



Natural England
 Renslade House
 Bonhay Road
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NORTHAM BURROWS HIGHER LEVEL STEWARDSHIP MANAGEMENT PLAN

Produced by	Justin Gillett Natural England Renslade House Bonhay Road Exeter EX4 3AW
Date produced	1 st April 2013
Version	1 (15 th March 2013)
Review frequency	Annually or at the request of Natural England or Agreement Holders
Agreement Holders	Torrige District Council and Northam Town Council
Next review date	1 st April 2014

Purpose of management plan

This plan forms the main management plan document that helps guide the management and builds on the basic prescription sets for HP02. The plan is a live document and it is expected that this will require regular reviews; at an annual frequency as a minimum. Although this plan will form the main document that helps guide management, there will be a number of important 'supplementary plans' that will be crucial in guiding management. This will include a scrape management plan, a scrub management plan and a Historical & Archaeological Feature Protection (HAP) survey. These will be funded under PAH and HAP codes in the HLS and the HAP will require a survey brief to be created. The brief will be produced by Cressida Whitton, DCC Historic Interest Adviser in the first year of the agreement.

Key objectives

To deliver favourable condition over the SSSI as a whole, while ensuring that other important environmental features such as the historic interest and landscape value are also conserved.

Key targets

Targets will focus on two main habitat types – Fixed (& semi-fixed) Dune Grassland and Humid Dune Slacks. Although other types of dune are present (Mobile Dune) their extent is very small and provided they are present this is adequate. Strandline & embryo dunes largely absent due to presence of pebble ridge.

Fixed Dune Grassland - sward composition and structure

1. The sward should contain >30% cover of forbs and <70% cover of grasses.
2. Bare ground or sand present, but no more than 10 % total area
3. At least **eight** typical species present at more than occasional level.

Aira praecox, Astragalus danicus, Carex arenaria, Carex flacca, Cerastium fontanum
Crepis capillaries, Cladonia spp., Erodium cicutarium, Euphrasia officinalis, Festuca rubra
Galium verum, Geranium molle, Hypnum cupressiforme, Hypochaeris radicata, Linum catharticum, Lotus
corniculatus, Luzula campestris, Odontites verna, Ononis repens, Peltigera spp., Pilosella officinarum,
Plantago lanceolata, Prunella vulgaris, Rhinanthus minor, Rhytidadelphus squarrosus, Rhytidadelphus
triquetrus, Thymus praecox, Tortula muralis, Trifolium repens, Sedum acre, Veronica chamaedrys
Viola canina, Viola riviniana, Viola tricolor

4. Non-native species no more than rare.
5. Any one of the other negative indicators no more than frequent throughout the sward, or singly or together the cover of negative indicator species no more than 5%.
6. Scrub/trees no more than occasional, or less than 5%
7. Flowering and fruiting of dune grassland to at least frequent level in period May-October. Level and timing of stock grazing should be sufficient to allow adequate seed production. Flowering is also important for many invertebrates (e.g. for nectar).
8. Sward height target - by the end of the main grazing period (31st March), 50-70% of sward within Fixed Dune Grassland areas should comprise species-rich short turf that is 2-10 cm.

Humid dune slacks - sward composition and structure

1. The sward should contain >30% cover of forbs and <70% cover of grasses.
2. Bare ground or sand present, but less than 5% of the total dune slack area.
3. **Four** or more typical species at least frequent and **two** or more others at least occasional. Bryophytes (e.g. *Calliergonella cuspidata, Campylium stellatum*) at least occasional. Typical species: *Salix repens, Mentha aquatica, Carex flacca, Carex arenaria, Ononis repens, Lotus corniculatus, Ranunculus flammula, Potentilla anserina, Hydrocotyle vulgaris, Calliergonella cuspidata, Galium palustre, Campylium stellatum, Equisetum variegatum, Lotus corniculatus, Prunella vulgaris, Anagallis tenella*
4. Non-native species no more than rare.
5. No more than one other negative indicator species more than frequent or singly or together the cover of negative indicator species no more than 5%. Negative indicator species: *Cirsium arvense,*

Cirsium vulgare, *Cirsium palustre*, *Lolium perenne*, *Senecio jacobaea*, *Urtica dioica*, *Pteridium aquilinum*, *Arrhenatherum elatius*. *Lolium perenne* is indicative of agricultural improvement.

