

A HISTORY OF SUNNYBRAE FARM

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Sewage debate

Adelaide was the first city in Australia to have a water-borne sewerage system: the sewage farm was an integral part of this system.

As the population of the city and the surrounding areas increased so too did concern about the pollution of the Torrens. This had been a constant problem to those living down-stream and as early as 1853 there were steady complaints from people at Thebarton. Twenty years later the problem remained unresolved and had become one of concern because of 'the discharge of sewers within the City of Adelaide, and from the woolwashing and other works at Hindmarsh and Thebarton' which made the river a major health hazard, particularly in summertime. Precisely because the Torrens had become such a health hazard steps were taken to construct a system of deep drainage for the city and inner suburbs. [SAPP 38-1875, p.2]

An English hydraulic-engineer, William Clark, was invited to the colony to advise on several issues concerning Adelaide's water supply, and the opportunity was taken to have him advise on a possible sewerage scheme. He did so, suggesting that a sewage farm be established in the vicinity of Hindmarsh, with the discharge being made into the sea. [Hammerton, p. 38-9]

Debate on plans to sewer Adelaide and the close villages exercised the Parliament in 1878. There was little real debate on the need for such a scheme, but much discussion on the details. Thus, *An Act for the Better Sewerage and Cleansing of Adelaide and Suburbs Thereof*, passed both houses of Parliament in 1878 and was proclaimed early the following year. However, there were objections from the public about the site of the proposed sewage farm and contracts could not be let until this had been determined. In 1879, a Royal Commission was appointed to determine the most advantageous site for the sewage farm and recommended a site north of Adelaide at Tam O'Shanter Belt. Parliament fixed the site under the terms of the 1879 *Sewers Act*. [Hammerton, p. 57]

The Royal Commission had considered only two sites to be practicable: one at Tam O'Shanter Belt and the other at Findon. The commissioners unanimously recommended the site at Tam O'Shanter Belt. They believed:

That the character of the soil there is better adapted for sewage irrigation than that at Findon:

That a larger area of land for the purposes of the Sewage Farm can be obtained there than at Findon:

Sunnybrae Farm

That the price per acre for which the land at Tam o'Shanter Belt can be purchased will be much less than the land at Findon:

That from the Findon site the effluent water must either be taken into the River Torrens (which we think undesirable), or taken out to sea, which would entail a very heavy expense, while from the Tam O'Shanter Belt site an unobjectionable and cheap outlet may be located. [SAPP, 1879-174]

A report to the Sewage Farm Commissioners by the land agents Green and Co, dated 22 September 1879, outlined the state of the site at that time: the homestead and associated outbuildings of the sewage farm were built on portion of Section 391.

Section 380, Hundred of Yatala.

Portion of section lying to the west of the railway line, ploughed, well fenced, with posts and six wires; no other improvements. Portion of section lying to the west of the railway line, now being ploughed, fenced as above; no other improvements. - Value, £20 per acre.

Section 381, Hundred of Yatala.

This section is also divided by the railway line, is under crop, and fenced with posts and seven wires (comparatively new). The improvements, consisting of cottage built of brick, roofed (part shingle, part iron), are worth £150. - Value of land, £20 per acre.

Section 390, Hundred of Yatala.

Part under crop, part kept as pasture, well fenced with posts and six wires, and subdivided into paddocks.

The improvements (in addition to fencing) consist of a good dwelling-house, of eight or nine rooms, built of stone, and roofed with slate, wide slate verandah all round, large stone barn with slate roof, stabling, &c, and are worth £1,000. - The land we value at £20 per acre.

Section 391, Hundred of Yatala.

Eighty acres under crop, fenced with posts, rail, and two wires; no improvements.

Land worth £17 10s per acre (not quite such good land as sections above, and not so well fenced).

Section 397, Hundred of Yatala.

Township of Tam o'Shanter Belt.

Improvements on land lying to the east of railway line.

1. Fronting the Lower North Road, fenced with posts, rails, and four wires, four-roomed house, well built of stone, galvanised iron roof, tank, &c, about half-acre of garden; improvements worth £400. - Land worth £40 per acre.

2. Dwelling house of eight rooms, built of limestone, with slate roof, stabling, &c., (known as lately in the occupation of Mr Wadhand); improvements worth £700. - Value of land £40 per acre.

Improvements on land, part of section 397, lying to the west of the railway line, four-roomed cottage, built of limestone, with shingle roof, with say half-acre of garden. - Value £250.

All land of section 397, is worth £40 per acre, as the section has been sub-divided into small holdings, and the parties in occupation are making a living out of their properties.

Section 392, Hundred of Yatala.

Township of Tam o'Shanter.

1. S. Neville's property, standing on eastern portion of section, with house of four rooms, built of brick and stone, with iron roof, dairy newly-built of concrete and brick with iron roof, new four-stall stable of brick and concrete, shingle roof; improvements worth £400. - Value of land £30 per acre.

2. Small cottage built of limestone with shingle roof, small garden; improvements worth £150. - Land worth £30 per acre.

Sunnybrae Farm

3. House of six or seven rooms, built of concrete, with iron roof, dairy, &c. The property, though old, is in very good repair; the improvements, with lot of old stabling, sheds, &c., are worth £550 to £600. - The land we value at £30 per acre.
4. Small cottage built of brick and limestone with new iron roof, sundry sheds, stabling, &c., &c.; improvements worth £200.
All land of section 392 we value at £30 per acre, the soil not being of such good quality as section 397.
[SAPP - 1879-174, Appendix A]

Work began on building the deep drainage system in 1879, and 480 acres of land for the sewage farm, in the vicinity of Islington, was acquired in 1880.

Early History of the Site

The land which was acquired for the sewage farm was included in the country sections about Adelaide that were surveyed by teams under the general direction of Colonel William Light in 1837 immediately after the completion of the surveying of the city site on 10 March. The first 60,000 acres of country lands were surveyed by Christmas 1837, although it was 17 May 1838 before these sections were made available for selection by the original land-order holders.

The land taken up for the sewage farm was in the region known as Tam O'Shanter Belt, named after the barque *Tam O'Shanter* which ran aground in the Port River in December 1836. Sections 389 and 390 were originally granted to John Wright, of Covent Gardens in London, on 19 October 1839 and later acquired by Richard Day on 11 December 1850. Section 380, originally granted to William Howard on 22 October 1842 was also acquired by Day, on 24 October 1853. Sections 391 - and 400 - were originally granted to John Wright but were later acquired by Uriah Cheesman Whittle on 16 December 1863. Sections 379 and 392, bordering Regency Road were originally granted to Henry Mooringe Boswava on 3 October 1838 and were later subdivided as the township of Tam O'Shanter Belt.

