

JOINT COMMITTEE
ON
WATER RESOURCES
AND SUPPLIES

[Session 1934-35]

VOLUME II

MINUTES OF EVIDENCE

[11th to 25th July 1935 (inclusive)]

TOGETHER WITH AN APPENDIX

*Ordered by The House of Lords to be Printed
10th July 1935*

*Ordered by The House of Commons to be Printed
25th July 1935*

LONDON

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LIST OF WITNESSES

Die Jovis, 11° Julii, 1935.

				PAGE
Mr. I. G. Gibbon, C.B., C.B.E.	...	} of the Ministry of Health	...	1
Mr. R. G. Hetherington, C.B., O.B.E.,	...			
M.INST.C.E.	... ..		

Die Jovis, 18° Julii, 1935.

Mr. W. Cash ... } Sir Albert Atkey } of the British Waterworks Association 51 Mr. J. K. Swales }
--

Die Martis, 23° Julii, 1935.

Sir Albert Atkey, of the British Waterworks Association (re-called)	69
Mr. W. J. E. Binnie, M.A., M.INST.C.E.	} of the Association of Con- sulting Engineers (In- corporated) and of the Institution of Civil En- gineers... ..
Mr. H. P. Hill, M.INST.C.E....	
Mr. S. R. Raffety, M.INST.C.E.	
Mr. R. C. S. Walters, B.SC., M.INST.C.E.	
	78

Die Jovis, 25° Julii, 1935.

Sir Arthur Robinson, G.C.B., C.B.E., of the Ministry of Health 88

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DE LA PAIX

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MINUTES OF EVIDENCE

Die Jovis, 11° Julii, 1935.

Members Present:

Marquess of Aberdeen and Temair.	Sir George Courthope.
Lord Darcy de Knayth.	Mr. Richard Evans.
Lord Stanley of Alderley.	Sir William Jenkins.
Lord O'Hagan.	Major Mills.
Lord Sanderson.	Sir John Pybus.
Lord Milne.	Colonel Sir Edward Ruggles-Brise.
Lord Eltisley.	Sir Arthur Michael Samuel.

The LORD ELTISLEY in the Chair.

Mr. I. G. GIBBON, C.B., C.B.E., and Mr. R. G. HETHERINGTON, C.B., O.B.E., M.INST.C.E. (representing the Ministry of Health), are called in and examined as follows:—

Chairman.

1. Mr. Gibbon, you have prepared a memorandum of evidence?—(Mr. Gibbon.) Yes, it is as follows:—

The Memorandum submitted on behalf of the Ministry of Health by I. G. GIBBON, Esq., C.B., C.B.E., is as follows:—

GENERAL CONDITIONS.

1. This memorandum has been prepared in order to provide the Joint Committee with information on the present organisation of water supplies, on particular measures adopted in recent years and on the recommendations of the Advisory Committee on Water of the Ministry of Health.

Water suppliers.

2. Water supplies are provided in the following ways:—

(1) by local authorities or joint boards with statutory powers (acting under the general law or Special Acts*);

(2) by companies with statutory powers;

(3) by companies or private persons without statutory powers;

(4) from public pumps, wells, etc., owned by the local authority and used for the gratuitous supply of water to the inhabitants of the district of the local authority;

(5) from wells, springs or streams where facilities for obtaining water have been provided and the inhabitants of the parish have rights of access;

(6) from sources provided, or permitted to be used, by a private person either partly for his own use and that of others or wholly for others;

(7) from private wells or other sources for use only of the owner.

There is no complete information of all supplies, public and private. A return obtained from water undertakers and local authorities and published in 1914 contained much information that was useful, but some of the statistics furnished were not reliable. Correct information could be obtained only by personal enquiries, and this could be done only at a cost not likely to yield any commensurate return. Comprehensive information is available of public supplies.

In England and Wales there are 530 local authorities and 15 joint bodies supplying water under the Public Health Acts; 260 local authorities and 33 joint boards supplying water under powers given by Special Acts; 173 companies acting under statutory powers and about 80 companies without statutory powers. In addition, there are about 1,000 private proprietors supplying small areas.

Organisations of water suppliers.

3. There are three principal organisations, the British Waterworks Association, the Water Companies Association, and the Institution of Water Engineers.

* The term "Special Act" used in this memorandum means a local Act of a local authority or joint board or a private Act of a company.

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

The British Waterworks Association includes representatives of local authorities, joint boards and companies. It is estimated that the members represent 90 per cent. of the total capital of water undertakings with piped supplies. The association publish every two months a review, the Official Circular of the British Waterworks Association, which contains useful information not only of the operations of the association but on general matters of water supply.

The Water Companies Association includes representatives of all the principal statutory water companies.

The Institution of Water Engineers includes water engineers in private practice as well as official engineers of water undertakers. The monthly journal of the Institution, Water Engineering, contains good articles on questions of water supply. Water engineers also play an important part in the work of the British Waterworks Association as the professional representatives of the constituent members.

A conference of the three organisations have recently considered proposals relating to water supplies, and in January last they published a report on national water policy.

A year book and directory is produced by the British Waterworks Association, with the co-operation of the Ministry, which contains comprehensive information of the water supplies of most of the larger water undertakers. The last volume, the fourth edition, issued in 1934, dealt with 1,486 water undertakings and includes 10 statistical tables containing detailed information for a large number of undertakings of sources of supply, distribution, quantities, costs, charges and other particulars.

Distribution of supplies.

4. By far the largest quantity of water is supplied by local authorities, boards and companies working under Special Acts, a population of about 27 million, over two-thirds of the total population in England and Wales, being supplied by local authorities and boards with special powers and a population of about six million by statutory water companies.

5. With one or two exceptions, all the local authorities and joint boards supplying water under powers given by Special Acts have limits of supply (that is, areas

within which water may be supplied in detail) extending beyond the districts of the local authority or joint board. In many cases these outside limits of supply are extensive. For example, the Manchester Corporation supplies Manchester and the whole or part of the districts of 12 other authorities, with a population in all of nearly 1½ millions; Liverpool Corporation supplies Liverpool and the whole or part of the districts of 11 other authorities, with a population of over 1 million; Birmingham Corporation supplies Birmingham and the whole or part of the districts of 6 other authorities, with a population of over 1 million. The limits of supply of the Metropolitan Water Board comprise, in addition to the County of London, 46 boroughs and urban districts, 1 rural district, and parts of 7 boroughs and urban districts and of 9 rural districts, with a total population of over 7 million.

Many of the statutory companies also have wide limits of supply. The South Staffordshire Waterworks Company has limits comprising the Burton-upon-Trent, Dudley, Smethwick, Walsall and West Bromwich County Boroughs and the whole or part of the districts of 25 other Authorities, with a total population of nearly 1 million; the limits of the Newcastle and Gateshead Water Company comprise Newcastle-upon-Tyne and Gateshead County Boroughs and the whole or part of the districts of 16 other Authorities, with a total population of nearly 700,000; the Sunderland and South Shields Water Company's limits comprise the Sunderland and South Shields County Boroughs and the whole or part of the districts of 13 other Authorities, with a total population of approximately 500,000.

6. Many local authorities and statutory water companies also supply water in bulk to other local authorities and companies.

The tendency of Parliament in recent years is to require supplies to outside areas to be given at cost price. While there is general acquiescence to this in principle, it is considered by some that account should be taken of the fact that the risk is left with the water undertaker providing the supply, any loss which cannot be met in some other way having to be borne by the local rate-payers of the district of the water undertaker.

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

Water consumption.

7. The consumption of water varies greatly from area to area. Consumption for trade purposes in an area depends, of course, on the number and size of local industries, the extent to which they require water for their various operations and the extent to which they utilise private supplies. Domestic consumption varies according to the size of house and density of population per house, and the extent to which the houses have water closets and baths and, an important factor, hot water systems.

The figures of consumption per head of population which are usually given include trade as well as domestic supplies. Where separate figures are stated they are usually for metered and unmetered supplies; the former relates chiefly to trade supplies but also includes those for hotels, schools and other establishments with a metered supply. On the other hand, water for street washing and other public purposes is sometimes unmetered and included in domestic supplies. It is necessary to know these and other conditions in different districts before a fair comparison can be made between them.

Generally, the average consumption for domestic purposes lies between 20 and 30 gallons per head in urban areas, and between 15 and 20 gallons per head in rural areas with piped supplies. Where there is a very large consumption per head for domestic purposes, unless there is a readily available explanation it can usually be taken more as an indication of waste than consumption, waste not only in households but also from leakages in mains. Water undertakers differ much in the measures taken for preventing waste, their activities being guided to a large extent by the cost of existing and of additional supplies.

As to the future, with the increasing number of houses with modern conveniences consumption may be expected to rise but there is no reason to think that it is likely at any rate in the near future to rise to a high figure, or that increased consumption cannot generally be readily met.

POWERS AND DUTIES OF WATER UNDERTAKERS.

(1) *Local Authorities.*

8. Under the provisions of the Public Health Acts, local authorities may supply their own districts with water, except

any parts which are within the limits of a statutory water company or a local authority or joint board working under a Special Act if the latter is willing and able to supply those parts with water proper and sufficient for all reasonable purposes; any difference on this question has to be settled by arbitration. For this purpose, the local authority may construct and maintain waterworks, dig wells and do any other necessary acts; take on lease or hire any waterworks and, with the sanction of the Minister, purchase any waterworks, or any rights, powers and privileges of any water company; contract with any person for the supply of water; supply water in bulk to an adjoining local authority; purchase land by agreement; and, with the consent of the Minister, borrow money for the purpose. If they wish to purchase land compulsorily, they may apply to the Minister for a Provisional Order. (Under the Public Works Facilities Act, 1930, a temporary measure due to expire at the end of 1935 unless further extended, compulsory powers for the acquisition of land can be obtained by Order of the Minister). Powers are not available to them under the Public Health Acts (and can therefore be obtained only by Special Act) to acquire water rights compulsorily; to take water from streams or rivers unless the local authority obtain the consent of all riparian interests likely to be affected (in practice usually an impossible task); or to supply premises outside their district (often the most economical and sensible course for the supply of areas adjoining large urban areas). Because of the lack of powers a large number of local authorities find it necessary to apply to Parliament for powers and, as previously stated, there are nearly 300 local authorities and joint boards working under Special Acts.

9. The Minister has power under the Public Health Acts to make Provisional Orders, on application of the interested authorities, for the formation of a joint board for a united district comprising the whole or parts of the districts of two or more local authorities for the purpose of procuring a common water supply, and for amending any Special Acts relating to local authorities; but it has been held that a Provisional Order cannot confer powers which could not be conferred by the Public Health Acts, and cannot, for example, confer compulsory powers of acquisition of water rights.

11° Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

(2) Companies.

10. Statutory powers for the supply of water by a company is obtained either by Special Act or by a Provisional Order under the Gas and Water Works Facilities Act, 1870. By Special Acts, water companies acquire compulsory powers to take land and water rights; power to construct works; power to break up streets for the laying of pipes; power to charge rates not exceeding the authorised maxima, based on the value of property; and generally powers to carry on the undertaking. Provision is usually made compelling them to afford a supply of pure and wholesome water, unless prevented by frost, unusual drought, or other unavoidable cause or accident, and their profits are limited.

11. Companies or private persons (but not local authorities) may apply to the Minister for a Provisional Order under the Gas and Water Works Facilities Act, 1870, authorising them to construct and to maintain waterworks and works connected therewith, and to supply water in any district within which there is not an existing company, corporation, body of commissioners, or person empowered by Act of Parliament to construct such works and to supply water; to raise additional capital necessary for the purpose; to enable two or more companies or persons to enter into agreements for a joint supply, or to amalgamate their undertakings. Powers for the compulsory acquisition of land and, the Minister is advised, of water rights are excluded from the scope of these Provisional Orders and can be obtained only by Special Act, but subject to this important qualification the powers which may be given to companies by Provisional Order are substantially the same as those which may be given by Special Act.

12. Special Acts and Provisional Orders obtained by local authorities, joint boards and companies normally empower only the carrying out of works specified in them and such works as are purely ancillary to them, and confer no general power to carry out works. It is also usual in a Special Act or Provisional Order to prohibit the undertakers from abstracting water except from land and by works specified in that or some other Act or Provisional Order. Local Authorities, water companies and others working under these special powers have therefore to obtain a fresh Act or Provisional

Order when they wish to construct additional works or abstract further water from some new site or when they wish to extend their limits of supply.

13. The Public Health Act, 1875, the foundation of the present law governing water supply by local authorities, was itself based on earlier Acts, and the Provisional Order procedure for certain purposes under that Act and (for companies) the Gas and Water Works Facilities Act, 1870, was a procedure founded on provisions in much earlier Acts. In more recent Acts, for newer services such as electricity, the necessary powers for the establishment and conduct of undertakings may be obtained by Special Order, that is, an Order of the appropriate Minister which becomes operative on confirmation by resolution in both Houses of Parliament.

Non-statutory companies.

14. Companies and private persons supplying water without statutory authority have no express rights of breaking up public streets. Moreover, they have no powers of levying water rates on the premises supplied by them and the supply of, and payment for, water depends on contract between the supplier and the consumer.

Waterworks Clauses Acts, 1847 and 1863.

15. The Waterworks Clauses Acts, 1847 and 1863, contain the general code which governs the conditions of water supply. The Act of 1847 includes provisions dealing with the construction of waterworks; mining operations in the vicinity of waterworks; the breaking up of streets for the laying of mains; obligation to supply water; the laying of communication pipes; the waste or misuse of water; the fouling of water; the payment and recovery of water rates, and the profits of the undertakers. The Act of 1863 includes provisions relating to the security of reservoirs and some amendments of the Act of 1847 relating to the supply of water and the waste and misuse of water.

The Acts are incorporated, with or without modification, in the Special Acts and Provisional Orders of nearly every local authority, joint board or company supplying water under special powers. Their substance is also applied to local authorities operating under the Public Health Acts, because the Public Health

11° Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

Act, 1875, incorporates the whole of the Act of 1863 and those sections of the Act of 1847 which relate to the breaking up of streets, the laying of communication pipes, the waste or misuse of water, the fouling of water, and the payment and recovery of water rates.

16. Since the Acts of 1847 and 1863 were passed, the measure and circumstances of water supplies have greatly changed, but, in the absence of any general revision of the code, it has been left to the individual water undertakers, as opportunity arises, to apply for revision of the code in its application to their undertakings. The result is that Special Acts and Provisional Orders, having been obtained at different times, differ much in their provisions, and the position is far from satisfactory, though at the same time there has grown up a large body of provisions modifying the Waterworks Clauses Acts which are recognised as common form clauses.

Supply of Water in Bulk Act, 1934.

17. Prior to this Act, there were no general powers enabling statutory water undertakers, including local authorities, to make agreements with each other for the buying and selling of water in bulk, although a number of local authorities and statutory companies had obtained such powers in Special Acts, and under the Public Health Act, 1875, a local authority could supply an adjoining local authority. The Act enables agreements to be made, subject to the Minister's approval.

Duty to supply.

18. It is the duty of the local authority to see that their district is adequately supplied with water and (except in such parts as may by Special Act or Provisional Order be included within the limits of supply of another statutory water undertaker) to provide a supply of pure and wholesome water where a public supply is needed. Section 51 of the Public Health Act, 1875, provides that an urban or rural authority may provide the whole or part of their district with a supply of water proper and sufficient for public and private purposes; these words are in themselves permissive and enabling, but where the exercise of the powers is required and the local authority do not exercise them they will be in default and the proceedings referred to

in the next paragraph may be taken. Section 55 of the Act requires the local authority to provide and keep in their waterworks pure and wholesome water. The Public Health (Water) Act, 1878, expressly imposes a duty on Rural District Councils to see that every occupied dwelling-house within their district has a sufficient supply of wholesome water within reasonable distance, and where necessary enables them to require the owner to provide a supply for the house, subject to prescribed limitations on the cost to be incurred by him. (These provisions are referred to more fully in paragraph 79 below.)

The Minister has certain powers where the local authority make default. Under Section 57 of the Local Government Act, 1929, the Minister may hold a local inquiry where it appears to him that a non-county borough council, urban district council or rural district council have made default in providing their district with an adequate supply of water. If after the inquiry he is satisfied that there has been default, he may make an order limiting a time for remedying the default and, if this is not done within the limited time, he may make an Order transferring the powers to the county council. Under section 299 of the Public Health Act, 1875, where complaint is made that a county borough council has made default in providing their district with a supply of water, the Minister may hold a local inquiry and, if satisfied that the council is in default, may make an Order limiting a time for the performance of their duty, and, if the duty is not performed within the limited time, the Order may be enforced by writ of mandamus, or the Minister may appoint some person to perform the duty.

19. Statutory water companies are usually under obligation to afford an adequate supply of pure and wholesome water, and to afford a supply on demand to any house where the income from the water charges on the premises would be not less than a specified proportion (now usually fixed at one-eighth, formerly one-tenth) of the capital cost of laying the necessary main to give the supply. The Minister has no default powers where a statutory water company fails to provide an adequate supply of water within their limits.

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

Areas of supply.

20. As already stated, the limits of supply within which a local authority acting under the Public Health Acts may supply water are confined to the district of the local authority. Districts may be united for the purpose of a common supply and a joint board formed by Provisional Order; an Order may be made only on the application of one or more of the local authorities concerned, but can be made though one or more of the authorities object.

The limits of supply of local authorities and companies working under Special Acts are defined by those Acts and may be altered only by Special Bill promoted by the water undertaker or by Provisional Order, in the case of companies, on application made under the Gas and Water Works Facilities Act, 1870, and in the case of Local Authorities on application made under the Public Health Act, 1875. Once limits of supply are prescribed by Special Act or Provisional Order, there is no general power of altering the limits, whatever the changed circumstances, except on the initiative of the water undertaker.

SOURCES OF SUPPLY.

Surface supplies.

21. Surface water—from rivers, streams, and springs—forms the chief source of supply in this country, about three-quarters of the population being thus provided. Sixty-two of ninety-five water undertakers serving populations exceeding 50,000, including the largest, obtain their supplies wholly or mainly from overground sources.

As a general rule, overground supplies are obtained from the upper reaches of rivers, usually impounded, where there is little or no contamination. The abstraction of water from the lower reaches of the Thames was one of the first exceptions to this rule; in earlier days, water for the supply of London was abstracted from the tidal portions of the river but since the demand for higher standards, the water has been abstracted from the non-tidal reaches above Teddington.

An important change has taken place in recent decades. Because of improved methods of purification, greater use is being made, and can still be made, of water abstracted from the lower reaches of rivers. Resources have thus been

greatly increased and, moreover, available resources made more accessible and therefore less costly. Recent instances of the grant of powers to abstract water from the lower reaches of rivers are those given to the South Essex Waterworks Company from the River Stour, Southampton Town Council from the River Itchen, Southend Waterworks Company from the River Blackwater, and Darlington Town Council and the Tees Valley Water Board from the River Tees.

Underground supplies.

22. Many parts of the country depend wholly or mainly on underground supplies. The Advisory Committee on Water has considered this subject and made recommendations on it, and the present position with regard to this class of supplies will be more conveniently set out when dealing with those recommendations (see paragraphs 53 to 55).

FINANCE.

Capital outlay.

23. The provision of large water supplies is expensive. It is not possible to give an estimate of the total capital expended on the existing waterworks of the country; there are many sources, including impounding reservoirs, still in use on which the principal capital outlay has long been paid off. The outstanding debt of local authorities and joint boards was £160,000,000 at 31st March, 1933, and it is estimated that a capital of about £30,000,000 is invested in the undertakings of statutory water companies.

24. Local authorities acting under the Public Health Acts who wish to borrow money for waterworks must obtain the sanction of the Minister, and the loan periods usually allowed by the Minister vary from 10 to 60 years—60 years being allowed for land; 40 to 50 years for the more durable works, such as large dams and tunnels for large mains; 30 years for mains; 20 years for reinforced concrete reservoirs, 15 years for machinery and 10 years for the more perishable equipment. Local authorities working under Special Acts normally obtain necessary loan sanctions in the Acts, and Parliament usually allows somewhat longer loan periods than the Minister, 60 years being a common period for land and large reservoirs and 40 to 50 years for other waterworks.

Statutory water companies are

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

authorised by their Special Acts or Provisional Orders to raise the necessary capital by (a) the issue of ordinary or preference shares and (b) borrowing by the issue of debenture stock or by mortgages on the undertakings, the amount which may be borrowed being usually limited to one-half of the issued share capital.

25. The total loans sanctioned by the Minister for each of the last ten years are as follows:—

	£
1925-1926	2,826,000
1926-1927	1,634,000
1927-1928	2,077,000
1928-1929	1,649,000
1929-1930	2,378,000
1930-1931	3,025,000
1931-1932	2,389,000
1932-1933	1,375,000
1933-1934	1,827,000
1934-1935	2,643,000
	<hr/>
	21,823,000

Capital expenditure to a total of over £27,000,000 has been authorised by Parliament during this period in Special Acts relating to local authorities and companies.

Capital costs form a large proportion (on the average about 51 per cent.) of the total costs of water undertakings, and this renders imperative the exercise of care in the planning and provision of waterworks.

Water charges.

26. Local authorities acting under the Public Health Acts may levy such water rates on domestic consumers and make such charges for non-domestic supplies as they think fit. Any deficiency on the water undertaking may be met out of the rates.

The maximum charges which local authorities acting under Special Acts may make for domestic supplies, and usually also for non-domestic supplies, are prescribed by those Acts. The charges normally allowed are calculated to enable the undertaking to be self-supporting, but any deficiency would fall to be met out of the local rates.

A number of the undertakings of local authorities involve a burden on the rates. The following figures show the total expenditure and income of all local

authorities in respect of water supply for the year ended 31st March, 1933:—

Expenditure:—

	£
Loan charges	9,738,000
Working expenses	9,353,000
Transfers to reserve funds and other accounts ...	555,000
Transfers in aid of rates...	113,000

Income:—

From water charges and other sources	18,626,000
Transfers from reserve funds, &c.	29,000
Deficiencies met out of rates	1,174,000

Some local authorities as a matter of policy levy water charges below the economic level with the intention that part of the income required shall be charged on the rates; any sums so raised by rates are included in "deficiencies" in the foregoing figures.

27. The charges which statutory water companies may make for water supplied are also prescribed by their Special Acts. The Acts limit the dividends which may be paid on share capital (formerly a maximum of 10 per cent.; now usually 7 per cent.) and the rate of interest (usually a maximum of 6 per cent.) on debenture stock and mortgages.

It is also common practice in modern Special Acts to limit the annual and total amounts which may be carried to reserve and contingency funds and the amount which may be carried forward from one year to another, so that if the profits of the company are in excess of the amount required to pay dividend and interest (including the making up of back dividends where these were less than the authorised amount), after allowing for the authorised contributions to reserve and contingency funds and the carry forward, the company have no alternative but to reduce their charges. Many of the companies are in the position of being able, with moderate charges on consumers, to pay full dividends on their capital, but on the other hand a number of them, particularly for less densely populated areas, are not in this position.

28. The charges made by local authorities and companies on domestic consumers vary greatly from area to area. The average is about 10 per cent. on rateable value, but in a few areas it is as low as 5 per cent., and in a few

11° Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

others as high as 20 per cent. The charges required to be made must necessarily depend on the costs, capital and maintenance of the undertaking, and these depend on such matters as the distance of the source of supply from the area served, whether and to what extent pumping is necessary, the closeness of the development to be supplied, and the consequent cost of distribution mains, the type of development to be supplied (there may be little difference in the cost of supplying a number of houses of small rateable value and that of supplying the same number of houses of high rateable value) and the amount of water which can be sold for non-domestic purposes.

THE RECENT DROUGHT.

29. The drought to which the country has recently been subjected provided a crucial test for water supplies. Its severity may be gauged from the following figures:—

Rainfall.	Percentage of normal.	Deficiency.
6 months ended 31st March, 1934	71	Nearly 6 inches.
15 months ended 31st March, 1934	83	7½ inches.
21 months ended 31st July, 1934...	79	12½ inches.

This 21 months' deficiency is the greatest on record for any period of 21 consecutive months. (The "normal" is the average for the years 1881 to 1915).

30. It is the rainfall during the winter months that is most important for water supplies, and the shortage of nearly six inches of rain for the six months ended 31st March, 1934, following on the previous dry summer, had by the beginning of April created a situation without recorded parallel. Impounding reservoirs which are usually full at this time of year were in many areas less than half full, and underground water levels which at this period would normally be at their highest or rising were in a number of areas not only low but still falling. The continuance of the drought into the summer and autumn of 1934 made this period the most severe ordeal on record for water undertakers. The way in which urban water undertakers generally won through is a high testimony to them. Economies had to be effected in many towns, and in a number of others emergency supplies also provided, but in very few towns was there any real hardship

or substantial inconvenience. On the other hand, many rural areas suffered hardship.

December, 1934, and February and April 1935, were wet months, and the average rainfall for the seven months ended 30th April, 1935, was well above the normal. Water supplies have been well replenished, and water undertakers generally are in a good position to meet any likely demands.

31. As soon as it became clear, at the beginning of April, 1934, that a state of emergency had arisen and that special measures were necessary to meet it, the Minister introduced a Bill for emergency powers, which became law in May as the Water Supplies (Emergency Shortage Orders) Act, 1934. The provisions of the Act enable the Minister by Order to authorise the taking of new sources of supply, temporarily unless permanent works are required for utilising the new sources; to authorise, and if need be to require, one undertaker to provide another with bulk supplies; to vary the obligations on water undertakers to supply water; to vary the obligations relating to compensation water on water undertakers or restrictions on the quantity of water which may be taken from a source, subject to specified rights to claim compensation; and to impose, or authorise the imposition of, restrictions on the consumption of water.

Thirty-nine Orders have been made under the Act, about half of them for new sources of supply. Very little difficulty has been experienced in the administration of the Act. The smoothness with which the powers have been exercised was helped by the general readiness to meet the emergency, but allowing for this, it is still noteworthy. The Ministry did all they could, by conference and enquiry, to facilitate operations. The powers of the Act terminate at the end of 1935, unless extended by further Act.

32. Throughout the drought the Ministry kept in close touch with water undertakers all over the country by circular letter, by correspondence and interviews, and by visits of inspectors to individual undertakers and local authorities. Conferences were also held with a special body of selected men of experience in water supplies appointed by the Minister to confer with him on the general situation and on measures needed from time to time. Regular returns were received

11° Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

from the local authorities and water undertakers showing the position and the measures taken to meet any shortage. In these ways the Ministry were able to maintain close contact with the situation and to assist in cases where difficulties were experienced. A special staff of engineering inspectors was kept available to look into local problems on the spot.

Measures for Future Emergency.

33. As already stated, most urban undertakers met the strain of the drought very successfully. It would be a mistake, however, if water undertakers were to rest content. While no definite laws of periodicity have been discovered in rainfall, experience shows that one or two exceptionally dry periods may reasonably be expected in a generation, though so prolonged and intensive a dry period as that recently experienced is very exceptional. The Minister has informed water undertakers that they should examine carefully their position in the light of the experience of the drought and probable future requirements, take such measures as have been shown by the drought to be desirable, and make arrangements for meeting any future difficulties.

It does not follow that water undertakers should provide reserves adequate to meet without stint all contingencies, however severe. Outside a few areas where supplies suitable for domestic use are not available, there is no serious difficulty in finding water ample for meeting, without the need of economies, even so exceptional a drought as that through which the country has recently passed, but the additional cost of providing reserves specially for the purpose would be heavy, and might in some places be equivalent to a rate of as much as 1s. in the £, to be paid in good years and bad. It might be foolish to incur so heavy a burden, provided that with special economies and other emergency measures the infrequent years of exceptional drought can be won through without serious hardship. The issue is one of prudent insurance. But when reserves sufficient for exceptional emergencies are not provided, and it is proposed to rely on special measures, water undertakers should have definite plans ready for the special measures, plans to be periodically revised and thus kept up to date, in this way avoiding hasty improvisation if and when an emergency arises.

RURAL SUPPLIES.

34. The primary need in rural areas is the provision of more permanent public supplies. In many rural areas depending on private shallow wells there has been shortage of supplies in any extended dry period, even in a normal summer, and the recent drought but aggravated conditions which are chronic. The difficulty is not lack of available sources of supply but lack of means, coupled in some places with a reluctance to bear even a reasonable burden.

35. In rural districts any deficit on a water scheme must, under the ordinary law, be met out of the special rates of the parish concerned, a requirement which has in the past proved a serious obstacle to progress because of the heavy burden on parochial rates. The Local Government Act, 1929, however, empowered rural district councils and county councils to contribute to the cost of rural schemes out of their general funds, thus facilitating the provision of rural supplies. By the Rural Water Supplies Act passed in March, 1934, the Government allocated one million pounds for grants in aid of rural schemes, and this Act has not only provided additional assistance but also stimulated county councils and rural district councils to use their powers of contributing, and most have done so in liberal measure. Many county councils have adopted a systematic scheme of assistance, and, in co-operation with rural district councils, a number of them have appointed an engineer to survey the needs of rural areas and to advise on schemes. A large and growing number of rural district councils have resolved to meet the whole of the deficiencies on rural schemes out of their general funds, a course to be commended.

36. The result of all these measures, with the work of the Ministry, is that a real attack is being made for the first time on the rural water problem. While it is too early to say whether the grant of one million pounds, together with contributions from county councils and rural district councils, will solve the whole rural problem, the prospects are definitely hopeful. Up to 20th June, 1935, grants totalling £590,000 have been provisionally allocated for water schemes for 1,300 parishes, estimated to cost £3,714,000, and additional rural schemes are being steadily submitted. In addition, since April, 1934, loans to the total of

11° Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

£730,000 have been sanctioned for rural schemes proceeding without central grant, though with aid in some cases from local sources.

The magnitude of this effort is shown by comparison with the average annual amount sanctioned in loans for rural schemes of water supply during the preceding ten years, which was £425,000, and this includes a period when substantial grants were being given for schemes to relieve unemployment.

37. The Ministry submit a report on Rural Water Supplies issued by them in 1929, containing information which may be of service to the Select Committee.

Among many other matters dealt with in that report is the need for making more use of rain-water, especially where plentiful other supplies are not available and for isolated houses and groups of houses where the cost of a public supply, even with grant, would be prohibitive. The Ministry have on a number of occasions drawn attention to this subject. There is failure in many parts of the country to make prudent use of rain-water for domestic supplies.

COUNTY COUNCILS.