6. Scrub/trees (in addition to *Salix repens*) no more than occasional, or less than 5% cover.
7. Specific plants

1. Maintain presence of **sharp rush *Juncus acutus*** at least at occasional frequency in areas mapped as humid dune slack with *Juncus acutus*.
2. Maintain population of at least 2280 **water germander *Teucrium scordium*** flowering stems (1992-98 average) in at least one slack.
3. **Sand/dune pansy *Viola tricolour ssp curtisii*** maintain presence
4. *Bromus hordeaceus ssp thominii* maintain presence
5. Maintain presence of **chamomile *Chamaemelum nobile*** on site

Management activities

1. Grazing

To deliver these sward targets initially and as a guide it is recommended that grazing ranges are set as follows:-

- August-March **0.5-0.6 LU*/ha**
- April-July **0.15-0.3 LU*/ha**

*LU = Livestock Unit, Sheep = 0.15 LU (includes lambs at foot), Pony/horse 1 LU

These are minimum and maximum stocking rates and not averages. The rates are based on recent condition assessment data being cross referenced with the grazing returns for the last 3 years. The site was under cross-compliance measures which impose an annual average stocking level no greater than 0.78 LU/ha and a grazing level of 0.4 LU/ha for period 1st April-30th June.

The proportion of sheep to equine stock should ensure that a minimum of 10% of LUs at any one time should comprise of horses & ponies and this should not exceed 30% of LUs at any one time. This would be subject to regular review (concurrent with overall grazing levels and times).

In the first agreement year (1st April 2013-31st March 2014) grazing levels will follow the cross-compliance levels detailed above to allow for a period of adjustment (grazing allocations are set in February of each year and current allocations have had to be agreed in advance of the HLS agreement being in place, thus the default cross compliance levels have been used by Northam Town Council). Following this transition period grazing levels will need to be amended to fall in line with the levels set out in this management plan.

Periodic condition assessments will provide the information required to carry out reviews of the stocking levels.

2. Mechanical works

Scrape creation programme - this will be produced by a contractor in the 1st year (1st April 2013 - 31st March 2014)

Scrub control programme - this will be produced by a contractor in the 1st year (1st April 2013 - 31st March 2014)

*HAP will be used to help inform exact location of scrub and scrape works so that areas of high historic interest are not adversely affected.

3. Golf

The golf course runs over much of the area that is under the HLS HP02 option. Tees, greens, aprons and bunkers have all been excluded from the Restoration of Sand Dune (Code HP02) area. However, the fairways - which retain a high level of botanical interest - are included in the HP02 area. There are a number of activities that have been consented on the golf course fairways and these are detailed below. It is accepted that where there is conflict with the targets set above the agreed golf management will take precedent and allowance for these activities will be made when assessing whether a specific target has been met.

- Key activities

Repairing of divots with a mixture of 5 parts sand to 1 part loam soil plus approved fairway seed mix. Divots should be periodically repaired and golfers should be encouraged to replace divots after a shot. Turf repairs of damage caused by animal, vandalism or spillage and less than 2 m² repaired with method described above.

Maintain the existing underground drainage system by rodding and flushing

Chain harrowing to break up animal dung. Fairways only plus 3 metres of semi-rough either side and walkovers between green and next tee. Chain harrowing when the soil surface is flooded or frosted