Richard Day was a long-time South Australian, having migrated to the colony aboard the *Royal Admiral*, arriving on 22 January 1838. The move to Tam O'Shanter Belt reflected the prosperity of Day, who previously worked a far smaller eight-acre farm at Prospect. Day built his home on Section 390. Although described by 'Old Colonist' who passed through the region in January 1851 as 'uninteresting country' it evidently proved to be ideal farming land and underpinned the later success of Day. A measure of his success by April 1878, was his acting as host to 'about 50 gentlemen interested either in agriculture or manufactures [who] met on the farm of Mr. Day, Tam O'Shanter Belt, by invitation of Messrs. John Colton and Co., to witness a trial of the Osborne mowing and reaping and binding machine'. [Advertiser, 6 April 1978]

Uriah Cheesman Whittle, the owner of Section 391 at the time when it was acquired by the Commissioner of Sewers in 1880, was a later arrival. He was born in England in about 1805 and arrived in South Australia in 1849 aboard the *Rajah*. Besides farming at Tam O'Shanter belt he also farmed at Baroota and Freshwater Springs.

Having made the decision to establish the Sewage Farm at Tam O'Shanter Belt, 480 acres of land for the sewage farm was acquired by the Commissioner of Waterworks from Day, Whittle and others in 1880 at prices up to £50 per acre.

Sunnybrae Farm

The government was pleased with the acquisition of the land for the sewage farm, the land having 'been purchased at prices if anything below those estimated, thus justifying the prediction that the change of site for the farm would effect a very large economy of expenditure.' However, not all of the previous owners were as satisfied. Whittle considered himself to have been short-changed by the government and, as a consequence, lodged a petition in the Legislative Assembly outlining his grievance:

The petition of Uriah Cheeseman Whittle, of Baroota, farmer:
Humbly sheweth -

That your petitioner is the proprietor of two blocks of land situated at Tam o'Shanter Belt - one of eighty acres and one of nine acres - which have been taken by the Commissioner of Sewers for the purpose of the Sewage Farm.

That two years ago your petitioner would not have taken £40 per acre for the same, but held it for its future value, and so your petitioner let it on a fourteen years' lease at the highest rent that could be got for it, viz., £1 per acre, which improved its holding value to your petitioner very considerably.

That on the trial before the special jury they assessed the nine-acre block of land at £30 per acre, and took off £72 for the value of the lease to the lessee, although the Government valuers, Messrs. Wadham, Botting, and Green, said that the lessee's interest would be valueless in the market, but that they valued it, according to some tables they produced, at £82, and thereby valuing the whole lease of eighty-nine acres at £801.

That by being compelled to accept the above amount instead of obtaining £40 per acre on eighty-nine acres, equal to £3,560, your petitioner only received the sum of £2,225, thereby losing the sum of £1,335.

That Mr. Laughton has purchased land during the last month, the next section but one, at £45 per acre for forty acres.

That twenty-five years ago I refused £20 per acre for the said land.

That there is no land in that neighborhood that can be purchased at less than £40 per acre.

That your petitioner has worked for the best part of his lifetime to obtain the said land, and that now he is made to part with it at a little more than half its value.

Your petitioner therefore humbly prays that your Honorable House will be pleased to grant him such further compensation as you may deem the circumstances of the case require. [SAPP 25-1881, p. 114; SAPP, 167-1880]

Whittle received no satisfaction.

Establishment of the Farm

Having determined the site of the sewage farm the Hydraulic Engineer was free to let tenders for the construction of the main sewer. This was constructed along the railway line to Islington to the site of the farm, crossing the River Torrens by means of a pipe slung underneath the railway bridge.

The sewers were laid through the streets of Adelaide during 1879 and 1880, and all sewage that had previously been discharged into the River Torrens was taken to the sewage farm from 7 January 1881. This was the first water-borne waste disposal treatment system to be established in Australia; within seven years Charles A. Bayer, the Sanitary Engineer, noted that 'South Australia can fairly lay claim to a perfect system of drainage and of sewage disposal.' [SAPP 29/1888, p.139]

At this time little work had been done at the farm except the building of wooden fluming to distribute the effluent about the farm and the appointment of A Watt as the first farm manager in 1880.

Sunnybrae Farm

The government was pleased with its endeavour and in mid 1881 reported that 'The works required to render the farm available for its intended purpose are almost complete, and, notwithstanding the fact that the sewage has now been running on to the farm for eight months, it has been satisfactorily disposed of, and no nuisance has been created.' [SAPP, 25-1881, p. 114]

Work continued on expanding the system and by 1888 the city of Adelaide and the towns of Hindmarsh, Thebarton and St Peters were fully sewerred and work was continuing in the area of Kensington and Norwood.

The Hydraulic Engineer described the early work undertaken on the farm:

The works of preparation for crops are progressing, forty-six acres of lucern and fifty acres of Italian rye-grass being under cultivation, and commanding a ready sale. With these exceptions, the crops being grown are of an experimental nature.

The filter beds for the disposal of surplus sewage are being proceeded with, seven and a half acres having been prepared, by under drainage, &c., for this purpose. Fifty acres will be eventually required. The outfall channel carries away the cleansed sewage, and answers its purpose admirably, both as regards purification and delivery. There has been considerable difficulty during the recent winter in disposing of the storm waters, which have occasionally come down in a greater volume than will be due to the whole of the Adelaide sewage when the system is complete. [SAPP 29-1882, p. 108]

The sewage farm was designed to operate on a broad irrigation principle. After passing through revolving strainers in the straining shed to remove the solid waste, the effluent passed through filter beds and was then spread over the farm by means of a network of cement concrete channels and wooden troughs. Underground pipes carried the waste water into an outfall channel leading from the north of the farm which discharged into the Port River. The solid matter was taken from the strainers, loaded aboard carts and dumped on remote parts of the farm.

Work on construction of the farm buildings began in 1882 with the cowshed and dairy and the roothouse and cheeseroom. The following year construction began on the homestead, the stables and implement shed. These buildings were established on portion of section 391, with the original building contracts being completed in 1884. [SAPP 29-1883/84, p. 117].

By 1884 the farm was cultivating about 50 acres of lucerne, 35 acres of rye grass and had 165 acres of barley and wheat under cultivation.

No sooner had the farm been established when those responsible for it had to contend with criticism of its activities and concern from people who feared that the deep drainage would actually promote the spread of contagious diseases rather than help eliminate them. A case of typhoid at the sewage farm in 1884 did nothing to allay concerns. Indeed, the public panic which it stirred led to the closure of the dairy after some contractors refused to take milk from the dairy while others, who were not opposed to it outright, refused to have the milk and other dairy produce delivered in carts from the farm. The dairying activities ceased, soon after they started, thereby setting the pattern for the gradual curtailment of the farm activities in response to concerns of the public. By 1887 the cheese room and dairies were converted for use

as silos as was a barn which was situated at the north-west corner of the farm. [Hammerton, pp. 80-81; *SAPP 29/1887*, p.150]

The early operation of the farm and the concern of its critics was noted in the annual report of the Hydraulic Engineer:

SEWAGE FARM

At the latter end of last summer the corporation drains were disconnected from the sewers, and by this means the storm waters from the streets were prevented from flooding the farm, as on former occasions; the average daily flow of sewage at the farm is 1,881,000 gallons; during wet weather, however, this is greatly increased, owing to the rainwater from roofs of houses and paved yards being received into the sewers, and at such times it is impossible to dispose of the sewage on that portion of the farm which is at present supplied with distributing boxes or carriers; it is necessary that further provision should be at once made to enable the sewage to cover a larger area. The action of the filter-beds has not been sufficiently rapid to dispose of the excess of sewage in wet weather, and it has been necessary to allow far more to flow over growing crops than was good for them, and even to turn a portion of the sewage direct into the outfall drain; this latter course cannot be allowed to any extent, or a serious nuisance will soon be occasioned at the point where the outfall discharges into the North Arm.

