

CHAPTER 2.3 FACTORS INFLUENCING MANAGEMENT

2.3.1 Natural Trends

- a) Succession to Woodland: In the absence of grazing the short grassland would develop into woodland, through long grass and scrub stages.
- b) Sward Recolonisation: The expected recolonisation of younger swards by chalk grassland species has been extremely slow. Management action is likely to be needed to accelerate this process.
- c) Ageing of Scrub: Under continuous grazing pressure scrub development appears to follow a pattern, whereby gorse nurses and allows the development of other species mainly hawthorn. This process has allowed a wide range of hawthorn age classes. The gorse, however, is becoming senescent and is showing few signs of regeneration. Gorse regeneration needs to be monitored and may need to be encouraged. The older hawthorn is becoming leggy.
- d) Ageing of Trees: The beech trees in the plantations are ageing and a few are lost each year. There is very little regeneration. A replanting programme is in hand and will continue.
- e) Animal Populations: The populations of rabbits, badgers and foxes appear to be increasing. At high populations all species can present management problems and as in the past may need to be controlled. Stone curlews, in contrast have suffered a drastic decline nationally.

2.3.2 Man-Induced Trends

Castle Barn and Down are under a stable grazing regime and no trends are observable. The grazing pattern has changed on Parsonage Bank, resulting in an observed reduction in the *Gentianella anglica* population.

The re-sale of land following NCC's purchase in 1980, was responsible for the management changes on Parsonage Bank. It was possibly a factor contributing to the loss of the stone curlew population. Adjustment of the pattern of management on the back-up land was needed to maintain the same pattern on the main down, and to maintain profitability. The management on the back-up land is still evolving and future changes are likely to be made in response to developments in the conservation and agricultural climate.

There has been an increased use of the reserve for undesirable, illegal hare coursing. This not only damages the hare population but also upsets livestock. It is, however, difficult and dangerous to prevent.

2.3.3 Externalities

a) Agriculture

- i) Disease: There is the risk of disease spreading to reserve livestock from adjacent animals. In 1987 a double fenceline was erected along part of the boundary to prevent the spread of an orfe outbreak. Should livestock farming on neighbouring farms increase the risk will also increase.
- ii) Fertiliser run-off: This may occur to some extent; some small dry valleys adjacent to and draining arable land have a brighter green colouration. However, this effect may be due to deeper soils. No marked sward changes have been attributed to run-off.
- iii) Spray drift: Neighbouring farmers take care to prevent spray drift and no effect on flora and fauna due to drift has been observed. When adjacent land is being sprayed, however, it can be smelt by people on the reserve.

b) Military Use

The reserve has long been used as a flight path by low flying military aircraft. This can disturb stock, particularly at sensitive times such as when cows are calving. It is a common problem around Salisbury Plain and the Military are unresponsive to complaints.

Following the 1987 purchase of the arable land to the north of the reserve, an increase in military training up to the boundary will occur. The main problem would be damage to the sward by accidental incursion by large military vehicles. Liaison to prevent incursion has taken place and an arable strip has been maintained between the training area and the reserve. There may be opportunities for conservation measures here, particularly for stone curlews.

c) Stonehenge Festival

The proximity to Stonehenge and the potential for trespass and damage at the Summer Solstice will require continued alertness at this time of year.

2.3.4 Obligations

a) Legal Obligations

- i) Wildlife and Countryside Act 1981: The downland section of the reserve was notified as an SSSI on 18.4.86. Consent is needed to carry out Potentially Damaging Operations (PDOs). A general consent for activities carried out by NCC staff was given on 13.10.86.
- ii) Ancient Monuments and Archaeological Areas Act 1979: Two Scheduled Ancient Monuments occur on the reserve (1.2.3.1). NCC is under a legal obligation to keep these monuments intact, and inform the appropriate inspector before disturbing the soil.
- iii) Occupiers' Liability Act 1984: NCC is liable for the safety of both authorised and unauthorised visitors.
- iv) Health and Safety at Work Act 1984: NCC is obliged to have regard for the health, safety and welfare of its employees. (See 2.3.5.3.)
- v) Agricultural Legislation: NCC is obliged to carry out statutory prophylactic treatment of livestock, to adhere to livestock transportation legislation, to control agricultural pest species, and to dispose of farm chemicals safely. The fulfilment of certain agricultural regulations may conflict with PDOs (see 2.1.2).

b) Other Obligations

- vi) Robert Wales' Memorandum: It was the wish of Robert Wales, in a memorandum with his will, that the farm was to be kept as far as possible as one unit, that Bill Elliott was to be retained as farm manager and that as many as possible of the rare breeds were to be kept and bred for posterity. NCC was unable to fulfil the first of these wishes being obliged by the Secretary of State for the Environment to sell some land. Bill Elliott was appointed as Warden. The Longhorn herd has been retained, but other rare breeds have not proved practical

so far, perhaps because of the tight sward created by continuous grazing. Further measures may be necessary to realise this potential.

