Daventry Rural District

Extensions to the Long Buckby sewage disposal works should be completed in 1969-70 when sewage from the Watford Motorway Service Area will be diverted there from the overloaded Watford Works. New pumps for recirculation were being installed to improve the effluent from Welton sewage disposal works.

Pollution at Norton was caused by drainage from a tip for which planning consent had been granted subject to the refuse being confined to inert material. The tip was used for the disposal of slurry from a potato crisp factory and for other waste material contrary to the planning consent. The County Council were supported in an appeal by the owner against an enforcement notice requiring him to discontinue tipping putrescible material and to observe the conditions of the planning consent. A decision on the appeal has yet to be made.

Desborough Urban District

Extensions to Desborough sewage disposal works were completed in August since when the effluent consistently complied with prescribed conditions.

East Elloe Rural District

Although the practice of providing numerous small sewage disposal plants is deprecated, it can hardly be avoided in the Fens without considerable pumping costs and miles of unproductive sewer. The Council is responsible for about fifty small plants. Improvement in the quality of the discharges has been maintained.

Satisfactory progress was made on the Holbeach main drainage scheme which should be completed in 1969-70.

Higham Ferrers Municipal Borough

Lagoon treatment of humus tank effluent at Higham Ferrers sewage disposal works continued to produce a high quality discharge. The average of twelve samples showed a reduction through the lagoon from 130 to 16 milligrams per litre suspended solids and 26 to 5 milligrams per litre Biochemical Oxygen Demand.

The Council submitted to the Ministry of Housing and Local Government a scheme to sheet pile the banks of the lagoon as a safeguard against damage by rats and to divide the lagoon into two interconnected sections to facilitate cleaning. It is proposed to provide a second lagoon in order to maintain the efficiency of this very successful form of tertiary treatment.

The Council were informed that they could not be regarded as fulfilling their statutory obligations unless and until they provide sewage disposal facilities adequate for industrial wastes produced within the Borough, and that they should co-operate in the proposed Wellingborough District Sewerage Scheme in order that trade effluent from a tannery might be accepted under the Public Health (Drainage of Trade Premises) Act, 1937.

Irthlingborough Urban District

Effluent from Irthlingborough sewage disposal works continued to be of very poor quality, and only three of the twenty-one samples complied with prescribed conditions. The County Planning Authority was asked to continue to withhold planning permission for any development which would further overload the works.

A scheme for lagoon treatment similar to that adopted at Higham Ferrers was submitted to the Ministry of Housing and Local Government with a view to producing some improvement pending the construction of a regional works. If the proposals are approved the Council hope to be in a position to accept a larger proportion of trade effluent from a local tannery, 80 per cent of which is discharged to the River Nene after no more than settlement.

Kettering Municipal Borough

Effluent from the Kettering sewage disposal works continued to be unsatisfactory. Over the past six years the Council have investigated methods of reducing suspended solids by land treatment and micro-straining. In October, 1966 they were able to say that " both these methods appeared to have very favourable possibilities ", but neither form of tertiary treatment has yet been put into operation. The Council were informed that, unless there is an early indication that they are taking positive action towards achieving an improvement, action under the Rivers (Prevention of Pollution) Acts will have to be considered.

Temporary improvements are being made pending more comprehensive extensions.

Kettering Rural District

Most of the sewage disposal works in Kettering Rural District produce reasonably satisfactory effluent, although filter distributor trouble at Stoke Albany caused some deterioration. New distributor arms were delivered after being on order for almost eight months, and some early improvement is expected. It had been hoped that upward flow clarifiers would be installed in the humus tanks at five of the sewage disposal works producing unsatisfactory discharges, but provision for those improvements has been made in the Council's 1969-70 estimates.

Ketton Rural District

Tinwell was sewered to Ketton sewage disposal works. Extensions to Ryhall sewage disposal works progressed satisfactorily and should be completed in 1969-70 when Essendine and Carlby will also be sewered to these works.

Market Harborough Urban District

At the Market Harborough sewage disposal works there were two outlets from the plant and three from land irrigation areas. The use of No. 1 land irrigation area was discontinued when it became contaminated by tip drainage. Early in the year it was noticed that, although effluent from the land irrigation areas was satisfactory, that from the plant was not. By increasing the flow to the land and reducing that to the plant, consistently satisfactory discharges were made from all four outlets.

Market Harborough Rural District

The provision of increased filter capacity and installation of upward flow clarifiers at Kibworth sewage disposal works produced no improvement in the effluent.

The Council's attention was drawn to the inadequacy of the pumps at Lubenham sewage pumping station which had to be switched off during prolonged storm conditions to prevent burning out. The installation of new pumps capable of delivering three times dry weather flow to the sewage works is proceeding.

Norman Cross Rural District

Severe flooding at Alwalton caused a breach in a dam containing silage drainage and resulted in pollution. Measures have been taken to prevent a recurrence.

The new sewage disposal works at Elton and at Sibson-cum-Stibbington were not producing reasonably satisfactory effluent.

Modifications at a sewage disposal plant serving a Motel resulted in the production of a consistently satisfactory effluent.

Northampton County Borough

Effluent from Northampton sewage disposal works continued to comply with prescribed conditions.

When approving the first stage of the Council's improvement scheme the Ministry of Housing and Local Government said that the Inspector had been favourably impressed with the co-operation which existed between the River Authority and the Corporation, and it was felt that the Authority had shown a very realistic and tolerant approach to the problem.

Northampton Rural District

The Council's attention was drawn to the deterioration in the effluent from many of their sewage disposal plants. The Council have retained Consultants to advise on extensions at Hackleton and at the Harpole and Kislingbury sewage disposal works. A scheme for Bugbrooke and Heyford was submitted to the Ministry of Housing and Local Government.