The only way to remedy the defects and prevent the necessity for so disposing of the sewage is to increase the area of the filter beds, take up, clean out, and relay the present pipes, provide sufficient boxing to enable the whole of the land to be brought under treatment, and thoroughly drain about 188 acres in a similar manner to that adopted on an experimental plot of four acres, and which has answered most satisfactorily.

The results of the past year's working has proved fairly encouraging, considering the serious difficulties which have had to be contended against, viz:-

Firstly - Growing crops have been damaged by excessive watering, owing to inadequate provisions for disposal of storm water.

Secondly - Owing to a panic on the subject of typhoid fever, the milk contract was relinquished and the dairy broken up.

Thirdly - The popular prejudice against produce grown at the farm is so great as to be almost incredible; for instance, firms who have purchased largely have stipulated that the produce should not be delivered in the farm carts, as they would lose their customers were it generally known that they sold anything grown or prepared at the sewage farm.

This is the most surprising and unreasonable when it is considered that in England, where sewage farms have been in active operation for very many years, no difficulty whatever is found in disposing of the produce at the highest market prices; in Covent Garden market, fruit and vegetables grown on the sewage farms invariably fetch higher prices than that grown in the market gardens. Doubtless this unreasoning prejudice will gradually die out; in the meantime steps should be taken to keep all fruits and vegetables that can be grown there as much in the market as possible, even if so doing should result in a temporary loss, as the continual working of the land will considerably increase its future value and the superior quality of the produce cannot fail to gradually overpower the existing prejudice.

As an instance of groundlessness for the prejudice, a firm in Adelaide has on several occasions purchased butter from the farm, and they state that their customers have requested to be supplied regularly with the same brand, as it was the best butter they had ever tasted.

Sewage farms have not proved successful financially, but with a fair market for the produce and proper provision for distributing the sewage so as to avoid overdosing the crops, it may reasonably be anticipated that the receipts will in a year or two's time be sufficient to pay the cost of maintenance and contribute something towards paying the interest on capital expended in laying out the farm. [*SAPP 29-1885*, p.133]

The - unreasonable, or at least unenlightened - complaints about the farm continued to be heard and were the chief problem with which those associated with the farm had to contend and were regularly noted by the Hydraulic Engineer.

The popular prejudice against the produce grown at the Sewage Farm is as great and as unreasonable as ever, and the manager of the farm states that no market could last year be obtained for the fruit. Under these circumstances I have recommended that that portion of the farm called the garden, which is laid out and planted with fruit trees, should be let on lease, as its cultivation entails a considerable annual expense.

Suggestions have been made during the past few months that the Government should endeavour to let off the whole of the farm, the argument being that by this means a certain revenue would be derived from the rent, and the expense of maintenance be abolished; but this argument is fallacious. Applied to an ordinary farm the theory might hold, but the conditions obtaining here are totally different. It must be borne in mind that the whole of the sewage of Adelaide has to be passed over this land, and that this disposal of the sewage in such a manner as not to occasion any nuisance is the first consideration; in order to ensure that this sewage shall be so disposed of, the land must be under the absolute control of the Government. A farmer would not go to the expense and labor necessary to so distribute the sewage that the land should take the maximum quantity, but he would look at the matter from quite a different standpoint; he would naturally make his crops the first consideration, and would only turn the sewage on when they required water. For this reason the bulk of the land must be under the control of the Government, who must have power to turn the sewage on to any part. I do not think it would be possible to let the farm subject to this condition.

For the future more attention must be given to fattening stock, as it is impossible otherwise to get rid of the crops which can, and in fact must, be grown, as, unless there are growing crops on all the land under water, a nuisance would be created, and great danger arise to the health of the district. By judicious purchase of stock, to be fattened on the ground, these crops can, I believe, be disposed of in a remunerative manner. Some additional fencing will, however, be required, as it has been found impossible to fatten cattle with the farm in its present open condition. Against this cost, however, must be set the saving in labor, as, without the fencing, two or three additional hands are necessary to watch the cattle and prevent them from straying on to those parts of the farm which are under water.

During the past year a smokehouse has been erected, and ham and bacon prepared of a very superior quality. In carrying out this work much valuable information and advice was received from W.N. Crowder, Esq., J.P., who generously placed at the disposal of the department the whole of the experience and knowledge he had acquired on this subject, and gave a considerable amount of time to promote a satisfactory result.

A misapprehension as to the deficiency on the cost of managing the farm occurred in last year's report to His Excellency the Governor through taking the expenditure on stock, implements, &c., less the sales of produce, leaving a deficiency, said to be £5,099 7s. 3d., without also taking into account the stock, &c., on the farm, which should be done to arrive at a fair estimation of the year's working.

The loss on the year's working, according to the books of this office, in which the valuation is included, is £694 3s. 4d. [SAPP 29-1886, p.133]

In spite of the constant criticism of the farm and its activities, continued improvements were undertaken to ensure the most efficient operation. This particularly became necessary during the mid-1880s because of the onset of a major depression in South Australia which caused the collapse of two banks in 1886 and persuaded all departmental heads to make economies wherever possible. Evidently insufficient was done as far as the Hydraulic Engineer was concerned to make the farm run profitably and Watt was replaced as manager by T. Colebatch in 1885; Colebatch had evidently managed a pastoral company before joining the department.

Sunnybrae Farm

SEWAGE FARM

Several alterations have been completed, or are now in progress, by which the farm will be much improved. About sixty-five acres of land which lay at too high a level to be irrigated from sewage which has passed through the strainers have been boxed, and can now be irrigated by means of a new drain taken off the main sewer immediately after it enters the farm. A contract has been let, and is now almost completed, for levelling forty-two acres of land at the north-eastern portion of the farm. About nine miles of fencing have been fixed, dividing the farm into seventeen paddocks, and water laid on to each; an 18in. barrel-drain has been laid to drain the north-west portion of the farm, which has proved most effectual in draining the old gravel pit, which has since been levelled and sown with lucerne, instead of being foul ponds of stagnant sewage, as formerly was the case. About four and three-quarter acres of additional filter-beds have been formed, and a portion of the old beds altered and rendered more effective by means of cross-drains. The total area of filter-beds now amounts to 13.85 acres, and it may be found necessary to still further increase this area; but as during the recent wet weather the beds were constantly used and found capable of disposing of much more storm water than they had to take, I do not propose to further enlarge them at present.