38. It may be of service to the Joint Committee to state the position of county councils in relation to water supply. They have no general powers to supply water; this is the duty of town councils, urban district councils and rural district councils for their own areas, except where by Special Act or Provisional Order some other local authority or a company has been authorised to supply. Under the general law, county councils may now contribute to the cost of schemes for county districts (non-county boroughs, urban districts and rural districts), and, as already stated, they are contributing liberally to rural schemes. The county council may become the water authority (1) where the county district council by agreement relinquish their powers to the county council (section 57(2) of the Local Government Act, 1929), (2) where after procedure for default against a county district council the Minister makes an Order transferring the powers to the county council (section 57(3) of the same Act), and (3) where the county council, after inquiry into a complaint by the parish council that the rural district council ought but have failed to supply the parish with water, resolve that the powers and duties of the rural district

council for the purpose shall be transferred to the county council (section 16(1) of the Local Government Act, 1894).

39. If the county council wish to do more, they must apply for powers by Special Bill. No county council has Special Act powers for the supply of water by the council itself. The Durham County Council, however, is the principal member of a joint board constituted by Special Act for supplying water in a large part of the county area, and the Lindsey County Council is a member of a joint board similarly constituted recently for supplying an area of the county where water is urgently needed.

PLANNING OF WATER SUPPLIES.

40. There are ample water resources in this country to meet any likely future demands; the problem, apart from means and distribution, is the use of the resources to the best advantage. The laying of trunk mains for conveying water is very costly; this is a dominating factor in determining methods of water supply, and emphasises the need for conserving resources. It is the practice, and it must be so for prudent and economical use of resources, to secure that the needs of an area shall first be met by the use of suitable sources near at hand. A source farther afield should be appropriated only if it is quite clear, so far as can reasonably be forecast, that it will not be required for a population nearer to the source. Otherwise a town with a suitable source nearby might at heavy expense have to go unnecessarily far afield for water.

41. Many considerations point to the need of planning ahead for water supplies. Consumption per head of population is steadily increasing, due to improvements in sanitary conditions, the more general use of hot water systems and other modern conveniences and the demands of industry, and therefore larger supplies are required. With the spread of population, urban and rural communities are coming closer together with closer common interests, and are therefore more likely to have points of common concern in water supplies, and, though population for the country as a whole may be expected soon to become stationary, changes in distribution will still take place. Further, in a number of areas, there are no sources remaining available near to the towns, and it is

11° Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

becoming necessary to look farther afield for suitable sources, bringing a larger measure of common interest and possible conflict between adjacent water undertakers. There is, therefore, increasing need for systematic measures for planning water supplies, and for co-operation and common action between water undertakers with common concern, actual or possible, in sources or distribution.

This is emphasised by what has happened in cases in the past, where proper regard has not been paid to the interests of water supplies as a whole, as distinct from the interests of, for example, particular water undertakers who have applied to Parliament for the acquisition of new sources of supply and those who have petitioned against them. Until recent years the Central Department did not examine in detail proposals made to Parliament in Special Bills and report on them, as now done, from the point of view of what is likely to be the best and most economical use of resources with the general needs in mind.

42. For planning, a careful estimate is first needed for a number of years ahead of the probable demand for water in each area. This is not an easy task, because account has to be taken of changes in population, industry, and the demand for water. When the needs of the several areas have been ascertained, it is then necessary to allocate for them the most suitable and the most economical sources, which may be local or, especially for large undertakings, distant sources. It must be considered what areas can best be supplied as independent units and, on the other hand, what areas can best be supplied in common, either in bulk or in detail, or should co-operate in other ways, as by inter-connections to meet emergencies. Whether the balance of advantage lies in the use of a particular source by an individual undertaker or by a combination of undertakers is a question requiring detailed investigation and well considered forecasts of the trend of development and of future needs and demands.

Regional Advisory Committees.

43. To do the work of planning to the best advantage it is desirable, especially where there are a number of urban areas close together, to arrange that one common body should ascertain needs and formulate plans for a region so that areas likely to have a common problem,

either in supplies or in distribution, may be brought under common review. The first necessity is to ascertain the right units for regional action, and then to secure the setting up of an appropriate body to ascertain the future needs of the region and how they may best be met. Right conclusions in these matters can be reached only after much detailed investigation and exact knowledge of local conditions, and the local undertakers who are engaged in the supply of water should co-operate together for this purpose.

44. The Ministry of Health have stimulated the formation of advisory regional water committees. A booklet was issued in 1928 in which the reasons for, and the objects and methods of operation of, regional advisory committees are concisely set forth.

Eight of these committees have been formed, for—South-West Lancashire (23 authorities), Sherwood Area (25 authorities), Isle of Wight (6 authorities), West Riding of Yorkshire (150 authorities), North, Central and South-East Lancashire (47 authorities), Cheshire and North-West Derbyshire (44 authorities), West Midlands, comprising Staffordshire, Warwickshire and Worcestershire (60 authorities), and County of East Sussex (33 authorities). These committees cover areas with a population of 14 million.

A Sub-Committee of the Advisory Committee on Water are considering what further areas are suitable for regional advisory committees.

45. While consideration of problems of water supply on a regional basis is highly desirable, particularly where there is or is likely to be community of interest between undertakers, it is essential to maintain perspective. It remains true that for most areas, especially the small ones, local sources are sufficient and far more economical. (Incidentally, many rural areas find it cheaper to use local sources than to take water at cost price from the mains of a large undertaker passing through the areas). Where an area is within the region of an advisory regional committee, and it transpires on investigation that there are local sources ample for the area, the work of the committee should be to make sure that this is so, and that the water undertaker for the area has definite plans for meeting future needs from the local sources. It may be gratuitous waste to embrace

11° *Julii*, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

such an area in a scheme of regional supplies.

46. Arrangements have been made for one of the Ministry's engineering inspectors to act as liaison officer between the Ministry and the committee and three of the committees have made him their chairman. The Ministry thus keep in close touch with the work of the committees, and it will be for them to secure that steps are taken for solving problems common to more than one committee, and generally to correlate the conclusions of various committees. In this way a sound national plan can be built up on a firm basis. It cannot be too strongly emphasised that practical schemes must be based on facts of needs, resources and costs ascertained after adequate investigation by competent men, and that local knowledge and experience are indispensable for this purpose.

47. The regional committees are appointed voluntarily and their operations are voluntary. They depend on the goodwill of their constituents for information, for service and for expenses (generally small), and with enthusiastic and persuasive committees this procedure would usually be sufficient. Suggestions have been made that there should be compulsory powers for doing this work of survey and planning.

48. One danger of advisory regional water committees, in common with other similar bodies, is that too long a time is taken in making the survey and preparing plans, especially because the work is voluntary. There is usually no urgent need in the sense that schemes must be prepared quickly for pressing requirements, and for this reason the work tends to be set aside for other more urgent calls, of which there has been no lack on local authorities in recent years. The danger has been mitigated by the appointment of a liaison officer by the Ministry, especially where he is the chairman of the committee, but it has not been entirely removed.

Inland Water Survey.

49. A comprehensive inland water survey is being undertaken for Great Britain, and a committee of persons with scientific and practical experience has been appointed by the Minister of Health and the Secretary of State for Scotland, with the duty of advising on the survey, on the progress of the measures undertaken and on further measures required, and of making an

annual report on the subject. The object of the survey is to collect reliable records, especially of river flows and underground water supplies and to correlate them, so that fuller information of water resources may be gained. The information required for the purposes of the survey will be obtained from water undertakers, catchment boards, and other bodies and persons, and it is intended that measures shall be taken to encourage the keeping of the necessary records where they are desirable but are not now kept.

It will be realised that for actual supplies more detailed knowledge will be required than could be furnished by this survey. Water undertakers will need to investigate in particular the quality of the water at the proposed sources of supply, levels of source in relation to distribution, and, for impounded surface supplies, the suitability of sites for dams, and suitable sites are often difficult to find even where other conditions are favourable. The survey will give a comprehensive indication of water resources for further detailed investigation according to local needs and conditions where additional supplies are required.

ADVISORY COMMITTEE ON WATER.

50. The Ministry of Health Advisory Committee on Water, comprised of men of wide experience of water administration, was first appointed in 1922. At first the Committee comprised members selected from nominations by the British Waterworks Association, the Water Companies' Association, and the Institution of Water Engineers. More recently, in order to include members more directly concerned with rural water supplies, the Committee has been extended to include a representative of the Rural District Councils' Association and a representative of the County Councils Association, and the Committee now comprises three representatives of local authority water undertakers, three representatives of water companies, three water engineers, two representatives of the Metropolitan Water Board, one county council representative, and one rural district council representative. The information and advice of the officials of the Ministry are placed at the disposal of the Committee.

51. The Committee have from time to time considered measures required for the better conservation and organisation of water resources and supplies, and have issued three reports on the subject. The

11° *Julii*, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

work of the Committee, however, has by no means been confined to the reports issued. The Ministry consult them on matters of general interest which arise on water supplies, and are thus enabled to obtain the frank views of representatives of interests engaged in the supply of water. This has proved of great value to the Ministry.

In their report issued in 1925 on underground water,* the Committee reviewed the existing law and practice in relation to the abstraction of underground water by statutory bodies and by private owners. They came to the conclusion that measures were necessary for the better conservation of underground water resources, and they made recommendations to that end. A report issued by the Committee in 1929† reviewed the existing law relating to water supply and the machinery whereby water undertakers can obtain powers to carry out their obligation, and the Committee included recommendations for modernising the law and for simplifying the machinery for obtaining powers. In a report of 1930‡ they examined the present method of assessing compensation water (that is, the quantity of water which has to be passed down a stream impounded for water supplies). They found that the present method, first adopted 70 years ago, was based on data which in their opinion were insufficient, and that the method operates unfairly on water undertakers in many instances, and results in a waste of water resources. They proposed an alternative method of assessment. These reports are based on careful investigation and the recommendations provide a basis for considering reforms in the matters with which they deal.

The proposals in the reports, particularly those relating to underground water and compensation water, closely affect other interests, for example, mines and industry in relation to underground water and agriculture, fisheries and industry in relation to compensation water.

* Ministry of Health. Advisory Committee on Water. Report on measures for the protection of Underground Water, 1925; price 2d.

† Ministry of Health. Advisory Committee on Water. Second Report of Legislation Sub-Committee, 1929; price 9d.

‡ Ministry of Health. Advisory Committee on Water. Report of Technical Sub-Committee on the Assessment of Compensation Water, 1930; price 9d.

The views of these interests on the proposals in the reports will no doubt be put before the Joint Committee by their organisations.

52. The Ministry submit the three reports, but it may be of service to the Committee if the findings of the Advisory Committee are briefly summarised under the several subjects which have been considered, and this is done in the following sections. The Ministry suggest modifications, based on later experience, of a few of the recommendations of the Advisory Committee, and where this is done the fact is indicated in the summary which follows.

UNDERGROUND SOURCES AND ACQUISITION OF WATER RIGHTS.

Underground water.

53. As already stated, overground water forms the chief source of supply in this country, about three-quarters of the population being thus provided. Moreover, because of improved methods of purification greater use is being made, and can still be made, of water abstracted from the lower reaches of rivers. Underground water, however, is a valuable source of domestic water supplies in many areas, e.g., those on the chalk in Kent and the Bunter Sandstone in Nottinghamshire, where it forms the only readily available source for large populations. Under present conditions there is often waste and pollution of these supplies which cannot be adequately prevented under the existing law. The Advisory Committee made a special investigation on the subject and dealt with it in their report of 1925. They concluded that the present unsatisfactory state of affairs operates unfairly on public water undertakers and is detrimental to the conservation of underground supplies.

54. Public water undertakers are subject to control in the abstraction and use of underground water for public supplies. When they seek powers by Bill for the purpose, it is the practice of Parliament to confine them to specified sites for wells or borings. Similar proposals by local authorities or water boards proceeding under the Public Health Acts ordinarily come before the Minister of Health on an application for the necessary consent under those Acts to borrow money for works. Injurious competitive boring or pumping between

11° Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

public water undertakers is thus checked. Moreover, protection can be given to the water supplies of private individuals or industries and Parliament, in authorising the abstraction of underground water by water undertakers, frequently places the undertakers under an obligation to compensate the owners of neighbouring wells injuriously affected.

On the other hand, under the common law owners of land have unfettered rights in all water under their land which does not flow in defined channels. They may abstract unlimited quantities for their own use or for use in their businesses or for sale to others, and they may allow any water not required by them to run to waste. If they sink shafts through water bearing strata for obtaining coal or other minerals, they are under no obligation to line the shafts or otherwise to conserve the supplies in the water-bearing formation; and frequently large quantities of water are pumped to waste or gain access to the lower workings and become contaminated.

Neither public water undertaker nor private owner has a remedy against a neighbour who deprives them of water under their land by competitive boring, or who pollutes their supplies by the deposit or discharge of substances which foul the subsoil in the vicinity of their land, unless they can prove, usually an impossible task, the precise source of pollution.

55. The Advisory Committee recommended amendment of the law in order to remedy this unsatisfactory position. Briefly the proposals of the Committee are:—

(1) Power to be given to the Minister of Health to make orders (to be provisional and subject to confirmation by Parliament if opposed and the opposition is not withdrawn) scheduling areas where the demands on underground water are such that special measures of protection should be adopted, an order to be made only after public inquiry.

Within any scheduled area, fresh wells (except for domestic or agricultural purposes) not to be sunk without the consent of the Minister. The Minister to have power to give consent with or without conditions, but a public inquiry to be held, if requested, before he refuses consent

or gives consent subject to conditions; and consent not to be refused unless the Minister is satisfied that the public needs for water will be prejudicially affected.

Where a new mine is sunk in a scheduled area, such measures to be taken as are agreed by the Minister and the Secretary for Mines for conserving water in strata where the water can be conserved without interfering with the winning of the mineral; only such measures to be required as are necessary for preventing waste of water supplies which should be conserved, and a public inquiry to be held, if requested, before any decision is reached on proposed measures.

(2) Power to be given to the Minister to make regulations for preserving the purity of underground water where special measures are required, the regulations to provide for the payment of compensation for any injury arising from the enforcement of the regulations. This provision is required in addition to the provisions of the next succeeding paragraph conferring powers on individual water undertakers, because it may not always be practicable, e.g., in the case of important underground water resources drawn on by a number of water undertakers, for effective remedial measures to be taken by individual undertakers.

(3) Statutory water undertakers to be given powers (already possessed by some under Special Acts) for protecting their supplies from pollution by the acquisition of land in the neighbourhood of wells or adits, by restrictions on its use, or by requiring particular measures of drainage, proper compensation being made in respect of any interests injuriously affected.

(4) To be made an offence to allow underground water to run to waste from boreholes.

(5) The provisions of sections 61 and 62 of the Waterworks Clauses Act, 1847, which relate to penalties for fouling streams, reservoirs, aqueducts, or other waterworks belonging to water undertakers, to be extended to the fouling of the subsoil in the vicinity of any wells or

11° Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

adits of water undertakers; provision also to be made for the protection of wells which do not belong to water undertakers by making it an offence to deposit any solid, or discharge any liquid into the subsoil, in the vicinity of any well or adit so as to pollute or be likely to pollute the water in the well or adit used or likely to be used for domestic purposes.

(6) Power to be given to the Minister to obtain from any company or person such returns of the quantity and quality of water abstracted from underground as may be considered necessary, other than in respect of water taken by a private individual for his own domestic use.

Acquisition of water rights.

56. Difficulties have arisen in the past because the Minister has no power to authorise the compulsory acquisition of water rights. These can now be acquired only by Act of Parliament, apart from the temporary powers given by the Water Supplies (Exceptional Shortage Orders) Act, 1934. For some years after the passing of the Public Health Act, 1875, it was thought that the powers of the Act enable local authorities to acquire water rights compulsorily by a Provisional Order, but this interpretation was later reversed. The Ministry of Health have received many complaints that water undertakers have to incur the expense of an Act of Parliament, or have to pay an exorbitant price or abandon their proposals. The Advisory Committee recommended in their report of 1929 that all water undertakers should be enabled to obtain compulsory powers of acquisition of water rights by Order of the Minister, the Order to be provisional and subject to confirmation by Parliament if opposed and the opposition is not withdrawn.

AREAS OF SUPPLY AND ADMINISTRATION.

57. Cases frequently arise where an area is within the limits of supply of a statutory water undertaker, but a supply has not been given to the area because of the heavy cost of laying the necessary mains in proportion to the income which can be obtained from consumers, but where nevertheless it would be possible for the local authority of the area or

some other water undertaker to carry out a scheme at much less cost. The fact that the area is within the limits of one statutory water undertaker often operates to prevent another body from providing the needed supply. The Advisory Committee recommended in their report of 1929 that the Minister should be empowered to make an Order, on the application of a local authority, removing a parish or part of a parish from the limits of supply of a statutory water undertaker who, after due notice, fails to afford a supply; the Order, if necessary, to attach the area to the limits of supply of the statutory water undertaker prepared to accept the obligation to supply.

58. It is for consideration whether this proposal might not usefully be supplemented by a right to owners and occupiers in an area outside the limits of supply of a water undertaker, whether a local authority or a company, to apply to the Minister for an Order authorising the water undertaker to supply water in that area or in a specified part of it or to any premises within it on such conditions as may be specified in the Order. It might be provided that this power could be exercised only with the consent of the local authority within whose district, and of any statutory water undertakers within whose limits of supply, the area is situated, unless the consent is unreasonably withheld, any question whether or not it is unreasonably withheld to be decided by the Minister. Where an Order is made, the provisions of any Special Acts relating to the water undertaker should apply as if the premises were within the limits of supply of the undertaker. It might also be provided that, if at any time after the Order is made, the statutory water undertaker within whose limits of supply the premises are situated, or where there is no other statutory water undertaker the local authority of the area, wish to supply the premises they should be empowered with the consent of the Minister to do so on giving three months' notice to the supplying company or local authority and paying to them such portion of the expenditure incurred by them outside their district or limits of supply as may be agreed, or, failing agreement, determined by arbitration. Provisions of this kind have been included in a number of Special Acts passed since the Advisory Committee made their reports.

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

COMPENSATION WATER.

59. Most of the large water undertakers obtain supplies from impounding reservoirs, constructed by building a dam across a stream at a suitable point where the retention of water will form a lake. The impounding reservoir is a means of storing the winter flood waters in a stream for use in the dry seasons when the natural flow in the stream would not yield sufficient water to meet the requirements. When water undertakers seek and obtain powers for the purpose, it is the practice in the Special Acts authorising the works to require them to send down the river or stream as compensation to the riparian interests a daily, and usually regular, flow of water of a prescribed minimum amount. Additional storage capacity has to be provided to meet this requirement and the expense of the works, almost invariably a costly undertaking substantially increased.

60. The present method of assessing compensation water was first evolved over seventy years ago when sufficient and accurate data were not available. The recognised normal procedure is (a) to estimate the average annual rainfall over the catchment area for as long a period as possible, (b) to reduce this amount by one-fifth in order to estimate the rainfall which might be relied upon during a period of three consecutive dry years, (c) to deduct from the remainder a number of inches of rain (usually 14 in. to 16 in.) as the loss due to evaporation and absorption in order to ascertain the "reliable" or "available" yield, and then (d) to divide this between the requirements of the public water supply and the river in some fixed proportion, a common allocation being two parts to the former and one to the latter.

Many have long felt that the present method was unsatisfactory, and this was stated by the Water Power Resources Committee in their Final Report.* The question has been investigated by the Advisory Committee, and in their report of 1930 they recommend a new method of assessment designed in their opinion to give a more equitable apportionment.

* Final Report of Water Power Resources Committee, 1921; paragraphs 256-262 and 315-316.

61. The Advisory Committee concluded that the present method is defective in two important respects:—

(1) Little or no account is taken of the wide differences in the character of streams. A "flashy" stream, where the flow in dry periods is low and the bulk of the total annual flow comes down the stream in short periods of heavy flood, is of much less value to riparian interests than a "steady" stream, where the flow in dry periods is comparatively high. Yet for the same total annual flow, the "flashy" stream would probably receive the same amount of compensation water as the "steady" stream. It frequently happens in practice that on the present method of assessment water undertakers have to pass substantial quantities of water in a regular flow down a stream during long periods of the year when the stream in its natural state would be almost dry, and that at their sole cost, that is, at the cost of the water consumers.

(2) There is not sufficient difference made between the amount of compensation water in streams little used for industrial purposes and in streams largely so used.

It is the common practice to require the fixed proportion, usually one-third of the "reliable yield," to be given even where little industrial or other use is made or is likely to be made of the stream below the reservoir.

(3) Moreover, this requirement is made even where the undertakers impound only one or two of a number of tributaries to a stream, the other tributaries are not likely to be impounded (either because they will not be required for public water supply purposes or because of lack of suitable sites for dams) and the tributaries to be impounded have little effect on the volume of the stream at the point at which it begins to be of much importance for riparian use.

62. The Advisory Committee recommend that compensation water should be assessed by reference to the character of the flow of the stream and the user of the stream as well as to the rainfall and loss

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

by evaporation and absorption. Briefly, their proposals are as follows:—

(1) They recommend that the present method of estimating the rainfall which could be relied upon in three consecutive dry years by deducting 20 per cent. from the long period average rainfall over the catchment area should be continued.

(2) They found from actual records of rainfall and stream flows that the allowance of 14 inches to 16 inches now usually made for loss by evaporation and absorption is generally too low and they suggested a formula designed to give a more accurate figure. (The estimated loss on the formula calculated for a number of rivers does not, however, differ from the present allowance sufficiently to make a material change in the amount of compensation water to be allowed, and it is suggested that in any revised method of assessment an allowance of 15 inches, the average on present practice, might be made for this purpose.)

(3) They suggested a method for distinguishing the character of the various streams. They advocate that actual gaugings of the stream, of flood flows as well as normal flows, should be taken over a period of at least four, and preferably seven, consecutive years, either before or during the construction of the reservoir. From these gaugings (a) the average daily flow during the whole gauging period should be calculated, and also (b) the average daily flow on those days when the flow was equal to or less than the average for the whole period. The ratio of the latter to the former gives a measure of its character, and is called by the Advisory Committee the "characteristic" of the stream. The steadier the stream (that is, the less the proportion of the total annual flow which comes down in heavy floods) the higher will be the characteristic; the flashier the stream, the lower the characteristic.

The Committee found from actual records that the characteristics of streams will be likely to lie between 0.30 and 0.48.

They suggested that the yield from the average annual rainfall on the watershed, after the deduction of one-fifth has been made to give the

rainfall in a period of three consecutive dry years and allowance made for the loss due to evaporation and absorption, should be multiplied by the characteristic of the stream to give a figure which they call the "assessable flow" of the stream.

(4) They then recommended that this "assessable flow" should be multiplied by a user factor to give the compensation water to be passed down the stream. It was their view that approximately the same amount of compensation water should be given on the new method as on the present method to a steady stream which has the high characteristic of 0.48 and is largely used for industry, and to give this result the user factor for a stream largely used for industry is 0.7. They therefore suggest that the user factor for a stream largely used for industry should be 0.7. For a stream not used at all for industrial purposes, they suggest that the user factor should be half that for a stream largely used for industry, that is, 0.35, and the compensation water therefore half of that for a stream of the same character largely used for industry.

63. Summarising their recommendations, but omitting any change in the method of allowance for evaporation and absorption, the compensation water to be allowed for any stream would be the long period average rainfall over the watershed, reduced by one-fifth to give the rainfall in a period of three consecutive dry years, further reduced by 15 inches of rain to allow for loss due to evaporation and absorption, then multiplied by the characteristic of the stream, and finally multiplied by the user factor, which would vary from 0.35 to 0.7 according to the use made of the stream for industrial purposes.

64. The Advisory Committee further recommended that general legislation should be passed to determine the new principles on which compensation water is to be based, and that the new principles should be applied by Parliament in any Special Bills or by the Minister in any Orders for the assessment of compensation water in new proposals, and, further, that where a case is made out for revision of existing provisions on compensation water, or of future awards owing to change of circumstances or new

11° Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

facts, the Minister should be empowered by Order to vary the awards in accordance with the new principles.

PROCEDURE.

65. In their report of 1929 the Advisory Committee advocated the adoption of a more simple, expeditious and inexpensive procedure for obtaining powers for establishing, conducting or extending water undertakings. The present position is briefly set out earlier in the memorandum (paragraphs 8 to 13). The Advisory Committee recommended an alteration of the procedure so that the powers which can now be obtained only by Bill or Provisional Order may be obtained by Order of the Minister, the Order to be provisional and subject to confirmation by Parliament if opposed and the opposition is not withdrawn. The new procedure would not affect the powers already possessed by local authorities under the Public Health Acts, nor is it intended that water undertakers should be debarred from applying direct to Parliament by Special Bill if they consider it expedient to do so. The new procedure, however, would cover all the ordinary purposes for the establishment of an undertaking, the acquisition of land and sources of supply, the construction of works, the raising of capital, the purchase of undertakings by local authorities or other statutory water companies, and the amalgamation of undertakings.

MODERNIZATION OF THE LAW.

THE WATERWORKS CLAUSES ACTS, 1847 AND 1863.

66. Reference has been made in paragraphs 15 and 16 above to the Waterworks Clauses Acts, 1847 and 1863, which contain the general code governing the conditions of water supply, and to the large body of provisions modifying those Acts which are now recognised as common form clauses. In their report of 1929 the Advisory Committee review the whole position, and recommend a new Waterworks Clauses Act suited to modern conditions and incorporating the best that has been adopted in recent Parliamentary practice. This course would tend to uniformity, convenience and economy. The following are the more important proposals.

Supply pipes under streets.

67. Under the Waterworks Clauses Act, a new domestic consumer has the right, on payment of the portion of the water charge payable in advance, to open up the ground and lay a pipe, of such bore, strength and material as may be prescribed by regulations of the undertakers, to connect his premises with the main of the undertaker and to obtain a supply of water, provided that he has first obtained the consent of the owners and occupiers of the ground affected and has given the undertakers fourteen days' notice of his intention; and he is expressly authorised for the purpose to break up so much of any street as lies between the main and his premises. He must do as little damage as possible, and pay compensation for any damage done. The connection with the main must be made under the superintendence of the water undertakers, subject to appeal to two Justices in cases of dispute. The consumer who has laid the pipe, or who has become the proprietor of it, is responsible for its maintenance, and he may remove it, after due notice to the undertakers and subject to compensation for damage sustained by them. There are now, however, many instances where the water undertaker has assumed responsibility for the maintenance of the portion of the supply pipe under the highway.

68. The Committee point out that, with the higher standard and cost of modern highway construction and the increased traffic on the roads, it has become essential that interference with highways should be confined, as far as possible, to statutory and other public authorities; that it is desirable that water undertakers should have the exclusive right of executing any works connecting with the mains, a provision which has become common in Special Acts; and that it is inequitable that the individual consumer should be responsible for repairing damage over which he has no control and which varies greatly as between consumer and consumer, according to the traffic use of the particular street, the nature of its surface, the position of the main and other factors. They recommend that the right to break up the highway for the purpose of laying the supply pipe should vest solely in the water undertakers, that the obligation to provide new supply pipes and to maintain all supply pipes so far as they lie under a highway

11° Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

should fall on the undertakers, and that the expenses of their provision and maintenance should be defrayed by the undertakers as part of the normal distribution costs and thus be spread over the whole body of consumers.

69. Since the report was issued, it has been urged on behalf of water undertakers that the cost of the initial provision of the portion of the supply pipe under the highway should still be borne by the individual consumer, on the ground that it would not be fair to transfer this liability to the general body of consumers many of whom have already provided their own supply pipes. Although the ideal solution is that advocated in the report, there is something to be said for this contention and it is for consideration whether the recommendations in the report might be adopted subject to the modification that the undertakers may recover from the consumer the cost of the initial provision of the supply pipe, including a stop-cock (with a suitable box and cover) to be placed as near as reasonably practicable to the point at which the pipe passes the boundary of the street. Parliament have recently considered this subject and provisions on the lines now proposed were included by them in the Metropolitan Water Board Act, 1932

Domestic Supply.

70. Until recently it was the almost invariable practice in Local Acts and Provisional Orders to allow water undertakers to make special charges for water closets and baths, in addition to the authorised water charges for the domestic supply. When the Water Acts were passed, these conveniences were exceptional: now they are common and the water supply for them should be regarded as part of the normal domestic supply. The Advisory Committee recommended that a supply of water for water closets and baths of ordinary capacity should be regarded as a normal domestic purpose and covered by the ordinary water charge assessed on the net annual value of the house supplied. This question has been considered by Parliament recently in a number of Special Acts and they reached the conclusion that water undertakers should not be allowed to make a special charge for the first water closet or for the first bath of ordinary capacity, but that they should be allowed to make a special charge for any water closet or bath beyond the first.

Financial provisions.

71. The dividends payable by a statutory water company trading for profit and the reserves they may build up are regulated normally by sections 75 to 83 of the Waterworks Clauses Act, 1847, and section 122 of the Companies Clauses Act, 1845. Briefly these provisions are to the effect that the dividend in any one year must not exceed the rate prescribed in the Special Act or, if no such rate is prescribed, 10 per cent. of the paid-up capital of the undertaking, unless a larger dividend is at any time necessary to make up the deficiency in any previous year. If in any year the clear profits of the undertaking amount to a larger sum than is sufficient for a dividend at the prescribed rate, after making up the deficiency of any previous year's dividend, the excess is to be devoted to the formation of a reserve fund. The limit to this fund may be prescribed in the Special Act and, if none is prescribed, a limit of one-tenth of the nominal capital is imposed. The fund is to be available for the equalisation of dividends, and to meet any extraordinary claim or demand which may arise against the undertakers and is certified by Justices. In addition, section 122 of the Companies Clauses Act, 1845, applies to most statutory water companies and empowers the directors of the company before apportioning the profits to set aside such sum as they think proper, without limit, to meet contingencies, or for enlarging, repairing or improving the works of the undertaking.

While it is right that proper reserves should be accumulated, the application of revenues in building them up necessarily affects the prospect of reduced charges to the consumers. The Advisory Committee recommended that a limit of one per cent. of the capital for the time being expended should be placed on the total amount to be carried in any one year to the reserve and contingency funds, and that a limit of 10 per cent. of the capital for the time being expended should be placed on the two funds taken together. Further, they recommended that a limit should be placed on the amount which undertakers can carry forward at the end of any financial year to the credit of their net revenue account, and that this limit should not exceed the total of (a) the sum required for payment of the authorised dividends

11° Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

and interest for that year if not already paid, (b) the amount which may lawfully be distributed in dividends on the preference and ordinary capital for the next following year, and (c) the amount due for the next following year as interest on mortgages or debenture stock. In a number of Special Acts during the last two or three years Parliament have included these limitations on the funds and carry forward of water undertakings.

