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Part IV. Expenditure for habitat improvement

A. MEIKLE

Summary

Minimum expenditure involved in the improvement and management of the reserve is itemised for the period 1956-1966. Of a total outlay of £3,945, £3,230 has been assumed by the owners of the Kent Sand and Ballast Company, and £715 was spent by wildfowlers whilst collecting data and establishing plants and wildfowl in the reserve.

An estimate of the basic cost of converting the original gravel pits into a functional experimental wildfowl reserve is given here as it shows just how great our debt of gratitude is to the Kent Sand and Ballast Company in bearing so large a share of the financial burden of this project.

Among the first improvements to be made was the excavation of shallow pools along the margins of each lake. Six pools have been made, each taking approximately three hours to prepare, at a minimum cost of £1 10s. per hour for labour and equipment. Total cost £27.

After excavations in the East lake, it was found necessary to construct spits in some regions, otherwise a great deal of potential loafing and territorial areas would have been lost. Cost of construction varied according to size and location of spits and weather. Seven smaller spits, each taking about ten hours at £3 per hour were made with *in situ* material. Two large spits involved transportation of material each taking 40 hours to complete at a cost of £5 10s. per hour. Total cost of the nine spits: £503, after making allowance for routine work, which would have been done in any case.

An island, carrying several trees, was left in the East lake at a total cost, including 1,800 cu. yds. of saleable material and extra expenditure involved in adjacent excavation, estimated at £800.

Artificial raft islands have been constructed using steel tanks worth at least £10 each. The four rafts, which have

proved to be of immense value as nesting sites for geese and great-crested grebes, cost a total of £200, whilst a further £50 has been spent on maintenance.

Of the 4,000 trees now established within the reserve 1,500 have been planted by the company, at an estimated cost of 8d. each. Total cost £50.

Since 1960, a full-time groundsman has been employed for general maintenance within the grounds. Total wages, etc., have amounted to £4,800, one third of which may be attributed to the reserve itself (the company and fishing interests assume the remainder). Total cost £1,600.

This gives a total cost to the reserve which has been borne by the company over the seven years ending December 31st, 1966, of £3,230. What has this very considerable sum achieved? The wildfowl count results, given by Harrison, Harrison and Mickle (1967), speak for themselves. But far more has been achieved than can be analysed in a paper such as this. The reserve has served as a proving ground for many new techniques of management, and will continue to do so, we hope, for many years to come. Valuable information of wide application has been obtained through being able to study wildfowl in relation to their environment at close quarters. And by no means last nor least, the Kent Sand and Ballast Company have shown that gravel extraction need not lead to dangerous and useless tracts of waste land. They have provided a shining example of how those responsible for industrial development and for wildfowl

conservation can combine together with splendid results; indeed, it is widely acknowledged as such by naturalists, scientists, and sportsmen, both in this country and abroad.

In view of the fact that naturalists are beginning to realise that they are going to have to contribute to the cost of conservation and for the privilege of being able to enjoy such facilities as bird watching, it is perhaps not irrelevant to conclude this section with the cost, which has been borne privately in the manage-

ment of this reserve up to the end of 1966.

Over the 11 years, the average mileage covered has been estimated at 2,000 a year, at a cost of £220. Some 2,500 trees and 2,800 other plants have been put in. Basing the cost of these at 8d. each, this gives a total of £176. The cost of obtaining and rearing a duck to the time of release has been estimated at 10s. In all, 614 Mallard and 24 Gadwall have been reared at a cost of £319, to give a total cost of £715.

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