The County Planning Authority was asked to restrict large scale development in Hackleton, Wootton and Collingtree until sewerage and sewage disposal facilities are adequate for the increased flows.

Oakham Urban District

Work on Oakham sewage disposal works started at the end of the year.

Oakham Rural District

Cottesmore and Greetham sewage disposal works extensions were completed. Stretton and Clipsham are to be sewered to this works in the near future.

At Exton sewage disposal works additional sludge drying beds are to be provided to enable more frequent tank cleansing, and a Banks clarifier is to be installed.

Old Fletton Urban District

Alterations at the British Sugar Corporation's Peterborough Factory referred to in the Third Annual Report were completed. It soon became apparent that causes of fungus growth in the River Nene had not all been eliminated, and a discharge from underneath the sill of the old weir and below normal river water level was discovered. Flood water had also weakened lagoon banks allowing further seepages to the river. The Corporation are to strengthen all lagoon banks, and are to carry out sheet piling at the weir to prevent nutrient rich liquor from causing heavy fungus growths.

Oundle Urban District

Effluent from Oundle sewage disposal works did not generally comply with prescribed conditions and a temporary improvement scheme was submitted to the Ministry of Housing and Local Government pending the preparation of a comprehensive scheme to enable the works to deal with an expected increase in flow from development in Oundle and from the sewering of Glapthorn to this works.

Oundle and Thrapston Rural District

The Ministry of Housing and Local Government approved that part of the Thrapston Regional Scheme relating to Thrapston and Islip, but deferred the inclusion of Denford and Ringstead.

Effluent from Thrapston sewage disposal works was acceptable after land irrigation was brought into use, but that from Islip, Ringstead and Denford was usually unsatisfactory.

Schemes for sewering Glapthorn to the Oundle sewage disposal works, and for sewerage and sewage disposal for Barnwell and Polebrook were almost ready for submission to the Ministry.

Peterborough Municipal Borough

Effluent from Peterborough sewage disposal works continued to be very satisfactory.

Minor oil pollutions from surface water sewerage systems were investigated in conjunction with the City Engineer's Department who continued to afford the utmost co-operation in tracing and eliminating sources of contamination.

Peterborough Rural District

A new system of treatment at a paper mill in Helpston appeared to be working satisfactorily, and suspended solids were more frequently within the prescribed conditions but difficulty was experienced in April when the effluent was very unsatisfactory and again in February when the plant was frozen.

Three small sewage disposal plants at Newborough produced consistently unsatisfactory effluent, but the Council were reluctant to expend money on improvements until the Ministry of Housing and Local Government's decision is known on a sewerage and sewage disposal scheme, submitted in June, 1967.

Negotiations were proceeding, albeit very slowly, to pump sewage from a caravan site at Eye to the public sewer.

Raunds Urban District

Effluent from the sewage disposal works at Raunds and at Stanwick continued to be unsatisfactory. The Council abandoned plans to install extended aeration plants and reverted to a joint sewage disposal works as originally proposed in 1965. Further housing development will be resisted until such times as adequate sewerage and sewage disposal arrangements are available.

Rothwell Urban District

Rothwell Council let a contract for a sewerage scheme incorporating a six times dry weather flow storm sewage overflow, the discharge from which will pass over three acres of land before discharging to the Slade Brook.

Rushden Urban District

In October a fractured gasholder caused polluting liquor to seep over the ground into the upper section of a culverted length of the Washbrook at Rushden. The gas holder contained about one million gallons of liquor, and besides sealing water, there was a substantial amount of tar, creosote and light oil distillates.

Sealing water was disposed of in a disused ironstone working at Desborough, whilst the remainder was taken by Midland Tar Distillers at a rate of about 20,000 gallons per day. The polluted length of the Washbrook was isolated, the polluting liquor was separated, and the banks were sheet piled to prevent further seepage.

An incident which might have resulted in serious and widespread pollution was most successfully contained.

Spalding Rural District

Gosberton Risegate sewage disposal works was closed for a short period for repairs and the sewage was taken by tanker for treatment at a nearby disposal plant.

Satisfactory progress was made on the Moulton sewerage and sewage disposal scheme.

Spalding Urban District

Drainage from waste fruit and vegetables accumulating at a large warehouse and packaging

plant has been the cause of serious pollution in an adjoining drain but it was at last remedied by the installation of a disposal plant.

Thorney Rural District

Work started on the new sewage disposal works for Thorney.

Towester Rural District

The Council were informed that the sewage disposal works at Blisworth and at Pattishall should be extended to deal with the expected increased flows referred to in County Development Plans.

Wellingborough Urban District

Effluent from Wellingborough sewage disposal works continued to be of high quality. The Council appealed to the Minister of Housing and Local Government in respect of the terms of consent prescribed for a proposed new discharge.

Wellingborough Rural District

Extensions at Wollaston sewage disposal works were started, and the Ministry's approval for extensions to the Earls Barton sewage disposal works was received.

West Kesteven Rural District

Provision was included in the Council's estimates for 1969-70 for the Lenton and Ingoldsby sewerage and sewage disposal scheme which is still subject to the Ministry's approval.

Wisbech Rural District

There was continued improvement in the effluent from many small plants in this District, and that from the Guyhirne and Wisbech St. Mary plants was particularly good.

5. REMEDIAL ACTION

Remedial action which has been taken in various cases is referred to in paragraph 4.