Revision of water charges.

72. Under the present code, on the petition of any two water ratepayers within the limits of supply, the Court of Quarter Sessions may direct an inquiry into the financial position of a water undertaking, and if the Court are satisfied that the profits for the preceding year have exceeded the prescribed rate and that the maximum authorised amount of the reserve fund is invested and the full dividends authorised have been paid, the undertakers must make such reduction in the water rates as the Court consider proper. The rate so reduced must be sufficient to ensure a profit as near as possible to that authorised by the Act. These provisions are rarely, if ever, used.

If the provisions suggested above for the limitation of the reserve and contingency funds and the carry forward are adopted a provision for the revision of water charges will not often be required, because the water undertakers will presumably have no alternative but to reduce their water rates when the limits of these funds and carry forward are reached. The Advisory Committee suggested that it is desirable that in any general revision of the Waterworks Clauses Acts, the precautionary measure which already appears in them should be modernised, and that the Minister should be authorised on application by a local authority having jurisdiction within the limits of supply of a water company to make an order reducing the water rates if he is satisfied that the divisible profits for the preceding year have exceeded the amount required for payment of the authorised dividends and that the reserve and contingency funds and carry forward stand at the prescribed limits. The rates so reduced should remain sufficient to enable the Company after all proper expenses and allocations to the two funds and carry forward have

been met to continue to make the maximum dividends authorised. The order should be open to amendment at the end of five years on the application of either the local authority or the water company.

73. The Advisory Committee suggest a number of other amendments of the Waterworks Clauses Acts which are set out in appendix A to this memorandum.

THE GENERAL LAW.

74. In addition, there is need for amendment of provisions in the general law relating to water supply in order to bring them more into conformity with modern conditions and requirements. In their report of 1929, the Advisory Committee suggested that the amendments referred to below should be made.

Purchase of company undertakings.

75. Under section 51 of the Public Health Act, 1875, a local authority with the sanction of the Minister may purchase the waterworks of a company; and section 63 of the Act gives power to the directors of a company, subject to certain resolution of their members, to sell and transfer their undertaking to the local authority. The local authority have no power, however, to purchase waterworks and supply water outside their district, and this limitation at times leads to difficulties.

The Advisory Committee recommended that the section should be extended to provide that, where the limits of supply of a water company are not wholly within the district of a local authority, the local authority shall be empowered with the sanction of the Minister to purchase the whole of the company's undertaking, subject to the consent of the other local authorities having jurisdiction within the company's limits, such consent not to be unreasonably withheld, the question whether consent is unreasonably withheld to be determined by the Minister. The Company in such cases to be entitled to sell and transfer their undertaking to any one or more local authorities within their limits.

Obligation to supply.

76. Under section 35 of the Waterworks Clauses Act, 1847, a water undertaker must comply with requisition for a supply of water if (1) it is made by so many owners or occupiers of houses within the area concerned that the

11° Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

aggregate water rates payable by them annually, at the rates specified in the Special Act, will not be less than one-tenth (now one-eighth in many Special Acts) of the initial cost of providing and laying the pipes to afford the supply, and (2) the owners and occupiers severally agree to take the supply for at least three consecutive years.

Difficulties sometimes arise, where the aggregate water rates would be sufficient to enable a requisition to be made, in obtaining the individual agreements. The Advisory Committee recommended that in such cases a local authority should be empowered to make the requisition on behalf of the owners and that the undertakers be required to comply with the requisition provided that the local authority undertake for a period of at least three years that they will make good the deficiency if the undertakers do not receive from the owners and occupiers of the houses the amount which would have been payable to them under the law.

77. A still greater difficulty arises where a supply to houses within the undertakers' limits of supply is urgently needed, but the aggregate amount of water rates is not sufficient to enable a requisition to be made on the undertakers to lay the necessary mains for a supply. This difficulty is met to some extent in a number of Special Acts by a provision enabling a local authority to enter into agreements with undertakers for guaranteeing periodical payments to them in consideration of their extending their mains to a part of the district of the local authority in need of a supply. The Advisory Committee recommended that local authorities should be given a general power of entering into such agreements.

The foregoing recommendation would meet the situation only where the water undertaker as well as the local authority were prepared to enter into an agreement. It is for consideration whether provision should not also be made requiring water undertakers to afford a supply to any part of a district where the authority undertake to pay the deficiency until such time as the undertakers receive from the owners and occupiers of the houses in that part of the district an amount which would have enabled a requisition to be made under section 35 of the Waterworks Clauses Act, 1847, as amended by any enactment

incorporating that section; and further, whether local authorities should not be given express powers of combining for the purpose of these guarantees and requisitions of supply.

Power to compel provision of supplies to houses.

78. Under section 62 of the Public Health Act, 1875, where a local authority consider, on the report of their surveyor, that any house within their district is without a proper water supply and that such a supply of water can be furnished at a cost not exceeding the water rate authorised by any local Act in force within the district (or where there is not any local Act in force, at a cost not exceeding 2d. a week, or such other cost as the Minister may, on the application of the local authority, determine to be reasonable), the local authority shall give notice to the owner to obtain such supply and to do all the works necessary for the purpose. If within the specified time the notice is not complied with the local authority are empowered to do the works and for that purpose to enter into contract with any water company who supply water within their district, and to recover their expenses from the owner. Water rates may be levied on the premises by the authority or company which furnishes the supply and recovered as if the owner or occupier had demanded a supply and were willing to pay water rates for it. This section enables action to be taken where the water supply to a house is inadequate and a water main is reasonably available.

79. Provision is made in the Public Health (Water) Act, 1878, for dealing with cases of inadequate supplies to houses where there are no water mains available and a general scheme of water supply is not required. Section 3 of the Act provides that, if it appears to a rural district council on the report of their Medical Officer of Health or Inspector of Nuisances that any occupied dwelling-house within their district has not available within a reasonable distance a wholesome supply of water sufficient for domestic purposes, and they are of opinion that such a supply can be provided at a capital cost not exceeding £8 13s. 4d., or £13 if the Minister on the application of the local authority so determines, they may require the owner within a specified time, not exceeding

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

six months, to provide the supply and to do all the works necessary for the purpose. The procedure laid down as to notices is complicated. If he does not provide a supply they may themselves carry out the works and recover the expenses from him. Under Section 4 of the Act the owner may object to the requirements of the rural district council on the grounds that (1) the supply is not required, (2) the time specified in the notice is insufficient, (3) it is impracticable to provide a supply at a reasonable cost, (4) the council ought themselves to provide a supply of water for the district or contributory place or to render the existing supply wholesome, and (5) the whole or part of the expense of providing the supply or of rendering the existing supply wholesome ought to be charged on the district or contributory place. Where objection is made the council must not proceed with the works unless authorised to do so by order of a Court of Summary Jurisdiction or the Minister, according to the nature of the objection. They may apply for the necessary order to a Court of Summary Jurisdiction if the objection does not include the fourth or fifth grounds referred to, or to the Minister if the objection includes the fourth or fifth grounds.

The sections can be extended by Order of the Minister to any urban district council.

80. The Advisory Committee recommended that the procedure under Section 3 of the Public Health (Water) Act, 1878, should be simplified and shortened and the prescribed limitation on capital expenditure should be increased to correspond more closely with modern prices, and also that the amount specified in Section 62 of the Public Health Act, 1875, should be similarly increased. It is for consideration whether simplified provisions combining the two sections should not be made applicable to urban authorities as well as rural district councils, and a limit of £20 placed on the capital cost to be incurred by the owner, whether the necessary works are for connection to mains or for a separate supply, such as a well.

81. It often happens that a separate supply under Section 3 of the Act of 1878 for an individual house would exceed the prescribed limit of capital cost but that if a joint supply were afforded

to two or more houses and the cost apportioned between them, the cost to any individual house would not exceed the prescribed limit. Under the law as it now stands the local authority can take action only where the cost of supplying an individual house independently would be within the prescribed limit. The Advisory Committee recommended that a local authority should be empowered to require the owners of a number of houses in need of a supply to carry out joint works of supply where this is desirable, and, in default, themselves to carry out the works and to recover the cost from the owners provided that the amount recoverable from an owner in respect of any one house does not exceed the prescribed limit. A right of appeal to the Minister to be given, as at present, on the ground that where there is not a public supply such a supply ought to be provided by the local authority.

82. Under Section 6 of the Public Health (Water) Act, 1878, it is unlawful in any rural district for the owner of any new or rebuilt dwelling-house to occupy it or allow it to be occupied unless he obtains from the local authority a certificate that a sufficient supply of wholesome water is available within a reasonable distance. Where the certificate is withheld application may be made to a Court of Summary Jurisdiction. The penalty under the clause is a single penalty of £10. The Advisory Committee recommended that the section should be made applicable to urban as well as rural authorities and that in addition to the immediate penalty not exceeding £10 a daily penalty not exceeding 20s. should be imposed.

83. Section 7 of the Act of 1878 imposes on rural district councils the duty of ascertaining from time to time the condition of the water supply within their district and confers on their officers certain powers of entry for the purpose. The Advisory Committee recommended that this section also should be applied to urban authorities.
Laying of mains.

84. Under Section 54 of the Public Health Act, 1875, a local authority may carry their water mains into, through or under any private lands, subject to the payment of compensation for damage, provided that on the report of their surveyor it appears to be necessary and that reasonable notice in writing has been

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

given to the owners and occupiers. Before commencing to lay mains outside their district, six weeks' notice of the work must be given, and, if objections are made and not withdrawn, the sanction of the Minister is required to the work. The Advisory Committee suggested that these powers should be conferred on all statutory water undertakers, but that the reference to the report of the surveyor be omitted (that being a domestic matter; the water undertakers might more properly act on the advice of their water engineer or a consulting engineer); also that if an owner refuses to allow the undertakers to enter on land for the purpose the latter should be able to obtain an order authorising entry from a Court of Summary Jurisdiction.

85. A number of other minor amendments were suggested by the Advisory Committee and are contained in appendix B.

APPENDIX A.

ADDITIONAL PROVISIONS, COMMONLY ALLOWED IN SPECIAL ACTS, RECOMMENDED BY THE ADVISORY COMMITTEE FOR INCLUSION IN THE NEW WATERWORKS CLAUSES CODE.

Supply pipes.

1. Power to be given to water undertakers, by agreement with the owner or occupier and at his expense, to execute any work which he is entitled or required to execute, the expense to be recoverable in the same manner as the water rate.

2. Power to be given to water undertakers to require a separate supply pipe to be provided for each dwelling-house supplied by them with water, and on default to provide the separate supply pipe themselves and recover the cost from the owner summarily as a civil debt.

3. Where several dwelling-houses or parts of dwelling-houses are supplied by one common pipe the several owners and occupiers to be made liable to contribute the expenses incurred by the undertakers in the maintenance, repair and renewal of the pipe in such proportions as may be settled by the duly authorised officer of the undertakers.

Right to demand supply.

4. Under section 35 of the Waterworks Clauses Act, 1847, owners and occupiers of houses within the area of supply of a

water undertaker may requisition a supply of water for domestic purposes if the aggregate water rates payable by them annually will not be less than one-tenth of the initial cost of providing and laying the pipes to afford the supply. This section to be amended by the substitution of "one-eighth" for "one-tenth."

5. Section 53 of the Act of 1847 provides that an owner or occupier of a dwelling-house who has laid a supply pipe and paid or tendered the quarterly water rate is entitled to demand and receive a sufficient supply of water. Provision to be made for a penalty of five pounds for failure to supply, and a further penalty of forty shillings for each day failure continues, except where the failure arises from frost, unusual drought or unavoidable cause or accident.

Domestic supplies in special cases.

6. Provision to be made that undertakers shall not be bound to supply otherwise than by meter—

(a) a dwelling-house used partly for trade or manufacturing purposes for which water is required;

(b) any private or public hospital, school, sanatorium or institution capable of accommodating at least twelve persons;

(c) any boarding house capable of accommodating at least twelve persons;

(d) any common lodging house, club, hotel, public house, inn, restaurant or hydropathic establishment;

(e) water required in any premises used solely for trade, business or manufacturing purposes for the personal use for sanitary purposes of persons employed therein, water for sanitary purposes meaning water used for drinking and dietetic purposes and personal hygiene and for the flushing of urinals and water closets, but not including water used for any other purpose.

The water to be supplied at a price not exceeding the prescribed price, subject to a minimum quarterly charge (exclusive of meter rent) of one-fourth of the annual amount which would be payable for a domestic supply furnished to a dwelling-house of the same net annual value as the premises, or in the case of

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

premises referred to in paragraph (e), such part of the premises as may be agreed or, failing agreement, as may be determined by a Court of Summary Jurisdiction.

Supply for other than domestic purposes.

7. Power to be given to undertakers to supply water for other than domestic purposes on such terms and conditions as they think fit, and to supply water for such purposes by meter, the monies payable for the supply being recoverable in the same manner as water rates. The provision to be subject to the provisoes (1) that no person shall be entitled to a supply of water for other than domestic purposes if the supply would interfere with the supply for domestic purposes, and (2) that the undertakers shall not be liable to any penalty or damages for not supplying such water if the failure to supply arises from frost, unusual drought, or unavoidable cause or accident, unless the agreement provides for penalty or damages in these circumstances. The term "for other than domestic purposes" to include water supplied for watering gardens; for fountains or any ornamental purposes; for bathing pools and swimming baths; for cattle or for horses or for washing carriages or motor vehicles, where the horses, carriages, or motor vehicles are kept for sale or hire or by a common carrier; for working any machines or apparatus, or for flushing sewers, or for road watering or for public baths; and, except for the purposes referred to in paragraph 6 (e) above, for any trade, manufacture or business.

Rates and charges.

8. Provision to be made that a supply of water for domestic purposes shall be furnished at a rate or rates per annum not exceeding the prescribed rate or rates per annum upon the net annual value of the premises supplied (except where agreement has been made to supply by meter) and in no case for less than one quarterly payment; that the net annual value shall be ascertained from the valuation list in force at the date when the rate is made, any supplemental valuation list having effect as if it were in force at the time the rate is made; and that any dispute as to the net annual value of premises where the net annual value does not appear in the

valuation list, or as to the net annual value of the part of the hereditament entered in the valuation list where the water rate is chargeable only on that part, shall be determined by a Court of Summary Jurisdiction.

9. Provision to be made that where two or more houses or buildings in the occupation of one and the same company or person are connected by any internal means of communication or by any bridge, subway, yard or passage, or other means, not being a public highway, they shall be deemed for the purposes of domestic water rates to be one tenement, having a net annual value equal to the aggregate net annual value of the separate houses or buildings.

10. Power to be given to water undertakers to make special charges, not exceeding the prescribed charges, for water closets and baths not included in the definition of domestic supply.

11. Power to be given to water undertakers to make special charges, not exceeding the prescribed charges, where water supplied for domestic purposes is used by means of a hosepipe or similar apparatus for washing horses, carriages or motor vehicles, or for other purposes in stables, garages, or premises where horses, carriages or motor vehicles are kept.

12. Provision to be made that where any person takes a supply both for domestic purposes and by meter for trade and uses a hose pipe or other similar apparatus for washing horses, carriages or motor vehicles or for other purposes in stables, garages or premises where horses, carriages or motor vehicles are kept, the undertakers may require that all water used by means of the hose pipe or other apparatus shall be taken by meter and paid for accordingly.

13. Where a person desires to use water for a refrigerating apparatus, power to be given to undertakers to require that all water used for the apparatus shall be taken by meter and paid for accordingly, or to make such charges as may be agreed, subject to the proviso that, if the consumer is taking water only for domestic purposes, the undertakers may demand a minimum quarterly payment, if the water is taken by meter, not exceeding ten shillings.

(In a number of recent Special Acts this provision has been extended to cover (1) any apparatus depending while

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

in use on a supply of continuously running water and (2) any water softening apparatus which requires water for cleaning, regenerating, motive power or similar purposes. It is for consideration whether the extended form should not be adopted but exempting the single small domestic water softener from special charges.)

14. Section 69 of the Act of 1847, which provides that where several dwelling-houses or parts of dwelling-houses in the separate occupation of several persons are supplied by one common pipe, the several owners or occupiers shall be liable to pay the same water rate as they would have been liable to pay if each of the dwelling-houses, or parts of dwelling-houses, had been supplied by a separate pipe, to be amended to cover other premises as well as dwelling-houses.

15. Provision to be made that the more usual divisions of the financial year, the first day of January, April, July and October, shall be the dates for quarterly payments instead of the dates (Christmas Day, Lady Day, Midsummer Day and Michaelmas Day) fixed by section 70 of the Act of 1847.

16. Provision also to be made that the undertakers may determine that the water rate shall be paid by equal half-yearly payments on the first day of April and the first day of October, provided that (a) the rates shall not be recoverable until the expiration of two months from these dates, and (b) any person who shall occupy any premises during part only of any half-year shall be liable for the part of the rates proportionate to that part of the half-year, and if he has paid a greater part, the balance shall be refunded to him by the undertakers.

17. Power to be given to undertakers to allow discounts or rebates to consumers of water in consideration of prompt payment of rates, not exceeding in any case five per centum.

18. Power to be given to undertakers to agree with any person requiring a supply of water for domestic purposes to furnish the supply by meter on such terms and conditions as may be agreed, the monies payable to be recoverable in the same manner as water rates.

Rates payable by owners of small houses.

19. Sections 72 and 73 of the Act of 1847 provide that the owners of houses not exceeding ten pounds rent shall be

liable to pay the water rates, subject (unless otherwise agreed between the owner and occupier) to recovery from the tenant where the tenant has occupation under any lease or agreement made prior to the passing of the Special Act. "Thirteen pounds" to be substituted for the "ten pounds."

(The Advisory Committee recommended "fifteen pounds" but "thirteen pounds" is the figure most commonly allowed in recent Special Acts and corresponds with the provisions of the Rating and Valuation Act, 1925.)

Waste, misuse, undue consumption and contamination.

20. Power to be given to undertakers to make byelaws for the purpose of preventing waste, misuse, undue consumption or contamination of water supplied by them, and to prescribe by the byelaws the size, nature, materials and strength and the mode of arrangement, connexion, disconnexion, alteration and repair of all water fittings; and a power after due notice to carry out at the cost of any person failing to observe the byelaws such works as are necessary to meet the byelaw requirements.

21. Power to be given to undertakers on request from a consumer, and at his cost, to supply or repair, but not manufacture, water fittings; any fittings let for hire not to be subject to distress or to the landlord's remedy for rent, or be liable to be taken in execution under process of any court or any proceedings in bankruptcy against the person in whose possession they may be, provided that the fittings have some distinguishing mark indicating the undertakers as the owners.

22. Power to be given to undertakers to sell meters and fittings connected therewith.

23. Persons injuring water fittings belonging to the undertakers, or fraudulently using water, or altering any meter, or wilfully or negligently opening, shutting off or interfering with any valve or other apparatus belonging to the undertakers whereby the supply of water is interfered with, to be made liable to a fine of five pounds; the undertakers in addition to have power to recover the amount of any damage or loss sustained by them, and to enter on premises and repair at the cost of the offending person any injury to the fittings.

11° Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

24. Power to be given to undertakers to provide meters on their mains and stopcocks in the pipes supplying premises, and to insert in the roads and footways the necessary covers or boxes for giving access and protection.

25. Provision to be made that the register of any meter shall be *prima facie* evidence of the quantity of water consumed, any dispute as to quantity consumed to be determined by a Court of Summary Jurisdiction. If any meter be proved to have registered erroneously, the meter to be deemed to have first registered erroneously during the then last preceding quarter unless it is proved to have begun to register erroneously during the then current quarter.

(It is for consideration whether the penultimate date on which the register of the meter was ascertained before the date of the test is not the more appropriate date on which the meter should be deemed to have commenced to register erroneously.)

26. A person connecting or disconnecting any meter to be required to give to the undertakers not less than forty-eight hours' notice in writing, and all alterations or repairs, or connecting and disconnecting of meters to be done at his cost and under the superintendence of the undertakers, subject to a penalty of forty shillings for an offence against this provision.

27. The powers of entry between nine in the forenoon and four in the afternoon to detect waste conferred on undertakers by section 57 of the Act of 1847 to be extended to the hours from nine in the forenoon to five in the afternoon.

(In recent Special Acts 7 a.m. to one hour after sunset is commonly allowed.)

28. Power to be given to undertakers for the purpose of preventing waste, to repair any supply pipe or other apparatus, after due notice, at the cost of the persons responsible for the repairs.

Lands.

29. Power to be given to undertakers, where any authorised works are intended to be constructed underground, to acquire only the necessary easements in the lands, and to give notice to treat in respect of the easements; the provision of the Lands Clauses Acts to apply to the acquisition of the easements as fully as to lands. The water undertakers not to be entitled or required to fence off or sever the lands in respect of which easements have been acquired

from the adjoining lands, and the owners and occupiers for the time being to have the same rights, subject to the easements, to use and cultivate the lands as if this provision had not been made.

30. Persons empowered by the Lands Clauses Acts to sell and convey or release lands to be given power to grant to the water undertakers any easement, right or privilege required for the purpose of their undertaking.

31. Power to be given to undertakers to retain, hold, and use for the purpose of their undertaking for such time as they think fit any lands for the time being belonging to them, and from time to time to sell, lease, exchange or otherwise dispose of the land, reserving to themselves, if they so desire, all or any part of the water rights or other easements belonging to the land.

32. Where portions only of certain property will be sufficient for the purposes of the undertakers and such portions can be severed from the remainder of the property without material detriment, the undertakers to have power to acquire that portion. The question whether a portion of the property can be severed without material detriment to the remainder of the property to be determined by the Arbitrator or other tribunal under the Lands Clauses Acts or, as the case may require, the Acquisition of Land (Assessment of Compensation) Act, 1919.

33. Provision to be made that in the assessment of compensation for the compulsory acquisition of lands, no compensation shall be awarded in respect of improvements, alterations or buildings made or interests created after a date prescribed in the Special Act or Order authorising the acquisition.

34. Provision to be made that all private rights of way over any lands which the undertakers are authorised to acquire compulsorily shall be extinguished as from the date of the acquisition, subject to compensation by the undertakers to all persons injuriously affected.

35. Power to be given to undertakers by agreement to acquire and hold lands, not exceeding the prescribed number of acres except with the consent of the Minister of Health, and to execute on the lands any of the works (other than wells and works for taking or intercepting water) and to exercise any of the powers mentioned in or conferred by section 12 of the Waterworks Clauses

11° Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

Act, 1847 (this section authorises the construction of works and buildings required for the water undertaking). The undertakers not to create or permit the creation of any nuisance on the lands or erect any buildings on the lands except offices and dwellings for persons in their employment, and such buildings and works as may be incidental or connected with their undertaking.

APPENDIX B.

ADDITIONAL AMENDMENTS OF THE GENERAL LAW RECOMMENDED BY THE ADVISORY COMMITTEE.

Laying of mains and pipes.

1. Section 29 of the Waterworks Clauses Act, 1847, prohibits the laying of mains in private land without the consent of the owner of the land, and water undertakers can therefore lay pipes in a private street for the supply of houses in the street only with the consent of the owner of the land in the street. This is one of the sections applied by the Public Health Act, 1875, to local authorities. Section 80 of the Public Health Act, 1925, however, empowers local authorities to lay pipes in private streets (with certain exceptions) for the supply of houses in the street in the same way as if the street were a public highway, and a similar provision in the Model Water Bill (Clause 22) is commonly embodied in the Special Acts of water companies. This power to be conferred generally on statutory water undertakers.

2. Water undertakers have no general power to open up streets for the laying of mains outside their limits of supply, and difficulty sometimes arises where a street is outside but houses fronting on to it are inside their limits. To meet this difficulty, water undertakers generally to be authorised to break up the street for supplying houses in such circumstances. A provision of this kind is commonly included in Special Acts.

3. The Waterworks Clauses Acts give power to consumers to open up ground for the laying of communication pipes but, although they are made liable for maintenance, no power is given to them to open up ground for the purpose of repairing the communication pipe. This power to be conferred on them. A provision to this effect is common in Special Acts.

Temporary discharge of water into streams.

4. Water undertakers often find it necessary to run to waste water from reservoirs and other works under construction, examination or repair. Provision, common in Special Acts, to be made of general application authorising them to discharge the water into any available watercourse, provided that the water is, so far as reasonably practicable, free from mud and offensive matter, and if discharged into rivers containing fish, from other matters injurious to fish or spawn or spawning beds or food of fish. Compensation to be payable for any damage arising from the exercise of the power.

Superannuation and other allowances.

5. Statutory water companies generally (Local Authorities already have power) to be authorised to grant gratuities, pensions or superannuation allowances to any of their employees or to the widow, family or dependents of any employee, to establish funds for the purpose, and to put into force schemes prescribing the terms and conditions on which employees may become contributors to the funds, the contributions to be made and the benefits to which the contributors will be entitled. Provisions for the purpose are common in Special Acts.

Supply of pure water.

6. It is clearly desirable that all water undertakers should be required to provide pure and wholesome water. Provision to be included in the general law for uniform application of this requirement to water undertakers, subject to a penalty not exceeding ten pounds and a daily penalty not exceeding forty shillings for failure to do so.

Dwelling-houses for employees.

7. A provision, common in Special Acts, to be included in the general law enabling statutory water undertakers to purchase or take on lease and maintain houses, offices and other buildings for their employees and for the purposes of their undertaking, and to erect, maintain and let any such buildings on any lands belonging or leased to them.

Copies of valuation lists.

8. Water rates are usually assessed on a basis ascertainable from the current valuation lists, and it is therefore

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

necessary for water undertakers to be in a position to obtain copies of or extracts from these lists. Power to be given to them to apply to the rating authority for a copy of the current list or of any extract therefrom, the rating authority to furnish them with such copy, or extract at a fee not exceeding five shillings for every hundred extracts numbered separately. This fee is prescribed by section 43 (2) of the Rating and Valuation Act, 1925, for copies of lists or extracts supplied by rating authorities to surveyors of taxes.

Levying of rates and charges.

9. Section 10 of the Public Health (Water) Act, 1878, requires a county borough, borough or urban district council, on the application of ten rate-payers in the county borough, borough or urban district, and a rural district council, on the application of five rate-payers in the contributory place (usually the parish), to charge water rates or rents on the consumers of water supplied by them. A purely nominal charge, however, would apparently meet this requirement. It will not be practicable, particularly in rural districts, always to levy water rates or rents of sufficient amount to meet all the costs of the local authority in conducting their water undertaking, but it is considered that reasonable charges should be made. Provision to be made requiring the authority to do so and for appeal to the Minister by any person aggrieved by the failure of the authority to make charges or by the inadequacy of the charges.

Charges for supplies for standpipes etc.

10. Under section 9 of the Public Health (Water) Act, 1878, a rural district council are empowered to make charges in respect of standpipe supplies on houses within two hundred feet of the standpipe. Power to be given to them to make similar charges in respect of public wells and cisterns provided by them; the powers to be made available to urban as well as to rural authorities. The original provision may now be put in force in any urban district by order of the Minister.

Power to close polluted wells, etc.

11. Under Section 70 of the Public Health Act, 1875, where representations are made to a local authority that the water in any well, tank or cistern, public or private, or supplied from any

public pump, is so polluted as to be injurious to health, and the water is used or likely to be used by man for drinking or domestic purposes, or for manufacturing drinks for the use of man, the authority may apply to a Court of Summary Jurisdiction for an order to remedy the defect. The local authority to be empowered to take action under the section not only where pollution has actually occurred but where there is a reasonable likelihood of pollution and therefore danger to health, and also where the water is used or likely to be used for manufacturing foods for the use of man.

Byelaws with respect to the construction etc. of wells and rainwater tanks or cisterns.

12. Under the present law a new house in a rural district must not be occupied until a certificate has been given by the rural district council that there is available (at the time) a sufficient supply of wholesome water, but there is no power of control over the situation, construction or equipment of private wells or over the capacity, construction, situation, ventilation and cleansing of tanks or cisterns for the storage of rainwater. Powers to be given to local authorities to make byelaws for the purpose.