During the summer the amount of sewage delivered at the farm is far from sufficient to irrigate the whole of it effectively; and if the sewage from the eastern suburbs were included in the present system, there would still be none too much during the greater portion of the year. The effluent water from the farm is quite as clear and colorless as filtered water, and the outfall channel is now perfectly free from all unpleasant smell. [SAPP 29A-1886, p.14.]

While local people continued to complain about the farm, intercolonial and international visitors were very impressed with its operation. The constant stream of visitors to the farm underscored its technological significance.

Under the able superintendence of Mr. Colebatch, the farm is likely to become a success. It is true there has been a loss of £733 17s. 3d. during the year ended June 30th, 1887, but that is easily accounted for by the exceptionally wet season, which caused the loss of a quantity of stock, and prevented the sale of green stuff, which has hitherto been a source of considerable profit; but the superfluous fodder has been stored in solos, and will, without doubt, command a ready sale in the summer. There are 432 acres of land under crop, and the following grasses and plants are cultivated:- Lucern, Italian rye grass, mangolds, sorghum, hay, barley, and vines.

A large number of visitors from the other colonies, including the mayors of Melbourne and Sydney, paid a visit to the farm during the year, and expressed surprise and satisfaction at what they saw, and congratulated the Government upon the possession of the most complete and well-managed sewage farm in the Australian colonies. [SAPP 29-1887]

The following year the farm was visited by members of the Royal Sanitary Commission from Melbourne and the Medical Congress of Victoria all of whom expressed the highest opinion of it, and the local authorities took great satisfaction in the idea of the farm becoming 'a model for the other colonies in the disposal of their sewerage'. [SAPP 29-1888, p.xii]

The farm was a comprehensive one, although public prejudice concerning the produce led to the early abandonment of the dairy and orchard. Thus, by 1886, the farm was primarily concerned with grazing and fattening stock and growing root crops and other fodder plants:

Lucern	150 acres	8 cuttings per annum - 4-10 tons each cutting
Italian rye grass	150 acres	8 tons per acre
Mangolds	25 acres	Average 55 tons per acre - maximum 85 tons per acre

Sunnybrae Farm

Sorghum	25 acres	24 tons per acre at each cutting; twice cut then grazed
Hay (wheat)	50 acres	2½ tons per annum
Barley	30 acres	20 bushels to acre
Vines	2 acres	10 tons per acre [SAPP 29/1887, p.150]

Pig breeding became particularly profitable and by 1887 the sties had been increased in number completing the original design for the piggeries. [SAPP 29/1887, p.150] In the meantime, bacon and ham was cured in the smokehouse which formed part of the farm. As for the farm itself, by 1889 sewage from an 'estimated population of 54,000 or 134 persons per acre' was disposed of 'without creating the slightest nuisance.' [SAPP 29A/1889, p.12]

Despite the high hopes held out for his management of the farm, Colebatch proved unable to have it return profits consistently and in 1889 he was replaced as manager by Bedford Hack who had formerly been an Inspecting Ranger, Warden of the Goldfields and Government Arbitrator. Hack was encouraged to run the farm at a profit; he received no wage, but was provided with use of the house, fuel and light and received 10 percent of the profit of the farm. The incentive evidently worked. Hack introduced cost-cutting procedures which enabled him to run the farm profitably in most years despite the vagaries of the seasons and the depredations caused by plagues:

In 1891 the locusts were so bad that they not only swept off the feed, but so poisoned it as to deter the growth for some few weeks. Great difficulty was then experienced in providing feed for the dairy cows, &c., and at this present time [1893] a plague of caterpillars have done no end of damage; acres of prairie and panicum grass and lucern have been eaten off, and two acres of mangolds swept as clean as if nothing was ever sown upon the land. [SAPP 160/1893, p.2 - Charles A. Bayer, Sanitary Engineer]

Hack ceased breeding horses, leased the garden, which was expensive to work, particularly after a great amount of fruit was stolen, and he leased much of the pasture to companies like the Adelaide Co-operative Society. [Hammerton, p. 103] The Society was granted a ten year contract (which expired on 30 June 1896) permitting it to graze 100 cows on land at the farm at a cost of £5 10s. per head per annum. In 1892 the revenue from this contract with the Co-operative Society resulted in a revenue of £535. [SAPP 160/1893, p.1] Hack also introduced depasturing animals for their owners. Horses were grazed at 4s. per head per week and cows and bullocks at 3s. 6d. [SAPP 160/1893, p.1]

Hack's initiatives ensured that the sewage farm became a model farm, irrespective of the attitudes of its neighbours. Produce from the farm was regularly exhibited at the Adelaide show and regularly received awards for excellence.

Later History of the Farm

The operation of the Sewage Farm was well established by the latter years of the nineteenth century. It continued to be the source of complaints from neighbours, based upon ignorance rather than evidence of the farm being a source of disease and contagion. However, these fears, associated with periodic outbreaks of stock and human disease, meant that the range of activities permitted on the farm continued to be scaled down, until the farm was used solely for the growth of crops for stock feed.

Sunnybrae Farm

The farm suffered something of a setback as a result of a severe storm on the evening of 9 December 1895 which devastated large areas of the metropolitan area and severely damaged the stables, cow shed and other buildings. The extent of the storm was reported in detail in the daily press:

The Sewage Farm has suffered terribly from the cyclone; one of the grand avenues which surrounded the paddocks was devastated by the storm, and the trees blown across the road. Luckily the storm expended its violence upon the avenue, and the orchard is not materially damaged. The brick stables were, however, levelled to the ground and a valuable brood mare by Bomba was killed under the falling timbers. A weighbridge was wrenched from its foundations and the masonry destroyed. The wooden chutes which convey the sewage for distribution around the paddocks, were twisted and turned in every direction and will take some time to replace. [*Register*, 10 December 1895]

The damaged buildings - stables, cowshed and cart shed - were repaired at a cost of £895 8s 0d, by Guthrie & Page. Their tender was accepted on 9 April 1896. [GRG 53/131, entry 135] Discounting the costs associated with repairing the storm damage, the 1895/1896 annual returns from the farm's operations showed a profit of £14 6s 0d.

Regardless of complaints about the farm, the operation continued to be an efficient means of disposing of the sewage from the city and the surrounding area. The metropolitan area, connected to the sewerage system, continued to expand and so the area of the farm was extended from time-to-time:

All sewage has been satisfactorily disposed of by broad irrigation and intermittent and downward filtration. The filter beds have worked well. Seventy-eight acres of land have been purchased for the extension of the farm at the north-western end, and half the area is now being levelled, drained, flumed, &c., in readiness for receiving the sewage. Alterations will require to be made to the main carriers when the Hindmarsh scheme is brought into operation. Many horses and cattle have been grazed upon the farm and a fair quantity of green feed has been sold during the year. [*SAPP 29-1898*, p.5.]

