

Inauguration of new Pumping Station
and Treatment Works at Langford

BRIEF DESCRIPTION OF WORKS

1. Capacity of Works - The New Works has an output into supply of 12 m.g.d. and provision has been made to double the size by the simple addition of upward flow tanks, filters and extension to the Chemical House.
2. Necessity for Works - The Old Works of original capacity 6 m.g.d. are situated about half-a-mile away and are showing serious signs of structural disintegration. Moreover it was not very practical to extend them to supply the additional water required by the rapid development of the Southend and Basildon Areas, where some .75 m.g.d. additional water is required each year. The average consumption has risen from 12.2 m.g.d. in 1960 to 18.8 m.g.d. last year.
3. Sources of Water - Water for the New Works is coming from the Rivers Blackwater and Chelmer, and forms part of the Hanningfield Scheme. This Scheme is now fully utilised and future water will be obtained from the Ely Ouse Scheme now under construction for the Essex River Authority and which should be available by April, 1971.
4. Type of Construction - The Works employ modern constructional methods making extensive use of precast panels with granite aggregate finish on a reinforced concrete framework to reduce maintenance to the minimum. Each main building is linked together by corridors under which there are ducts containing the chemical pipelines and electric cables.
5. Design - The overall scheme was designed by the Company's staff as was the majority of the R. C. structures. The Administration Block and the main Pumping Station however were designed by Messrs. Gerald Shenstone and Partners and Messrs. Binnie and Partners respectively.
6. Components of the Works - The works consist of basically upward flow or reaction tanks, rapid gravity filters and local underground storage. The Chemical House provides storage and chemical dosing equipment, whilst the Chlorine House contains bulk chlorine plant and sulphur dioxide equipment.
7. Route of the Water - Water is supplied into the 60 m.g. raw water reservoirs from the rivers by the Hanningfield Pumping Stations. The Raw Water pumps in Stations No. 6 and 7 deliver the water to the reaction tanks where chemicals are added and the first stage of the treatment takes place. Sludge formed by these reactions is taken to the sludge works where unwanted materials are pumped four miles to a disused quarry. From the reaction tanks water is passed to the rapid gravity filters after which chlorination takes place before entering the 2 m.g. capacity storage reservoir. The high lift pumps in the new Pumping Station then take the water from this reservoir and dispatches it towards Southend.
8. Control of Works - It is hoped that the control of the entire works will be by three shifts of three men. One man in the Pumping Station controlling raw water pumps, high lift pumps, Bushy Hill Reservoir and Hullbridge Pumping Stations. One man controlling the treatment with an assistant on a roving commission. Routine maintenance will be carried out by dayworkers.
9. Construction Time - Construction of the works was commenced in April/May 1968 and substantially completed by the end of May, 1970.
10. Landscaping - The instant tree planting and landscaping was carried out by the Company's staff at Langford, the bulk of which within the last six weeks.

SOUTHEND WATERWORKS COMPANY

LUNCHEON

on the occasion of

THE INAUGURATION AND INSPECTION
OF THE COMPANY'S NEW PUMPING
STATION AND TREATMENT WORKS AT
LANGFORD

by

Her Majesty's Lieutenant of the County of Essex

COLONEL SIR JOHN A. RUGGLES-BRISE,

BT., C.B., O.B.E., T.D., J.P.

on

Tuesday, 30th June, 1970

13.30

Chairman : THE HON. PETER E. BRASSEY, D.L., J.P.

GRACE by the Chairman.

Menu



Smoked Salmon



Cold Roast Chicken — Ham

French Salad

Hot Potatoes — Runner Beans



Fresh Strawberries and Cream



Coffee

Toasts



Her Majesty The Queen

The Southend Waterworks Company

Proposed by: Her Majesty's Lieutenant of The County of
Essex

COLONEL SIR JOHN A. RUGGLES-BRISSE, BT., C.B.,
O.B.E., T.D., J.P.

Response by: The Chairman, Southend Waterworks Company
THE HON. PETER E. BRASSEY, D.L., J.P.

The Guests

Proposed by: The General Manager, Southend Waterworks
Company

MR. PETER FRANCIS, F.C.I.S.

Response by: The Chairman, South Essex Waterworks
Company

MR. A. W. WHITE, F.C.A.

TIME-TABLE

- 10.45 Assemble in Old Pumping Station (Coffee).
- 11.15 Walk to New Works.
- 11.30 Inauguration by the Lord Lieutenant of Essex.
- 11.40 Inspection of New Works.
- 12.45 Reception.
- 13.30 Luncheon.
- 15.15 Carriages.



Name

Table Letter

SOUTHEND WATERWORKS C O M P A N Y

13, CAMBRIDGE ROAD • SOUTHEND-ON-SEA

TELEPHONE 0702 - 44421

EXTENSION 24

19th June, 1970.

REFERENCE OURS

YOURS

MEMORANDUM

FROM : General Manager

TO: All Staff on duty at Langford.

Tuesday, June 30th, 1970.

CAR PARK: At rear of the old pumping station. Staff to be positioned at all entrances to direct traffic.

10.45: Guests will assemble in the Old Steam Pumping Station where coffee will be served. Loudhailer to be available.

10.47: Train arrives at Witham and party will be taken by Coach in charge of Mr. A. Chaplin direct to the New Pumping Station.

11.15: Guests walk to New Pumping Station.

11.30: The Lord Lieutenant will inaugurate the Works by starting the Pumps in the New Station.

11.40: Party will inspect the works. Ten groups of about ten will be guided round the works following the Main Party. Separate instructions will be issued.

12.45: The Guests will be received in the Administration Building by the Chairman.

13.20: Guests will commence to walk to the marquee for luncheon.

13.30 Luncheon.

15.15: Guests Depart.

15.45: Coach Departs for Witham.

16.33: Train Departs Witham.