2. You have kindly come to give evidence to the Committee in regard to this inquiry, and I understand you are going to make a general statement to the Committee which is going to be fairly brief. After that, it is suggested that we should invite you to answer questions arising out of the statement, and also on the position generally?—Yes. The possible sources of water supply in this country are well known in general, both surface and underground. Taking the country as a whole, there is no lack of water resources. Genuine difficulties which have occurred have been due to cost or to difficulties in readily acquiring a known good source. In order to obtain more detailed information of water resources a survey of Inland Water Resources is at present being made, with the advice of a permanent Standing Committee, with Sir Henry Lyons as Chairman. An adequate detailed survey is a long task because it requires the keeping of adequate records over a long period, and, in the past, few records of this

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

kind have been kept. Few authorities have found any great difficulty in finding adequate sources for their needs, nor is there any reason to suppose that serious difficulties will be found in the future, apart from objections of sentiment or for other reasons where, for instance, it is proposed to cover a stretch of valley with an impounding reservoir. Where difficulties of moment have occurred they have been in places, such as parts of Lincolnshire, just giving one example, where water in streams is not suitable for domestic purposes and the local geological formation does not provide large supplies of underground water or the underground supplies are chemically unsuited for domestic supplies. In these cases water has to be brought from a distance and, especially for isolated houses or groups of houses in rural areas, much more use should be made of rain water. Even in rural Lincolnshire, however, proper schemes are being, or will be, carried out with the aid of a grant from the money made available by Parliament to help the provision of rural schemes, coupled with grants from County Council and Rural District Councils. With few exceptions water supplies in urban areas at the present time are in a satisfactory position, and there is no reason why they should not remain so, with extensions if and when required. Water Undertakers have been subjected within the last two years to the test of the severest drought on record and, with few exceptions, have come through the ordeal without any real hardship to consumers, a remarkable record that could probably be equalled in no other country. The water supply of rural areas has always been a difficulty. The trouble is usually not lack of water resources but of means for utilising available resources, coupled, in some cases, with some reluctance to pay and with neglect of measures for maintaining, in particular, the purity of local resources. But this problem is now in course of being solved with the aid of the grants to which reference has been made. In estimating probable future requirements account has to be taken of the fact that within a few years the population of the country is likely to become stationary, but also of the fact that, with the higher standards for houses, especially the provision of hot water systems, an increased consumption per head will occur. But

allowing for all the probabilities, there is still no reason to think that any substantial difficulty will be found in meeting future demands. The mere ascertaining of what resources of potential water supplies are available does not carry the problem of supply beyond a preliminary stage. If a water undertaker requires an additional supply he has first to form an estimate of those requirements and then to find a source which will provide them as economically as possible. In deciding on, for example, a surface supply it is necessary in choosing the source to take account not only of the needs that the water is adequate in quantity and right in quality, but also that it is at a suitable level, because much pumping adds greatly to the cost, and that the water can be conveyed without excessive expenditure on trunk mains or on undue tunnelling, both of which eat up much capital. Further, if the water is to be impounded in a reservoir it is necessary to secure a site which will hold the water and to make sure that a suitable site is available for the dam, both being matters which require careful investigation. These requirements may greatly reduce possible alternative sources and may render useless sources of supply which may appear admirable to the layman. For dealing adequately with these questions of future supplies, it is necessary to make a full and competent survey over a large enough area of future requirements, and then to decide on a suitable source or sources for meeting those requirements, using local resources so far as practicable, ascertaining what areas should be supplied from a common source in combination, and, where the required water has to be obtained from a distant source, after full investigation by experts to choose a source which is best adapted for the area or areas to be supplied. This is the justification for the policy of Regional Water Committees. It is well to emphasise that it is not a practical proposition to convey water from one source over very long distances to towns and villages scattered over a large area. Apart from the other difficulties (such as the need of expensive pumping due to different levels, the question of pressures and the waste if local resources are not used) the mere cost of mains and the laying of them and possibly of tunnelling is a

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

fatal objection, making the cost prohibitive. It may be mentioned also that the great improvements which have been effected in the means of purifying water have added greatly to the resources of the country by making it practicable now to take water for domestic purposes from the lower reaches of streams. The position with regard to underground sources is broadly this. There is no vast store of underground water available for domestic purposes which is not tapped. The geological formation of the country is well-known. The big water bearing strata are the chalk and the new red sandstone. At some places these formations are immediately below the surface layers; at other places the strata have to be pierced in order to reach them. There is much water also in other strata, but its distribution is more variable. The geological survey is, of course, the principal source of information. They issue County Water Memoirs which give a wealth of information about underground water resources. Inquirers contemplating the use of underground supplies can also apply to the Geological Survey for information, which is very readily given. It is not possible, of course, even in the water bearing strata to say quite definitely in most cases that if a bore hole is sunk at a specified spot water will be obtained, much less to indicate the probable quantity of water. The experience of the Ministry, however, is that not many serious mistakes are made in obtaining underground water, where qualified and experienced, expert advice is obtained. I do not know whether the Committee would like to have some indication of the principal sources actually being used now. I have just a few broad indications here.

3. I think we should like to hear that?—As stated in the Memorandum of Evidence, which has been circulated, of the water supplies of the country about three-quarters is obtained from surface sources and about a quarter from underground sources. Taking the large centres of population, the Metropolis obtains its water, of course, chiefly from the Thames, supplemented by the Lea and wells in the chalk. In Lancashire, Liverpool obtains its supply from North Wales and from its Rivington Reservoirs in Lancashire. Manchester obtains its principal supplies from Thirlmere in the Lake District and Longdendale in the Pennines to the east of Manchester, to be

supplemented by supplies from Haweswater. The supplies of the other large towns in Lancashire are obtained mainly from the upland areas of the county. In the West Riding the supplies for the principal towns are drawn chiefly from the Pennines. A number of places draw on the underground supplies in the red sandstone to the east, but the upland water is preferred because it is softer. Newcastle, Gateshead and Tynemouth draw their water from upland supplies in Northumberland. Sunderland and South Shields obtain their water from underground sources in Durham, and will be supplemented by water to be obtained from the Durham Water Board, which obtains its water from surface supplies in the western part of the County. Middlesbrough, Stockton and Darlington obtain their water from the Tees. In the Midlands, Birmingham obtains its supply from mid-Wales. The South Staffordshire Water Company supplies a large area from underground sources in the red sandstone in its own district. Nottingham and Wolverhampton obtain their supplies from underground red sandstone sources, with the addition, for Nottingham, of supplies from the Derwent Valley Water Board, the Board having surface sources in the Derbyshire hills. I should explain that the Derwent Valley Water Board is a body which supplies water in bulk, the partners being Sheffield, Nottingham, Leicester and Derby. Derby obtains its supplies principally also from the Derwent Valley Water Board, with some underground supplies. Leicester also draws supplies from the Derwent Valley Water Board and from some local gathering grounds. Bristol draws its water from surface supplies and from underground sources, and in addition works are being carried out to take water from the Cheddar springs. In the meantime they are drawing supplies from another company who obtain their water from deep wells. In regard to the southern towns, Dover, Folkestone, Brighton, Worthing and Portsmouth obtain their water from the chalk. Southampton also obtains water from the chalk, now to be supplemented by water from the Itchen. Bournemouth likewise draws its water from wells in the chalk and from the River Stour, whilst Torquay derives its supply from surface sources on Dartmoor, as also does Plymouth. Norwich takes its supply from the River Wensum, while Ipswich obtains its water

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

from underground sources in the chalk. Rural areas depend about equally on surface and underground supplies according to local conditions. I thought you might like to have some information of places which suffered shortage during the drought. It is quite short.

4. Yes, thank you?—The following is a list of some of the principal places of size which suffered from shortage during the drought, with a statement of reasons and permanent measures taken. Liverpool: There was abundant water in their reservoir in North Wales. Their trouble arose because they had not completed the third trunk main from North Wales, having quite reasonably estimated that their existing conveying capacity would be quite sufficient. They are now completing the third main, which will give them an abundance of water. They did not in fact have much trouble and could have drawn on Manchester supplies if needed. Birkenhead: Their main source also is in North Wales, and they supply, in addition to their own requirements, a number of other authorities from this source, whose demands increased because of the drought. They also did not suffer much, being able to draw on some local wells and also being given an Emergency Order which added to their available supplies. They have powers, which were not in operation during the drought, to take additional supplies from their source in North Wales. Bury and district in Lancashire: Their reserves proved insufficient. They have since obtained an additional permanent supply. Halifax: Here, too, storage was insufficient and a new reservoir had been constructed, but there had not been time to bring it into effective use before the drought. This is now in use. Morley depended largely upon Halifax, and their supplies were much reduced because of the shortage in Halifax. They obtained a supply from Leeds, who have ample resources. Barnsley, too, had not sufficient storage. The difficulties were increased because Barnsley helped out neighbours in greater need. A new impounding reservoir was in course of construction during the drought and, of course, will be available for future requirements. Macclesfield: The drought caught them when one of their large impounding reservoirs was under repair and, in consequence, they started the drought with insufficient reserves. Boston in Lincolnshire has had a rather bad record for water. They

were formerly supplied by a company. The Ministry had for years been pressing them for improvement. The company has now been acquired by the local authority, and the local authority were caught before better provision had been made. New supplies are now being obtained. Northampton and Kettering: Both these towns are in a district where facilities for water supplies are difficult. Northampton are adding to their sources from underground supplies. Kettering has obtained an additional surface supply. Abertillery in South Wales had a good surface supply which, owing to the severity of the drought in the district, proved inadequate. They are now adding to the supply from underground sources. Bath: The Ministry had for a long time pressed them to improve their supplies. They have now added to their supplies and arranged with a neighbouring company for reserves. Croydon: Water from wells in the chalk fell short. Their immediate needs were met by an Emergency Order. They introduced a Bill this Session for additional supplies, but this was thrown out as not providing a satisfactory solution. The Metropolitan Water Board have offered them permanent additional supplies. Weymouth: Their underground supplies in the chalk fell short. They have a Bill now before Parliament for an additional supply. It will be observed that in these cases, in all of them, the difficulty arose from insufficient reserves, or reserves which could not be made available, and that in no case was there any question of lack of resources. As I mentioned, the drought of 1933-4 was the most severe on record. It was a stern test of water undertakings and they stood that test with remarkable success. The exceptional drought sets also a new standard of sufficiency to which water undertakers must respond by proper adequate arrangements to meet a possibly similar trial in the future. As stated in the Memorandum of Evidence, it does not follow that every undertaker should provide reserves adequate for even the most exceptional drought without any economies. In some cases this would mean an additional charge equivalent to not less than a ls. in the £1 on the local rates, to be paid, of course, year in and year out, whereas it would have been expended for an emergency which would occur perhaps only once in a generation, perhaps even less often than that. But

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

every undertaker should either have adequate reserves even for an exceptional drought of that nature or have definite plans to meet an emergency such as that through which we have passed, infrequent though it may be. We state in the Memorandum of Evidence that, with few exceptions, serious shortage due to the drought was confined to rural areas. The serious shortage happened there because the villages which suffered have not had a satisfactory permanent supply even for normal times, the reason being that the cost of permanent supplies would have involved heavy financial deficiencies requiring additional rates beyond what the council considered could reasonably be borne by the local ratepayers without financial assistance. The financial assistance is now being provided. In the Memorandum of Evidence the proposals for changes are limited to those contained in three Reports issued by the Ministry's Advisory Committee on Water Supplies. These Reports deal respectively with the conservation and protection of underground supplies, the modernisation of the law relating to the powers, procedure and management of water undertakings and the provision usually made for the supply of compensation water (that is the water which undertakers are required to pass down a stream as a condition of impounding the stream for water supplies). The first Report was made in 1925 and the last in 1930. Water undertakers consider that legislation providing for the changes recommended in the Reports is urgently needed and are pressing for its introduction, which hitherto has not been possible because of pressure on Parliamentary time. A summary of the proposals with some suggested minor amendments is given in the Memorandum of Evidence. To many of the proposals there will probably be little or no opposition, but some of them are controversial, in particular those relating to conservation and protection of underground water supplies, which affect persons or firms having or contemplating their own water supplies and coalmining interests, and those relating to compensation water, which affect the many interests concerned in streams, including industries, agriculture, fisheries and catchment boards.

5. Thank you. Does that complete what you desire to say?—Yes, for the moment. If desired, I will now, or subsequently, run through the Memorandum

of Evidence and give a summary of it.

6. Could you do it now?—Now, if you like.

7. The Committee think if you would do it now perhaps it would help us?—In the opening part we set out the various classes of bodies by which water supplies are provided. Then we state the number of water authorities in England and Wales. There are 530 local authorities and 15 Joint Bodies working under the Public Health Acts and in addition there are 260 local authorities and 33 Joint Boards working under Special Acts. There are 173 companies acting under statutory powers and about 80 companies without statutory powers. In addition, there are about a 1,000 private proprietors. Then we mention that there are three principal water organisations, the British Waterworks Association, which is representative of local authorities and companies, the Water Companies Association, and the Institution of Water Engineers. I may mention that a Conference of the three Associations has recently considered proposals relating to water supplies and, in January last, published a Report on National Water Policy of which no doubt you will hear in due course. A Year Book and Directory is produced by the British Waterworks Association with the co-operation of the Minister, which gives comprehensive information of water supplies of most of the large undertakers. Then all the large local authorities who provide their own water supplies also provide water supplies for large areas outside their own district, and we give you a few examples in order that the Committee may see from the information we give how extensive are some of the limits of these bodies. We mention that the tendency of Parliament in recent years is to require supplies to outside areas to be given at cost price. A question has been raised at times whether that is quite fair, because if there should be a deficiency the deficiency would fall on the rates of the undertaking authority, not on the whole of the district.

Sir Arthur Michael Samuel.

8. Is that permitted by the Acts?—The Acts give them no authority to levy deficiencies other than within their own district, so it follows automatically that they cannot levy any deficiency on any outside district—unless special provision should be made, of course. Then we give

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

some particulars about consumption per head. The figures usually published in returns include not only domestic supplies but also trade. The usual figure is from 20 to 30 gallons per head in urban areas, and between 15 and 20 gallons per head in rural districts. That figure is likely to go up but there is no reason to suppose that it will go up to anything like the fantastic figures prevailing in some of the towns, for instance in the United States. You may take it as a general proposition that where there is very large consumption, there is a good deal of waste. In fact I have a rather interesting extract about New York, if the Committee at a later stage would like to hear it. We give information of the various powers of local authorities and also of companies. An important matter in that connection is this that powers are not available under the Public Health Acts, and therefore can be obtained only by Special Act, to acquire water rights compulsorily. That has proved a hindrance in a number of cases which have come forward. The Minister has certain powers to issue Provisional Orders, but those powers do not include a power to authorise the compulsory acquisition of water rights. He has also certain powers of issuing Provisional Orders to apply to statutory water companies, these powers being contained in the Gas and Waterworks Facilities Act, 1870. We set out the kind of powers which the Minister can give by Provisional Order, but I will not bother the Committee by giving them in detail.

Lord Milne.

9. In paragraph 11 you say:—"Companies or private persons (but not local authorities) may apply to the Minister for a Provisional Order," and in paragraph 12 you say:—"Provisional Orders obtained by local authorities." How do local authorities obtain Provisional Orders?—In the case of local authorities the Provisional Order is obtained under the Public Health Acts; in the case of companies it is under the Gas and Waterworks Facilities Act. That is the difference. We also draw attention to the fact that the Provisional Order procedure is of very old date and that, for example, for electricity the procedure now usually adopted is Special Orders, the difference being that a Provisional Order has

to be embodied in a Private Bill and go through all the stages of a Private Bill, whereas a Special Order has to receive the confirmation of each House before it becomes effective. There are a good number of non-statutory companies in the country which play a very useful part in water supply. They have no power, for instance, of breaking up streets nor have they any power of levying water rates in the ordinary sense. Their payments must depend upon contract between the supplier and the consumer. There is a definite code relating to Waterworks, a code which is applied practically always both to local authorities and to water undertakers. This code dates from two Acts, one passed in 1847 and the other in 1863. Naturally there is a good deal in those old provisions which can be improved upon, and in fact in connection with Private Bills which are introduced by local authorities or Boards and by companies a series of common form Clauses have gradually been built up which materially alter the code, and various suggestions have been made by the Advisory Committee in one of their reports for embodying in the main the common form clauses with some minor alterations they suggest in the general law. That, I think the Committee will agree, is a very desirable course. The Minister has certain powers of default, but not in the case of Companies. The Minister has powers of default only in the case of local authorities. Under the Local Government Act, 1929, if he is satisfied, after passing through certain procedure, that a local authority has failed or, to be more exact, a local authority other than a County Borough Council has failed to carry out its water duties, then he can transfer the powers of the authority to the County Council. In the case of County Borough Councils, his default powers are under the Public Health Act, 1875, as formerly were all his powers, and under those powers he can mandamus an authority and, in the last resort, may himself appoint some person to carry out the duty which he has decided the Local Authority have failed to carry out. As I have mentioned, there are no existing default powers in the case of Companies. The Minister also has no general power to alter water limits. We have a number of cases which come before us from time to time where certain changes in limits are obviously desirable

11th Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

and would make for economy, but they cannot be effected short of an Act of Parliament and that, of course, costs money, and very often the authority concerned does not consider it worth while going on with it. Then we deal with sources of supply. We point out, as I have already mentioned, that surface water is the most important, providing about three-quarters of the total quantity supplied. 62 of the 95 water undertakers serving populations exceeding 50,000 obtain their supplies wholly or mainly from over-ground sources. Then we mention what I have already stated, the important change of recent years because by reason of the improvements in filtration, water can be taken for domestic consumption from the lower reaches of streams. We mention the very large amount of capital invested in water undertakings. The outstanding debts of local authorities and joint boards was £160,000,000 in March, 1933, and it is estimated that a capital of about £30,000,000 is invested in the undertakings of statutory water companies. In the cases where the Ministry give sanction we determine the loan periods by the character of the work undertaken, the periods varying from 60 years in the case of land down to 10 for the more perishable kind of equipment. I may incidentally mention, that Parliament is inclined to be a little more generous than the Ministry in the periods which are given. We point out that capital costs form an enormous proportion of the total cost of running water undertakings. They account for more than 50 per cent. of the annual charges. We give also some particulars and show that most of the water undertakings do not make any profits. They cannot make any profits in the ordinary case nor do they incur any lasting deficiencies, but in a goodly number of cases there are deficiencies, and we give the figures from the last available returns. Taking England and Wales as a whole, there was a transfer in the year ended March, 1933 of just over £110,000 in aid of rates; on the other hand, there was a deficiency not far short of £1,200,000 to be met out of rates. Some local authorities as a matter of policy levy water charges below the economic level with the intention that part of the income required shall be charged on rates. In the case of companies the Acts now invariably limit the dividend. It

formerly used to be a maximum of 10 per cent.; now it is usually 7 per cent. They make also certain provisions with regard to such matters as reserve and contingency funds and some recommendations as to changes in that respect are made in the Report of the Advisory Committee. The charges made by local authorities and companies on domestic consumers vary greatly. The average is about 10 per cent. of rateable value, but in a few areas it is as low as 5 per cent., and in a few others as high as 20 per cent. In that connection I would mention that one of the difficulties of obtaining the necessary amount of money in the case of rural supplies is that the property, or most of the property, on which rates are levied in rural areas is of low rateable value. A good many cottages, for instance, are rated at not more than £5 per year, and a very large proportion at not more than £10. I think I am right in saying that if you levied a water rate of 12½ per cent., which is somewhat on the high side, it would only mean about 3d. a week in the case of cottages with a rateable value of £5, and only 6d. a week in the case of cottages with a rateable value of £10, so not much money is produced in that way.

Major Mills.

10. Have you any figures to show how much is supplied by meter in rural areas as opposed to a charge on the rateable value of the property?—No, we have not figures showing, for rural areas, how much, but you may take it that the proportion supplied by meter is very small. Of course, for works it is the normal practice to supply by meter—for industrial works and factories. Then we give some fuller particulars than I have previously given about the drought. I am not sure it is quite realised in some quarters how severe the drought was. Taking the 21 months ended in July, 1934, the rainfall was only 79 per cent. of the normal and the deficiency was no less than 12½ inches, which is an enormous deficiency. I have given particulars already about the drought, so I do not think I need say anything more about it at the moment, except that the Committee will remember a special Act was passed giving emergency powers to the Minister, and 39 Orders, in all, were issued. That Act worked very smoothly indeed, and we had practically no trouble at all. We set out here that one of the

11th Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

main difficulties in the case of rural supplies, where almost always there must be heavy deficiencies, is that under the general law those deficiencies in the absence of special arrangements fall on the parishes, and the Committee will know that in most rural parishes now a penny rate produces a very small sum indeed. That has been remedied by giving powers in the Act of 1929 to County Councils and to Rural District Councils, to give grants in aid to reduce the deficiencies falling on the parishes, and those powers are being freely exercised. Some Rural District Councils have decided to make the whole deficiency on any parish a district charge instead of a parochial charge and that is a practice which the Ministry encourage. Anyway, with the aid of the special moneys made available by Parliament, which also have had the incidental consequences of stimulating the generosity of County Councils and District Councils, the problem is well on its way towards solution. Up to date we have provisionally allocated over £600,000 for grants and that for schemes of a total capital value of now not far short of £3,800,000, and schemes are still coming in. In addition, the general attention to the subject has increased the number of rural schemes coming forward without any central grant and since April, 1934, loans of a total of £730,000 have been sanctioned. The magnitude of these figures may be gathered from the fact that the average total loans sanctioned by the Ministry for rural schemes during the last 10 years was only just over £400,000, £425,000 to be exact. We set out the position of County Councils in relation to water schemes. County Councils have no direct powers at all. As I have already mentioned, they may come in on default and they have power to assist schemes in county districts. In two cases County Councils have obtained powers by Special Act to be members of a joint Board, one is Durham where the Durham County Council is the leading member of the Durham County Water Board, and the other is the Lindsey County Council which is a member of a Joint Board constituted for supplying an area of the County where water is urgently needed. Then we proceed to emphasise the importance of the planning of water supplies. I have already said that the only way, judging from our experience, in which this can be done is to

take a large region, to have a method by means of a Committee for co-operation of all the water undertakers concerned, both local authorities and water companies, then to make a full survey of the water needs, which is by no means an easy job, as the Committee will appreciate, and takes time, and then, having done that, to consider what resources are available, what districts can be supplied from local sources, what districts will need to obtain distant sources and which of the districts should act in combination or in some lesser form of co-operation; then definitely to select the sources which are necessary for meeting future requirements. Our experience is that this is only done by planning ahead and planning ahead means planning a long time ahead because a large water scheme will probably take 10 years, and some have taken longer to carry out, and therefore, we say that schemes or plans should be available for at least 20 years. In accordance with this policy there are now in the country eight large regional committees, one for south-west Lancashire, another for the Sherwood area of Nottinghamshire, one for the Isle of Wight, one for the West Riding of Yorkshire—with three sub-regional committees—one for North, Central and South-east Lancashire, one for Cheshire and north-west Derbyshire, one for the West Midlands comprising Staffordshire, Warwickshire and Worcestershire and one for East Sussex. These Committees cover areas with a population in all of 14,000,000. The sub-Committee of the Water Advisory Committee is considering further areas for which regional Committees should be appointed. The Ministry assist in the work. One of the Ministry's Engineering Inspectors has been seconded to act as liaison officer between the Ministry and the Committees, and in three of the cases the Committees have asked him to be their Chairman. The regional Committees now have to work on an entirely voluntary basis; they have no powers to require returns; they can only ask for them, and of course they must have returns in order to do their work properly. Their expenses are very small. It is a work of planning. It is very small indeed but here again they have no power to require expenses to be paid. All they can do is to ask the constituent authorities to pay their share and suggestions have been made that there should be com-

11^o *Julii*, 1935.] Mr. I. G. GIBBON, C.B., O.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

pulsory powers, to be used in the last resort for these purposes. I think I have already mentioned the comprehensive inland water survey which is now proceeding and also the appointment of the Advisory Committee of the Ministry. The rest of the Memorandum is devoted to a summary of the recommendations contained in the Reports of the Committee. A good many of these recommendations deal with detailed amendments of the code which now applies to water undertakings. The recommendations, as I have mentioned, follow common form clauses which are allowed as a matter of course in Private Act after Private Act and therefore, I should imagine to a very large proportion indeed of the recommendations of the Advisory Committee there will be no opposition at all. I have mentioned two matters which are likely to arouse most opposition, namely, the conservation of underground supplies and the proposals for a change in deciding the amount of compensation water.

Chairman.

11. Have you anything further to add?—Nothing further. I presume for the moment, at any rate, the Committee will not wish to hear any more. Some of the proposals are of great importance for water undertakers. The detailed proposals also are of importance, but, as I say, I think they are entirely non-controversial.

Chairman.] I take it it will be the pleasure of the Committee to ask questions.

The Marquess of Aberdeen and Temair.

12. Am I correct in assuming that the Minister of Health is acting on the advice of the Ministry itself in appointing this Committee and in drafting its Terms of Reference so widely?—You must take that as being the Minister's act.

13. But the Ministry of Health have a great deal of information?—A very great deal.

14. The Advisory Committees are not, strictly speaking, Ministry of Health Committees?—No.

15. They are composed of people outside the Ministry whose advice the Ministry value?—Most certainly.

16. In fact whose advice they do take very often?—Quite.

17. Is it the feeling of the Ministry that they have not sufficient knowledge

wherewith to suggest to Parliament or to the Minister, as the case may be, legislation which they conceive necessary for preserving water supplies or for extending the resources obtainable at present?—No. I think the Ministry have ample information and experience.

18. Is it not a fact that there have been a great many Committees appointed with more or less cognate Terms of Reference?—Yes.

19. And no actions have been taken on their recommendations?—No action on certain recommendations.

20. Is it your view that this Committee can by course of examination of witnesses bring more information out than you already have?—No, except this, if I may illustrate it by an instance. Take compensation water. Certain recommendations have been made for altering the basis. We at the Ministry would be very glad to know the views, as given before this Committee, of the various other interests who are concerned. We are entirely familiar with the position from the point of view of the water undertaker. We believe also that we know pretty well the point of view of the other interests, but we would like to hear what they have to say to a Committee of this nature. May I illustrate what I mean? I presume for instance that if the Minister were contemplating introducing a Bill in the lines of the matters which are contained in the Report of the Advisory Committee, he would enter into closer negotiations with these interests before finally deciding upon his proposals. That has not been done hitherto, because the Parliamentary situation has not made it possible to contemplate introducing a Bill.

21. You are aware that many of the water authorities, both municipal and company, are anxious that there shall be more co-relation of water powers, and that they want for instance the Acts of 1847 and 1863 brought up to date?—Certainly.

22. But no action has been taken by the Ministry to meet their requests?—Solely because there has not been Parliamentary time.

23. Perhaps I may take it that it is the drought in the last two years which has made the Ministry rather anxious about it and desirous of getting on with it now?—Partly that, but really more, if I may say so, because the drought has produced

11^o *Julii*, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

a more favourable atmosphere for legislation. The Ministry have been keenly conscious of the desirability of taking action on these matters which have been dealt with by the Advisory Committee. It has only been the difficulty of lack of Parliamentary time which has prevented action being taken; and the position now is that, owing to the drought, the public generally realise the position a little more keenly.

24. You feel that the Minister would be in a stronger position to take action by legislation if he had the concurrence, consent or recommendation of a Joint Committee selected from both Houses?—Precisely.

25. That is the idea, to strengthen the Ministry in their future action?—Yes, most certainly. Legislation, I think you will agree with me, would be materially eased if, after hearing the various parties, the Select Committee saw their way to support the recommendations of the Advisory Committee—with modifications, of course, if they think fit to make any.

Lord Sanderson.

26. Would you tell us something more about the private owners. I think you said there were 1,000 private owners. Is there any information as to the amount of water they control and what their powers and rights are with regard to it?—Yes. A comprehensive return of all water undertakings was published in 1914. That return contained information of private as well as of public undertakings. These private undertakings are all of them—I do not know of any exception—small. They provide by arrangement with the consumers little local supplies, serving a very useful purpose indeed, but, of course, acting without any special statutory power.

27. They can control their supplies; they have complete control over them, have not they?—Except so far as they have entered into contract. I cannot recall and I do not think either of my colleagues will recall any instance of a complaint that a private undertaker has in fact withheld supplies.

28. Supposing there was a case of a place which was very short of water and it was known that there was a private supply in the neighbourhood, the private owner has now the power to withhold that supply if he likes, has he not? I do not suppose he would for a moment?—Yes. But, on the other hand, the duty of providing water supply in a district in the

absence of other provision falls on the local authority, and it would be for the local authority to take steps to see that needed supplies are provided.

29. Have the local authorities any power to force a private owner to produce a supply?—No, not to force a private owner, but what they can do is to acquire the supply.

30. They have compulsory powers of purchase?—Unfortunately the only way, as things are at present, under which water rights could be compulsorily acquired is by Act of Parliament.

30A. About the statistics of consumption, I think somewhere in the Memorandum of Evidence it says that the statistics of household consumption are often rather difficult to get at, because they are sometimes mixed up with the supply for street cleaning and that sort of thing?—Yes.

31. Can that be disentangled at all?—We could obtain information, if you would care to have it from a number of towns. It would probably be only an estimate, but quite a good estimate. It does not really as a rule make any very big difference in the total figures.

32. We can rely pretty well on it being small?—Most certainly. It is a small percentage difference—very small indeed.

33. With regard to water distilled from the mouths of streams, is that in some cases salt water in tidal rivers?—Never in tidal rivers.

34. Not tidal rivers?—No.

35. It is just water at the mouths of streams which is filtered?—Yes.

36. You have not given us any information about waste? I suppose there is a large amount of waste that goes on, is there not?—In some cases we ourselves have had reason to complain, when they have asked, for instance, sanction to loans for extensions, that they should pay attention to the waste that is going on. But taking undertakers in this country as a whole they are fairly good at preventing waste. The large undertakers, for instance, have special waste inspectors. The Metropolitan Water Board is an admirable instance of the care taken in preventing waste.

37. There is a lot of waste by consumers where they are not on a meter system, is there not?—Yes, there is. There again an endeavour is made to prevent waste. Of course there is a good deal of waste in industries and it may interest the Committee to know that

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

I have received some complaints from some water undertakers of the measures which we took during the drought to press home the need of economy. They say one result has been this, that the industrial consumers have for the first time looked carefully into the use of water by them. They have found that they can effect economies and have effected economies and that of course is reflected now in the revenues of some of the undertakings when the drought has passed.

38. There is one other point. You think there is not likely to be any great increase in demand in future years owing to the slowing down of population. Do not you think you are a little over optimistic about that? It seems to me that there is going to be a great extension of baths and washing arrangements as housing improves, and it seems to me that it is likely to be considerable?—We allow for that, most certainly.

39. I understood you were saying you think we need not worry much about increased demands?—I did not make myself quite clear then. Sometimes it is suggested in some quarters that we are going to reach the almost astronomical figures of some of the towns in the United States, for instance. There is no probability of that; in fact the towns in the States themselves now are beginning to sit up and to realise that their high consumption is due to waste, and New York for instance at the very moment are taking special measures to effect reductions and have already effected a large reduction. If I may mention one other thing, the difference in climate makes a tremendous difference. They allow water to trickle over the roofs in the Summer to reduce the heat, and let the taps run in Winter to prevent the pipes from becoming frozen.

Sir William Jenkins.

40. You said the Ministry of Health are taking steps to make surveys and that you are at present making surveys in the country. Do not you think we ought to get the result of those surveys before this Committee goes very far?—In the first place, the taking of the survey, which is now being undertaken with the advice of the Water Survey Committee, is a very long job. You must have your records over a long period and a comprehensive survey is not going to be ready for very many years. That

is point No. 1. Point No. 2 is that so far as general water policy is concerned, we know enough about the general resources of this country and where they are, to decide on water policy. What we have not got, which is wanted when you carry out a particular undertaking, is a detailed accurate record of, for instance, the daily flow, the steadiness of the flow, its variation between one time and another; but whereas those are of great use for individual undertakings, they are not necessary in that detail for deciding general water policy, because you know where your water is and you know where it is likely to be needed.

41. What prevents the Ministry from taking the necessary steps that they require if they have all the information they need at the present moment?—For legislation?

42. Yes?—The notion is that all the various interests shall have their opportunity of having their say before the Committee, and that in that way the way for legislation will be paved, and rendered very much easier.