In order to accommodate the extension of the system to the west of Adelaide a new straining shed was built in early 1898 on the south-western corner of Section 392, close to Irish Harp - later Regency - Road. This was a simple timber-framed and corrugated-galvanised-iron-clad gabled shed which operated independently of the main straining shed further to the east, although in essentially the same fashion with the effluent being reticulated to different parts of the farm.

Except for restrictions placed on activities that might be carried out on the farm, the operation of the farm continued as it had done previously, with acquisitions gradually extending the area under cultivation. Thus section 389 was acquired in 1901. Each new acquisition called for the clearing and levelling of the land, the building of fences and the extension of the fluming. The 1903 report on the operations of the farm indicated that 'Two good crops of sorghum were obtained from one of the paddocks on section 389, recently purchased; two paddocks are now levelled, flumed, and sown with prairie grass and lucerne, and a third has just been levelled, ploughed, and sown with sorghum.' This extra land proved particularly useful in helping the farm cope with the extra water that found its way to the farm during winter.

The operations in 1908 were described in detail:

Sunnybrae Farm

ADELAIDE SEWAGE FARM by the Hydraulic Engineer

The Sewage Farm which receives the sewage from the city of Adelaide and suburbs is situated about four miles north from the General Post Office. The level of the ground at the straining sheds where the sewage enters the farm is 113 feet below that at the Post Office, being 41 feet above sea-level.

Sewage was first distributed on the farm early in 1881, and up to the present time it has been satisfactorily dealt with by means of broad irrigation, combined with intermittent and downward filtration. The sewage is strained before being applied to the land, and is conveyed to the straining sheds by two main sewers, with a maximum discharging capacity of 24,000 gallons per minute; the average daily flow being 2,083 gallons per minute, which, however, is considerably exceeded in wet weather, owing to the practical impossibility of excluding all storm water from the sewers.

The number of houses now drained is 24,000, representing a population of about 110,000, and the total length of main sewers throughout the city and suburbs is about 242 [and a half] miles.

The area of the farm is 628 acres, 57 of which are leased at an annual rental of £10 per acre; 442 acres are irrigated, and the balance comprises roads, plantations, and land, which has not yet been graded or irrigated.

The irrigated land has been subdivided into 24 paddocks, varying in size from eight to 25 acres, and the sewage is distributed on the land after it has been properly graded, and where necessary under-drained by means of a mile and an eight of concrete channel and 26 miles of wooden fluming of various sizes. All the paddocks are properly fenced and provided with an ample water supply from the city mains.

There is also an orchard containing eighteen acres, planted with oranges, apricots, peaches, pears, &c., all of which are in full bearing. A large quantity of vegetables of various kinds is also grown amongst the fruit trees, but the profit from this portion of the farm is small compared with that derived from the grazing paddocks.

In addition to the sewage distributed on the farm, effluent water, amounting to about a million gallons per day, is during the summer months pumped back into the flumes, by means of an 8 in. centrifugal pump, at a cost not exceeding [a quarter pence] per 1,000 gallons. This is of considerable value in irrigating the lucerne and other growing crops.

Crops of almost every description have been grown on the farm with marvellously good results. The chief grasses are prairie, rye, and pannicum, and these have proved the best for grazing. Lucerne, sorghum, maize, mustard, and marigolds are also largely grown. Some have frequently reached 40 tons per acre. The maximum was 80 tons per acre.

A large quantity of ensilage is made annually from spare green feed, such as Cape weed. Italian rye-grass, prairie grass, &c., and in dry seasons this is readily disposed of at from 15s. to £1 per ton. It is also used at times for feeding stock on the farm.

The crops of sorghum, maize, marigolds, lucerne, pannicum, and rye-grass are watered with sewage every three weeks. Three inches in depth is sufficient, but as a matter of fact considerably more than this is put on to the paddocks, owing to loss in distribution and the porous nature of the soil, which on the western portion of the farm consists of sandy loam overlying a gravelly subsoil. The eastern portion is of a still loam and clay. Great care has to be exercised in irrigating any crop with sewage, and the application of effluent water to newly seeded land has proved its superiority over sewage; but when the crop has become well established the result from sewage irrigation is of course far superior.

In addition to a large grazing contract with the Co-operative Society, who have the right to graze 90 head of cattle per day for a consideration of £450 per annum, a similar number of cows are grazed for various dairymen at 2s. 6d. per head per week. Horses are also depastured for 3s. to 4s. per head per week. The total receipts for grazing for the year ending June 30, 1906, were £1,645. A large business is also done in fattening cattle and sheep, the profits for the same period being £1,467. The number of horses, cows, and other cattle on the farm at the present time is 412. There are also 300 sheep and 160 lambs.

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Pig breeding is carried on profitably, and although many varieties have been experimented with, Berkshires have proved the best.

Adelaide can fairly lay claim to having a sewage farm - the first introduced into the States - second to none in the world. The sewage has always been satisfactorily disposed of, which is the first consideration and although there are many dwellings in the vicinity there is no nuisance, and no complaints are now received, all prejudice having been overcome owing to the satisfactory manner in which the farm has been worked.

The manager, Mr. B. Hack, is charged 12s. per acre per annum rent, 5 per cent. on capital, and has to maintain all buildings, flumes, fences, farm implements, etc. For the past ten years an average profit of £281 per annum has been made, and when it is remembered that farming operations are carried out under the eight hours' system and that all the drainage of the city and suburbs has been satisfactorily disposed of, it reflects also on the authorities who decided the system should be introduced into Adelaide and those who carried out the works. [*Public Service Review*, June 1908, pp. 67-68; This report also appeared in *The Cyclopedia of South Australia*, Vol. 1, 1907, pp. 393-395]

The farm was evidently a satisfying place at which to work. Bedford Hack retired as the manager on 30 June 1908, only because he was required to do so under legislation which determined the age at which government employees had to retire. Hack had the distinction of being the first manager to have the farm consistently make profits. He was followed as manager by John Wilson who had already spent 19 years working at the farm as the foreman. Wilson was employed under a similar arrangement to Hack, although he received £350 per year plus 10 percent of the profits.