6. STATISTICS RELATING TO POLLUTION CONTROL

DISCHARGES INTO STREAMS REQUIRING CONSENT UNDER SECTION 7 OF THE 1951 ACT

	Consents and notices issued during year	*Refusals during year*
(a) Effluents from local authority sewage disposal works and other domestic sewage effluents ..	19	nil
(b) Effluents from storm sewage overflows and storm sewage tanks	7	nil
(c) Effluents from trade premises	1	nil
(d) Farm effluents	nil	nil
Totals	27	nil

DISCHARGES INTO TIDAL WATER REQUIRING CONSENT UNDER SECTION 7 OF THE 1951 ACT AS EXTENDED BY SECTION 1 OF THE 1960 ACT

	Consents and notices issued during year	*Refusals during year*
(a) Effluents from local authority sewage disposal works and other domestic sewage effluents ..	nil	nil
(b) Effluents from storm sewage overflows and storm sewage tanks	nil	nil
(c) Effluents from trade premises	nil	nil
(d) Farm effluents	nil	nil
Totals	nil	nil

REVIEWS OF CONDITIONS OF CONSENT UNDER SECTION 5 OF THE 1961 ACT

	Consents reviewed during year	*Consents varied during year*
(a) Effluents from local authority sewage disposal works and other domestic sewage effluents ..	2	nil
(b) Effluents from storm sewage overflows and storm sewage tanks	nil	nil
(c) Effluents from trade premises	nil	nil
(d) Farm effluents	nil	nil
Totals	2	nil

DISCHARGES INTO UNDERGROUND STRATA REQUIRING CONSENT UNDER SECTION 72 OF THE 1963 ACT

	Consents issued during year	*Refusals during year*
(a) Effluents from local authority sewage disposal works and other domestic sewage effluents ..	15	nil
(b) Effluents from storm sewage overflows and storm sewage tanks	nil	nil
(c) Effluents from trade premises	1	nil
(d) Farm effluents	1	nil
(e) Other miscellaneous discharges	nil	nil
Totals	17	nil

EXISTING DISCHARGES INTO STREAMS UNDER SECTION 1 OF THE 1961 ACT

	Consents and notices issued during year	*Refusals during year*
(a) Effluents from local authority sewage disposal works and other domestic sewage effluents ..	7	nil
(b) Effluents from storm sewage overflows and storm sewage tanks	2	nil
(c) Effluents from trade premises	2	nil
(d) Farm effluents	nil	nil
Totals	11	nil

7. RESEARCH

No research work was carried out.

RIVER NENE—ANALYTICAL RESULTS

Sampling Point	*Miles from Source*		*pH*	*Suspended Solids*	*Chloride (Cl.)*	*F & S Ammonia (N.)*	*Nitrates (N.)*	*4 hrs. P.V.*	*5 day B.O.D.*	*D.O. % Saturation*	*Water Temp. °C*	*Flow m.g.d.*
1. Non Tidal Sampling Points												
Dodford Road Bridge	5	Average Values	—	33.4	21.5	0.15	2.5	2.2	3.4	101.5	9.5	
		Maximum Values	8.3	602	24	0.48	3.4	16.6	5.8	118.5	14.5	
		Minimum Values	7.4	5	16	trace	1.6	0.6	1.8	91.0	3.5	
Weedon A.45 Road Bridge	—	Average Values	—	17.6	43	0.24	3.65	2.6	3.8	118.0	9.5	39.4
		Maximum Values	8.5	417	78	0.8	4.6	15.6	5.6	156.5	16	169
		Minimum Values	7.4	5	22	trace	2.55	1.6	2.0	84.0	3	40
Kislingbury	12	Average Values	—	29	34	0.58	3.25	3.5	4.7	104	10.5	61
		Maximum Values	8.45	408	40	0.94	4.7	18.4	8.3	132	17	207.
		Minimum Values	7.45	5	25	0.37	2.5	1.6	2.8	87	3	14.
Boughton Crossing	—	Average Values	—	17.5	37	0.35	7.0	2.9	4.24	93.5	10	71.6
		Maximum Values	8.3	547	46	0.71	9.0	17.2	6.4	101	16	346
		Minimum Values	7.3	10	21	trace	4.65	1.2	1.7	88	4	8.6
Nunn Mills	—	Average Values	—	16.5	42	0.44	5.3	3.0	4.2	89	11	
		Maximum Values	8.3	520	47	0.60	6.8	18.4	6.6	96	18	
		Minimum Values	7.5	10	28	0.25	4.6	2.0	2.3	84	3.5	
Billing Bridge	22	Average Values	—	11.5	46	0.36	5.15	3.0	4.5	98.5	13	166
		Maximum Values	8.5	282	51	0.55	6.8	12.0	6.8	114	20	692
		Minimum Values	7.7	5	42	0.19	4.0	2.0	2.2	88	4.5	28.3
White Mills	25	Average Values	—	10	59	3.43	4.75	4.5	6.2	86	12.5	
		Maximum Values	8.35	211	71	8.9	6.7	11.6	8.6	98	16.5	
		Minimum Values	7.75	8	45	0.91	2.35	3.4	3.1	69	5	
Hardwater Mill	27	Average Values	—	12	65	4.6	5.2	4.5	7.6	85	12	
		Maximum Values	8.3	145	80	11.3	7.5	9.2	10.1	97	19	
		Minimum Values	7.75	10	54	1.1	2.6	3.4	4.0	65	5	