43. You have had several Committees who have made reports. Why has the effect of those Reports not been put into some kind of Bill up to the present?—Because, in the opinion of a good many persons who are from their experience and knowledge entitled to talk on water supplies, some of those recommendations are not to be commended.

44. The Ministry would have power themselves to put in whatever they thought fit and proper in the Bill?—Certainly.

45. You have the information?—If I may put it in this way, I am in rather a difficult position as an official in this, but so far as I can see the position is that it is agreed that legislation is desirable on, for instance, subjects dealt with in the Reports of the Advisory Committee. It is desirable, owing to pressure of Parliamentary time, to facilitate the preliminaries for Legislation, so far as ever possible, and a Select Committee can do a great service if they can do the preliminary paving.

46. Do you think this Committee can complete its work before it gets the Report of that National Survey?—Most certainly. There is no necessity at all for waiting for that Report. May I just illustrate it? We get an application, for instance, for a water supply for a district. We know perfectly well that in

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

general outlines the proposal to obtain water from a local source is the right one. We know there are ample sources there and it would be madness to do anything else than use their resources. They then put up a proposal to us to use a particular source. Now, Mr. Hetherington, the Chief Engineer Inspector of the Ministry, will tell you that one of his difficulties that occur from time to time is this, that a proposal is put before him, but they cannot provide him at the time with sufficient information to enable themselves or him to judge of what yield they will be able to obtain from the proposed source, and in order to obtain that necessary information, proper recording instruments have to be put down, and the records kept for a sufficient length of time in order that a sound judgment may be reached as to the dependability of that source as well as the size of the works to be constructed. A source may yield excellently for a few months and then drop, and unless you have records for a sufficiently long period to cover those possible variables, you may in fact put down a scheme which will be largely wasted. That is the difference. So far as general policy is concerned, you do not want all that detail, but so far as a particular scheme is concerned, you do require it.

47. If the general policy were agreed upon there would be no difficulty then in dealing with any specific application that came before you?—No. As a matter of fact we are dealing with it, as you know, every day.

48. There are one or two other matters about which I should like to ask you. I happen to know something about the rural schemes. In the rural areas there is no rateable value there?—Very little.

49. Very little. It is only a question of house property. How do you expect that the County Councils will spread over that responsibility of providing water supplies for the rural areas, especially in industrial areas. I come from a depressed area; how do you think a depressed area can assist a rural area, as you are asking them to do at the present time?—As you know, they are doing it in fact, but the assistance is a very small charge indeed on County rates even when they assist pretty liberally. It is a very small item and we do grade the grant given out of the central fund according to local conditions. It is not a uniform grant, the same percentage for all

schemes, each scheme is treated on its merits, and the ability of the district and of the County to pay is taken into account.

50. But it is a very heavy drain upon the rural area itself?—If the whole charge were levied on the rural district it would be a heavy charge, but against that it has to be remembered that the district is being provided with a very valuable asset.

51. But it is a tremendous expense to the rural area, is it not?—Even when you have allowed for the charges on the rates, on the local rates that is, the payment for the boon of a good and adequate water supply is not very heavy.

52. Do you think any use could be made of water that is in the derelict coal mines?—Certainly, provided that it was right in quality and sufficiently near. In fact in a number of cases use is made of it now for domestic water supplies.

53. To what extent have you made enquiries as to its usability?—If there is a local colliery mine source, we always take that into account in deciding whether in fact the proposals which are submitted to us are the most economical proposals possible for the district.

54. You have not done it in any extensive way, I presume?—No, because in fact there are other sources which provide the water more cheaply.

55. In some instances?—In most instances. What is important to bear in mind is that local sources can often be obtained very cheaply, and it is remarkable, for instance, that even when you have the trunk main of some big undertaker like Liverpool or Manchester running through a rural district with a right to the rural district to take water from that main at cost price, more often than not—in fact much more often than not—it is cheaper to use a local source, and they use a local source in preference to exercising their right.

Lord Milne.

56. There is only one question I should like to ask you. Were the opposing interests—I think you call them the "various interests"—given an opportunity of giving evidence before the two Committees on conservation of water?—No. Those Committees are simply Advisory Committees to the Ministry. They were not in the nature, for instance, of Departmental Committees.

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

57. They were not?—No. Therefore it is important that those interests should be given an opportunity of putting forward their views.

Mr. Richard Evans.

58. I see on page 15 you refer to Regional Advisory Committees?—Yes.

59. What is your experience of these Committees when functioning? Have you found for example that they lead to co-ordinated action?—Yes.

60. Have you found them, for example, resulting in the formation of Water Boards?—Not necessarily Water Boards, but may I give an illustration. Take the two Committees which were appointed first: Both Committees have in fact completed their job for the time being, and in the one case no further action is necessary at the moment, because the areas are well supplied with water for a long period ahead. In the second case, where the area of supply is an underground source, there has been enquiry and Bill after Bill before Parliament, hotly fought, because of the contending interests who thought they had a claim to water from this area, and the result of the appointment of the Regional Committee and the good offices of men on it has been that between these various bodies agreement has been reached as to where A shall sink for a new source, if and when required, where B shall sink, where C shall sink, and the rest.

61. Does the Ministry take action to enforce co-operation between authorities? For example, in one area you might find a wealthy municipality having established a monopoly of the water in a particular valley; it cannot possibly require the whole of that and it may be prepared to sell it. You may, for example, have in an adjacent valley another authority which perhaps is poor and cannot embark upon a scheme. What powers have you to enforce co-operation?—Our powers are these: Before a local authority can undertake water works, for which it requires a loan, it must obtain either our sanction or that of Parliament. I will deal with the Parliamentary side of it in a minute. In considering whether we shall sanction certain works, we always take account of such questions as you have mentioned, not only the question of using a source for more than one authority, but also such questions as preventing what has happened in the past: I have a case in

mind now, which is a rare case, but it is the kind of absurd thing which could happen if there were no control, namely, three authorities drawing from the same general source, but with different individual sources, and in certain cases each of them having separate mains almost side by side along the same roadway. That kind of thing we stop now. Most of the big schemes because of the conflicting interests involved, come before Parliament in the shape of a Bill. Then of course the decision rests with Parliament. We can do this, and we have done it in recent years: We examine the proposals and report to Parliament on them, and it is for Parliament to follow or not the advice that we give.

62. Have you experience of any case where a number of water authorities have come together, pooled their resources, and developed themselves as a single unit?—Yes. The total number of Joint Boards in the country is 48 altogether, 33 under local Acts and 15 under the Public Health Act.

63. Do you find the tendency towards spontaneous amalgamation to be growing?—Local authorities do not suffer from an over-anxiety to combine, but I think that the reluctance is undoubtedly getting less. There are a number of large Water Boards. I mentioned the Derwent Valley Water Board, for instance, and there is the Durham Water Board which I mentioned, and the Lindsey Water Board. Those are only some of the big ones. Not only that, but there is this, which has to be remembered, that very often the best course is not the formation of a Joint Board, but the supply of a neighbouring area by a large undertaker. That is very often not only the most economical way of going about the business, but also far better administratively, because you have the whole business under one hat. The main local authorities are responsible bodies, and their liability to stand the racket of any deficiency is an added incentive to exercise care. That is very often the best way of dealing with the problem.

Sir Arthur Michael Samuel.

64. You said there was no Parliamentary time available for these improvements in water supplies generally and that the drought had brought matters to a head and created a more favourable atmosphere. Am I right in drawing those conclusions from what you said?—Yes, generally.

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

65. Was there not an Inquiry just before the War presided over by Lord Shuttleworth which gave us most of the facts that we have now laid before us?—They did not have the facts, for instance, contained in the Advisory Committee's Reports. Those things have never been brought out adequately.

66. Do you mean to tell me that Lord Shuttleworth's Report did not give us a very adequate survey of the water supplies of England?—Yes, for certain purposes, but not the particular aspects dealt with in the Reports of the Advisory Committee.

67. Is not some of the work that we are now doing overlapping the work already done by that Inquiry?—No, I do not think so.

68. Are you using that Report at all?—Most certainly.

69. Are you calling the Secretary of that Investigation to help you—the man who drafted the Report?—I forget for the moment who was the Secretary.

70. R. B. Dunwoody drew up the Report. Would it not be advisable for you to call him to assist you to work in the investigations on which he worked and the conclusions at which he arrived?—No, I think we have all the information, if I may venture to say so, at the Ministry. We have an enormous amount of experience.

71. Do you say advisedly—without being influenced by the fact that you are the Ministry engaged on this matter, that we ought to press on to have action taken, as foreshadowed in your Report?—I do sincerely think that measures are desirable. You will understand I am not committing the Ministry to the details of the thing but measures for dealing with the problems mentioned in the Reports of the Committee are undoubtedly desirable, I think.

72. That is your considered opinion, as an expert of the Ministry?—Yes.

73. May I go to something quite different. On page 16 of your Memorandum of Evidence, in the third paragraph from the bottom, you say "Neither public water undertaker nor private owner has a remedy against a neighbour who deprives him of water under their land by competitive boring, or pollutes their supplies by the deposit or discharge of substances" etc. What knowledge is there now in the Ministry or in official departments for the location of the increasing number of septic

tanks used on private properties in rural districts, and does your Ministry, if it does keep a record, through the local authorities, through the County Councils, think it necessary to keep records of those septic tanks in so far as they may be close to water supplies?—That is the responsibility of the local authority, and the Ministry itself do not have detailed records. They know—I was going to say numerous, but that would be overstating it, but they know of many cases where in fact there are cesspools which may be a danger to water supplies.

74. May be a danger! Pollution of water is a danger, it cannot be "may be"; I think you will agree that it is a danger?—Pollution is a very difficult thing to trace. I think Mr. Hetherington would say that very often it is very difficult to trace pollution.

75. A septic tank near a water supply cannot be healthy for the people who drink the water?—No, but it does not necessarily follow that the supply is polluted, and it sometimes follows, that, for instance, pollution from cesspools may appear at a place where nobody will suspect them.

76. We are taking the Report on Rural Water Supplies, and we are dealing with the pamphlet here. Do you mean to tell me that you do not demand from the local authorities that they should find places where these possibly polluted sources may exist, and do not you demand from them that they should keep a record of those possibly polluted sources, and do not you demand that they should supply you with that information?—No, I am afraid that if we asked local authorities for information of that kind the Ministry would be swamped with the details. What we do require is that they shall take steps to make sure that the water supplies which they use are free from pollution and free from danger of pollution.

77. Do you require that the local authorities should keep a record of the location of septic tanks on private properties?—Speaking from memory, there is no obligation on local authorities to keep a running record, but there is an obligation on local authorities to deal with nuisances and dangers to health in their districts.

78. I do not want to know about that. I am asking about septic tanks?—No, there is no obligation on them to keep records.

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

79. Do you consider, in discussing this matter with the Committee, and in relation to this Report on Rural Water Supplies, you ought to allow that to go on as it is now, without a record of these septic tanks being kept? Do you consider it right that the local authority should not be pressed and compelled by legislation to keep a record for your use later on?—If I may answer it indirectly, I think it is far more important to take measures to see that the local authorities deal with cases where sewage, for instance, is disposed of in a manner that may be dangerous.

80. How can they know that unless they know where the septic tanks and other tanks are, and have a *locus* in the matter?—Their Sanitary Inspectors will know. They may not have a record.

81. But is that so?—They will know, from their knowledge of the district, where sewage is disposed of, for instance through the cesspools.

82. Are you correct in saying that? If I have a little place in the country of 20, 30 or 40 acres, and I wish to put a septic tank at the bottom of my garden, is it necessary for me to notify the local authority? Do they come in and find what I have done, unless I notify them?—If you put up a house—

83. I did not say if I put up a house. I put a septic tank in my garden; my house may be existing when I do so?—I thought you meant a new house. It is conceivable for that to happen. It is the duty of the Sanitary Inspector to watch for nuisances or dangers to health which may arise in the district.

84. There is no obligation?—There is an obligation that the cesspool shall not leak. We know in fact, of course, that in a good many cases they do.

85. Does it seem to you, therefore, in view of the questions I have put to you, that there is a hiatus somewhere? It is not obligatory on the part of the owner to notify; it is only part of the duty of the Inspector to keep his eye open to see what he can see, and miss what he does not see?—You are not thinking now of the case where they build a new house?

86. I said so?—I think it is well worth considering whether something more should not be done in that direction. May I add one more thing? One of the difficulties, of course, in dealing in a proper way with sewage in rural districts is, again, the question of cost.

Sir Arthur Michael Samuel.] That is all beside the mark. I will put it this way: You have a septic tank on the slope of a hill; the seeping, as they call it in America, even if it does not leak, may go down for perhaps half a mile, especially if there is any overflow of a tank resulting from a flood. What knowledge have the local authorities of that? Now you are going to talk about the increase of facilities of a rural water supply.

Chairman.

87. I think that the Committee have your point quite clearly before them?—May I say that the real thing is that cesspools are supposed to be watertight. We try, as far as we can, to see that local authorities carry out their duties to stop nuisances and dangers arising.

88. As the Lord Chairman says, I have made my point. I will leave that entirely. On page 8 of your Memorandum of Evidence you say that there are deficiencies met out of rates of £1,174,000?—Yes.

89. You go on to say—I do not know whether I am in order in raising this point, my Lord Chairman; if I am not please pull me up at once—"Some local authorities as a matter of policy levy water charges below the economic level with the intention that part of the income required shall be charged on the rates." Is it within our power as a Committee to make any observations on what they call policy? Does this not constitute a subsidy of the houseowner?—I conceive if the Committee desire to make any observations on policy it is within their province. Of course, any deficiency is a subsidy in one sense; but, on the other hand, this has to be remembered, that in providing an adequate water supply of right quality you are providing a public health necessity, and some persons go so far—you will not take it I am expressing my own opinion—as to say that a very large part, if not the whole of the cost of water supply for domestic purposes should be a public charge, just as you make no private charge for a sewage scheme.

Sir Arthur Michael Samuel.] When it is the policy of Parliament to make these undertakings, whether they be public or private, pay their way, by and large, would it not be competent for this Committee to draw attention to the fact that £1,174,000 a year is being devoted as a subsidy? Is it not a matter that we ought to draw the attention to Parliament to. The policy of the legislature is

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

that these undertakings should pay their way, by and large. Should I be in order in drawing attention to that?

Chairman.] I think so, certainly, under the Terms of our Reference, if you see fit to do so.

Sir Arthur Michael Samuel.

90. I draw the attention of my colleagues to that form of indirect subsidy?—May I say, for the information of the Committee, that there is nothing in the Public Health Acts which puts an obligation on a local authority which undertakes its own water supply to meet all its charges out of the water rates. That is just for information. I am expressing no view on the policy.

91. The other point I want to put to you is this. I carry on what Lord Sanderson referred to. Although the population may fall, would you say that that fall in population would be sterilised, and indeed a fall in population might not have any effect at all upon the water requirements in view of greater domestic consumption for baths, hot and cold water equipment, and sanitation particularly, so that there will be a necessity to arrange for an increase of supplies rather than to look for a fall of requirements?—Certainly.

92. And especially as some of the supplies foreshadowed, as I see in your remarks, will have to be brought from a distance to the place of consumption. Ought not we to abandon right away any idea of a fall of population rendering it possible that we shall require less water?—Oh, no. If I have given any suggestion of that nature, then I have not given you the impression I wish to convey. My point was simply this: Your population is probably going to be stationary soon. Therefore so far as the units are concerned, there is not likely to be an increase. On the other hand, I say expressly that the consumption per unit is going to go up as far as one can see. It is not going to go up to any such figure so far as I can see—and I think that would be the view of every experienced water man in the country—as will really make any serious difficulty in this country in providing the necessary supplies.

93. That I understand. There is no difficulty about it; but ought I not in considering the evidence which will be forthcoming from time to time to divest my mind of any necessity of there being a reduction in the requirements of water, and ought I not to get into my mind

that the requirements for water, at any rate in our lifetime and the lifetime of our children, will be larger than they are at present rather than smaller?—Yes, larger but not extraordinarily larger.

94. We have to get out of our head that the fall in population will bring into the field of consideration the possibility of there being less requirement for water?—I agree entirely.

Lord Stanley of Alderley.

95. Can you give us any idea of what these fantastic figures of consumption of water per head in America are?—They run in some cases to over 100 gallons a day.

96. In this country you tell us in the urban areas the consumption is 20 to 30, and 15 to 20 I think you said in the rural areas?—Yes.

97. Would it surprise you if those figures doubled within the next 10 or 20 years?—I should be much amazed if they doubled. I think in the next 20 years they will probably go up. I do not know, but I should put a range of about 50 per cent. addition as the possible increase, taking the country by and large.

98. That is assuming that the increase goes on as it has been during the last two years?—Yes, exactly.

99. Another small point. With regard to these Regional Committees that have been set up in these areas that have been determined for the more economical use of water, are these areas determined on account of the local authority boundaries, or are they geological areas? On what basis have they been divided?—The general basis has been the closeness of connection between the various authorities, bearing in mind their common interests in distribution and also their possible common interests in supply. In other words, we have tried to obtain a large enough area to bring within a common ambit and consideration undertakers who are likely to have common interests, either in distribution or in supply.

100. It has no basis, if I may so call it—no natural basis; it is not any one large water supply?—Not any one, but of course usually there is a strong geological or topographical element.

101. That is what I am trying to get at?—Yes. They tend also to form natural areas. They form natural areas in two ways; first of all topographically, and also in the source from which the big ones draw most of their supplies. If you take the new Committee, for instance, which

11° *Julii*, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

we formed in Lancashire, most of those supplies are drawn from the Lancashire part of the Pennines, with the Manchester supply coming from the Lake District.

102. What I am really trying to get at is this. Perhaps you can tell me. Is it not possible even with planning by these Regional areas that a good deal of water may be taken by one area from the ground of another area unbeknown to it?—That is always a danger. You get a big authority who can afford to go far afield, possibly taking a source which may later on be required, and can be more advantageously obtained by another authority, but that is one of the objects of these Regional Committees.

103. That is why I asked whether they were a geological entity; and they are more or less, you say?—Yes. May I mention also that in these cases, for instance, this practice of the Ministry now making reports to Parliament upon proposals which come direct before them is an innovation of the last ten years, and one of the reasons why we did this was in order to watch just the kind of thing which has been mentioned, so that one authority should not jump in unfairly in front of another. Of course, if I may add, there is the position in a large region that there will be a good many small undertakers whose supplies will come from local sources.

Sir George Courthope.

104. Should I be right in assuming that the level of the water tables in many districts is definitely falling?—No, I do not think in many districts. It is in some districts. (Mr. Hetherington.) In some certainly. I should not like to say in many, because there are a good many in which it is not true.

105. Perhaps I was getting a general impression from particular cases?—(Mr. Gibbon.) May I say it is interesting to note in the case of one of the principal underground sources in this country, even this prolonged drought seems to have made no impression upon it. It is astonishing.

106. Is your survey of internal water supplies extensive enough in its purview to be studying those big flows of underground water which are escaping somewhere below high-water level into the sea?—No. The intention of the survey is to obtain over a sufficiently long period a reasonably accurate record of flows in streams, and also levels, and water

abstraction from underground sources, public and private wells.

107. Internal only?—Yes, the inland water.

108. Is there not going to be a tendency to rely increasingly on river water?—This will include river water.

109. If that is so, is it not important, taking the long view, that you should examine the underground supplies, which undoubtedly flow to waste now?—You mean the feeders of streams?

110. No.—Do you mean the bore holes that run to waste?

111. I have two instances in my mind, if I might mention them, which are probably well known to you, that when the new Graving Dock was constructed at Southampton a year or two ago they struck artesian water of such pressure that the engineers dare not put a 28 feet concrete floor on the top of it?—Yes.

112. And a similar work in the inside of Dover Harbour has been entirely defeated by the flow of fresh water through the chalk.—I could give the Committee some instances, if desired, of cases where a large amount of water is now being allowed to run to waste.

113. Is it within your knowledge?—Yes, and power to stop that kind of thing is in fact one of the recommendations contained in one of the Reports of the Advisory Committee.

114. Have you sufficient knowledge of the flow of that underground water to be able to consider whether you could utilise it?—No. The difficulty, of course, is that, although geologically certain information can be given to you of what you would probably find there, until you tap the actual source of water in some way or other—either by accident or design—you can only form an estimate which may be far out of what you may find there. It is when you tap the water that you have an opportunity of measuring what you have got there.

115. Taking the long view, is it not of great importance that you should get knowledge of supplies which might be used in substitution of river water?—It will be one of the objects of the Inland Survey Committee to take that into account.

116. They will take that into account?—Yes, I have no doubt they will. They have only just started on their work. Mr. Hetherington is the Ministry's assessor on that Committee and can tell you. (Mr. Hetherington.) In the Inland Water Survey I think the point you are

11° *Julii*, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

raising will come out automatically, because one of the works of the Inland Water Survey Committee will be to ascertain the quantity of water extracted from various strata. They will also have the exposure of those strata and the consequent intake of those strata, and subtracting one from the other gives the surplus which is flowing away underground and so escaping somewhere, probably to sea or to the river, so that it comes out automatically from the two figures which would be sought for by the Committee.

117. The point to my mind is covered by what you are doing. There is one other point I want to put if I may. Is there any big effort being made to co-ordinate the work of drainage authorities with water supply authorities? There are many authorities which are spending vast sums to try and get rid of surface water within comparatively short distances of other authorities who are spending vast sums in order to obtain water?—(Mr. Gibbon.) Yes. That is one of the questions which one has particularly in mind. It is borne upon me especially as I attended the opening of this new cut in the Thames. The probability there is that there will be measures for keeping back the water, among other things, in order to replenish underground supplies. That we are taking up with the Ministry of Agriculture, who are responsible for the oversight of Catchment Boards.

118. A serious attempt has been made to co-ordinate?—Yes. As you know, the Catchment Board work is at present in its infancy. Very little has been done up to the present, but that is a problem which will become most manifest of all in the Thames, where the Thames Conservancy has been at work for decades of course, with increasing demands upon them to prevent the flooding which periodically occurs, resulting in costly works for carrying water more quickly to the sea, whereas at the same time there is the necessity for keeping back the water in order to replenish the underground supplies, and also of course to keep storage in the river for the requirements in particular of the Metropolitan Water Board.

119. There you have an authority which can deal with it?—There you have an authority which can deal with it. Every Catchment Authority could deal with it within their powers. It depends how they regulate their river.

120. Take a case that is within my mind which was before Parliament only a couple of years ago—Doncaster. The great drainage problem there could not be dealt with by the Catchment Area Authority of the district?—Yes.

121. The water I understand comes more or less from the Peak district from which a large quantity of water is taken?—Yes.

122. Would not it be within the purview of any authority, your Ministry or any other Body, to see that those who are taking water for the population and those who are trying to get rid of waste water and prevent flooding were working in co-operation?—That is one of the objects, among other things, of the Regional Committees, so that you have a large number of undertakers working together, concentrating their outlook and also their survey of needs and they would be far better able in that way to deal with Catchment Boards among other authorities in order that whatever measures are taken are taken from the point of view of the general need, including the water supplies of the areas concerned. We are very conscious of that point.

Sir John Pybus.

123. I have one question and that is, with regard to the powers of the Ministry to prevent undue delay by local authorities in giving water supplies, particularly in the rural areas. We will take the case where a Parish Council or a Rural District Council are obviously in desperate need of water supply. The over-ruling authority is the Rural District Council?—Yes.

124. They seem in many instances to take far too long first of all in endeavouring to make a bargain with the Ministry of Health as to whether they can get a grant or not, which goes on for an interminable time in certain cases, and thereafter making a bargain with the Water Authority as to the price at which the water shall be supplied. I would like to know what powers the Ministry of Health have to interfere in a case of that sort, and if in your opinion the present powers are sufficient. The case I have in mind is a small rural area in which the conditions are really deplorable. The time which has been taken since the case was agreed to be taken up by the Rural District Council is now nearly 2½ years.

11^o *Julii*, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

Have you powers to deal with that? I have never been able to find any powers by which the Rural District Council could be prevented from producing so great a delay?—As I have mentioned there are certain default powers which are exercised of course only in the last resort. What we try to do is to help those people over stiles in connection with the distribution of this grant for rural water supplies, for instance. We have had engineering Inspectors going all over the place. They go to places where we know they are incubating schemes, but are taking a long time about it. They go also to places where we know there is a water shortage, but schemes are not being produced, and we do all we can to bring forward the schemes as quickly as possible, and give a good deal of help. I do not know whether you would mention the name of this place.

Sir John Pybus.] I do not think it would help materially. I am not satisfied, my Lord Chairman, from the evidence given that there is sufficient power in the Ministry of Health to prevent these delays on the part of Urban District Councils which over-rule very small communities such as Parish and Rural District Councils in matters of this kind. I should think that more powers are necessary.

Colonel Sir Edward Ruggles-Brise.

125. Is there any evidence as regards the effect on ordinary springs and wells by the boring. Have, for instance, any villages been deprived of their normal water supply from their own springs and wells by the fact that undertakings have bored not necessarily very near, but it may be at some distance from the springs?—There have been examples of that kind. Of course where a public undertaker sinks a well interests can be protected because, if they come to Parliament, for instance, it is a common thing—it is usual in fact—to put obligations on them to provide for any interests which may be affected by the exercise of the powers given. We have instances on the other side where public supplies have been very seriously affected by private borings, usually of course in the neighbourhood, but any way drawing on the same pool of water.

126. Must the borings be to approximately the same level to affect each other or does the water run in strata parallel one above the other so that the drawing of one particular one does not affect a

deeper or a higher one?—I will leave that to Mr. Hetherington, but if I may put it in short, it all depends on the circumstances. You may get water at this level and then water with an impermeable strata between at the lower level, but the cases we have had, have been where, broadly speaking, you have an undertaker who is drawing supplies from a certain pool. I say pool, but that may be water right in the earth, not forming a lake in the ordinary sense, and somebody else sinking to the same level and depleting the supplies obtained by the original undertaker, and in some cases you have a question of Box and Cox, each going deeper. (Mr. Hetherington.) With regard to waters at different levels drawn from a well that implies that there is an impervious stratum holding up the upper water preventing it passing down to the lower stratum. Of course if you sink a bore into the upper stratum, it will not touch the lower, and if you put the bore down into the lower and tub it through the upper, take it imperviously through the upper, it will not affect the upper, and it does depend on where the actual suction is taking place, where the water is being actually drawn from as to whether you affect the other person. You may accept, I think, broadly these layers of water where they are separated by impervious strata as being separate water sources altogether, and you have to go into the same source to affect the other person, the same source in which he is.

127. I want to ask one more general question, which has been to a certain extent amplified in the replies to previous questions by other members of the Committee. It is this. In your opinion there is no alarm, immediate or even prospective, as regards the quantity of available water for the population of this country?—(Mr. Gibbon.) None at all.

128. Even though the consumption per head would increase, against that you must balance the fact that there is not likely to be an increase of population. The net will be an increase?—Most certainly.

129. The net will be an increase, and in spite of that you are not alarmed as to the future prospects of our water supplies?—No.

130. I ask that question, my Lord Chairman, because I do want to bring out the point that, as I understand, this

11^o *Julii*, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

Committee has been appointed to consider the better conservation and organisation of water resources and supplies in England and Wales, and it would appear to me that as there are already investigations by another Committee going on, and in view of the fact also (I think Mr. Gibbon stated this in answer to a question) that almost all the necessary information is already available as regards our water resources and supplies, it is a little difficult to see exactly what is the nature of the work that this Committee is intended to perform, in relation to its terms of reference—if I may just have that noted?—If I may make a remark on that, there are these quite specific proposals made in the Reports of the Advisory Committee which, in the view of the Ministry, do really call for attention; and since, as I have already mentioned, we know the position, if I may say so, so well, from the water standpoint, it is highly desirable that the other interests, which are affected by certain of these proposals, should be given an opportunity of stating their views before a Body such as this Committee, before it is decided exactly what kind legislation to introduce. I do think, if I may venture to say so, that that is important.

131. Yes, but I wish to ask this, that being the case, in the view of the Ministry of Health, there is room for further legislation to deal with the detail of final distribution, that is to say, whether or not a consumer or an undertaker should pay for the fixing of the supply pipe from the main to the house, comparatively small matters of detail of that kind?—Those are some of them, but there are some highly important questions of policy, including questions of the measures to be taken, for instance, for the conservation of underground supplies. There is a good deal of waste going on at the present time, and a good deal of really competitive use of the same source, without proper measures available for deciding what is best in the general interest; and then there is this difficult controversial but exceedingly important question of compensation water. That is exceedingly important for the water undertakers. Their allegation is that the obligations which are put upon them now in the matter of compensation water are depriving the country of resources which ought to be available for water supplies and,

what is equally important to them, adding very greatly to the cost. They are very important matters.

Lord O'Hagan.

132. I should like you to amplify the point in your Memorandum of Evidence with regard to the Regional Advisory Committees. Am I right in understanding that that is a purely voluntary Body in each case?—Entirely voluntary.

133. It does not really affect the question of the allocation of areas. With regard to drawing areas together for the purposes of water supply, that question came before a Committee of this House which investigated the matter of the Ayr County Water Supply?—That is one of the objects. One of the objects of Regional Committees is that, after a survey of the actual facts of the situation arrangements shall be made between those authorities which ought to combine either for supplies or for distribution, and of course we can bring various kinds of pressure to bear for that purpose.

134. We understood on that Committee, if I remember aright, that it was the opinion of the Ministry. . . .—The Scottish Office. The Ministry could not cross the border.

135. In beg your pardon. I think this would apply to England as well. In that case it was because these areas had not been worked out in effect by the Ministry, and they had not been decided upon that they were not prepared to recommend the amalgamation then suggested by the Promoters of that Bill. What I want to get at is this, which is only a question of detail. In the case of England, which is, I take it, all we are dealing with, the Ministry have not yet formulated in their own minds the areas for the grouping of the water supplies, as is recommended under this general term of Regional Advisory Committees?—No. What the Ministry have done is that they have been the means now of having constituted these eight areas. There are certain other areas where it is desirable to have Regional Water Committees because of common interests among undertakers in the district, and those areas are now being ascertained by a Sub-Committee of the Ministry's Advisory Committee.

136. Therefore it follows from that that already the country is mapped out in your own mind?—Yes.

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

137. Where it is advisable to have these Regional Advisory Committees?—Yes.

138. And it is your policy to suggest them, where you think such Committees should be formed, to the groups of undertakers?—Most certainly. We take active measures to bring them about.