The sewage farm served a necessary purpose, but continued expansion of the metropolitan area and the sewage system strained the resource. Other land had to be acquired:

THE SEWAGE FARM ENLARGED

In view of the immensely increased quantity of sewage matter which will find its way to the Islington farm when Port Adelaide, the Semaphore, and the whole of the western suburbs are linked to it by means of the works which are now in progress, the Government have found it necessary to enlarge the farm area. Three blocks of land, each containing 80 acres have been purchased, which brings the total acreage of the property up to about 900. Two of the sections adjoin the farm on the western side, and the other is on the eastern side a section away, but joining the most eastern of the western blocks. When the extensions of the system in hand are completed, the sewage from a population of over 150,000 will be conveyed to the farm, and the mains and subsidiary sewers in existence will reach a total length of something approaching 300 miles. [*Advertiser*, 8 April 1910]

This regular enlargement of the farm also meant extra work in levelling and preparing the paddocks:

All sewage has been satisfactorily disposed of upon the farm and filter beds. Part of the land not irrigated has been used for grazing and growing hay, &c. Section 388 has been levelled and flumed to receive the drainage from Port Adelaide and Semaphore. The farm buildings, fences, flumes, &c., have been maintained in good order, and all the paddocks have been kept clear of weeds. Land has been purchased north of Dry Creek railway. [*SAPP 29-1917*, p.54]

Continued development of the sewerage system meant that extra land was required for the farm yet again, and in 1918 sections 385 and 386 were added. Otherwise the

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conduct of the farm continued much as it had done for some time, as indicated in the department's report for the year 1918-1919:

All sewage has been satisfactorily disposed of, and the new filter beds that have been formed on section 387 are dealing effectively with sewage pumped from the Port Adelaide and Semaphore scheme. Other portions of this section, and part of section 384 on the west side of the railway, have been under-drained with good results. Sections 385 and 386 have been purchased. A few miles of concrete and wooden fluming have been laid and land levelled as required. The farm buildings have been painted and well maintained, also all fences, roads, flumes, &c., and all paddocks, including leased land, kept clear of weeds. The land at Dry Creek has been used for grazing and disposal of floodwaters. [SAPP 29-1919 - year ending 30 June 1919, p.54.]

The sewage farm undoubtedly fulfilled a necessary purpose, but it was not without its critics, as indicated by a letter to the editor of the *Advertiser*.

THE SEWAGE FARM

[From G.S. Tremlett of Gawler] I would like to draw attention to the disgusting state of things at the Islington Sewage Farm. As a passenger by the 11.19 a.m. train from Gawler one could not help noticing the terrible stench from the works. Surely something could be done to alter things. A farm of this description ought not to be close to the railway, where thousands of people pass daily, to say nothing of those living close at hand. We all know the filthy matter has to be dealt with. But it is not right to place the farm near a railway with the traffic the north line has. These places are the home of disease. They are the breeding grounds of mosquitoes, flies, and other insects, which carry germs everywhere. Then again the dairy cows which are fed there eat the grass, which surely must affect the milk. How does the milk stand as regards germs? Milk is a ready receiver of germs; therefore great care should be taken as regards the food of cows. [*Advertiser*, 5 January 1914]

Indeed, there were constant complaints such as this. They received particular currency on occasions, such as 1921, when there was an outbreak of disease among cattle depastured on the farm. This raised calls for the cessation of the grazing of dairy cattle on the farm and also the growing of vegetables. Both these activities ceased. [GRG 53/57/3, Docket Nos. 8/21 and 776/22] On the same occasion the Australian Natives' Association petitioned for the removal of the farm from the metropolitan area, [Hammerton, p. 161]; the Islington Railway employees was also concerned to have it shifted. [GRG 53/57/4, Docket No. 548/21]

Those in the department were justifiably proud of the sewage farm and bridled at the constant sniping at its presence, yet they were forced to change practices carried out there from time to time:

The Adelaide Sewage Farm is recognised by experts to be one of the best in the world. Absurd statements have recently been made against the farm, and its removal suggested, and also that the land has become sewage sick, &c. All the sewage has been satisfactorily disposed of on the portions of the farm prepared to receive it. Extra land is being prepared as found necessary. The sewage pumped from Port Adelaide and Semaphore scheme has been effectively disposed of on the filter beds on the south-east corner of section 387. Other filter beds are in course of construction on the north-east corner of the section. Part section 383 has been graded, and miles of reinforced concrete fluming of various sizes have been laid. Arrangements are being made for grading, etc., of section 384. The farm buildings, fences, and roads have been maintained, and some miles of wooden fluming have had to be replaced. All paddocks, including leased land, have been kept clear of weeds. All the orange trees have been

removed, as they were in a bad condition with collar rot, and unproductive. The land at Dry Creek for disposal of floodwater has been leased for grazing purposes to the Produce Export Department.

It is to be regretted that the grazing of dairy cows upon the farm for various dairymen is to be discontinued after the end of this year, on the recommendation of the Chief Inspector of Stock, which, in my opinion, was not justified.

The result of the year's transactions shows a loss of £2,050 14s. 10d., due to the high cost in replacing wood fluming, the loss on the value of orange trees, and the high price of materials. The quarantine restrictions placed upon the farm on account of pleuro outbreak in the district has considerably affected the sale price of fat cattle sold at the Abattoirs. [SAPP 29-1920, p.63.]

A later outbreak of pleuro-pneumonia among the cattle in 1924 called for the disposal of all the cattle from the farm and its stocking with sheep. On the recommendation of Gordon C Gurr, the manager appointed following the J. Wilson's resignation in 1924 [GRG 53/57/4, Docket No. 3799/24], a sheep shearing plant was installed in the cow shed in preparation for the shearing of the sheep during the coming season. [SAPP 29-1925, p.11] Indeed, approval was given for the purchase of a '1 Bergen 4 Stand Sheep Shearing plant, angle or straight gear, complete with oregon, shafting, handpieces, double-ended grinder with powder discs, main drive pulley, grinder pulley and belt, pillar and supplementary Plummer block, & all necessary tools for £119-0-0 7½% discount = £110-1-6 from Premier Machinery Co. Ltd.' [GRG 53/120/10, Docket No. 1909.25] Approval was also given for the purchase of an Olds Petrol Engine '6 H.P., magneto ignition, complete with circulating water tank and transport, for £60 less 5% discount' for the shearing plant from I.J. Bromley. [GRG 53/120/10 Docket No. 1909.25]

Notwithstanding the concerns with the sewage farm, the early 1920s were economically buoyant and optimistic years which resulted in a building boom in metropolitan Adelaide and an extension of the sewerage system. The need to develop the system called for its upgrading which included plans for the abandonment of the sewage farm. Something of the debate, and the necessity for a major upgrading of the system, was evident from a report in *The Builder*, in 1924:

Sewage Disposal. Precarious Metropolitan Position.

The Minister of Public Works (Hon. L.L. Hill) is being inundated with requests from the Local Government bodies to connect up their respective districts with the metropolitan deep drainage system. To cope with the quickly growing demand for accommodation it will be necessary, not only to enlarge the present site for sewage disposal, but also to increase the capacity of the sewer mains. Residents and districts adjacent to the sewerage farm are also endeavouring to secure the removal of the plant to a site farther north. If the ultimate intention is to move the sewerage farm, it is obviously unwise to commence laying additional mains leading to the present site. With this batch of troubles confronting him, it is small wonder that the Minister, in his anxiety to do all in his power to relieve the position, suggested a Royal Commission. . .