Sampling Point	*Miles from Source*		*pH*	*Suspended Solids*	*Chloride (Cl.)*	*F & S Ammonia (N.)*	*Nitrates (N.)*	*4 hrs. P.V.*	*5 day B.O.D.*	*D.O. % Saturation*	*Water Temp. °C*	*Flow m.g.d.*
Wollaston Mill	—	Average Values	—	15	58	2.74	5.7	5.1	9.6	81	11	
		Maximum Values	8.2	239	71	5.0	8.0	11.6	>19.5	92	17	
		Minimum Values	7.55	5	46	0.67	2.95	3.0	4.9	62	4.5	
Wellingborough Road Bridge	30	Average Values	—	16	63	3.55	5.8	5.65	8.85	85.5	12.5	
		Maximum Values	8.2	186	79	9.0	8.0	8.4	14.7	94.5	19.5	
		Minimum Values	7.6	9	55	0.46	3.7	3.4	3.5	70	4.5	
River Ise Wellingborough	—	Average Values	—	23	48	0.53	7.0	5.0	6.9	85.5	11	64.4
		Maximum Values	8.3	411	71	0.80	9.4	15.2	9.5	99	17.5	276
		Minimum Values	7.6	13	26	0.24	5.4	3.0	3.7	57	4	7.9
Ditchford Mill	32	Average Values	—	10	55	2.55	6.1	4.4	6.9	85	12.5	
		Maximum Values	8.3	215	70	4.65	8.1	10.8	11.5	99	19	
		Minimum Values	7.65	5	45	0.33	4.3	3.2	3.3	70	5	
Irthlingborough Old A.6 Bridge	34½	Average Values	—	15	58	2.09	7.0	4.5	7.35	83.5	12.5	
		Maximum Values	8.2	313	68	3.25	9.0	12.4	13.4	92	19	
		Minimum Values	7.6	12	42	0.51	5.8	2.4	3.1	71	5	
Ringstead Lower Lock	38	Average Values	—	11.5	65	1.72	7.4	5.1	7.4	98.5	12	
		Maximum Values	8.7	347	90	2.78	8.4	16	14.8	207	19	
		Minimum Values	7.6	8	48	0.47	6.1	2.8	3.0	46	4.5	
Thrapston	42	Average Values	—	10	65	1.73	7.35	4.4	6.6	83	12	
		Maximum Values	8.2	247	87	2.61	9.0	14.2	11.0	108	19	
		Minimum Values	7.5	5	48	0.38	5.6	2.8	2.6	65	4.5	
Oundle New Bridge	55	Average Values	—	13	59	0.94	7.1	4.0	5.45	92	12	
		Maximum Values	8.2	273	79	2.1	8.6	12.4	9.2	100	19.5	
		Minimum Values	7.65	5	53	0.29	5.8	2.8	2.2	83	4	
Fotheringhay	59	Average Values	—	12	55	0.81	7.0	3.5	4.85	91.5	12	
		Maximum Values	8.2	357	68	1.58	8.4	12.8	8.2	102	19	
		Minimum Values	7.7	5	40	0.19	5.8	2.0	1.5	87.	4	
Elton Lock	—	Average Values	—	9	53	0.90	6.85	3.9	4.3	91	11.5	
		Maximum Values	8.2	396	65	1.68	8.2	12.4	7.4	97	19	
		Minimum Values	7.65	5	39	0.23	5.5	2.4	1.7	86	4	
Willow Brook, Fotheringhay	—	Average Values	—	15	105	0.95	7.65	3.6	5.15	101	11	36.4
		Maximum Values	8.1	504	146	2.22	11.2	15.6	9.7	129	17	129
		Minimum Values	7.7	5	62	0.12	5.2	1.6	2.0	85	3	13
Elton/Nassington Road Bridge	—	Average Values	—	10	60	0.85	7.4	3.35	4.9	95	11.5	
		Maximum Values	8.2	412	82	1.41	8.1	13.2	8.3	105.5	19	
		Minimum Values	7.75	5	42	0.27	6.3	2.2	2.1	82.	4	
Wansford Old A.1 Bridge	66	Average Values	—	10.5	60	0.79	7.0	3.15	4.65	97	11.5	
		Maximum Values	8.25	205	80	1.36	7.7	10.4	7.6	103	19	
		Minimum Values	7.7	5	47	0.13	5.8	2.2	1.9	93	4	
Peterborough Bridge	77	Average Values	—	17.5	63	0.70	6.8	3.0	4.9	94	12	
		Maximum Values	8.3	31	81	1.17	8.1	4.0	7.4	108	20	1190
		Minimum Values	7.65	10	53	0.28	5.7	2.0	1.3	87	4	860
Dog-in-a-Doublet Upstream of Sluice	82	Average Values	—	17.5	60	0.62	6.75	4.1	5.0	96.5	12.5	
		Maximum Values	8.5	27	75	1.01	8.2	4.8	6.6	117	21	
		Minimum Values	7.7	10	51	0.23	5.1	3.6	3.1	81	4	
Tidal Sampling Points												
Dog-in-a-Doublet Road Bridge	82	30/10/68	8.05	12	67	0.59	9.0	3.2	2.4	92	14	
Guyhirn Road Bridge	91	30/10/68	7.95	60	100	0.93	8.6	5.2	3.7	85	13	
Wisbech Town Bridge	97	30/10/68	7.9	84	148	1.06	8.4	5.2	3.7	80	13	
Sutton Bridge	105	30/10/68	7.8	75	236	0.52	8.0	5.4	6.0	62	12	

