

38. Carbon sequestration

Sensitivity Assessment

Experts were consulted when compiling this sensitivity analysis for carbon sequestration. Insufficient evidence is available on the recovery of sequestered carbon in the context of the Celtic Sea upon the cessation of some pressures and therefore the resilience has been assigned as 'No Evidence'.

Table A11.38. Sensitivity assessment for carbon sequestration. Associated sectors include activities related to offshore renewable energy (O), Fishing (F), or shipping (S). NR = not relevant, NA = not assessed, NEv = no evidence, H = high, M = medium, L = low, NS = not sensitive.

| Pressures | | Associated sector(s) | Resistance | | | | Resilience | | | | Sensitivity | | | |
|----------------|---|----------------------|------------|-----|-----|-----|------------|-----|-----|-----|-------------|-----|-----|-----|
| Classification | Pressure type | | Score | QoE | AoE | DoC | Score | QoE | AoE | DoC | Score | QoE | AoE | DoC |
| Physical | Physical loss (to land or freshwater habitat) | O | N | L | L | NR | VL | L | L | NR | H | L | L | NR |
| | Physical change (to another seabed type) | O, F | N | L | L | NR | L | L | L | NR | H | L | L | NR |
| | Physical change (to another sediment type) | O, F | N | L | L | NR | L | L | L | NR | H | L | L | NR |

| Pressures | | Associated sector(s) | Resistance | | | | Resilience | | | | Sensitivity | | | |
|----------------|---|----------------------|------------|-----|-----|-----|------------|-----|-----|-----|-------------|-----|-----|-----|
| Classification | Pressure type | | Score | QoE | AoE | DoC | Score | QoE | AoE | DoC | Score | QoE | AoE | DoC |
| | Habitat structure change-removal of substratum (extraction) | O | N | L | L | NR | L | L | L | NR | H | L | L | NR |
| | Abrasion/disturbance of substratum surface or seabed | O, F | N | L | L | NR | L | L | L | NR | H | L | L | NR |
| | Penetration or disturbance of substratum subsurface | O, F | N | L | L | NR | L | L | L | NR | H | L | L | NR |
| Physical | Changes in suspended solids (water clarity) | O, F | M | L | L | NR | M | L | L | NR | M | L | L | NR |
| | Smothering and siltation changes (light) | O | M | L | L | NR | M | L | L | NR | M | L | L | NR |

| Pressures | | Associated sector(s) | Resistance | | | | Resilience | | | | Sensitivity | | | |
|----------------|--|----------------------|------------|-----|-----|-----|------------|-----|-----|-----|-------------|-----|-----|-----|
| Classification | Pressure type | | Score | QoE | AoE | DoC | Score | QoE | AoE | DoC | Score | QoE | AoE | DoC |
| | Smothering and siltation changes (heavy) | O | M | L | L | NR | M | L | L | NR | M | L | L | NR |
| | Underwater noise | O, F, S | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| | Electromagnetic energy | O | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| | Barrier to species movement | O, F | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| | Death or injury by collision | O, F, S | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| Hydrological | Water flow changes | O | M | L | L | NR | M | L | L | NR | M | L | L | NR |
| Chemical | Transition elements & organo-metal contamination | O, F, S | M | L | L | NR | NEv | L | L | NR | Sensitive | L | L | NR |