A New Sewerage Farm or the Sea?

Now that the question of a new site for the sewerage farm is under consideration, it might be well to also consider the possibility of running sewerage mains into the gulf. The system at present in use is almost perfect as a means of disposal when no outlet to the sea is available. The distance of the metropolitan area from the sea would make the proposition a costly undertaking, but its ultimate economy and added health security would compensate for the original expense. . . . [The Builder, 10 September 1924, pp 22-23]

The Minister evidently resolved his difficulties and immediate plans for the new scheme were drawn:

SEWERS - NEW SCHEME

On March 10th the Hydraulic Engineer furnished his report on the re-organisation of the sewerage system of Adelaide and suburbs to the Hon. Commissioner. This scheme was approved by Cabinet.

The proposals provide for a complete re-arrangement of existing sewers, allowing ample provision for their future extension to serve the outer suburbs, the abandonment of the existing Sewage Farm, and the substitution in lieu thereof of an up-to-date sewage treatment works. The works recommended are estimated to cost £1,350,000, and will provide for the requirements of Adelaide and suburbs for the next half century.

All works in connection with the new scheme have been placed under the direction and supervision of Mr. John W. Murrell, and good progress has been made with both the detail designs and actual construction work. The first of the new works was commenced on the 7th April, this being the new trunk main to serve the north-eastern suburbs. [*SAPP 29-1926*, p. 20]

With the prospect that the sewage farm was to be abandoned in the near future little new work was undertaken on the farm during the remainder of the 1920s and much work necessary for the proper maintenance of the farm was postponed. Only minimal and necessary maintenance was undertaken and much of the facility, particularly the network of channels, fell into disrepair. [Hammerton, p. 180]

METROPOLITAN SEWAGE

Half a century ago, Mr. Oswald Brown, our first Hydraulic Engineer, carried out a deep drainage scheme for Adelaide, a pioneer plan of a most excellent way of disposing of sewage.

Mr. Brown, not being a prophet and only a new-comer here, could not be expected to foresee the extension to which his plan has been subjected. It has been made to embrace most of the metropolitan area, ten times the area for which it was originated.

Can we wonder that the design is inadequate to the strain that has been put upon it, and that its reformation has become imperatively necessary?

Hence it will be very gratifying to suburbanites to know that the vigilant Minister entrusted with the administration of this important department is recommending a reorganisation of the system.

This will afford improved facilities for areas now not adequately served. The work is estimated to cost a million pounds, and will occupy seven years in its execution.

The sewer mains will be extended to newly settled areas and provision made for further development.

This will involve construction of a modern system of sewage disposal. When completed, the present sewage farm will be available for other purposes. [*The Builder*, 2 December 1925, p.3]

Yet although work started on implementing the new scheme, work did not progress very far before the onset of depression in 1927 meant that plans for capital expansion were shelved: as the recession deepened during the early 1930s they were abandoned. This meant that the necessary maintenance work at the sewage farm that was already at a negligible level was pared back even further. By 1929 this was beginning to cause concern. 'At the Islington Farm the disposal of sewage becomes more and more difficult and less satisfactory on account of the gradually increasing discharge from year to year'. So reported the Hydraulic Engineer in 1929. He continued: 'Since

the proposal for the farm's abolition and the substitution of modern activated sludge works, maintenance has been kept down to a minimum, with the result that the fluming and conduits are generally in poor repair. If the farm is to be retained for many years longer, it is imperative that greater expense be occasioned to permit it to function'. [SAPP 29-1929, p.21.]

However, the farm continued to play a useful role, not only for the disposal of effluent, as the Hydraulic Engineer reported in 1930: 'Owing to the abnormally dry year a large number of stock were offered for agistment, but as it was decided to use the Farm for stock from drought-stricken areas, full advantage could not be taken of the agistment offering. There was an average of from 750 to 900 head of horses on the grazing portion of the Farm, and agistment fees received for the year totalled £5,932 4s. 8d. The dilemma for the farm management during these dry periods was that agistment of drought stricken horses considerably interfered with the agistment of sheep, which was the most profitable of all the remaining farm operations, with the result that the receipts from agistment in 1934/1935 were less than in previous years. [SAPP 29-1930, p.vi: SAPP 29-1935, p.9.]

Also at times during the depression some relief work in return for rations was found for men clearing dockweed with a view to sowing the paddocks with rye grass. [SAPP 29-1933, p.7; Hammerton, p. 205]

Meanwhile, concerns about the healthiness of the facility continued to trouble critics of the farm. This was particularly so during winter when crude sewage was regularly discharged down the effluent channel because the wet seasonal conditions and the large amount of sewage being delivered to the farm were too much to process. An outbreak of typhoid fever in 1936 heightened the concern which focussed on the farm following a press report that a girl had contracted the disease after eating vegetables grown on the farm. The Central Board of Health could find no connection between the outbreak and the farm, but the removal of vegetables from the farm was banned from 17 January 1936. [Advertiser, 31 January 1936]

GREENFEED FROM SEWAGE FARM

The Central Board of Health has advised the Henley and Grange Council that there is no possibility of milk becoming infected with typhoid germs as a result of cows eating green feed grown at the Sewage Farm.

Regarding the risk of fever occurring to people through the handling of such fodder, the board points out that, although theoretically the possibility exists the actual likelihood is so remote as to be negligible.

At its last meeting the council asked for a report from the board in view of the Government's decision to prohibit the growing of vegetables at the Sewage Farm. [Advertiser, 29 February 1936]

People were slow to be convinced by the authorities:

SEWAGE AS FERTILISER - A COUNCILLOR'S COMPLAINTS

Sir - The Government recently, in the interest of public health, stopped the growing of vegetables at the Sewage Farm; but why does it allow the residue from the farm to be sold to market gardeners who grow vegetables away from the farm? In some cases sewage matter is carried away in the truck which brings market produce to the city, and when returning from the city, vegetable crates are packed on top of the filth, and in due course are refilled and sent to market again. The heaps of filth at the farm are lying there for the birds and flies to carry away pollution of their feet, wherever they go, and

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filthy paper is allowed to blow about to the detriment of the public health. Yet we are supposed to live in a modern age. The health authorities issued a circular in regard to sanitation, disposal of refuse, &c. I suggest that the responsible Minister should ask for a report to ascertain if the Government is carrying out its own instructions.

I am, Sir, &c.,

T. REECE (Councillor), Enfield.

[Advertiser, 2 March 1936]

However, once the worst effects of the depression had passed attention returned to new uses for the site. An item appeared in the press in 1939 suggesting that the site of the Sewage Farm at Islington might be used as the site for a new airport for Adelaide:

It was stated in Government circles that an area of nearly 1,000 acres at Islington would be dispensed with by the Sewerage Branch in five or six years, when, it is expected, the proposed new £250,000 metropolitan sewage treatment works will be completed.

