Handout 2: Soil assessment

Soil assessment for erosion, surface runoff, and compaction.

Part 1: Risk Assessment based on a map, which needs to be done once only as the features do not change.

Needs to take into account:

- Soil type – light, medium, heavy, peat
- Slope
- Receptor – what's at the bottom of the slope – watercourse, road, house, good habitat
- Positions of gates
- Flood-risk
- Field drains

Part 2: In addition, look at some land (20%) each year for:

1. **Soil structure** – looking for surface capping, dense layers within the soil that would impede drainage, or plough pans if relevant.
2. **Biological indicators** – worms
3. **Soil organic matter** – can be included with normal soil samples for pH, P, and K

More advanced levels could include further tests for soil health such as soil respiration.

Soil Management Plan (table below) – currently suggested only in the Advanced level of the Improved Grassland Soil standard. Record field details as below, in addition to the soil assessment already outlined above.

Field name / ref	Details / cropping	Problems	Proposed actions
Mowey Field SX0000000	Medium soil Moderate risk due to slope	Surface capped from sheep grazing winter 2021-22	Aerate soil when dried out. Shut up for hay to rest field for summer.
Rock Park SX0000000	Lighter soil, river at bottom of field Very high risk but in permanent pasture	None currently	Avoid for winter grazing because of soil type and location
Barn Park SX0000000	Medium soil Low risk as very gentle slope	Some compaction at 3", possibly due to hauling silage	Aerate when soil drier. Try to avoid cutting or spreading on this field in 2022.

Example Soil Assessment Map