139. It would be interesting to know if that applies as well in the case of rural areas as in the industrial areas?—We have a Committee for the West Riding, for instance. That Committee includes also the rural districts, not that probably in any one of those rural districts it would be necessary to go outside or, at any rate, any material distance outside its own area for its water supply, but we consider it important that when we get a Regional Committee that Regional Committee should have the rural districts within their ambit, so that they may ascertain for certain that the rural district is providing a water supply, and has resources available for any future additional supplies which may be required; but, of course, if you have a County which is entirely rural, where you know that all your rural areas will have to be supplied from local sources, there may be no necessity to have a Regional Committee, because there might be nothing for them to do.

140. That would not apply in Norfolk and Suffolk or the Extra-Metropolitan area of Essex?—Essex, I may say, is one of the new areas which we hope to constitute, which would have been constituted already with the co-operation of all the authorities except for the difficulty that one of the problems involved is that the area is round London where you have of course a goodly number of separate undertakers and, to put it mildly, more systematic co-operation is undoubtedly desirable.

Major Mills.

141. My Lord, I am not quite sure that it is really germane to our consideration of water resources and supplies, but I want to refer to a point to which the attention of the Committee was called rather particularly by Sir Arthur Michael Samuel, and it is this—the charging on rates of part of the cost of a local water supply. I should like to ask you, do you think, particularly in smaller country towns, such a policy encourages owners and occupiers, particularly of rather small house properties, to come on to the pipe supply rather than trust in their

own possibly polluted alternative supply?—Most certainly.

142. Therefore I will not put it higher than this, that the local authority might be wise in holding out encouragement to them, from the general health point of view, to come in on the common pipe?—Most certainly. That is what I had in mind when I said that it had to be remembered that water, among other things, is a public health necessity, and that is one of the reasons why some of these authorities do pay part of the costs out of the rates.

143. One other point. You have said very emphatically that there is plenty of water, and that you are not in the least afraid of a general water shortage. One of the questions in the Notice that was sent out to the Committee this morning was to say that you would be asked to explain various points to the Committee. The last was in what district, if any, is there a shortage of water? Am I right in gathering from what you said that water may have to be brought (it is not impossible except possibly in an area like the rural part of Lincolnshire) where both the underground and surface streams are chemically unsuitable. Is that about the only place?—No. There are various areas where local satisfactory supplies are very difficult to obtain. There is no question of any general shortage; there is plenty of water which those places could get, but of course their resources are so small that they cannot afford it, and in days gone by there are tracts of this country where dependence has been on rainwater. They do not account for a large part of the country in the aggregate, but there are definite tracts. Mr. Hetherington could mention many. Mr. Hetherington mentions the Fens and the Chilterns where a good many of the villages in past years depended on rainwater. The old villager knows how to use his rainwater store economically but the newcomer or suburbanite has not learnt the necessary traditional restraint. The result is that if you get a dry summer he cannot stand the strain.

Chairman.

144. Would the Committee bear with me while I put one or two questions? I will put them as briefly as possible. Supposing that a District Council desired or was willing that the County Council should act jointly with it in preparing and carrying out a scheme, is there any

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

machinery at present whereby this could satisfactorily be done?—No, my Lord, there is none short of a Bill. A District Council could relinquish its powers to the County Council under the Local Government Act, 1929, and the County Council could then become a partner in a Joint Board, but that is a very roundabout way, and I do not see any District Council doing so.

145. You really seek for further powers?—I think the County District Councils, including Rural District Councils, would strongly object to any general transfer of their water powers to County Councils, and since a grant has been provided to help them in their financial difficulties, they have tackled their problems in a very commendable way, and County Councils have helped liberally. It might be worth considering—I will not put it higher than that—whether there should be a power by Special Order, for instance, to include a County Council as a member of a Joint Board for providing supplies, or, if everybody is agreed, to enable the County Council itself to undertake the provision of water supplies where a case is made out and the District Council does not object.

146. Subject to the concurrence of the District Council?—Subject to the concurrence of the District Council.

147. I think your Memorandum rather stresses the importance of planning water supplies by individual undertakers or by Regional Committees where undertakers have interests in common. Are these Committees you have pointed out in your Memorandum voluntary bodies? Do you think the work will be as effectively done on a voluntary basis?—I think there is no question that the work might be helped if additional powers were available. For example, it might be considered whether Regional Committees should be given power to require information from water undertakers in their regions; and also to raise on an equitable basis the small sums required to meet their expenses, by issuing precepts on the constituent authorities, if that should be necessary. If it should be considered that some safeguard is necessary in order to make sure that the precepts are reasonable and equitable, the exercise of the power might be made subject to the sanction of the Ministry. Then if it is desired that proper planning should be further ensured, it might be considered whether

power could be given to the Minister to require the submission of plans from water undertakers or Committees, as the case may be, and to specify the time within which they are to be submitted. Further, in order to make sure that Regional Committees are appointed where required, the Minister might be authorised to appoint Regional Committees where they cannot otherwise be obtained and, in case of default, himself to undertake the work at the cost of the authorities; also to add new members to an existing Regional Committee, or to change its constitution or area, if that should be necessary for the proper preparation of plans. These powers of course would be exercised after public inquiry, if any objection were raised. In addition, possibly, power might be given to require all undertakers to keep and to furnish such statistics as may be desirable for good water administration. The Minister already has powers in the case of local authorities, under the Consolidated Local Government Act, 1933.

148. The Advisory Committee has made recommendations for the conservation and the preservation of underground water supplies. Do you think there ought to be some action taken in regard to the overground water supplies?—I think it is obvious that in the public interest the same kind or same measure of protection which is afforded to underground supplies should also be extended to overground supplies, and if measures on the lines of those recommended by the Advisory Committee, meet with the approval of the Committee, they may also think it fit that the same measures should be applied to overground supplies. There is a further point which might be mentioned, touching both kinds of supply. As we have stated in the Memorandum, the Ministry have always urged the need of planning of water supplies, particularly by water undertakers with common interests in sources of supply. It is of little use preparing plans unless measures are available to ensure their observance. For example, where a source of supply has been proposed for one area, it seems desirable that there should be some means of securing that the source is not used for another area, unless a convincing case is made out. The Select Committee may therefore think it well to consider whether, in order to secure continuity of policy, all water undertakers should be required first to submit

11^o Julii, 1935.] Mr. I. G. GIBBON, C.B., C.B.E., and [Continued.
Mr. R. G. HETHERINGTON, C.B., O.B.E., M.Inst.C.E.

any proposals for new supplies to the Minister. It is not in any way suggested that water undertakers should be debarred from applying direct to Parliament by Private Bill for power to acquire new sources of supply, but that opportunity should be afforded to the Minister in good time to examine the position and to notify the water undertakers of his views, from the standpoint of water supplies as a whole, before they finally decide on the proposal and also before the undertakers themselves finally decide on the proposal to submit to Parliament.

149. My final question I should like to ask on another matter, and that is in regard to the work of Statutory Water Companies. Do you feel that any further powers or other measures are desirable? You refer to that matter in paragraph 19?—Generally our experience is that Statutory Water Companies render very valuable service, but we do think that something more might possibly be required. I have made a note here on the point in case any question should be asked. As I say, we would like to state at once that our experience is that most Statutory Water Companies are efficient and public spirited. Where a company fails to carry out its duties properly, there is, however, no ready remedy under the present law. It is of course open to the local authority of the area to promote a Bill for the acquisition of the undertaking but local authorities, particularly the smaller, hesitate to incur the expense of a Bill. In those circumstances the Select Committee may possibly think it well to consider whether there should be power to make an order requiring Statutory Water Companies to carry out necessary works if they have failed to do so, and if it is clear after inquiry that they might reasonably be required to carry out the works, further that if the company fail to comply with the order, the Minister should be empowered to appoint some person to carry out the works at the cost of the company or to make a further order enabling a public authority to

carry out the works and to recover the costs. In addition, the Select Committee may wish to consider whether there should not be power by Special Order, which of course would require an affirmative Resolution of both Houses, to transfer the undertaking to a local authority or other water undertaker, if it should be clear that action of that kind is necessary to ensure adequate supplies.

150. You are advocating very comprehensive powers in cases of default?—For consideration. A reference might also be made to the fact that many proposals come before Parliament from time to time authorising the acquisition of undertakings, whether by a local authority or by a water company. The usual reason is the improvement of supplies. Sometimes compulsory powers of acquisition are sought, but more often the acquisition is by agreement. It might be worth while considering whether some simpler machinery might be made available for acquiring undertakings, and whether power might not be given to the Minister by Special Order—again subject to confirmation by Parliament—to authorise the acquisition of undertakings. In this and other cases where terms of acquisition or compensation arise, provision could be made for settlement, failing agreement, by an independent person or body, not by the Minister unless, that is, both parties desire that it should be settled by him or by some one appointed on his behalf.

Chairman.] Is there any other question that any member of the Committee would like to put? Will the Committee permit me on their behalf to thank Mr. Gibbon for the way in which he has answered our numerous questions and for the way in which he has given his evidence?

Witness.] I am obliged. I need hardly say we are entirely at the disposal of the Committee, and any help we can give will be readily rendered.

Chairman.] Thank you. We appreciate that.

(The Witnesses are directed to withdraw.)

Ordered: That this Committee be adjourned to Thursday next, 18th July, at 11 o'clock.)

DIE JOVIS, 18^o JULII, 1935.

Members present:

Marquess of Aberdeen and Temair.
Lord Sanderson.
Lord Milne.
Lord Eltisley.

Sir George Courthope.
Major Mills.
Sir John Pybus.
Sir Arthur Michael Samuel.

The LORD ELTISLEY in the Chair.

Mr. WILLIAM CASH (accompanied by Sir ALBERT ATKEY and Mr. J. K. SWALES) is called in and examined as follows:—

Chairman.

151. Mr. Cash, you have kindly come before the Committee to give your evidence here this morning. I think the best way will be if you just give us a general statement as to whom you represent particularly?—If your Lordship pleases. Perhaps I might just be allowed to say one or two words with regard to my own special qualifications, and then go to the Report of the Triple Conference, which is in the hands of the Committee. I should like to say that, of course, I have no engineering knowledge. I am a Past President of the Institute of Chartered Accountants, a Past President of the British Waterworks Association, Chairman of the Bournemouth Gas and Water Company, Chairman of the Barnet Water Company, and a Director of the South Essex Water Company; and I have practised in the Committee Rooms in a great number of cases which have come before Parliament, both in the House of Lords and the House of Commons, including a number of cases which have involved ultimately the transfer of water undertakings to local authorities. We also act for various private owners of water undertakings. Then I would just like to say this, to make the position clear, that in this Triple Conference Report and, particularly, in the concluding paragraphs on page 6, there are three Reports referred to which were prepared by the Advisory Committee on Water of the Ministry of Health, and Sir Albert Atkey is here, who was a member of those Committees. One of those Reports deals particularly with the question of compensation water. That is so entirely a matter of engineering evidence that, if the Committee want further information upon that particular matter, I would respectfully ask that that might be dealt with by an Engineer. Mr. Swales is here; he is a Past President of the Institution of Water Engineers

and, if your Lordship pleases, it will be more convenient for him to deal with that matter at a later stage.

Now, may I turn to this document which is in front of you and, in the first instance, say, as your Lordship suggested, a word or two about the constitution of the bodies whose Report this is. Mr. Gibbon, on behalf of the Ministry of Health, referred to that, and I might just say this: The membership of the British Waterworks Association now includes 265 water authorities, numbering some 800 representative and individual members; and an analysis of the membership shows that there are 142 local government authorities in England, and 73 water companies, making a total of 215; in Wales there are 15 local government authorities, and three water companies, making an additional number of 18. Then there are other members from Scotland, from Ireland, and from the British Dominions, which, of course, in one sense, do not count, as your Lordship's Committee is dealing with the supply of England and Wales. The total capital expenditure is about £275,000,000, including £17,000,000 in respect of the membership abroad; and the total average population supplied by the various authorities is estimated at about 40,000,000 persons. Of the 265 water authorities represented on the Association, as I have already said, 215 are in England and the rest in Scotland. As regards the sources of supply, some 30 authorities are mainly dependent upon rivers; 100 obtain their principal supplies from deep wells and bore-holes; others derive their supply wholly from upland gathering grounds by gravitation, and others partly by gravitation and partly from deep wells, by pumping. So that the Association, I think one may fairly say, is fairly representative of the whole of the water supply of those two countries. Then the other bodies who are

18th Julii, 1935.] Mr. WILLIAM CASH, Sir ALBERT ATKEY and
Mr. J. K. SWALES.

[Continued.]

parties to the Report are the Institution of Water Engineers who, as Mr. Gibbon told you, have about 800 members, and those consist both of gentlemen in private practice and gentlemen who are directing and carrying on the business of their respective undertakings. The Water Companies Association is a separate Association dealing more particularly with water companies' special interests, and there are 58 companies who belong to that body. This Conference was called at the end of 1934, and the representatives of the three bodies are set out. I need not go through those. I was asked to act as Chairman of that particular Committee who have produced this Report, my experience, as I have said, being mainly with financial or administrative matters, as distinguished from engineering matters; but in that respect one has had experience of the allocation of supplies; costs and charges, and, in my own Companies, the question of rural supplies has come up.

Paragraph 5 of the Report, treated as a preliminary consideration, deals with the question of what has been described as a national water grid system, and suggests that that is not analogous to the supply by the electricity grid, reasons being given for that in the supplementary document attached to the end of the Report. This Report really arose in the main from the statements which appeared in the Press and elsewhere while the drought of last summer was accentuated. In paragraph 7 the Conference refers to the question of the economic aspect of the grid, meaning thereby that, in their view, any general system of water grid would be so extensive and so costly that it is not a practical proposition from every point of view, if it is to rest solely on its own basis. As an example of that sort of thing, I might instance what one of my own companies, the South Essex Company—I am not the Chairman of that Company, but I am a Director—has recently done. Under a quite recent Act, they have brought water down into Essex from the River Stour, just on the borders of Suffolk, and that main which was 39 miles in length, and carried about 10,000,000 million to 12,000,000 million gallons a day, cost over half a million of money, working out at about £15,000 a mile, for a supply of 10 million gallons a day. Then the Report goes on to deal with the nationalisation of water, used in the most general terms. This has been advocated in the Press and elsewhere

from time to time, and remembering that there are many undertakers who to-day give bulk supplies I venture to submit that anything in the nature of nationalisation would really resolve itself obviously into a question of a series of Boards or something of that sort; in other words, that one huge controlling body to deal with the national supply of water throughout the Kingdom would hardly be practicable from an administrative point of view. There are, as you have been told by the Ministry, already a number of Boards of various characters which do embrace considerable areas in some cases, the largest of all, of course, being the Metropolitan Water Board; but anything in the nature of nationalisation, this Committee would desire, as they say in paragraph 9, to oppose, mainly on the ground, perhaps I might add, that these matters of water supply are in the view of the industry at least, a matter of local obligation, not necessarily identified with one particular town, but spread over areas which could be administered from a local aspect. With regard to the law on the subject, I think Mr. Gibbon has covered that ground so completely that I need not really say very much about it. Now, as against that, and coming to the question which is dealt with in paragraph 10 of the Report, the problem of rural supplies, the two things really hang together, that is to say, that there is to-day a very considerable amount of what I might describe as co-ordination of supplies, which affects the question of the supply in rural areas. Taking my own companies, for example [Mr. Gibbon said something on this subject] the Barnet Company is a Company which supplies water from Hatfield down almost to Finchley; the Bournemouth Company supplies in Bournemouth itself and outside Bournemouth on the north side as far as Wimborne, and the South Essex Company, of course, supplies a very big area in the south-east. In the case of all those companies I could, if the Committee desired it, give you instances where there are arrangements in force under which the main Company has afforded supplies in rural areas, and where there are supplies from one company to another, where it is more convenient for one company to supply rather than for the company or authority in whose area the water lies. I do not want to burden the Committee with unnecessary details;

18th Julii, 1935.] Mr. WILLIAM CASH, Sir ALBERT ATKEY and
Mr. J. K. SWALES.

[Continued.]

I only tell you in a general sense at the moment that I have particulars here of a great many instances where that is being done; and, of course, there are also statutory obligations on a great number of undertakers to give a supply outside their particular areas. But, speaking quite generally on the question of rural supplies, the real trouble in the great majority of cases is financial trouble, that is to say, that the supply is costly, because of the difficulty of distribution, and because of the low rateable value in the rural areas; but Parliament has also intervened in a great number of cases; Mr. Gibbon gave you several of them. Manchester is a notable case, in which I was concerned, from a financial point of view. Manchester, in connection with their Haweswater scheme, are under obligation to supply districts and places on the line of main. Parliament also put into the South Essex last Bill the obligation to afford supplies, if and when required, to those areas through which the trunk mains passed, and those have been availed of by certain areas; but in a report recently issued to the Essex County Council, the advising engineer, who was an independent engineer, drew attention to the fact that some of these authorities, in spite of the availability of the supplies, had not made use of the rights which they possessed, and he deplored the result. To those authorities to whom we have supplied water, the result has been, I think, satisfactory, both to them and to us. The terms are that the particular authority who is entitled to the supply has to serve a reservation notice under which there is reserved for him a quantity of water fixed by Parliament for that particular area. He then has to pay a contribution based on the capital cost of the trunk main, whether he takes the water or not. He then pays for the actual water supplied to him, at cost price, for the administration and distribution costs attributable to the whole supply. The effect of that, of course, is that at the start when he is taking very little water, the cost is relatively high, but the more water he takes and the nearer he gets to his total reservation quantity, so the price falls. In other words, he becomes, in a sense, a partner in a very big scheme, which he could not possibly afford himself to inaugurate, but only pays the cost price in effect for the water which he reserves, added to the appropriate amount for the water

actually taken, and so far as that has gone at present in South Essex the charge to him is steadily falling. Two of these authorities have now been taking water for a little over a year, the scheme being only comparatively recently completed. I believe that these terms are similar to the terms which apply in the case of Manchester. I could give you again greater detail on that, if the Committee desired to hear further information. Then the Report goes on to say, in paragraph 14, "The satisfaction of those requirements generally necessitates supplies being sought from sources to which those water undertakings cannot be held to have any exclusive claim." That is the principle I have been trying to outline, that where water is taken from one area into another, Parliament has seen in a great many cases that either those particular persons or the persons on the route of a trunk main at least get some advantage. Then perhaps I might read paragraph 15, if you will allow me, my Lord: "The allocation of such sources, the apportionment of the cost thereof, and the reconciliation of all conflicting interests, beside the settlement of disputes during the development and operation of schemes for the utilisation of those sources, would bring forth many problems, and it is doubtful whether all the points could be satisfactorily dealt with without some further measure of control." Now those measures of control which appeared appropriate to this Conference follow under the head of the proposals which are set out on page 4 of this little printed document. It is said there: "Water undertakers should remain autonomous, except for the existing measure of control, and such further control limited to the specific matters hereinafter mentioned." That is the conclusion which the Conference came to, and they go on to point out: "any action which would relieve those undertakers from their direct day-to-day responsibility to consumers, and to any local authorities representing such consumers, would be disastrous." Now in the case of the local authorities where they are the owners, of course the undertaking is carried on by the representatives of the consumers, who are the ratepayers in that particular town, so that they have there as consumers a direct voice through their elected representatives in the management of the particular undertaking.

18^o Julii, 1935.] Mr. WILLIAM CASH, Sir ALBERT ATKEY and
Mr. J. K. SWALES.

[Continued.]

Where the undertaking is in the hands of a company, they have as critics the local authorities in whose area they are supplying, and in effect the local authorities do have considerable control both as regards charges and as regards any proposals put forward by the companies for a further supply and for anything which they want done. Then there is the last remedy: In the event of an unsatisfactory supply, in the hands of a company, it is always possible for a local authority to put forward a proposal for acquisition of the undertaking. Parliament has granted that in many cases, but generally with the underlying principle that while the company is doing its duty, unless there are some overriding circumstances in the particular case, they will not deprive a company of their undertaking; and there have been cases, there was one quite recently, within the last two years, where a Corporation proposed to acquire an undertaking, and the proposals were put before the ratepayers at a meeting under the Borough Funds Act, and the ratepayers refused to sanction the promotion of the Bill, and the undertaking remained in the hands of the Company.

152. That was the Cambridge case?—That was the Cambridge case, my Lord. There have been others like it. Then, as between companies and local authorities, it has sometimes been urged that the relative cost is lower in the hands of the local authorities, because they can borrow money on more easy terms, but I personally venture to suggest that there is very little in that to-day. The Debenture Guaranteed Stocks or Preference Stocks of a water company which has paid a dividend of 5 per cent. for 10 years makes that stock a trustee investment, and a trustee investment in a water company is very highly valued, and stands very high in the market. Then again, it does not follow that the stock of a Water Board for example, is a trustee investment at all under the Trustee Act, because it only becomes available as a trustee investment if the particular undertaking is charging not more than 80 per cent. of the authorised rates of charge.

Sir Arthur Michael Samuel.

153. May I ask a question, before you leave that. I am quite in the dark about this: Does not the stock of a Water

Board if under the control and guarantee of a county or a county council, become a trustee stock?—No, Sir.

154. For instance, the Durham Company?—That is not a trustee stock. The same applies to the Fylde Water Board. They are both most flourishing undertakings; I know them both. They are not trustee investments, because they are not charging less by 20 per cent. than the rates authorised.

155. Not even if they are charged upon the local rates as a guarantee?—No; it is a curious thing. Some people think it ought to be a trustee investment because it has got the guarantee behind it. Mr. Swales says that the Derwent Valley Water Board Stock is a trustee investment.

156. Therefore that qualifies somewhat your all-embracing statement?—Yes, to that extent. I was not aware of the fact in the case of the Derwent Valley Water Board, but I know Durham is not, because as a matter of fact I was consulted on the question of the raising of their capital.

157. Therefore you will perhaps qualify the statement you made earlier?—Mr. Swales asks me to say that in the case of the Derwent Valley Water Board, that is an exceptional case, and it becomes a trustee stock, because it is guaranteed by the local authorities who form the Board; it is a charge on the rates of those authorities.

Major Mills.

158. Do I understand Mr. Cash to say that the Debentures and so on of water companies were trustee stocks?—Yes, provided the particular undertaking has paid a dividend of not less than 5 per cent. on its ordinary stock for a period of 10 years.

159. Under which Act is that?—Under the Trustee Act. I have forgotten the year of the Act, but I can get it for you, if you would care to have it. Then the other factor which affects the consumer is that in the hands of a local authority they have to provide a Sinking Fund, so that supposing they are raising money at 3 per cent., and 1 per cent. Sinking Fund, the effective charge as against the consumer is 4 per cent. Of course, the companies on their Debentures and Guaranteed Stocks can raise money cheaper than that to-day.

18^o Julii, 1935.] Mr. WILLIAM CASH, Sir ALBERT ATKEY and
Mr. J. K. SWALES.

[Continued.]

Sir Arthur Michael Samuel.

160. Before you leave that, are you perfectly certain about it? If the Debentures of a water undertaking have been taken over by a large municipality which leaves the Debentures in issue, the Debenture therefore being guaranteed because the Equity Stocks have been taken over by the municipality, do you mean to tell me that those Debentures which are a first charge upon the property and a liability of the municipality are not trustee stocks?—I think not, but if the identical Debenture Stock is still in existence and is continued in the hands of the taking over authority, that might be a trustee stock.

161. Not "might be"; it would be. We ought to be certain about this, because we may have to deal with the finance of it. I will not press you on the matter any further, but I hope you will consider it, and when your evidence comes to an end, you will perhaps tell us quite definitely whether you are perfectly correct in making so hard-and-fast a statement about the status of a Debenture Stock, not being trustee status, when it is taken over by a municipality?—Of course, it is very rare that the Debentures do remain a charge. There are cases, for example in the case of the Metropolitan Water Board, where there are Debenture Stocks of the old London water companies still outstanding. That is a case in point.

162. I will not mention any names, but I know certainly a municipality which took over all the stock of a water company, and gave the stock-holders municipal corporation stock, and left the Debentures existing. That is not an uncommon thing?—I agree there are cases like that, and I presume in that case, as the existing Debenture was a trustee investment, and is not disturbed, that would remain as a trustee investment.

163. That reduces the validity of your observation about trustee investment?—Except this, that of course while the Debentures remain there is still the question of the guaranteed and the Preference Stocks which are absorbed by the taking over undertaking. But we will get a copy of the Trustee Act, and show it to you.

Chairman.

164. I think we had better pass on to the next point. Perhaps we may deal with that more fully by way of question

and answer later on?—Yes. Then there is one other matter which I do not think was referred to by Mr. Gibbon, and it is this, that in practically all cases a water company on issuing new capital must offer that capital by auction or tender to the highest bidder, which does ensure the money being raised on the best possible terms existing at the time of the issue. Then, as regards the security given to the consumer as against the company, Mr. Gibbon dealt with that. He pointed out that in the case of the company the dividends are limited. There is the question of the Auction Clause, which I have referred to. The reserves are limited, and in very many cases the carry forward of profit is also limited, and when those positions arise, then under the provisions of the 1847 Act or the Acts of these particular companies, any surplus profits must be applied in reduction of the charges. Then the next paragraph, if I may pass to that, my Lord, deals with the suggestion put forward, which is one of the fundamental proposals here, that there should be created a distinct separate specialised water department of the Ministry of Health. In other words, it is recognised to the full that the Ministry of Health are doing very good work to-day, and that if they were to set up this special department, it would be helpful, with such a department constituted in that way, and with such powers and duties as are indicated later on in the proposals. I might instance there a parallel case, I venture to suggest, at the Board of Trade, where they have a separate department dealing with gas matters, and they have a Director of Gas Administration there who deals solely with those matters, and particularly with such questions as the issue of Orders under the recent Acts. Then in paragraph 18 we say: "The powers and responsibilities of such Water Department, in addition to those now exercised by the Ministry of Health, should be limited to the following," and we are very anxious to see this initiation of the Regional Advisory Water Committees which have been already set up, extended to cover practically the whole of the country. That matter has been before the Ministry for a very considerable time. These Committees have been advocated over and over again. You know, my Lord, that there has been this Advisory Committee of which Sir Albert Atkey is a Member,

18^o Julii, 1935.] Mr. WILLIAM CASH, Sir ALBERT ATKEY and
Mr. J. K. SWALES.

[Continued.]

and in December, 1932, a letter was received from the Ministry of Health stating that the Minister had decided, in the circumstances, that it was desirable that the meeting of the Advisory Committee on Water should be postponed for the time being. Then the letter goes on to say this—perhaps I had better read it: “The Minister appreciates the great value of the work which has been done by the Advisory Committee and he is anxious that the Department should not be deprived of the services of the Committee for longer than is necessary. Attention has recently been drawn in Parliament to the pressing need for more co-operation in water supply, and the Minister therefore thinks it desirable that the sittings of the sub-committee of the Committee dealing with the question of Regional Water Committees should now be resumed. The other matters under consideration by the Committee and its sub-committees are not perhaps so urgent, and the Minister feels that their meetings might without inconvenience be postponed for a further period. If, in the meantime, the sub-committee on Regional Water Committees is in a position to present a report, a meeting of the main Committee would be called to consider it.” I could give you other references to the same matter. As far back as 1924 Mr. Gibbon read a paper and opened a discussion on the need for establishing Regional Water Committees. He again read a paper in 1925 on Regional Advisory Water Committees. In 1926 the matter was discussed again, and was dealt with in the second interim report of Sir John Snell’s Committee, set up by the Board of Trade on water power resources. In 1928 another memorandum was issued on the same subject, and the Royal Commission on Local Government in 1929 definitely recommended Regional Advisory Committees throughout the country generally. Without wearying the Committee I am only anxious to say that this matter has been on the tapis for such a long time that we do really hope that something definite may be done in this direction. Then going on, paragraph 18 is: “The powers and responsibilities of such Water Department, in addition to those now exercised by the Ministry of Health, should be limited to the following:—(a) The initiation of Regional Advisory Water Committees covering the whole of the country, such Committees to have limited statutory powers enabling and requiring them (1) to collect reliable

information, (2) to initiate for consideration the preparation of schemes for the supply of water immediately required or for future requirements so as to make the best use of the available water resources, (3) to incur expense in connection with their authorised activities, and (4) (subject to the approval of the Minister) to levy precepts in respect thereof on constituent members.” Then “(b) The further collection, verification, and publication of fundamental statistics and data in respect of water undertakings on a comparable basis.” As Mr. Gibbon has explained to you, the Ministry are doing a good deal in that direction, and we are anxious that that should continue. That is why we use the phrase “The further collection, verification, and publication of fundamental statistics and data.” Then in sub-paragraph (c): “The examination of water provisions of Bills in Parliament.” As the Committee know, on every Bill introduced into Parliament the Ministry do make a report to-day. We think it would be very useful if they were to put into that report the appropriate Regional Advisory Water Committee’s findings on any matters that appear there so that Parliament might be advised not only of the view of the Ministry itself, but of the appropriate Regional Advisory Water Committee where the scheme is being carried out or was proposed to be carried out, and also any matters, (as a definite sort of allocation of the duties of the Ministry,) which were regarded as of national interest, that is to say, that where a scheme is proposed for a particular area, the fact should not be lost sight of that there might be other requirements in the immediate neighbourhood or affected by the proposals of the particular scheme. Then that they should also endeavour, in connection with the development of the new sources of supply, to initiate proposals with a view to the promotion of Provisional Orders by the interests concerned; in other words, that the Ministry might advise water undertakers that the time has come when they ought to do this, that or the other, and to suggest to them that a scheme on certain lines might be appropriate. Then it would be useful if they had power to determine the form of accounts and fundamental statistics to be kept by such statutory Water Boards. Going back to sub-paragraph (d), their proposals might be for the creation and constitution of statutory Water Boards where they

18^o Julii, 1935.] Mr. WILLIAM CASH, Sir ALBERT ATKEY and
Mr. J. K. SWALES.