The works will occupy only three or four acres, and about 30 acres in all will be retained by the sewerage branch. The rest of the land would be available for a second aerodrome. [News 28 June 1939]

Once again, momentous events - in this instance, World War II - postponed any immediate plans to proceed with establishing an alternative use for the site, and the farm, with its resources already stretched to the limit, was forced to continue operations with only minimal funding for the most necessary maintenance. Yet while cutting funding to the farm, the exigencies of war also meant that there was no further expansion of the residential development about Adelaide nor extension of the sewerage system.

These conditions persisted throughout the war years but for only a few years afterwards. Indeed, as early as 1946 the authorities were concerned at the ability of the farm to cope with the expected volume of sewage.

Work at the sewage farm has been again conducted under considerable difficulties due to its relatively limited size as compared with the volume of sewage to be handled. On account of the heavy demands on the farm for the relief of drought stricken stock which were carried to the absolute limit of its capacity, pastures were severely affected and it was only with difficulty that the heavy agistment was maintained during last summer.

Much preliminary work has been carried out in connection with investigations and proposals to enable designs to be prepared for the proposed sewage treatment works at Islington. This includes statistical work in connection with present and estimated future populations and industries within the drainage area, flow and loading surveys at the sewage farm, surveys in the North Arm, North Creek and at Port Adelaide, connected with tides, currents, water movements and likely dilutions if effluents are discharged into these waters and the operation of an experimental plant at Glenelg. At the present time the stage has been reached when the department is ready to proceed with basic designs and it is proposed to investigate the economics of several alternatives. The investigations carried out to date indicate that the plant will probably need to be much larger than originally anticipated as the total loads due to heavy industrial waste contributions are likely to be from two to three times greater than would normally be expected from a purely residential population. [SAPP 29-1946, year ending 30 June 1946, p.8]

The post-war period resulted in the rapid expansion of the Adelaide metropolitan area and with it the extension of the sewerage system and the amount of sewage being

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delivered to the sewage farm, despite extensions to the Port Adelaide and Glenelg treatment works and others that were built at Salisbury. These were difficult years for those in charge of the sewage farm, because of pressures on the sewage system generally, the difficulty in obtaining materials and increasing wages which made other work attractive.

Work at the Sewage Farm was again conducted under adverse conditions due to overloading, and it has been necessary to discharge considerable volumes of sewage to the outfall channel, particularly during wet weather.

Approximately 84 chains of large fluming was replaced during the period under review and general fencing repairs were carried out as far as limited supplies of materials would permit. The cost of the farm activities has risen owing to increased wages and prices of materials generally. [SAPP 29-1950, year ending 30 June 1950, p.10]

It was evident that the original system could not cope with the rapid post-World War II development, but designing and building a new system took many years, with the sewage farm continuing to play a vital role in the meantime.

The decision to build a modern sewage works at Bolivar, and the beginning of actual construction work in 1961 meant that the days of the sewage farm were finally numbered, 40 years after the first calls for replacing the farm. However, the farm continued to be a busy enterprise into the early 1960s.

Work has continued on repairs to old wooden fluming and approximately 4,200 ft. of fluming were replaced with concrete pipes of various sizes.

Sales included 2,825 tons of greenfeed and 4,800 bales of hay, but due to restrictions on the sale of grass, a considerable quantity had to be cut and dumped. The farm was well stocked with sheep throughout the year, the average monthly agistment being 8,300 compared with 8,400 the previous year. Extensive use was made of the shearing shed and some 7,600 sheep were shorn while a new 60-sheep circular spray dip was purchased and is being widely used.

Regular spraying was carried out during the year to combat flies and satisfactory control was maintained in this direction. . . .

Main interest centred during the year on the major scheme of establishing a sewage treatment works at Bolivar, and much has been achieved in this direction. Contracts have been let for all of the structural, mechanical and electrical work involved in Stage 1 of the scheme and the successful contractors for the structural section have commenced construction. [SAPP 29-1963/64, year ending 30 June 1962, pp. 3, 12]

However, with the construction of the new treatment works at Bolivar, capital works on the sewage farm were reduced to a minimum and were primarily concerned with necessary repairs and maintenance. Thus, repairs were carried out to the strainer, a 60 sheep shower was installed, a revolving screen was constructed and two geared drive systems for the two older strainers were installed. [GRG 53/120/11, S.6103/61, S.5419/61, S.4936/60, S.5684/63]

Bolivar became operational in 1966 and from 29 May took sewage previously taken by the main trunk sewer to the sewage farm. The second straining shed remained in operation a little longer, but only until it was connected to the main trunk line to Bolivar.

The commissioning of the new plant at Bolivar meant the virtual abandonment of the sewage farm at Islington.

Later History of the site

No longer required for its original purpose, the site of the sewage farm passed to the Department of Lands on 4 December 1968 for disposal, and was progressively given over to other uses after it had lain fallow for many years.

The land of the farm was subdivided and sold off in several large parcels, primarily for commercial and light industrial use as part of the Regency Park Industrial Estate; South Road was extended through the farm to join Days Road and extend to Grand Junction Road and beyond. Phase 1 was released for sale in 1975, with later releases following at two-yearly intervals in 1977, 1979 and 1981. The land immediately east of the farm buildings has been developed as part of Australian National's major intermodal freight depot; land immediately to the south-west of the farm was developed by the State Transport Authority as a bus depot. A large part of the site to the west was developed for educational and recreational purposes with the establishment of the Parks Community Centre, the Regency Park Centre of Handicapped Children and the Regency Park Golf Course.

The farm buildings fell into disrepair with the farm being used to agist horses. Several of the buildings, including the homestead, were used to store feed and equipment and horses were free to wander into the courtyard of the homestead building.

The State government gave control of the farm buildings and 1.8 ha of land to the Corporation of Enfield from 31 December 1981 and on 25 March 1982 the land was proclaimed a Historic Conservation and Recreation Reserve.

Since that time the council has been responsible for attracting grant funds for the conservation and re-use of the complex.

The homestead was the first part of the complex to be restored. In August 1982 the homestead was re-roofed in an endeavour to retard further deterioration and, on 22 September 1983, major restoration work began with assistance from the Commonwealth Employment Programme. Work on the homestead was completed late in 1984 and the building was opened as a restaurant.

Since then the remaining buildings have also been restored.

Work on the onetime cow shed began on 20 February 1987 with financial assistance from the Australian Bicentennial Authority. The building was converted for use as an exhibition venue, although in 1992 work began on additions to enable it to be used also as a reception and function area.

Conservation work on the one-time cheese room and machinery room and stables began in November 1992. The cheese room and machinery room have been restored for multi-purpose use, while the remains of the stable have been restored as a venue for use by the Enfield and District Historical Society for the static display of farm

implements similar to those used on the farm. The three remaining pig sties have been restored and converted for use as aviaries.

The work was completed in June 1993.

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