Cutting of fairways no lower than 18mm

Weed control – daisies only – blanket treatment on holes 1, 2 17 & 18

Litter/grass clipping recycling

Rolling – light rolling only. Two operations per year

Line marking for hazards and other definitions

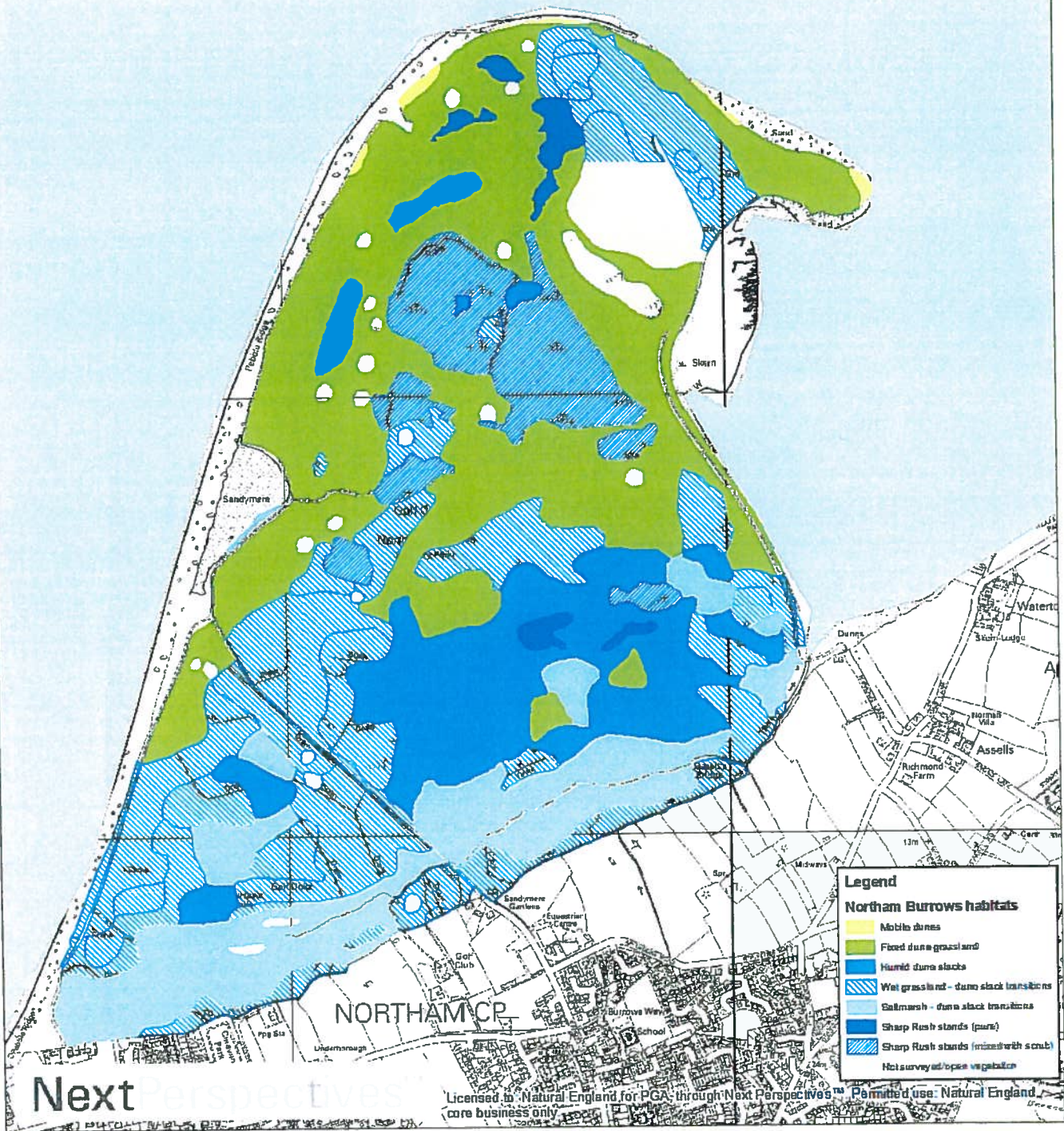
4. Other activities

There are a number of other activities on Northam Burrows including recreational use. However, in terms of HLS these activities are not deemed to have a direct bearing on the HLS aims and outcomes. However, it may be necessary to include activities should it transpire that they are impacting in a significant way on HLS outcomes.

Schedule of capital works

Item description	Completion date	HLS funding	To be completed by
Brief for HAP	31 st May 2013	£400 (PAH)	Cressida Whitton, DCC Historic Adviser
HAP	31 st December 2013	£10, 000 (estimate)	Contractor
Scrub control programme	31 st March 2014	£400 (PAH x1)	Contractor
Scrape control programme	31 st March 2014	£800 (PAHx2)	Contractor
Temporary fencing	Quotes received by 31 st July 2013, completed by 31 st March 2014	(OES)	N/A

Northam Burrows - habitat map



- Legend**
- Northam Burrows habitats**
- Mobile dunes
 - Fixed dune grassland
 - Humid dune slacks
 - Wet grassland - dune slack transitions
 - Saltmarsh - dune slack transitions
 - Sharp Rush stands (pink)
 - Sharp Rush stands (mixed with scrub)
 - Not surveyed / open vegetation

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Scale (at A3): 1:8,501
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