[Continued.]

thought it was appropriate, including the delivery of water in bulk, and if those statutory Water Boards were to give them statistical information on lines which they might require, that would be a useful matter. Then under (f) there are questions which arise in connection with statutory Water Boards, and in this paragraph the Conference are dealing with statutory Water Boards constituted for the supply of water in bulk, not in detail. Questions do arise between the various bodies who are entitled to those supplies in bulk as to the allocation of the water which is dealt with in sub-head (i), and particularly having in mind that such water shall not be wasted. Under sub-head (ii) the question as to the appropriate time for additional works, and under (iii) a question which does arise often as to the price as between one or other of the constituent members of those bodies; the appropriation of the annual expenditure and the price of water for the bulk supplies. It would be useful there if the Ministry were prepared to settle those questions as between the constituent members of those Boards. Then that the Ministry should be authorised where other matters are submitted to them, either between a statutory Water Board or any other water undertaking, by agreement to act as arbitrators if they were requested to do so; as, for example, between a bulk supply given, let us say, by the Metropolitan Water Board and of the outside bodies in London. Take Croydon, who take a supply in bulk and where there have been questions of price as between those two. If that matter were submitted by mutual agreement, it would be useful that the Ministry should have power to deal with it. Then under (h): “The consideration of representations of any constituent member or members of a Statutory Water Board with a view to the promotion of a Provisional Order by the interested parties for varying the provisions of the Private Acts under which that Statutory Water Board operates, and which, by altered conditions or experience, are alleged to operate harshly and unjustly on any constituent member or members thereof.” In other words, that having come to a determination in their minds as to what was an appropriate remedy and having considered these representations, they should prepare a statement with a view to the promotion of Provisional Orders by the interested parties for Private Act

or Order to make the variation. Then under (i): “The nomination of an accredited representative to each Regional Advisory Water Committee.” That the Ministry are doing; they are now appointing, as Mr. Gibbon told you, a liaison officer, who is the same gentleman who is in fact their representative on certain of the Regional Committees to-day. If they were to do that in every case they would certainly co-ordinate all the information, and I am sure that that would have their approval. Then under (j): “The initiation or examination of proposals for the temporary utilisation of temporary excess supplies controlled by water undertakers.” In other words, that they might put what they thought was the appropriate line of action before persons who required temporary excess supplies so that any water resources available might be made available in the most useful manner.

Now just summing up those proposals, my Lord, I think it would not be unreasonable if I put it in this way. That while the water industry, as represented by these three bodies, do not favour anything which I might, without intending any offence, say creates bureaucratic control, they do desire co-ordination of effort to be fostered, and they do value the advice and suggestions of the Ministry, which are admittedly helpful. But going back again to the question of the Regional Committees, not that those bodies should have any power to take any definite action or that their views should necessarily prevail, because I think I might say that right through the water industry our view is that the authority and approval of Parliament should remain the ultimate authority in all these questions, and particularly with regard to major proposals. Speaking from my own experience of Parliamentary Committees, I am quite confident of this, that it is a Tribunal which we all admire and all value. Justice is done by those Committees, I am quite confident that they are entirely impartial, and anything which tended, shall I say, to weaken the authority of Parliament and leave these matters to be dealt with entirely by a Department of Government would not meet with our general approval. I think I may say that on behalf of the Industry as a whole. Well, my Lord, that brings me to the end of that section of the document. Now there follows the concluding

18^o Julii, 1935.] Mr. WILLIAM CASH, Sir ALBERT ATKEY and
Mr. J. K. SWALES. [Continued.]

matters, which are these three reports. The first one in order of date is the report of 1925, which deals with underground water, and there again I would like to say that that is to a considerable extent a question of engineering experience and practice. The second one deals with the question of legislation, which is more general, although it involves not only administration but other like matters, such as charges and methods of carrying on the business, rights of consumers, rights of the water undertakers, and so on. The third one is the question of compensation water, which is the 1930 report. That is entirely a technical matter with which I would not attempt to deal. If the Committee are proposing to go into these matters in detail, I would respectfully suggest that Mr. Swales or some representative of the engineering profession should deal with them. I do not know what is really in your Lordship's and the Committee's minds—whether you would desire me to go through these three documents in detail or whether you would like me to summarise them as far as I can. I am entirely in your Lordship's hands. I understand the documents are before your Lordship's Committee; they have been put in, I think, by the Ministry.

Chairman.

165. Yes. I think, at any rate, in the first instance we might have a summary of them?—Of course, Mr. Gibbon dealt with them to some extent.

166. Perhaps you would just direct our attention to any special points that you want to emphasise?—Yes. Mr. Gibbon says in paragraph 51 of his statement, which is before your Lordship: "The Committee have from time to time considered measures required for the better conservation and organisation of water resources and supplies, and have issued three reports on the subject." Those are the three reports to which I am now referring. "In their report issued in 1925 on underground water the Committee reviewed the existing law and practice in relation to the abstraction of underground water by statutory bodies and by private owners. They came to the conclusion that measures were necessary for the better conservation of underground water resources, and they made recommendations to that end." That deals with the Underground Water Report; that is the 1925 report. That

report begins with a summary and in paragraph 2 says: "The present position with regard to underground water is unsatisfactory. . . . It is essential that there should be further protection of public supplies." Then in paragraph 3: "As is shown in the report, it is important that measures be taken to protect the availability of adequate supplies of good underground water. Sometimes the protection is required against other water users, and occasionally, as in the instances given in the report, to prevent sheer waste; but the principal interest affected is that of mining. The finding of a fair remedy for the present difficulty is not insuperable, the more so that it is of advantage to mining to prevent the incursion of underground water and, at the same time, any measure which reduces the cost of a pure water supply will benefit the industry." Then the proposals of the Committee: "For the safeguarding of supplies, that power be given to the Minister of Health to schedule areas where the demands on underground water are such that special measures of protection should be adopted" (this is really, perhaps, the most important matter in the whole of the Report), "and that, in any such area, no fresh wells (except for domestic or agricultural purposes) or mines be sunk until a permit in that behalf has been obtained, the intention being, as regards mines, that the Minister shall act in consultation with the Minister of Mines."

What happens there, as I think Mr. Gibbon has very fully explained to your Lordships, is that, before a water undertaker can sink a well or do anything of that sort, he has to get authority, and he may not sink wells except where he has such authority. There is nothing to prevent any private owner coming and planting a well down next door to an authorised undertaker, and possibly depriving him of the supply which he has acquired for the use of the consumers in that particular area. The remedy suggested here is a system of licences. Where in any particular area there is a risk of that sort of thing being done (without going into the details, which are set out more fully in the Report), nobody would be allowed to sink a well which would have a possible adverse effect upon existing wells. One has had within one's own experience cases (I will not mention names) where private owners have, I will not say threatened, but proposed to come and sink wells in close

18^o Julii, 1935.] Mr. WILLIAM CASH, Sir ALBERT ATKEY and
Mr. J. K. SWALES. [Continued.]

proximity to a water undertaker's well, and it was felt that there was a real risk in this being done, but one could not stop them and we were advised that there was no power to stop them.

Sir Arthur Michael Samuel.

167. What do you call "proximity"?—It is difficult to say. Parliament has said, putting the reverse picture, where a water undertaker has sunk a well, that they will protect anybody within an area of two miles. That is speaking quite generally. There have been cases where Parliament has given protection by way of compensation to anybody injuriously affected beyond two miles.

168. How do you define the word "proximity" for the purpose of this evidence; two miles, or two hundred yards, or twenty yards?—I cannot define it, for this reason, that in certain areas it would depend on the nature of the underground strata. It might be dangerous within three miles. Of course, it would be more dangerous if it was within one mile or half a mile. There might be no risk in certain stratas; there might be grave risks in others. I purposely used a general word, "proximity," for that reason.

Chairman.

169. Are there any other special points?—No; of course these are enlarged on and in greater detail. The other matter here is the prevention of pollution: "That Statutory Water Undertakers be given powers, already possessed by some, for protecting their supplies from pollution by the acquisition of land"; that applies more particularly, I imagine, to the question of upland waters, where the waters are taken from gathering grounds, or possibly where it is a chalk supply, where there may be swallow holes, or something of that kind, which might be affected.

Sir Arthur Michael Samuel.

170. Does that mean protection against floods causing overflows of cesspools?—The next words are "by restrictions on its use or by requiring particular measures of drainage."

171. If you say it does, that is quite enough for me?—It does in a measure, but I heard your questions the other day to the Ministry.

172. I do not know if I should be in order in pursuing it. I do not want to

delay the Committee. I do not want to press it?—If you will refer to page 12 of this Report: "Contamination of underground water; inadequacy of the Common Law" (this is the Report of the Advisory Committee) you will see what they set out there: "If a landowner put filth or other poisonous matter on his land, he must take care," and so on. I think that really deals more fully than I could expect to deal with the point which is in your mind.

Chairman.

173. I understand there are two other gentlemen supporting you in the evidence you are giving to-day?—Yes.

174. I was going to suggest that, if you really covered the main ground, we might hear the other two witnesses?—Yes, if you please. This is a question on which an engineer would speak with much more authority than I could, because engineers are accustomed to deal with these matters every day. I will leave that particular report, if I may, and go to the next one. The next one deals with legislation and proposes that the Ministry shall be given authority to make Special Orders. I am rather inventing the words "Special Orders," because those particular words are not used here, but the Orders would be analogous, as I understand it, to the Special Orders now made by the Board of Trade under the Gas Act, 1920, and subsequent Acts, where the Board of Trade may make a Special Order affecting, in certain particulars and with certain limits, the conduct or extension of powers of gas undertakings. Those Orders do not require confirmation in the same way as Provisional Orders under the Gas and Water Works Facilities Act, 1870 (this is a more modern practice), but lie on the Tables of both Houses and are covered by Resolution of the respective Houses, I believe; and your Lordship's House have arrangements under which objectors can come and ask for a special hearing on any Order of that character if your Lordships consider it is a proper matter to be further investigated. I think the House of Commons have somewhat similar arrangements. At all events, the Orders lie on the Table; they do not require an Act of Parliament to confirm them. Mr. Gibbon dealt with that in paragraph 65; I need not do more than just refer your Lordship to that. On the next question of services and supply pipes, Mr. Gibbon

18^o Julii, 1935.] Mr. WILLIAM CASH, Sir ALBERT ATKEY and Mr. J. K. SWALES. [Continued.]

referred to that in his paragraph 66. This is a matter which is of considerable importance, and is a matter which has been urgently before the water undertakers. As Mr. Gibbon explained the other day, at present, in the case of water supply, the consumer has to provide the communication pipe from the main to the house.

175. The service pipe do you mean?—The service pipe. It is suggested that that duty should be transferred to the water undertaker. There are really two questions: First, the supply of the pipe, and, secondly, the maintenance of the pipe. Under a very recent Act of Parliament, the Metropolitan Water Board have taken over the whole of that maintenance, and I think in their case they charge the consumer still for the pipe, but they do the work. There are cases where certain Corporations or undertakers do both; they provide the pipe and maintain it. Of course, the cost of maintenance is a substantial matter. I understand that the mere execution of that duty by the Metropolitan Water Board is at a cost of about £80,000 a year. I had an estimate for one of my own Companies where the cost was estimated at £5,000 a year. Of course, all these additional charges put on to the undertaker may mean that he has to reimburse himself from another source, namely, increasing his charges for water, if he has to do all these works; but, apart from that aspect of the matter I think the water industry would regard it as proper and appropriate that they should do this work, so far as maintenance is concerned, at least. One has had experience of this, and it does mean with certain consumers a real hardship if, through no fault of their own, a supply pipe from the main to the house is broken, say, by heavy traffic, or something of that sort. With a small householder it is a hardship to have to find a substantial sum of money to put that matter in order, a thing which is really beyond his control. Involved in this, as has been pointed out, is the right of the consumer to-day to break up the street or path to get at the undertaker's main. That is highly undesirable, I venture to suggest, or the industry ventures to suggest, and should be transferred to the undertaker; not that private persons should have the right to go and break up paths and streets. Then, if your Lordship and the Committee is content to deal with these matters in general,

Mr. Gibbon has been good enough, in his statement, to make a summary of what these proposals amount to, and his second summary, or appendix "B," which is attached to his Report, sums up all those matters which are described as common form clauses to-day. I think you will find in every one of his summaries on appendix "B" he adds the words "Common form." It is suggested that it would be very useful to have those all put into a main Statute. The Statute has not been revised now for very many years, the Statute being of 1847, and the subsequent Statute of 1863.

In his Appendix A he also gives you a summary of the principal matters. Generally the suggestions put forward by this Committee are all summed up on the first pages, pages 3 and 4, to show the proposals of the Committee on the main matters without going through them in detail. But there is one very important matter which I should like to refer to, and that is the question of extra charges. It has been said over and over again that it is very desirable, particularly from the sanitary point of view, that special charges should disappear: I mean by that, charges for baths and water closets. There are Companies—my own Bournemouth Company, for instance—who make no extra charges at all, and never have; but, of course, that must be reflected in the rate of charge based on the rateable value. There is a certain sum of money to be raised. It was suggested, for example, to the South Essex Company, last time they were in Parliament, that they should do away with the charges for baths. The effect of that would be to deprive them of a revenue of something like £40,000 a year, and, of course, they could not possibly afford to do that unless they were given an opportunity of revising their other charges, which would have to go up correspondingly. There is a paragraph in this Report, paragraph 125, on page 39, three-quarters of the way down: "The Minister of Health should be empowered, on the application of the undertakers, to issue an Order putting into force within the limits of supply such of the provisions of the new Clauses Act as are required, repealing conflicting provisions in the undertakers' existing Acts, and at the same time providing for any consequential increase, reduction, alteration or addition which appears to him to be necessary in the charges which the undertakers are

18^o Julii, 1935.] Mr. WILLIAM CASH, Sir ALBERT ATKEY and Mr. J. K. SWALES. [Continued.]

authorised to levy." What is intended there is to say, and it is admitted in another part of the Report, and I think Mr. Gibbon also referred to it, that it would be essential, if it were to be made the general practice that all these additional charges should be done away with, that some adjustment of the remaining charges should be permissible, and that there should be the necessary procedure for doing it. Of course, there are two sides to this question, in this sense, that, while it may be very desirable that all these persons should have ample water without any additional charge for such a matter as a bath and so on, there are still in this country a great number of houses which have not got baths, and, if the general water rate is to go up, those persons will be contributing to the cost which has hitherto been met by the other consumers who have in fact got baths. There the proportions would vary enormously according to the particular town, district or area. With regard to the second proposition, to do away with charges for additional water closets, speaking quite broadly, to-day the majority of undertakers do not now charge for the first water closet. A great many of them charge for the second, and it does seem, speaking perhaps personally, anomalous that a second charge of that sort should be made, for the reason that the second water closet does not really induce a much bigger use of water; there is the additional risk of waste. But as regards the second bath, I venture to suggest that that is rather different, because, if there are two baths in a house, there is certainly an inducement to use more water; more members of the family can use the baths simultaneously and so forth. So I think there is a distinction between a first and a second bath.

I will not take up your Lordships' time if the Committee will be kind enough to look at that summary which appears in the second Report on Legislation, because that really sums up the position, and I think Mr. Gibbon has given you quite a fair summary of the general position also in his statement. There is a great mass of detail here on which one could go on talking for a long time and probably only trouble the Committee unnecessarily, but if there are any particular points on which we can help you, either through the engineers or through the administrators, at a later stage, both these bodies would be anxious, when we have had an opportunity of considering

other evidence which may be submitted to your Lordships, to deal with any controversial matters which might be raised of which we are at the moment entirely unaware.

176. Thank you, Mr. Cash. I understand that your colleagues, Sir Albert Atkey and Mr. Swales, are here?—Yes, Sir Albert is here, and he has more intimate knowledge than I have, perhaps, as to the compilation of these Reports, because he has been a member of the Advisory Committee all the way through. Mr. Swales is a Past-President of the Institution of Water Engineers, and they obviously have points as engineers which are, perhaps, wider than the matters that I have covered.

177. I take it they do not want to be heard as witnesses, but merely to support you in regard to any points which may be raised?—Mr. Swales will correct me if I am wrong, but I think they would like to be heard at some stage in your Lordships' proceedings, and particularly, of course, when they have heard the evidence which may be submitted by other bodies. (Mr. Swales.) That is so. I think the engineers representing the British Waterworks Association and certainly those of the Institution of Water Engineers would like to give you evidence on certain specific points at a later stage. (Sir Albert Atkey.) I should like to make a statement on behalf of the Advisory Committee.

178. May we hear you then, Sir Albert?—If you please.

179. May we take it that concludes your evidence?—(Mr. Cash.) Yes. Something has been said in these proceedings already with regard to private owners carrying on water undertakings. I have had a certain amount of experience of that in a sense. That would be more by way of testimony to the good work which a good many people have done in the way of providing water in areas where there was a real call for it, and have put their hands in their pockets and done that class of work. Some of them are acting under Orders and some are not. I might instance, for example, the Marquess of Salisbury, who provided the whole water supply for the town of Hatfield. It has now been taken over by the Barnet Company, because the thing was getting rather big. Lord Cranborne was extraordinarily helpful in the transfer. Lord Alverstone provided a water supply in the Isle of Wight. The Marquess of Exeter provides, on

18^o Julii, 1935.] Mr. WILLIAM CASH, Sir ALBERT ATKEY and
Mr. J. K. SWALES.

[Continued.]

most generous terms, the supply of water to Stamford. I am taking now cases of gentlemen who are all clients of ours, and I know from experience the good work which they have done, sometimes acting under Provisional Orders granted by Parliament, sometimes acting entirely on their own initiative. Finally, might I say that what our Committee feel is that these matters have been considered now by various bodies, Royal Commissions, Departmental Committees, Inquiries and so forth, and we do venture respectfully to suggest that the time has now come for some action to be taken on these matters. I might refer you to the Committee on Lord Desborough's Bill, which was considered by a Committee of both Houses as long back as 1910, I think it was, when there were recommendations then as to Regional Committees and so forth and so on and joint action and co-ordination. Although, no doubt, there are reasons why action has not been taken, we do venture respectfully to suggest that the time has come for action, without labouring the point.

Chairman.] I am in a little difficulty. I am not quite clear how long Sir Albert Atkey and Mr. Swales are likely to be. If we can clean up the points that you wish to put before us to-day between now, and, say, a quarter past 1, we will do so. If, on the other hand, Sir Albert and Mr. Swales wish to make a lengthy statement to us, I think it would be better for us to postpone hearing them and just to proceed now with our questions to you, Mr. Cash.

Sir John Pybus.

180. Did I understand Mr. Cash to say, on behalf of his colleagues, that they would like to give evidence at a later stage, when other matters possibly have been brought to the notice of the Committee? In that event, would it meet the situation, my Lord Chairman, if the evidence were given at a later stage in our proceedings?—If I may venture respectfully to make a suggestion, Sir Albert Atkey, of course, is in rather a different position from Mr. Swales. Sir Albert has prepared a Memorandum which I understand is in your Lordship's hands, and it is reduced to writing, so I imagine his evidence would be comparatively short. He might wish to elaborate a particular paragraph in it. Then perhaps your Lordship would hear Mr. Swales.

Chairman.] The Committee are anxious to complete hearing you this morning.

Sir George Courthope.] Surely we must ask questions of Mr. Cash. Is it not better to see how long that will take and then see whether we have time to proceed with the other?

Chairman.] Yes.

Major Mills.

181. Mr. Cash spoke of co-operation between Water Companies. I would just like to ask him this: Are there any statutory conditions which make difficulties or increase expense in such co-operation that you would like to see removed or simplified? If they are set out in any of these Reports, please give me the reference?—There is only one that occurs to me, and that is this: There are restrictions upon certain Companies against giving a supply in bulk; they are not permitted to give a supply in bulk. That has been met in some measure by this last Act of the Government, Lord Amulree's Act, which was passed last Session, 1934, which enables an undertaker now to go and get authority to supply in bulk; but, speaking broadly, I could give you numbers of instances—I do not want to take up time—where an outlying district on the edge of a particular water authority's area is nearer to the neighbouring Company, and I have case after case in my own Companies where we have said, "All right, you can supply it by all means; we will not raise any objection, and we will give you every facility to get your supply mains laid in the roads. It would mean a long length of main to us; it would mean a short length of main to you." The amount of revenue, if it is a rural area, is very small. I had a case only in the last week or two where an area North of Hatfield is close to Welwyn Garden City, who have their own supply. They said, "Have you any objection to our coming here and supplying in your area?" We said, "No, not the slightest; do it by all means." I could give you case after case of that kind where we have arranged to do that sort of thing. I have another case at the present moment between Poole and Bournemouth. We have said to Poole Corporation, "You go and supply these people; they want the water; it would be a very costly business for us to go and lay a main." That sort of thing is going on continually.

18^o Julii, 1935.] Mr. WILLIAM CASH, Sir ALBERT ATKEY and
Mr. J. K. SWALES.

[Continued.]

182. I had a particular case in mind last summer, where one local Company professed to be willing to supply a certain village in another Company's area, but in fact nothing ever happened or was done, and I did not know whether it should have been possible if both sides had been willing for it to take place?—In the great majority of cases I think a way can be found. There is the technical question as to laying mains outside your own area where you want to go just over the border. That was covered by Mr. Gibbon's suggestion, and one of the suggestions here, that the Ministry might be empowered to grant what I will call a fringe area Order, in the same way as is done in electricity, giving you power to go outside your own area for a specific purpose. That might be helpful.

Sir George Courthope.

183. The Water Bodies which were represented at the Joint Conference of which you were Chairman unite in thinking that legislation is urgent and overdue?—If you please.

184. In your opinion, and theirs, is the Ministry already in possession of all the essential information to enable that legislation to be drawn?—Yes, I think so, because it is really covered by the three Reports to which we have referred.

185. Then I gather that in your view no further inquiry or investigation is necessary to facilitate the presentation to Parliament of such legislation?—No. What we should like, as we indicate in the very last paragraph of this Report on page 6, is that "it would be helpful if the Bills dealing with the above could be prepared and circulated to all parties affected for consideration, so that suggested amendments or modifications might be possible." That is more on procedure. As regards matter, I venture to suggest that the whole of the necessary information to proceed to take action at once is available.

Lord Sanderson.

186. I am a little surprised by Mr. Cash's answer to Sir George Courthope on one point, with regard to the information which the Ministry has. That pamphlet on the underground water supplies is now ten years old as a Report. Is not there anything later than that, and, if not, have not any changes taken place of which the Ministry ought to have information?—I rather thought that Sir George's questions were directed to

information dealt with in those Reports. I will at once say, of course, that the Ministry are to-day engaged in an investigation which they call the Inland Water Survey, but that is more dealing with particular resources or the situation of the country generally; but I do not think, with respect, that that is a matter which ought to delay or need delay procedure on the lines of these three Reports. They are rather two distinct matters, if I may suggest it.

187. Another question about Companies. Does not Mr. Cash think that there are a great many too many water undertakings in the country and would it not be possible to bring about any scheme of amalgamation which might simplify things? I know that enters on a very big question, but I should rather like to hear Mr. Cash's view upon it?—It does open a biggish question, because while one could find cases, no doubt, where amalgamation or joint working or that kind of thing might be desirable, I personally feel that it is very important to keep the local interest, and also that amalgamations may go too far in the sense that you get an undertaking which is unwieldy or is too great to administer conveniently in the best interests of those concerned, namely, the consumers.

188. Is there any movement going on amongst the undertakers in the direction of amalgamation?—No, I do not think so. Of course, there may be cases in the rural areas where there are very small undertakings indeed, and, of course, there have been cases—I instanced the case of Lord Salisbury's undertaking at Hatfield—where the thing was getting rather big for a private undertaker and where it was taken over by a Company; and the same sort of thing may apply in other areas where there are quite small undertakers and where it is an advantage to have the backing of the larger resources, as regards money and water, of a larger undertaking. I should not like to say that no amalgamations ought to take place, but except in those smaller undertakings I do not think there is very much in it.

189. With regard to nationalisation I understood you to say you were rather against the idea of a National Board on the ground that it would involve great legislative difficulty, did you say?—Administrative difficulty.

190. I understand that, but, of course, I suppose that could be met to some

18th Julii, 1935.] Mr. WILLIAM CASH, Sir ALBERT ATKEY and
Mr. J. K. SWALES.

[Continued.]

extent by a big measure of decentralisation. You could have a National Board set up with a number of Regional Boards as well under it, could you not?—I agree, my Lord; but it seems to me, with great respect, that you first proceed by creating your National Board for centralisation, and then immediately proceed, or shortly have to proceed, to create a series of separate Boards underneath them; in other words, in a sense, perhaps, undoing what you have just done. I see no advantage in putting the whole thing into the hands of a National Board, and then proceeding to decentralise immediately thereafter, as your Lordship has said.

191. That is only a matter of procedure?—One has seen examples of that sort of thing, for instance, in the case of the railways, where you brought together the Scottish and English Railways, and now find, as a matter of administrative detail, that you require to set up a local Committee to deal with the Scottish end of it.

Marquess of Aberdeen and Temair.

192. I gather that you are in favour of giving the Ministry more powers than they have at the moment?—Yes.

193. In order to be able to bring about the settlement of misunderstandings between adjacent undertakings?—Yes.

194. Do you consider that they have no powers to do that now?—They can do a good deal, and, in fact, do a good deal now, but I should like to invest them with definite powers, within certain limitations, as I have tried to indicate.

195. You mean compulsory powers?—Only compulsory to the extent that is set out here. This Report has tried to define them rather definitely. In other words, not that the Ministry should attempt to control, in a sense, the actual operations of the water undertakers, but that they might do more in the way of advice both to the undertakers and to Parliament.

196. You mentioned Croydon in your evidence?—Yes.

197. Is that an example of what you are driving at, namely, that if the Ministry had had more powers Croydon would not have needed to go to Parliament and probably could have made an arrangement with the Metropolitan Water Board? Is that your point?—I do not think the Ministry's powers, even as contemplated here, would extend, for example, to have prevented Croydon from promoting their Bill of 1935; and, of

course, the Ministry did report on the Bill of 1935. What I think there is that it is right—as it is to-day, in the sense that Parliament has the last word on a case of that magnitude which was promoted by private Bill.

198. I gather from what you have said that, if the Ministry had more powers, there would not be so much need to trouble Parliament with local Water Legislation?—Yes, in regard to the smaller matters, but I think both Mr. Gibbon and ourselves feel that on cases of a major character, as, for example, in Croydon, Parliament are the proper people to decide that.

199. I suppose you will agree that it would have been very much better if Croydon and the Metropolitan Water Board had come together and made an arrangement with themselves and got an amalgamation, or, at any rate, an arrangement, which would have saved Croydon coming to Parliament?—Yes; of course, Croydon had alternative proposals before them; and Croydon to-day, as your Lordship knows, have a supply from the Metropolitan Water Board, or two supplies, going back to the Metropolis Water Act of 1902; I remember that, and I was engaged in that. That was followed by an Arbitration in 1904. Under that Act, Croydon had the right to buy back from the newly-formed Board the Lambeth undertaking, which included a supply of water to that particular part of Croydon. Then, of course, Croydon is surrounded in a sense by other undertakers, and they have their own supplies, and supplies from the Metropolitan Water Board, and are now seeking, of course, for additional supplies from one source or another. I do not think I am competent to judge the position as between Croydon and the Metropolitan Water Board to-day.

200. That was not the sort of thing, then, for which you were thinking of giving the Ministry more powers?—No, except in an advisory sense; that is to say, they might be in a position to state their views on that matter now, and, I believe, did state them.

201. They have the advisory powers now?—Yes, they do report under the Orders of your Lordships' House on every Bill.

202. In what sense do you want to enlarge the Ministry's powers?—As set out here, that they might initiate suggestions

18th Julii, 1935.] Mr. WILLIAM CASH, Sir ALBERT ATKEY and
Mr. J. K. SWALES.

[Continued.]

203. They can do that now?—Not quite. For example, as to the time having arrived for an additional supply, or that the particular undertakers should look ahead or should go in a certain direction.

204. Perhaps you are thinking more of companies than of municipalities?—No, I am not, my Lord.

205. At the same time, although you want more powers for the Ministry, you do not want bureaucratic control?—That is it.

206. Which might very easily arise from granting more powers to the Ministry of Health?—If your Lordship pleases.

207. So you have to draw a line between the two?—That is exactly it.

208. What about the Ministry's powers of preventing undertakings from poaching on each other's sources of supply?—That is such a wide question. Only, if the Ministry have once got into their possession complete information with regard to the underground water resources of the country, they would be in a very good position to say what was likely to be required by a particular area when a proposal to go to that area was made by some particular undertaking. May I make that clear in this sort of way: I do not know that the example is a very good one: Manchester go to Haweswater. Is it right that water from Haweswater should be taken all the way from the north right down to Manchester? One question might be: What are the requirements of the areas immediately adjoining Haweswater? That is a matter for consideration before it is decided that it is right and proper that the water from Haweswater should be taken to Manchester. I do not know that that is a very good illustration, but it is the sort of thing one has in mind.

209. I was not quite clear whether you were in favour of all undertakings supplying and maintaining communication pipes?—Yes, maintaining them.

210. For all?—Yes.

211. At their own cost?—Yes.

212. You want to abolish special charges, I understand?—I do not say that. I am afraid I am putting it too high when I say that I want to abolish special charges. I think the tendency of Parliament and public opinion is that those special charges would be better done away with because of the importance of giving an adequate water supply for sanitary and domestic purposes, but if

they are to be done away with I am not quite sure that the charge for the second bath should be done away with. As to the second water closet, I personally should say "Yes, in time," because I do not think that involves very much in additional water; but always with the reservation that, if that is to be done, then there must be an adjustment of the charges. I believe some bodies (and this really is more important perhaps from the point of view of the municipally-owned undertakings) are not altogether in favour of this. You may hear of that.

213. You would not be in favour, surely, of doing away with garden charges, for instance?—No.

214. Or for water for motor washing?—No. I am obliged to your Lordship for pointing that out. I was only dealing with the charge for baths and water-closets. Extra charges, for example, for washing motor cars, are non-domestic, using the term in a general sense.

215. Would it be correct to say that the South-East Essex Water Company used to have special charges, and they somewhat decreased them?—They have special charges to-day.

216. They used to be rather severe ones?—No, I do not think I should regard them as severe.

217. I remember having to deal with some of them, and they seemed to me to be extremely severe?—I am sorry to hear your Lordship say that.

218. We did not like you at all at that time?—I hope that dislike will not be permanent.

219. I hope this Committee may help the South East Essex Water Company to be even more moderate in the future than they have been in the past?—On that basis, applying the test (I could give you figures for this only it might take up time) of the ultimate price realised for the whole of the water supply, the South Essex Water Company compare quite favourably with others, and I am sure your Lordship will not forget the fact that in South Essex you have a very large number of very small consumers, and they use a very substantial amount of water. For example, we have, I think it is, over 20,000 consumers on the Dagenham Estate of the London County Council alone, which are all, of course, relatively low rated. Speaking from memory, I think the average charge per house in South Essex is only 35s. for everything.