RIVER WELLAND—ANALYTICAL RESULTS

Sampling Point	Miles from Source		pH	Suspended Solids	Chloride (Cl.)	F & S Ammonia (N.)	Nitrates (N.)	4 hrs. P.V.	5 day B.O.D.	D.O. % Saturation	Water Temp. °C	Flow m.g.d.
Lubenham/Marston Trussel Road Bridge	4	Average Values	—	9	29	0.17	1.8	2.6	3.6	101	10.5	
		Maximum Values	8.0	12	31	0.26	4.1	4.4	4.6	106	17	
		Minimum Values	7.9	7	28	trace	trace	1.6	2.6	92	4	
A.427 Road Bridge downstream of Market Harborough	7½	Average Values	—	7	37	0.2	2.4	3.0	4.5	133	11	
		Maximum Values	8.65	9	40	0.28	4.55	4.2	6.9	204	20	
		Minimum Values	7.95	4	35	0.14	trace	2.2	2.9	102	3	
Welham	12	Average Values	—	10	45	0.94	4.9	4.3	5.5	100	11	
		Maximum Values	8.1	12	60	2.11	7.4	7.6	9.3	106	20.5	
		Minimum Values	7.85	4	36	0.48	3.1	2.4	2.9	87.5	3.5	
Ashley	15	Average Values	—	12.5	44	0.55	4.85	4.0	4.2	118.5	11	
		Maximum Values	8.8	15.5	57	0.70	5.6	5.0	5.0	192	20.5	
		Minimum Values	7.9	4	36	0.28	3.7	3.2	3.4	84	3	
Rockingham	21¼	Average Values	—	10	41	0.43	4.5	3.15	4.1	124	11	
		Maximum Values	8.9	17	52	0.69	6.3	4.2	5.7	189	19	
		Minimum Values	7.95	2	36	0.20	3.5	2.2	3.2	98.5	4	
Eyebrook at Caldecote	—	Average Values	—	8	31	0.24	1.3	3.7	4.3	110	11	
		Maximum Values	8.4	15	34	0.35	2.9	4.6	5.6	127	20	
		Minimum Values	7.9	2	26	0.16	nil	2.8	3.4	99	3	
Gretton, Upstream of Sluice	24½	Average Values	—	11	41	0.25	4.3	3.1	3.6	103	11	
		Maximum Values	8.7	21	49	0.50	6.0	4.6	4.1	120	19	
		Minimum Values	7.9	3	36	trace	3.2	2.4	3.0	90.5	3	
Wakerley/ Barrowden	—	Average Values	—	14	40	0.26	4.85	3.3	3.7	118	11	
		Maximum Values	9.1	23	50	0.34	6.0	4.4	4.1	163	20	
		Minimum Values	8.0	3	36	0.11	3.6	2.0	3.1	102	3.5	
Collyweston Bridge	39	Average Values	—	10	39	0.21	4.7	2.95	3.4	130	11	
		Maximum Values	8.9	19	41	0.28	6.0	3.4	4.3	189	19	
		Minimum Values	8.05	trace	35	0.16	3.2	2.8	2.5	99	4	
Chater at Station Road, Ketton	—	Average Values	—	8	31	0.04	7.05	2.0	2.95	118	11	
		Maximum Values	8.15	11	33	0.16	7.8	2.4	4.0	116	17	
		Minimum Values	7.7	2	29	trace	6.0	1.6	2.4	102	4	
Tinwell Mill	—	Average Values	—	18	37	0.14	4.95	2.2	3.2	125	11.5	
		Maximum Values	8.7	50	39	0.27	6.5	3.0	3.7	167	19	
		Minimum Values	7.8	trace	35	trace	3.3	1.4	2.4	102	4.5	
Stamford Swimming Baths	43¾	Average Values	—	12	38	0.20	4.7	2.85	3.0	104	11	
		Maximum Values	8.4	25	42	0.22	6.6	3.8	3.8	117	18	
		Minimum Values	7.85	trace	35	0.10	3.3	2.4	2.4	97	4	
Gwash, Upstream of confluence with Welland	—	Average Values	—	9	34	0.05	6.45	1.7	2.9	115	11	
		Maximum Values	8.6	12	36	0.14	8.35	2.4	3.9	127	19	
		Minimum Values	8.0	1	32	trace	4.5	0.8	1.6	102	4	
Uffington	46¼	Average Values	—	10	38	0.16	5.95	2.35	2.9	106	11	
		Maximum Values	8.35	18	43	0.22	7.25	4.4	4.2	126	19	
		Minimum Values	7.9	trace	34	0.11	4.9	1.4	1.6	98	4.0	
Deeping St. James Crown and Anchor	53	Average Values	—	12	38	0.10	5.45	2.25	3.1	120	11.5	
		Maximum Values	8.7	18.5	43	0.17	7.0	4.4	4.0	145	19	
		Minimum Values	8.0	trace	34	trace	4.2	1.2	2.0	101	4	
Deeping St. James Railway Bridge	—	Average Values	—	12	37	0.14	5.2	2.65	3.8	133	12	
		Maximum Values	8.9	22	42	0.22	6.8	5.0	4.9	167	19	
		Minimum Values	7.9	trace	33	0.09	2.9	1.6	2.0	102	4	
Crowland Bridge	59	Average Values	—	15.5	40	0.13	3.9	3.35	4.6	127	12	
		Maximum Values	8.6	30	46	0.17	6.8	5.2	11.1	181	20	
		Minimum Values	7.9	6	35	0.10	trace	2.0	1.6	98	4	

Sampling Point	Miles from Source		pH	Suspended Solids	Chloride (Cl.)	F & S Ammonia (N.)	Nitrates (N.)	4 hrs. P.V.	5 day B.O.D.	D.O. % Saturation	Water Temp. °C	Flow m.g.d.
Inlet to Coronation Channel	67½	Average Values	—	10	41	0.18	3.8	3.25	3.8	108	12	
		Maximum Values	8.3	15	47	0.27	6.8	7.0	5.4	122	20.5	
		Minimum Values	7.9	2	35	0.12	nil	1.6	1.7	99	4	
Tidal Sluice Coronation Channel	70	Average Values	—	27	43	0.33	3.6	4.3	5.1	94.5	12	
		Maximum Values	8.0	65	47	0.44	6.0	6.6	>7.7	106	20	
		Minimum Values	7.8	4	36	0.19	trace	3.0	2.4	87	4	
Fosdyke Bridge (Tidal Section)	—	Average Values	—	84	2515	0.38	4.0	5.3	6.3	104	12.5	
		Maximum Values	8.1	179	9300	0.67	6.8	7.8	>8.6	124	21.5	
		Minimum Values	7.8	28	182	0.13	nil	2.8	3.0	96	4	

