland Islands Freshwater Report Card provides a summary of current knowledge on the condition of surface water areas and soil moisture across the islands. It aims to raise awareness about the state of these vital freshwater resources and support future environmental management.

This report builds on data analysis through the Freshwater Project, funded by the UK Government through Darwin Plus and the Falkland Islands Government, and delivered in partnership with the UK Centre for Ecology & Hydrology (UKCEH).

Why Do We Monitor Freshwater?

Freshwater is vital for:

- Biodiversity conservation
- Grazing and farming
- Ecosystem health
- Drought and climate resilience

Regular monitoring ensures early detection of water stress, informs planning, and helps communities and landowners make informed decisions.

What Do the Grades Mean?

Grade	Meaning
A	Excellent condition; resilient
A–	Very good; minor issues
B+	Good with improvements
B	Mostly stable
B–	Moderate; emerging imbalance
C	Vulnerable to stress
D/F	Urgent attention needed

How Are Grades Calculated?

Grades are based on the direction and magnitude of trends observed in seasonal hydrological indicators: Trend analysis on seasonal rebound (soil moisture & surface water areas). Composite score from both indicators.

What We Monitor?

We monitor key hydrological indicators that reflect the condition and trends of freshwater ecosystems:

Surface Water Area

Data Source: Global Surface Water (GSW) dataset

Metrics: Summer Minimum and Winter Maximum surface water extent (in km²)

Soil Moisture

Data Source: Sentinel-1 SAR backscatter-derived indices

Metrics: Seasonal minimum (summer) and maximum (winter) soil moisture values

Hydrological Rebound

Definition: The difference between winter maximum and summer minimum (Winter Max – Summer Min) for both datasets

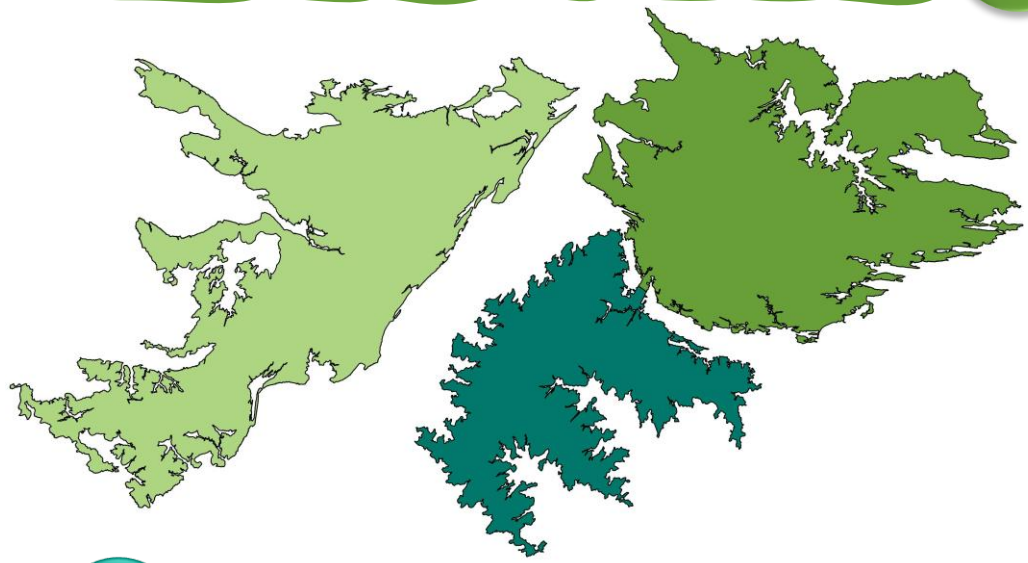
Why it matters: It reflects the system's capacity to recharge and retain water seasonally.

B-

West Falkland shows declining surface water offset by strong soil moisture rebound. Seasonal gains need monitoring.

East Falkland shows positive trends in both datasets. Increasing seasonal rebound but summer dryness remains.

B+



A-

Lafonia demonstrates stable and improving moisture, moderate surface water increase. Resilient zone.