

Environmental Standard Operating Procedure

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| ESOP Name | Reed Rond Re-use |
| ESOP Number | 26 |
| Revision Date | 22/02/2024 |
| Related ESOPs | 2 Biosecurity 3 Bankside sediment disposal 10 Working with water voles |



Aim

Reed rond is a valuable habitat, offering many lifecycle opportunities for birds, mammals, invertebrates and birds as well as wider benefits in terms of erosion protection and flood capacity. Where reed rond habitat has been identified as desirable for sediment re-use, certain considerations and procedures should be followed to ensure rond habitat is maintained/improved/recreated as part of the sediment re-use process.

This standard procedure aims to facilitate identification of suitable areas of reed rond habitat to use as temporary storage of wet dredged sediment. Sediment should be re-profiled and re-used to provide additional material for floodbank strength and/or improvements.

Delivery Method

- Works to be identified at least 18 months prior so that an ecological assessment can be undertaken in advance of the main species survey season.

- Strategic site selection process to be carried out to identify and map preferred dredging re-use areas (from dredging re-use perspective). Criteria will include distance from dredging site, volumes required, possible re-use and whether return use is likely.
- Selected sites to then be assessed for their general ecological features and wider use, e.g. flood/erosion protection, commercial reed harvest and the proportion of rond being proposed for sediment re-use.
- From this selection, individual re-use sites to be chosen where there is least ecological impact with follow-up detailed Ecological Assessment.
- Width of rond will dictate whether disposal is linear (for narrow ronds) or over a concentrated area (wider ronds).
- Ground conditions & substrate type will guide type of machinery and methodology, e.g. limited tracking on soft surface to limit compaction.
- Sediment re-use on ronds should only be for a temporary period to allow for the dewatering and drying of sediment.
- Sediment to be reprofiled 12 to 18 months after placement, either onto folding if habitat, space and landowner allow or to widen existing floodbank; this can then be used for future bank strengthening.
- Sediment to be removed from majority of rond surface to reinstate/improve ground level and allow free flow of water on and off the rond; this is required for good reed growth.

Standard Procedure

Pre-works

- Ecologist to carry out an ecological assessment of the site, surveys for protected species and provide advice on mitigation required and timings for works. Further measures may be recommended, including consideration of commercial reed harvesting and plans for reprofiling/restoration.

Operational

- As ronds are generally quite open habitats. existing features such as trees and shrubs should be retained where possible, or consider coppicing.
- Retain/reinstate existing water features where possible to maintain water flow. Additional 'low points' to be created as part of reprofiling.

- Ensure that the overall level is left low (e.g. mean water level), as this promotes optimal conditions for reed establishment and discourages the establishment of nettles and willow. Assess each site on an individual basis to determine optimal final fill level.
- Monitor vegetation establishment over two seasons, and record results for future projects. Treat any invasive species/scrub as necessary.
- If rond area is cut for commercial reed or has potential to be managed commercially, communication with reed cutters should commence at an early stage. Compensation, access & water flow considerations should be included within re-use plans.

Consultation

- Natural England will need to be consulted for protected sites consent if the site is within a protected site.
- The Broads Authority planners will need to be consulted if planning permission is required
- Environment Agency Flood Risk Activity Permit (FRAP) assessment if works within 16m of main river
- If commercial reed is cut from the site then consultation with the reed cutters is essential.

Risk Assessment

| Hazard | Initial Risk | | | Controls / Safeguards / Precautions | Revised Risk | | |
|-------------------------------------------------------------------------------------------------------------|--------------|---|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---|---|
| | S | L | R | | S | L | R |
| Damage or destruction of reed rond habitat over the longer term (changes to levels preventing reed recover) | 4 | 4 | C | Storage of sediment to be temporary, land level of rond to be recorded and agreed; level to be reinstated as part of the restoration process | 4 | 1 | B |
| Damage or destruction of protected species or habitats including death of individual animals. | 3 | 3 | B | Survey and mitigate for water voles, reptiles and breeding birds. | 3 | 1 | A |
| Temporary and/or long-term loss of commercial reed rond. | 4 | 3 | B | Avoid commercial areas where possible and maintain communication with commercial reed cutters. Reinstatement of suitable rond level following sediment storage and improvements to access. | 4 | 1 | A |
| Establishment of invasive species | 3 | 2 | B | Should not occur if correct level achieved, monitor and treat as necessary. | 3 | 1 | B |
| Audible or visual disturbance of breeding/overwintering birds. | 3 | 2 | B | Checks of the disposal site to be undertaken by ecologists before works begin and timings set to avoid impacts | 3 | 1 | A |

Matrix

| | | LIKELIHOOD | | | | | RISK |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---------------|----------|-------------------|--------|-------------|--------------------------------------------------------|
| | | Very unlikely | Unlikely | Moderately likely | Likely | Very likely | |
| SEVERITY | | 1 | 2 | 3 | 4 | 5 | |
| Low (minimal, short-term disturbance levels and negligible damage to native habitats.) | 1 | A | A | A | A | A | A OK. Work to provisions in risk assessment |
| Medium (moderate, short-term disturbance levels, some damage to native habitats/species. Regenerates quickly.) | 2 | A | A | A | B | B | B Proceed with caution. Dynamically review risks. |
| High (high disturbance levels over a longer period and displacement of species. Damage to native habitats. Significant time to regenerate) | 3 | A | B | B | C | C | C Cancel task. Approach project in a different way. |
| Very High (Long-term disturbance with displacement/death of species. Significant damage to native habitats that takes a significant time to regenerate.) | 4 | B | B | C | C | C | |