WILLOW BROOK—ANALYTICAL RESULTS

Northern Stream Weldon Lodge	—	11.12.68	6.9	17	373	19.5	nil	9.6	8.9	52	12	
		26.2.69	7.0	35	298	10.5	1.9	6.2	7.3	73	6.5	
Central Stream Water Lane	—	11.12.68	8.1	16	68	4.2	2.0	4.8	4.7	59	18	
		26.2.69	8.9	23	95	4.5	4.2	5.6	5.3	85	14	
Southern Stream Great Weldon Road Bridge	5	11.12.68	6.95	37	220	7.3	13.8	7.2	4.5	81	9.5	
		26.2.69	7.8	19	128	2.5	7.25	5.8	7.3	83	5.5	
Deene Lake Downstream Bridge	8	11.12.68	7.4	13	144	5.8	8.9	5.0	3.6	76	7	
		26.2.69	7.75	22	98	2.9	5.4	4.2	6.1	89	5.5	
Gretton Brook Hollow Bottom Lodge		11.12.68	7.75	9	40	0.15	4.2	2.6	1.5	96	6.5	
		26.2.69	7.4	54	34	0.37	4.3	2.8	1.1	93	5.5	
Bulwick A.43 Road Bridge	9	11.12.68	7.5	12	131	4.8	4.1	5.4	6.4	81	7	
		26.2.69	7.7	36	90	2.6	5.4	4.8	5.9	92	5	
Blatherwyke Bridge	10½	11.12.68	7.5	14	132	4.7	7.8	4.4	5.4	74	6.5	
		26.2.69	7.7	32	88	2.5	5.4	4.8	5.8	90	5	
Kingscliffe Bridge	13½	11.12.68	7.6	9	118	3.5	7.3	3.2	6.0	83	5	
		26.2.69	7.6	41	72	1.4	5.2	4.4	6.5	92	4	
Apethorpe Bridge	15	11.12.68	7.6	10	109	2.7	7.3	2.0	5.3	79	5.5	
		26.2.69	7.65	42	66	1.5	5.5	4.0	5.6	90	4	
Woodnewton Bridge	17	11.12.68	7.65	20	108	2.5	7.3	2.0	6.5	87	5.5	
		26.2.69	7.65	53	64	1.5	5.6	3.6	5.8	94	5	

HARPER'S BROOK—ANALYTICAL RESULTS

Pipewell	2½	9.1.69	7.5	18	34	0.48	3.4	3.4	2.0	92	4
Spread Eagle A6003 Road Bridge	4	9.1.69	7.5	21	43	0.50	2.5	4.0	2.9	95	4
Little Oakley Bridge	6	9.1.69	7.65	25	38	0.47	2.4	3.2	1.8	96	4
Brigstock, Grafton Road Bridge	10	9.1.69	7.45	25	39	0.60	2.3	5.8	3.0	93	5
Sudborough	12	9.1.69	7.5	18	38	0.40	2.4	3.4	2.9	96	5
Lowick	13½	9.1.69	7.5	13.5	36	0.41	2.65	3.6	2.0	96	5
A6116 Road Bridge	14½	9.1.69	7.5	13	38	0.43	2.95	2.0	1.9	95	4.5

RIVER GWASH—ANALYTICAL RESULTS

Sampling Point	Miles from Source		pH	Suspended Solids	Chloride (Cl.)	F & S Ammonia (N.)	Nitrates (N.)	4 hrs. P.V.	5 day B.O.D.	D.O. % Saturation	Water Temp. °C	Flow m.g.d.
	Miles from confluence											
Manton A6003 Road Bridge (S. Gwash)	—	28.1.69	8.0	180	26	0.42	trace	7.4	3.6	91	6	
Normanton Park (S. Gwash)	—	28.1.69	8.0	90	29	0.33	3.3	4.4	3.5	89	6	
Fox Bridge (N. Gwash)	14	28.1.69	7.9	22	44	0.48	4.0	2.8	3.6	91	7	
Bull Bridge (N. Gwash)	12	28.1.69	7.85	170	38	0.46	4.2	7.2	4.3	90	6.5	
Church Bridge, Empington	10	28.1.69	8.0	49	35	0.06	4.7	3.4	2.8	92	6	
North Brook at Empingham	—	28.1.69	8.0	32	26	0.16	6.8	2.0	2.1	89	6	
Great Casterton	6	28.1.69	7.95	20	34	trace	6.1	1.8	2.4	93	7	
Upstream of Ryhall Village	3	28.1.69	8.0	35	34	0.04	6.5	3.2	2.5	93	7	
Downstream of Village	2	28.1.69	8.1	26	33	trace	6.6	2.0	2.4	95	7	
Upstream of confluence with Welland	—	28.1.69	8.15	21	32	trace	6.6	1.8	2.5	96	7	

RAM DYKE—ANALYTICAL RESULTS

Helpston	4¼	Average Values	—	71	54	0.55	1.4	13.4	33.4	88	13.5
		Maximum Values	7.95	658	136	1.45	10.7	67.2	116	111	21
		Minimum Values	4.9	9	26	nil	nil	4.0	4.7	30	8.5
Helpston Road Glinton	2½	Average Values	—	27.5	50	0.29	35.3	6.65	12.1	78	11.5
		Maximum Values	8.1	101	66	0.69	7.7	16.0	49.5	104	20
		Minimum Values	7.4	8	32	trace	nil	2.8	2.4	16	4
Deeping Gate Road Peakirk	¾	Average Values	—	20	68	0.38	6.3	5.8	6.85	85	12.5
		Maximum Values	6.1	47	77	1.60	8.9	26.4	57	112	20
		Minimum Values	7.4	7	48	trace	trace	1.4	1.4	4	3

GENERAL INFORMATION

1. RECREATIONAL FACILITIES

(a) Fishing

The fishing rights vested in or controlled by the Authority are as stated in the Third Annual Report. The statistics for the past year are included in Part V.

(b) Pleasure Navigation

The position relating to the lower Welland is as stated in the Second Annual Report.

