

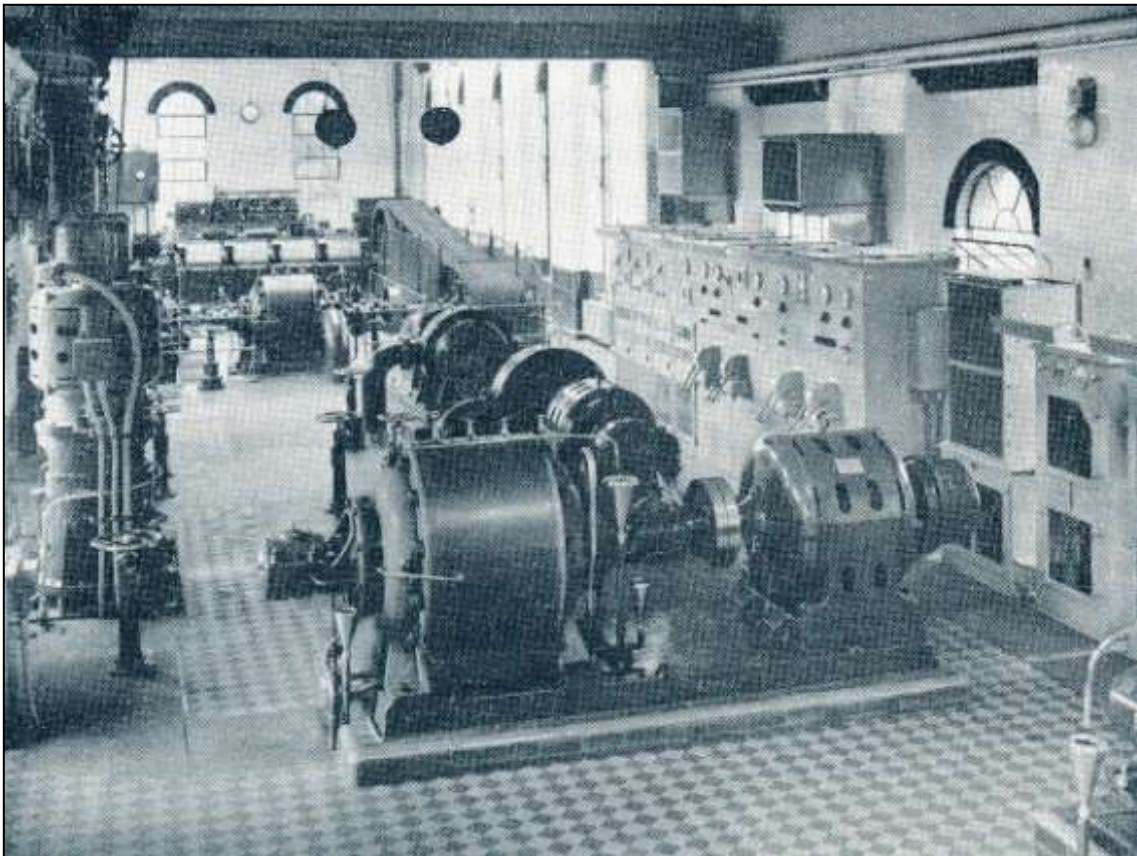
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Water Supply in the Borough

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Interior of the Pumping Station – East Street

THE water supply of the Borough of Epsom and Ewell is afforded by the Epsom and Ewell Corporation, the Sutton District Water Company, and the Metropolitan Water Board. The Corporation supplies the Parish of Epsom, the Sutton District Water Company supplies the greater portion of the Parishes of Ewell and Cuddington, and a relatively small area at the northern extremity of the Borough is supplied by the Metropolitan Water Board.

1. The Corporation's Undertaking

The Epsom undertaking was established in 1853, when the site of an artesian well was purchased in East Street, Epsom. At that time the estimated flow from this well was 100,000 gallons per day, which afforded a supply of 20 gallons per day for each of the 5,000 inhabitants of the Parish of Epsom. Further wells were later constructed on the site, together

with some 280 feet of adits in the chalk formation, from which a supply of 3½ million gallons per day has been obtained.