- ii) Secondary habitats: Areas of secondary biological richness can be enhanced by management. There is a limited potential to extend these habitats, which include broadleaved plantation, scrub, dewpond, long herbage and hedges.
- iii) Demonstration: Parsonage Down NNR has great potential, already partly realised, for demonstrating to agricultural land managers and students techniques of low-input low-output agriculture and the reconciliation of profitable agriculture with nature conservation. The demonstration of agricultural techniques to conservation managers could also be further developed as could, in a more limited way, the interpretation of nature conservation to the general public.
- iv) Reinstatement of previously occurring species: There is the potential to encourage recolonisation by stone curlews which bred until 1980. The creation of suitable breeding habitat may achieve this. There is also the potential to re-establish the Adonis blue butterfly if the present conditions are considered suitable.
- v) Research: The high research potential of the reserve was realised soon after NCC involvement (Williams 1970, Hornby 1979). The reserve is largely free from disturbance, and has complete control over stock and farm practice; this coupled with its uniform structure and long continuity of stable management means it has a great potential for ecological, archaeological and agricultural research.
- vi) Recreation: The NNR is unsuitable for recreation. There is no public access, and the farming system has adapted to this. Thus breeding stock are on the down all year and not only sensitive to disturbance at critical times but both bulls and cows with calves can be aggressive.

2.2.1.10 Intrinsic Appeal

Parsonage Down has not been rated highly on landscape grounds by the Countryside Commission. Chalk grassland with its long association with human endeavour, atmosphere (archaeological features, anthills etc), and attractive plants, especially orchids does, however, have a high intrinsic appeal on the reserve. These features

to keep.

- vii) Secretary of State for the Environment: The SoS only provided additional grant-in-aid to purchase the reserve on the understanding that NCC sold as much land as necessary to repay that loan.
- viii) Neighbours and Local Community: Good relations should be maintained between the reserve and the local community, especially neighbouring farmers and the Military. Local groups and schools should continue to receive preferential treatment for group visits.

2.3.5 Legal Constraints

2.3.5.1 Constraints of Tenure

- i) The whole reserve is NCC freehold free from encumbrances.
- ii) Under the Occupiers' Liability Act 1984 NCC is responsible for all visitors including trespassers. This imposes a constraint on NCC's access policy, as visitors on foot cannot mingle safely with livestock. They have to be transported on farm trailers (which must be made safe by side rails); this creates extra staff and equipment costs and causes conflict in the use of both for farming activities and interpretation (see 2.3.6).

There are few trespassers on the reserve save hare coursers. This situation could change if the track at Castle Bushes becomes a Byway Open to All Traffic and is used more.

- iii) The NCC has covenanted amongst other things not to excavate above or below or carry out construction work within 6 feet of the Esso oil pipeline crossing High Down (compt 10/11). Ploughing is acceptable but other work requires consultation.

2.3.5.2 Constraints of Access

- i) NCC has unhindered access to virtually all the reserve. However, due to an ownership dispute with the MOD, activities are curtailed in Castle Scrub (compt 1a).
- ii) There are no public rights of access to the main body of the reserve. A

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livestock farming.

The Treasury requirement to run the reserve on a Trading Account and to show there is no overall cost to the public purse is a significant constraint on the management of the site. Financial comparisons with normal farms are distorted by Treasury accounting procedures, surrender of profits and ineligibility for some Government grants.

2.3.7 Impact Assessment

The foregoing Factors Influencing Management are discussed here in relation to their impact on each of the Ideal Management Objectives (2.2.5).

1. a) Maintain uniform calcicolous grassland habitat: Successional processes will rapidly destroy the specialised short turf communities if grazing is removed or even relaxed. Special arrangements (long hand-over period) will be needed to pass on the skills needed to maintain the required balance to a new Warden. The shortage of scientific staff will hinder the necessary monitoring programme.

The Treasury requirement for profitability necessitates carrying more stock than is needed just to graze the down; this puts an extra strain on staff resources.

- b) Maintain rare and restricted species: The decline in Gentianella anglica following changes in grazing patterns on Parsonage Bank serves as a warning that even minor alterations to the established regime can affect individual species.
 - c) Maintain the secondary habitats on the reserve: The ageing processes in the scrub areas will necessitate rejuvenation by coppicing or replanting, while the progressive die back of mature beech will also have to be countered by a continuous replanting programme.
2. a) Encourage reversion of semi-improved downland: Natural recolonisation appears to be extremely slow or even absent, so artificial methods will have to be considered. These could include lighter grazing, taking a hay crop or even re-seeding. These again will have to be considered in the light of the balance of grazing (see 1b) and profitability.

- b) Develop secondary habitats on the reserve: The establishment of new hedges is labour-intensive and will have to be staged over several years. The loss of profitable land will have to be on a small scale unless set-aside policies provide compensation.
 - c) Re-establish breeding populations of rare species: Natural trends may hinder re-establishment of stone curlew, as the regional population is now so small. The increase in foxes will also create difficulties. The effect of habitat creation will have to be weighed carefully against downland management and profitability. The opposite is true for the adonis blue, as increasing rabbit populations may improve habitat for this species.
3. a) Use the NNR for demonstration: Shortage of staff and safety factors will limit the expansion of this role and require carefully targetted audiences. The Treasury requirements are in this case a positive factor, as farmers will be more easily influenced by demonstrating a profitable enterprise.
- b) Provide facilities for research: There are unlikely to be the necessary staff resources within the Region. Research will have to be commissioned by CSD or, more probably, come from external sources.
 - c) Provide facilities for public enjoyment: Safety factors and limited staff and vehicle resources make this impracticable on any but a very small scale.

PARSONAGE DOWN NATIONAL NATURE RESERVE

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