In the past year 498, an increase of 51, locally owned pleasure craft were registered for use on the Nene, and owners of a further 85 craft have been supplied with keys for the navigation locks to make limited journeys, or for limited periods.

2. COMMERCIAL NAVIGATION

Wisbech Corporation are the Port and Harbour Authority for the River Nene from Bevis Hall above the town to the sea. According to statistics kindly supplied by the Town Clerk, 318 vessels used the port, of a total of 67,514 net registered tons. The imports amounted to 131,529 tons, of which petrol, timber and potash were the principal items, and exports amounted to 26,335 tons of which barley exports accounted for nearly 13,000 tons.

Part VIII—Information about

TABLE 1—

Statement of Income and Expenditure on Loan and

Year 1967-68 Revenue Account £	Year 1967-68 Loan Account £	Year 1967-68 Grand Total £	Item	Expenditure	Year 1968-69 Revenue Account £	Year 1968-69 Loan Account £	Year 1968-69 Grand Total £
				Capital Transactions			
				Grant-Aided Works			
18,570	—	18,570	1	Hydrometric Works (for details see Table 3) ..	18,139	—	18,139
—	—	—	2	Contributions to other Authorities under section 91 of the Water Resources Act, 1963	—	—	—
				Non-Grant-Aided Works			
2,481	7,045	9,526	3	Water Conservation Works (for details see Table 3) ..	3,397	36,924	40,321
—	—	—	4	Contributions to other Authorities under Section 91 of the Water Resources Act, 1963	—	—	—
8,719	—	8,719	5	Other items	1,744	—	1,744
29,770	7,045	36,815			23,280	36,924	60,204
				Revenue Transactions			
			6	Water Conservation Works			
				Loan Charges:			
—	—	—		Principal repaid	—	—	—
—	—	—		Interest	—	—	—
—	—	—		Contributions to Sinking Fund	—	—	—
			7	Hydrometric Works			
				Loan Charges:			
—	—	—		Principal Repaid	—	—	—
—	—	—		Interest	—	—	—
—	—	—		Contributions to Sinking Fund	—	—	—
2,913	—	2,913	8	Maintenance of Works	3,371	—	3,371
			9	Compensation for revocation or variation of a Licence under			
—	—	—		(a) Section 46 of the Water Resources Act, 1963 ..	—	—	—
—	—	—		(b) Section 47 of the Water Resources Act, 1963 ..	—	—	—
			10	Payments arising under actions for derogation of protected rights under Section 50 of the Water Resources Act, 1963	—	—	—
—	—	—	11	Expenditure on prevention of pollution under section 68 of the Water Resources Act, 1963	—	—	—
			12	Expenditure on special measures for improving the quality of water resources under section 77 of the Water Resources Act, 1963	—	—	—
			13	Payments to other accounts under section 83 (3) (b) of the Water Resources Act, 1963	—	—	—
—	—	—	14	Provision of recreational facilities	—	—	—
			15	Contributions to other Authorities under section 91 of the Water Resources Act, 1963	—	—	—
—	—	—	16	Estates	—	—	—
			17	Administrative Charges:			
17,545	—	—		Salaries and allowances	18,070	—	—
2,099	—	—		Office accommodation	56	—	—
1,248	—	—		Office expenses	1,236	—	—
—	—	—		Legal and Parliamentary costs, etc.	—	—	—
—	—	—		Other items	2,656	—	—
10,232	—	31,124		Proportion of General Administrative Charges ..	11,925	—	33,943
801	—	801	18	Proportion of General Charges	763	—	763
—	—	—	19	Contribution to Reserve Fund	—	—	—
—	—	—	20	Contributions to Replacement Fund	—	—	—
—	—	—	21	Other items	—	—	—
64,608	7,045	71,653		Total—Water Resources Account	61,357	36,924	98,281
—	—	—	22	Balance—Income in excess of Expenditure for the year ..	—	—	—
64,608	7,045	71,653			61,357	36,924	98,281

Expenditure and Income

WATER RESOURCES

Revenue Accounts—Year ended 31st March, 1969

Year 1967-68 Revenue Account £	Year 1967-68 Loan Account £	Year 1967-68 Grand Total £	Item	Income	Year 1968-69 Revenue Account £	Year 1968-69 Loan Account £	Year 1968-69 Grand Total £
				Capital Transactions			
				Grant-Aided Works			
—	—	—	1	Loans raised	—	—	—
9,285	—	9,285	2	Exchequer Grants	9,839	—	9,839
—	—	—	3	Contributions from other Authorities under Section 91 of the Water Resources Act, 1963	—	—	—
—	—	—	4	Contributions from Reserve Fund	—	—	—
				Non Grant-Aided Works			
—	—	—	5	Loans raised	—	—	—
—	—	—	6	Contributions from other Authorities, etc.	—	—	—
—	—	—	7	Contributions from Reserve Fund	—	—	—
—	—	—	8	Contributions from Replacement Fund	—	—	—
—	—	—	9	Other items	—	—	—
9,285	—	9,285			9,839	—	9,839
				Revenue Transactions			
3,236	—	3,236	10	Licence Fees	3,089	—	3,089
1,168	—	1,168	11	Charges for water	264	—	264
—	—	—	12	Estates—Rents, Wayleaves, etc.	—	—	—
			13	Contributions by Minister towards Compensation for revocation or variation of Licences under			
—	—	—		(a) Section 51(2) of the Water Resources Act, 1963	—	—	—
—	—	—		(b) Section 51(3) of the Water Resources Act, 1963	—	—	—
			14	Contributions by Minister under section 51(1) of the Water Resources Act, 1963 towards payments arising under action for derogation of protected rights under section 50 of the Water Resources Act, 1963 ..	—	—	—
—	—	—	15	Income for the provision of recreational facilities ..	—	—	—
—	—	—	16	Contributions from other accounts under section 83(2) of the Water Resources Act, 1963	—	—	—
—	—	—	17	Contributions from Water Resources Board under section 90 of the Water Resources Act, 1963 ..	—	—	—
—	—	—	18	Contributions from other Authorities under section 91 of the Water Resources Act, 1963	—	—	—
—	—	—	19	Contributions from Replacement Fund	—	—	—
—	—	—	20	Contributions from Reserve Fund	—	—	—
15	—	15	21	Other Income	22	—	22
42,525	—	42,525	22	Precepts (for details see Table 5)	45,300	—	45,300
56,229	—	56,229		Total—Water Resources Account	58,514	—	58,514
8,379	7,045	15,424	23	Balance—Expenditure in excess of Income for the year	2,843	36,924	39,767
64,608	7,045	71,653			61,357	36,924	98,281