The Undertaking now supplies all the water needed for the present population of the Parish of Epsom - some 37 gallons per day for each of the 36,000 inhabitants.

The original pumping plant was steam-operated and delivered the water into the Reservoir at Burgh Heath Road, which afforded a supply to the area when the plant at East Street was shut down. In 1896 an additional reservoir was constructed at Downs Road and a connecting main laid direct from the works at East Street.

The plant was modernised, and in 1926 a heavy oil engine was installed at East Street which directly operated both high-lift and low-lift pumps, and at the same time further reservoirs were constructed on the Downs Road site, bringing the total storage capacity up to 2,931,000 gallons. In 1932 electrically-operated plant was installed.

Chlorination of the supply was commenced in 1938, and, 1942 saw the completion of a 600,000 gallon contact tank and the installation of chlorination and dechlorination plant; the supply is now fully treated to ensure the bacteriological purity of the supply. The plant required to meet the present day demands on the Epsom Undertaking has always been kept thoroughly abreast of modern requirements and, in conformity with this practice, the Corporation have authorised the installation this year of a 600 h.p. diesel alternator and the motorising of pumping plant previously directly driven by the heavy oil engine installed in 1926.

The water is chlorinated and pumped to the contact tank and after dechlorination is pumped to supply and to the service reservoirs in Downs Road. The supply to high level areas is boosted at an electrically-operated station situated adjacent to the Downs Road reservoirs. The water is hard, but the bacteriological examinations which are made periodically, show the water to be of excellent quality and of a high degree of purity.

The Undertaking affords a supply to the five mental hospitals in the area, whose daily consumption accounts for approximately one-third of the present output of the station.

2. The Sutton District Water Company

Founded in 1863 as "The Sutton and Cheam Water Company Limited," the present company was incorporated in 1871 as "The Sutton District Water Company," when the limits of supply were extended to adjoining areas, including the parishes of Ewell and Cuddington.

The water is obtained from deep wells in chalk strata at three waterworks situated in Sutton, Cheam and Woodmansterne and besides being softened by means of a lime process, is effectively sterilised by chlorination treatment before being distributed to consumers.

The pumping plant at the three waterworks is of modern design and all stations include pumps driven by both diesel engines and electric motors, and in the case of the Sutton Works steam driven plant is also installed. All the pumps are in duplicate, and adequate standby is provided in the case of the auxiliary plant also.

After treatment the water is pumped into supply and some of it is stored in covered service reservoirs, all of reinforced concrete, to tide over periods of peak demand and to provide for

emergencies. Much larger amounts of water are consumed in the summer than in the winter and in the very hot weather the consumption might be increased by as much as 50-70 per cent., mostly due to the watering of gardens.

Strict chemical and bacteriological control is maintained over all the supplies by a resident chemist and bacteriologist. The water pumped from every station is sampled daily both before and after treatment, and in the course of a year over three thousand analyses of samples are made. Additional analyses are carried out by independent bacteriologists.

The Company proposes to construct in the Ewell area a six million gallons reinforced concrete service reservoir, to provide, amongst other things, for future demands in the Ewell and Stoneleigh areas.

The Company endeavours to provide a good service for consumers and in this connection it re-washers hot and cold taps and ball valves free of charge provided the fittings are standard patterns and reasonably accessible. It also undertakes alterations and repairs to plumbing installations, including hot water systems. It was responsible for introducing an improved method of repairing consumers' supply pipes based on a freezing process, which eliminates the need in most cases to shut off the supply to the whole street.

The average consumption of water in the Company's area for all purposes is approximately 30 gallons per head per day. Roughly five gallons of this amount are used for trade and the balance of 25 gallons per head per day for domestic purposes.



The Corporation's Water-Treatment House