TABLE 2—INFORMATION ABOUT EXPENDITURE AND INCOME (OTHER THAN FOR WATER RESOURCES)

Statement of Income and Expenditure on Loan and Revenue Accounts—Year ended 31st March, 1969

Year 1967-68 Revenue Account £	Year 1967-68 Loan Account £	Year 1967-68 Grand Total £	Item	Expenditure	Year 1968-69 Revenue Account £	Year 1968-69 Loan Account £	Year 1968-69 Grand Total £
				LAND DRAINAGE			
				Capital Transactions			
246,605	6,913	253,518	1	Grant Aided Works etc. (for details see Table 4) ..	252,770	3,289	256,059
81,296	—	81,296	2	Non Grant Aided Works, etc. (for details see Table 4)	12,416	—	12,416
327,901	6,913	334,814			265,186	3,289	268,475
				Revenue Transactions			
			3	New Works and Improvement Schemes:			
95,970	—	—		Loan Charges: Principal Repaid	90,686	—	—
81,530	—	177,500		Interest	79,084	—	169,770
94,702	—	94,702	4	Maintenance of Works	101,642	—	101,642
—	—	—	5	Contributions to Water Resources account under section 83(2)(b) of the Water Resources Act, 1963 ..	—	—	—
220	—	220	6	Contributions to Internal Drainage Boards	191	—	191
—	—	—	7	Prior Charges	—	—	—
			8	Subsidiary Accounts (e.g. Motor Vehicle and Plant, On cost etc. Accounts) balance of expenditure ..	—	—	—
—	—	—		Deduct—amount transferred to other accounts in excess of expenditure for the year	—	—	—
Cr. 2,151	—	Cr.2,151					
1,449	—	1,449	9	Estates	2,197	—	2,197
			10	Administrative Charges			
44,807	—	—		Salaries and Allowances	48,137	—	—
4,952	—	—		Office Accommodation	1,762	—	—
2,989	—	—		Office Expenses	3,888	—	—
—	—	—		Legal and Parliamentary Costs, Stamp Duty, etc.	—	—	—
—	—	—		Items other than shown above	—	—	—
19,363	—	72,111		Proportion of General Administrative Charges (see Item 27 Income)	22,397	—	76,184
Cr. 3,395	—	Cr.3,395	11	Proportion of General Charges (see Item 30) ..	Cr. 4,003	—	Cr.4,003
			12	Other Items			
397	—	—		Emergency Pumping Equipment	686	—	—
3,179	—	—		Contributions Sea Defence Works	319	—	—
4,545	—	—		Crowland Bank Charges	4,545	—	—
661	—	8,782		Bourne Eau Pumping Station	1,443	—	6,993
677,119	6,913	684,032		Total—LAND DRAINAGE	618,160	3,289	621,449

Year 1967-68 Revenue Account £	Year 1967-68 Loan Account £	Year 1967-68 Grand Total £	Item	Income	Year 1968-69 Revenue Account £	Year 1968-69 Loan Account £	Year 1968-69 Grand Total £
				LAND DRAINAGE			
				Capital Transactions			
				Grant-Aided Works			
—	17,500	17,500	1	Loans raised (for details see Table 4)	—	—	—
7,000	—	7,000	2	Contributions from Local Authorities, Private Frontagers, etc.	10,970	—	10,970
200,563	—	200,563	3	Exchequer Grants—Schemes financed from Revenue ..	192,173	—	192,173
—	—	—	4	Other items	—	—	—
				Non Grant-Aided Works			
—	—	—	5	Loans Raised (for details see Table 4)	—	—	—
—	—	—	6	Contributions from Local Authorities, Private Frontagers, etc.	—	—	—
			7	Other Items			
450	—	450		Sale of Property	4,027	—	4,027
208,013	17,500	225,513			207,170	—	207,170
				Revenue Transactions			
			8	New Works and Improvement Schemes:			
125,988	—	125,988		Exchequer Grant towards Loan Charges	122,550	—	122,550
			9	Maintenance of Works:			
8,100	—	—		Contributions from Local Authorities, Private Frontagers, etc.	3,000	—	—
1,753	—	—		Commutation Fund—Interest	1,774	—	—
—	—	9,853		Other Items	—	—	4774
—	—	—	10	Contributions by Local Authorities under section 17 of the Land Drainage Act, 1961	—	—	—
—	—	—	11	Contributions from Water Resources Account under section 83(3)(b) of the Water Resources Act, 1963 ..	—	—	—
8,824	—	8,824	12	Estates—Rents, Wayleaves, etc.	9,330	—	9,330
			13	Administrative Charges: ..			
1,652	—	1,652		Recovered through Rechargeable Works, Fees, etc. Apportioned to and excluded in Capital Expenditure and Subsidiary Revenue Accounts	1,409	—	1,409
			14	Other items			
303	—	—		Navigation Dues	179	—	—
733	—	1,036		Miscellaneous Income	820	—	999
355,366	17,500	372,866		Total—LAND DRAINAGE	346,232	—	346,232