18^o Julii, 1935.] Mr. WILLIAM CASH, Sir ALBERT ATKEY and Mr. J. K. SWALES. [Continued.]

Lord Milne.

220. On page 6 of your Report you refer to the Second Report of the Advisory Committee. May I take it that your Committee are in favour of the recommendations here?—If you please.

221. Entirely.—May I use this word: "substantially," except on possibly some minor matters.

222. You do not say so in your Report? No.

223. In answer to Sir George Courthope you said that we had at our disposal all the necessary information to form an opinion, but I understand that when Sir Albert Atkey will give his evidence he will say that the Advisory Committee did not obtain the views of other interests before making the reports, and left that to the Ministry. Am I right in assuming that, with regard to the compensation for water, there is another side to the question?—I think Mr. Swales would tell you, certainly.

224. I only ask: There is evidence in opposition to this point of view?—I think it is quite probable there might be.

Lord Milne.] That is all I want, thank you.

Sir Arthur Michael Samuel.

225. The questions which have been put by Lord Milne and by my honourable friend opposite, Sir George Courthope, bring me to this point: What are we aiming at, and how do we propose to attain our aim? I want to ask through you, my Lord Chairman, if I may, a question on broad lines of policy. Does Mr. Cash agree with the various Commissions, who in the past have agreed that there is an urgent need for a survey in detail of the water supplies and water needs of the country?—I think it would be distinctly useful to have all that information available.

226. Does Mr. Cash remember, as I remember, the Joint Select Committee under Lord MacDonnell?—1910.

227. On the Water Supplies Protection Bill, 1910, if I remember rightly?—Yes.

228. That Committee agreed with the recommendation of the Royal Commission on Sewage Disposal?—Yes.

229. And they agreed that there should be a comprehensive inquiry which should tell us about the surface and underground water, and this inquiry should be held before any legislative proposals were put before either House of Parlia-

ment. Has that inquiry ever been made?—Since 1910 there have been a number of inquiries. Are you referring to any particular matter, or generally?

230. No, a comprehensive inquiry I believe Lord MacDonnell's Committee proposed. I think Lord Kintore proposed that there should be an inquiry as to what the position of the water supply and the whole matter was. Lord Kintore said that he hoped the Local Government Board would see their way to constitute such an inquiry. If that inquiry has been made and the information exists, are not we beating the air and troubling you and Sir Albert Atkey and the Ministry of Health to go through this work day by day? I think I shall be in a position to agree with Sir George Courthope that we have this information?—I think your Committee have.

231. What is the reason for this inquiry?—I am afraid I cannot explain why the Government thought it necessary to constitute this Committee, except this, possibly, that, with this information you have before you (I say this with the greatest respect to your Committee) you might say: "The time has now come to implement those three Committees' recommendations."

232. Lord Aberdeen has put some very useful questions to help us, but what is the use of going into details until we know the broad lines of policy, when we know, as Sir George Courthope asked you, that there exist whole files of reports, as a result of inquiry, which give us all the information which we are now putting you to the trouble of giving us. I suggest that, before going any further and getting this evidence over and over again, we get that information. We are like a camel with seven stomachs, chewing the evidence over seven times. Would you be content to say that the inquiry that is suggested by the report of 1910 would give us enough information to go on with?—Are you referring to the Inquiry which was then held by—

233. It was held under Lord MacDonnell's Water Supplies Protection Bill of 1910. Also was there not a Metropolitan Water Board Act of the next year?—I could not say.

234. The Water Supplies Protection Bill; the Third Reading of the Metropolitan Water Board Bill. I speak under correction, but it appears to me that we have all this information which you

18^o Julii, 1935.] Mr. WILLIAM CASH, Sir ALBERT ATKEY and Mr. J. K. SWALES. [Continued.]

are now giving us?—(Sir Albert Atkey.) May I deal with the point raised by Sir Arthur Michael Samuel? Whilst there has been no specific inquiry in the precise terms of that Report, for the last twenty years the Ministry of Health has been getting all this information and compiling it, and it has it now, and, as a result of all that information, when the Advisory Committee was called into being they were able to prepare these specific Reports. What we cannot understand (except that Mr. Gibbon told us that there was pressure upon Parliament at the time) is why those Reports have not been implemented. If they had been, this Committee would not be sitting at all.

235. Why should we be denied the use or the sight of these Reports?—That is going to be the gist of my evidence when I give it. I am not going into details.

236. Then I come back to my question: What are we aiming at, and what are we hoping to obtain? What we are aiming at is already in our hands?—(Mr. Swales.) Some of these reports have had a not altogether favourable reception from outside. It has been said that they are too favourable to the water undertakers of the country. One Report has been referred to in the Parliamentary Committee Rooms as "the poachers' report." A Committee like this would give an opportunity to some of these bodies who are in opposition to these Reports to be heard.

Sir Arthur Michael Samuel: I have nothing more to say. I have aired my views. I put in a word of caution that we are doing work that has been done already, and we have the evidence we require, and we are only putting these gentlemen and ourselves to a lot of trouble in going forward when we have got that evidence now.

Chairman.

237. I think that is a matter which we must discuss among ourselves; we cannot discuss it here. (To the Witness.) You referred to the fact that Parliament had imposed obligations to give supplies upon those undertakings which carried their mains through the territory of other authorities, and that some of those authorities who would be able to obtain a supply in that way had not made use of those facilities. Could you give us the reasons?—(Mr. Cash.) There may be one reason, which is, of course, a little

difficult to ascertain, namely, that when they have taken the supply from a trunk main, even if it is in their particular area, to make it effective means a distribution system which the local authorities (say, a rural authority) have then to inaugurate to make that water available for their area, which may be a very scattered area. Although they can get the water at the trunk main at a reasonable price, it may involve them in a very heavy expenditure to distribute it.

238. That is the case in those instances?—No, I cannot say it is in those particular instances which I had in mind. I cannot say whether that is so or not, but I can imagine it might be so.

239. You press for a system of Regional Advisory Committees. What are the objections which stand in the way now of setting up such bodies?—None that I know of.

240. Are not there full powers?—Yes, because they are purely voluntary bodies at the present moment; but we venture to suggest here that they might be more effective if they were given some definite powers, powers in the sense that they must incur expense if they are to do their work thoroughly. They may require an officer.

241. There would be no difficulty about their being initiated now on the same basis and extended on the existing basis?—No. Whether they are necessary for the whole country (for example in some of the more scattered areas, or wholly rural areas), might be a question for determination.

242. I want to be quite clear on this: I think you advocated that the right of private persons to break up public highways in order to get service connections should be taken away quite definitely?—Yes.

243. And simply vested in the undertakings concerned?—Yes; if the maintenance of those pipes becomes transferred to the water undertaking, there is no need for private persons to have the powers in future.

244. Except that they may think they can do it more economically themselves?—Yes, but I do not think they ought to be allowed to do it, because the water undertaker does not desire to make a profit out of it.

Chairman.] Are there any other questions which any other Member of the Committee would like to put?

18^o Julii, 1935.] Mr. WILLIAM CASH, Sir ALBERT ATKEY and Mr. J. K. SWALES. [Continued.]

Major Mills.

245. Might I just ask about the Regional Advisory Committees? It is said that they should have power "to levy precepts in respect thereof for their expenses on constituent members." I am not quite clear who the constituent members are?—They would be the water undertakers in that particular region.

246. You do not mean the Borough Councils, Rural District Councils, or the County Council, or those sorts of people?—If they have representatives on the Regional Committees, that is to say, if they desire to be represented there, then I think they should contribute to the expense.

247. Through the rates?—Yes, it would come out of the rates. Of course, it is a very trifling matter. Mr. Swales could give you an answer on that, perhaps, better than I could, because Mr. Swales has had experience of a Regional Committee. (Mr. Swales.) I speak of the South Yorkshire Regional Committee. At the last meeting a resolution was passed that they could not see their way to proceed effectively unless they had certain statutory powers by which they could require the local authorities within their area to give particulars of their water resources and demands, and

also it was contemplated that, if a scheme had to be prepared for the purpose of supplying South Yorkshire, it would be necessary to retain the services of competent engineers and geologists, and, in addition, possibly to have an officer of their own to make detailed enquiries; they could not do that without funds, and it would be necessary to have the power to precept on those particular bodies who would benefit by any such scheme.

Chairman.

248. Mr. Cash, I should like to thank you on behalf of the Committee for the way in which you have submitted the evidence, and for the trouble you have taken to help us in our deliberations?—(Mr. Cash.) I am obliged. If at any later stage there is any information which we could afford you, which would be of any help to the Committee, we should be only too happy to supply it.

249. Sir Albert, perhaps we shall be able to take your paper a little later on, if that would be convenient?—(Sir Albert Atkey.) Thank you.

250. The same applies to you, Mr. Swales?—(Mr. Swales.) Thank you, my Lord.

(The Witnesses are directed to withdraw.)

(Ordered: That this Committee be adjourned to Tuesday next, 23rd July, 11 o'clock.)

Die Martis, 23^o Julii, 1935.

Members Present:

Marquess of Aberdeen and Temair.
Lord O'Hagan.
Lord Sanderson.
Lord Milne.
Lord Eltisley.

Sir George Courthope.
Mr. Richard Evans.
Major Mills.
Sir Arthur Michael Samuel.

The LORD ELTISLEY, in the Chair.

Sir ALBERT ATKEY, J.P. (representing the British Waterworks Association (Incorporated)) is called in and examined as follows:—

Chairman.

251. Sir Albert, you have been kind enough to come before our Committee to-day to amplify and to deal with the points which are referred to in your Memorandum?—Yes, one point, if I may. The Memorandum is as follows:—

BRITISH WATERWORKS ASSOCIATION
(Incorporated).

Memorandum submitted by Sir ALBERT ATKEY, J.P.

1. Witness is a Past President of the British Waterworks Association (1919-1921); has been associated with the Waterworks of Nottingham, both as an Official and as a Member of the Nottingham Corporation, for the past fifty years; and indeed is and has been Chairman of the Water Committee of the Nottingham Corporation for the past twenty-six years in succession.

2. As a Member of Parliament I was responsible for suggesting to the Ministry of Health the setting up of the Advisory Committee on Water Supply and I should therefore like to put before the Joint Committee the views and feelings of the Advisory Committee on Water of the Ministry of Health, on whose behalf I feel entitled to speak because the reasons which led up to the formation of this Advisory Committee appear to be on parallel lines to those which have called into being your Lordship's own present Committee.

3. As a result of the work done by the Advisory Committee three reports have been made, printed and widely circulated so as to obtain the views thereon of all those who would be interested in its findings. The Advisory Committee did not obtain the views of other interests before making their reports and left that to the Ministry when legislation was to be introduced, but they tried to be fair to all

interests in the recommendations which they made.

4. The Advisory Committee feel that these reports should have been translated into legislation at a much earlier stage, but for reasons given by Mr. Gibbon this has not been done.

5. The meetings of the Advisory Committee on Water were suspended in 1931 owing to the financial stringency which retarded legislative activities for the time being, but in 1934 a Special Standing Committee was appointed to report on measures for dealing with the shortage of water supplies due to the drought and that Committee met on four occasions during the summer of that year. This Special Committee, which was representative of the British Waterworks Association, the Water Companies Association, and the Institution of Water Engineers, addressed a letter in August, 1934, to the Minister of Health urging the need for fresh legislation dealing with water supplies throughout the Country, which had for some years past been promised and pressed for, and the need for which the recent drought had emphasised. In particular reference was made to the Reports of the Advisory Committee on Water on three matters of outstanding importance, namely:—

(a) The first Report of the Legislation Sub-Committee on Measures for the Protection of Underground Water (1925).

(b) The second Report of the Legislation Sub-Committee on the consolidation of the Waterworks Clauses Acts and otherwise for the modernising of the general law relating to water supply (1929).

(c) The Report of the Technical Sub-Committee on the Assessment of Compensation Water (1930).

6. These Reports are the outcome of much time and effort given voluntarily

23^o Julii, 1935.]

Sir ALBERT ATKEY, J.P.

[Continued.]

by members of the Advisory Committee, who stand high in the waterworks world as engineering experts and administrators, but their labours have so far been fruitless. The explanation given for this is the congested state of Parliamentary time; yet the members of the Conference cannot help observing that when the Government are brought to face the necessity for emergency measures time can be found, as evidenced by the legislation of the present Session.

7. The first Report of 1925 on Underground Water opened with a statement of the urgency of the problem:—

“The present position with regard to underground water is unsatisfactory; and whatever be the views as to the right remedies, it is certain that the community cannot afford indefinitely to neglect the problem. So long as ample supplies of water are readily available at moderate cost, the prevailing unsatisfactory position could be allowed to continue without much harm; now that there is an ever-increasing demand for water, due not only to the growth and greater urbanisation of the population, but also to the larger consumption of water per person and to the demand for higher standards of purity, the indifference to the indefinite rights which has hitherto prevailed becomes dangerous.”

8. As regards Underground Water I am desirous of urging the views put forward for the adoption of the proposals of the Advisory Committee as set out in paragraph 55 of Mr. Gibbon's Evidence.

9. The Second Report of 1929 points out that the general code of legislation referring to water supply dates from 1847, over 80 years ago:—

“There has been no comprehensive revision since that date. A partial revision has been made, but even that so long ago as 1863. In the meantime, the measure and circumstances of water supplies have undergone great changes. Water undertakers, whether public authority or company, have obtained new provisions from Parliament from time to time, but it has depended on the initiative and opportunity of individual undertakers how far their

code of conditions has been revised, and the various private Acts having been obtained at different dates, differ much in their provisions. The position is, therefore, far from satisfactory. The need for a consolidated code has long been felt, and the object of the Sub-Committee has been to suggest what this code should contain, to recommend the contents of a new Waterworks Clauses Act.”

10. As regards Legislation the point to be emphasised is that this would in the main be only a new waterworks code brought up to date, and the code would, therefore, not affect any water undertaking unless incorporated, with or without modification, to suit the local circumstances, in any subsequent local legislation.

Par. 5 of the Legislation Sub-Committee Report reads as follows:—

“5. The Sub-Committee are convinced that the need for new general legislation is urgent, and they recommend that it should take two forms. The first essential is the enactment of a modernised Waterworks Clauses Bill for uniform incorporation by the undertakers, the second a general statute amending and equalising the procedure available to them in obtaining statutory powers and at the same time giving general application to provisions which it is felt should be uniformly operative.”

11. The Appendices A and B of Mr. Gibbon's Memorandum of Evidence set out more particularly common form clauses and additional amendments which could and should be incorporated in a new Waterworks Clauses Act.

12. The third Report of 1930 on the Assessment of Compensation Water observes:—

“The present method of assessing the amount of water which water undertakers are required to send down rivers and streams as compensation to riparian interests has long been felt to be unsatisfactory. This was emphasised by the Water Power Resources Committee in their final report. The present method, first adopted some 70 years ago and founded on the opinions of the most experienced engineers of the day, was evolved on purely empirical lines

23^o Julii, 1935.]

Sir ALBERT ATKEY, J.P.

[Continued.]

at a time when sufficient and accurate data were not available. There has not been any thorough investigation of the problem since that date.”

13. Similarly I urge the adoption of the recommendations of the Advisory Committee on Compensation Water set out in paragraph 62 of Mr. Gibbon's Evidence.

14. I would add that the Members of the Advisory Committee feel there is a danger that the terms of reference to your Lordship's Committee are so wide that the work of your Committee may possibly be extended over a long period, and still further delay effective action upon the lines recommended by the Advisory Committee. I, therefore, most respectfully suggest that your Lordship's Committee might give their special attention to the definite recommendations contained in the report of the Advisory Committee in the hope that they might recommend that early action should be taken thereon, pending any final report by them upon the wider terms of reference before them.

15. I should like to add that the idea of a Water Grid, as first suggested by Mr. Chorlton, M.P., and others, has been condemned by those who are best qualified to express an opinion on water supply questions, as being an impracticable proposition.

16. In conclusion, on behalf of the British Waterworks Association I should like to endorse the opinion that by virtue of its statutory powers and the natural order of things, the Ministry of Health is the proper Government Department to be concerned with all matters relating to National Water Resources and Supplies, and that there is no need for the setting up of a National Water Board if the Ministry of Health would only insist upon being endowed with the necessary powers to carry out their obligations as the Ministry of Health. It is high time the Cabinet as a whole paid more regard to the claims of the Ministry of Health for adequate Parliamentary time to safeguard and foster the paramount importance of public health as regards water supply, sewage disposal, rivers pollution prevention and other matters of a like character.

30436

252. We do not want to go through the Memorandum in detail, if you will deal with it as the witnesses did the other day?—I am not proposing to enter into any details at all. Since preparing my Memorandum for submission to your Lordship's Committee, I have given very careful consideration to the Terms of Reference to the Committee, and had the advantage of listening to the evidence submitted. Arising from this experience, I think I can best assist the deliberations of the Committee by confining my observations to paragraph 14 of my Memorandum. From the remarks made by one or two Members of your Lordship's Committee it would appear that there is already some doubt in their minds as to what, if any, practical purpose can be served by your Committee, and these doubts were shared by the Advisory Committee on whose behalf I speak, when they saw it was proposed to cover the whole problem of national water supply. As a matter of fact no such problem exists at the present time, and I should like to emphasise and confirm the replies given to Colonel Sir Edward Ruggles-Brise by Mr. Gibbon and reported in the Minutes of Evidence, page 46, paragraphs 127, 128 and 129. In amplification of these statements, I would like to indicate to your Lordship's Committee the vast amount of accumulated knowledge and experience at present in the possession of the Ministry of Health. I hand in a copy of the Year Book and Directory compiled and published by the British Waterworks Association with the knowledge and co-operation of the Ministry. I have also brought with me a few samples of the kind of information which is regularly supplied to the Ministry by water authorities all over the country. From these facts it is abundantly clear that, so far as 80 per cent. of the population of this country is concerned, the situation is entirely satisfactory and there is no necessity whatever for any further “National Control,” or any general inquest upon, or review of, the water supply of the country as a whole. Parliament, which now exercises “National Control,” has delegated to local authorities the obligation and the duty of providing supplies of water in their respective areas, and right nobly have they discharged this task, even in face of the severe droughts in recent times.

The Report of the Executive Committee to the British Waterworks Association at its Winter session in November, 1934,

D

23rd Julii, 1935.]

Sir ALBERT ATKEY, J.P.

[Continued.]

quotes words of mine written in connection with the press publicity indulged in at the time of the drought and the attacks in Parliament upon the Minister of Health. They were as follows: "What is the truth of the matter? The 'scare' has been based on the shortage of water in rural areas. Well, these areas, generally speaking, have not been supplied with piped water because (a) They have never asked for it, or (b) They do not want it except on rare occasions like the present, or (c) They are neither able nor willing to pay for it. If and when these conditions change, it is up to their representative governing bodies to meet the needs and necessities of their constituents, in so far as this can be done on sound and reasonable lines. The present proposal of the Government to spend £1,000,000, whilst realising the fundamental principle of 'self-help' in connection with rural supplies, is intended to bridge the gap between the cost of providing a supply and the combined contributions of the consumer, the rural district and the County Council."

I also agree with the observations of Colonel Sir Edward Ruggles-Brise when he stated that "It is a little difficult to see exactly what is the nature of the work that this Committee is intended to perform in relation to its Terms of Reference." It is in this connection that I would like to suggest to the Committee how they can render an invaluable service to the water interests of the country. Whilst it is quite true that there is no "problem" to justify the Press panic or the intervention of the stunt politician, it was obvious to some of us 13 years ago that there was a very urgent need for a revision of legislation in order to conserve and protect the water supplies of the country. Upon representations to this effect being made to the Ministry of Health, the Advisory Committee was set up, its composition being a happy blend of technical and professional skill with men of considerable experience in public life and administration. This Committee, after long and careful study of the situation, has issued three Reports, and if your Lordship's Committee can see its way to deal specifically with these three Reports and recommend the Government to translate them into legislation, it will have served a more practical purpose than the innumerable Royal Commissions and Special Committees which, for the last 60 years, have met and reported without the slightest progress in the way

of legislation having resulted from their efforts. The Advisory Committee, whilst not having invited evidence from parties who might be affected by their proposals, have taken the widest possible view of the position, and in coming to their conclusions have given the most careful consideration to any possible criticism or opposition, and would now welcome the opportunity afforded by your Lordship's Committee of hearing the views of all other interests, in the hope that at a subsequent stage they might be permitted to present their observations thereon to your Committee. I feel therefore, at this stage, that it would suffice if I asked the Committee to concentrate their attention upon the merits of these three Reports. I do not propose to support them by any arguments in detail, but perhaps I might be permitted to endorse them with one or two observations in view of the time which has elapsed since they were printed and circulated. With regard to the first report as to the necessity for the protection of underground water, I would like to draw special attention to the case of *The Mayor of Bradford v. Pickles* by quoting a paragraph from the 8th Edition of Salmond on Torts, 1934, page 31, as follows: "A leading case on this matter is *Mayor of Bradford v. Pickles*, in which the Defendant was held not liable for intentionally intercepting, by means of excavations on his own land, the underground water that would otherwise have flowed into the adjoining reservoir of the Plaintiffs, although his sole motive in so doing was to coerce the Plaintiffs to buy his land at his own price."

Another case of quite a different character serves to emphasise the urgency of legislation in this particular direction. In 1895 the Nottingham Corporation, being in need of further supplies, bought land and sank a bore hole in order to test the yield of the strata beneath. They found water in abundance; indeed, so plentiful was the supply that it came to the surface with considerable artesian pressure. They then proceeded to promote a Bill in Parliament to secure the supply for the citizens of Nottingham, but their Bill was thrown out on the opposition of the County Council, local Councils and riparian owners, with the result that a very large additional capital expenditure had to be incurred in seeking an alternative source of supply at a much greater distance from the City. The land was subsequently sold and the bore

23rd Julii, 1935.]

Sir ALBERT ATKEY, J.P.

[Continued.]

hole plugged up, but nature herself revolted against the injustice perpetrated upon her, burst the plug, and ever since has flooded the land with millions of gallons of pure drinking water, which have been utterly wasted. I hand in a photograph of this crime. As Parliament is prone to be guided by precedents, I venture to draw special attention to Case 8 on page 18 of the Advisory Committee's Report, from which it will be seen that statutory protection has been given to the private owners of the water of Burton-on-Trent, because it has special properties suitable for brewing. It would not, therefore, appear to be unreasonable to protect the publicly-owned supplies of water for domestic purposes other than the consumption of beer. I would like to add still one more instance of yet another character showing the parlous risks to which water undertakers are exposed under the law as it now stands. The town of Wolverhampton has a pumping station capable of yielding 1½ million gallons a day, and this was regarded as a permanent supply until the advent of Messrs. Courtaulds, who established works within a radius of approximately 1½ miles. Acting quite within their legal rights, they sank four bore holes, and are now extracting from the strata some two million gallons per day. The result upon the public supply to the citizens of Wolverhampton has been to reduce the yield from 1½ million gallons per day to ½ million gallons per day. I suppose in the case of Wolverhampton there is a set-off by reason of the fact that a large works like Courtaulds brings employment and prosperity to the town, but the fact remains that every water authority in the kingdom depending for its water supply upon deep wells is at present entirely at the mercy of any private firm or person who chooses to sink a deeper well in the proximity, with or without any compensating advantage to the inhabitants supplied by the water authority.

With regard to the Second Report of the Advisory Committee, I do not think any exception can be taken to a codification of the law, which does not impose any obligation upon water authorities *per se* but which can be incorporated in any future private Acts of Parliament by those who desire to adopt it.

With regard to the problem of compensation water, it may interest the Committee to know that it was a question put by me to Mr. Swales, who was sitting before you last week, in 1922 that led to

the formation of the Advisory Committee to the Ministry. Mr. Swales was then the Engineer to the Bolton Corporation, giving evidence in support of a Bill in Parliament for further supplies, and I was a member of the Local Legislation Committee. I will hand to the Committee the Minutes of Proceedings, and would refer them to pages 100 and 101, of 15th June, 1922. From answers given to me by Mr. Swales to Questions 739 to 746, it was elicited that the Corporation of Bolton were compelled under their existing Acts to give two-thirds of the water impounded by them in the way of compensation, leaving only one-third available for the public supply, which entirely reversed the general practice adopted by Parliament. I then asked Mr. Swales the following question, Question 746: "So that if your compensation water were allotted on the lines of modern practice you would not have to promote this Bill at all?" to which Mr. Swales replied: "Exactly." On 21st June Mr. Swales handed to the Committee the exact figures, as promised in reply to my Question 743, and I hand a copy of these figures to your Lordship's Committee. (*Same is handed in.*)*

The facts revealed in the Bolton Bill struck me as being so pregnant with possibilities, alike of conserving supplies of water for domestic consumption and avoiding the waste of millions of capital expenditure, that I at once discussed the matter with Sir Alfred Mond, then Minister of Health. He was very interested and sympathetic, and when I suggested that through the good offices of the British Waterworks Association it might be possible to place at the service of his Ministry an Advisory Committee capable of making constructive betterment proposals, he approved the idea and referred me to Mr. Gibbon, who welcomed the proposal. The Advisory Committee was duly appointed by the Government, and divided itself into three Sub-Committees composed of members specially qualified to deal with the particular problems referred to them, and it is their three Reports which are now before your Lordship's Committee. Needless to say, the Advisory Committee have suffered a feeling of intense disappointment that no action has yet been taken to implement these Reports, and the Ministry of Health has shared this feeling. If, therefore,

* See Appendix.

23^o Julii, 1935.]

Sir ALBERT ATKEY, J.P.

[Continued.]

through the good offices of your Lordship's Committee, effective steps are taken which will "deliver the goods" in the way of legislation so long overdue, it will not only be a source of gratification to those immediately interested, but will confer lasting benefits of a material character upon the community as a whole.

There is an urgent need for the legislation for which I so earnestly appeal. Ironically enough, the way has hitherto been rendered difficult by the very fact that the water supplies of the country were so good and so efficient. The public were not interested, because whenever they turned the tap the water came, so why worry? As the public were not interested Parliament reflected their indifference, and naturally gave precedence to problems to which votes were attached. From this angle, Water Authorities are indebted to the drought for attracting attention to their interests, and although it would appear unreasonable to hold any Government responsible for a diminished rainfall, it will prove a blessing in disguise if, through the influence of your Lordship's Committee, the way to legislation can be cleared. (*Documents referred to by the Witness in his statement are handed in.*)

Sir Arthur Michael Samuel.

253. May I ask this, Sir Albert Atkey: You give your evidence as President of the British Waterworks Association?—No, Sir; I am an ex-President. I really give my evidence for and on behalf of the Advisory Committee.

254. That is to say you are backed up by the British Waterworks Association?—Yes, and the Triple Conference.

255. Of course, we are aware of your work as former Lord Mayor of Nottingham. Are the Nottingham authorities behind you in these views?—Yes.

Marquess of Aberdeen and Temair.

256. What would it be correct to say the view of your Conference was when this Committee was appointed? Was it one of disappointment or of hope?—It was disappointment, because we should have liked the Minister to have implemented these Reports by drafting Bills. The Minister gave us to understand that the setting up of this Committee was an alternative intended to be helpful; it arose from an interview we had with him at our specific request, when we did really press for effect to be given to these three Reports, and the Minister said, "Ah well, we are going to do

something," and this is what he has done. Therefore I am hoping it will do something.

Chairman.

257. What date was that when you interviewed the Minister? How long ago? Was it this year? The exact date does not matter.—I will give it you exactly; it is not so very long since. On the 22nd August, 1934, we wrote a long letter to the Minister in which we finished up by saying: "I am directed, therefore, respectfully to express the hope that you may be able to be present at the next meeting of the Conference"—that was a Conference that had been summoned by the Minister in connection with the drought—"to be held on the 25th September, when the members of the Conference may be afforded the opportunity to make representations in support of the foregoing suggestions for discussion with yourself and your expert officers"; and those suggestions were that the Ministry should take steps to implement by legislation the Reports of the Advisory Committee.

Marquess of Aberdeen and Temair.

258. Then you met in November, 1934, too?—Yes.

259. More or less to talk over what you had done, or possibly to confirm your previous decisions?—To confirm our previous decisions.

260. Then you are still of opinion, I gather, that this Committee did not need to have been set up at all?—Except if it advises the Government to implement these Reports, then we shall be very pleased it was set up. The Minister seemed to require some moral support before he took the risk of introducing a Bill on his own initiative, and this was apparently the step that he thought would give effect to our wishes, and we hope it will, although we were intensely disappointed to find the terms of reference so wide.

261. From your point of view and that of those who act with you, would you be disappointed if this Committee were to consider that there was nothing to do but simply to tell the Minister, "Get on with your legislation"?—No; I should think you had done a most valuable piece of work.

Marquess of Aberdeen and Temair.] It would be a very short piece of work would it not?

23^o Julii, 1935.]

Sir ALBERT ATKEY, J.P.

[Continued.]

Lord Sanderson.

262. Sir Albert, I understand in your view there is really no national water problem at all?—That is so.

263. That 80 per cent. of the population were properly supplied?—That is so.

264. I suppose that means that there is a problem to some extent with regard to the other 20 per cent. I suppose you will admit that the other 20 per cent. are not adequately supplied?—I say, roughly speaking, that 20 per cent. represent the rural areas where for financial considerations it is practically impossible to carry a piped supply. I should like to say this, my Lord, that Water Authorities are not encouraged or enthused in making very great efforts to supply some of these rural areas. Take my own case. The Nottingham Corporation have recently spent £100,000 in laying many, many miles of mains to many villages outside their area. I am quite within the truth, and understating it rather than overstating it, when I say that not 50 per cent. of the people in those villages before whose front door a piped supply passes have applied for the water or are taking it or are prepared to pay for it.

265. I suppose you would not say that that applies to the whole of the rural areas? There are rural areas, surely, where a piped supply could be introduced without great expense, where it would be welcome, are there not? What you say would not apply to the whole of England, would it?—I really do not know of any obstacles where those conditions obtain. Where water is available and people are prepared to pay for it, I am quite certain that there is no reason why the supply should not be given.

266. I do not know how far these reports are true that you get of people in the country villages, even now, this year, when there is lots of rain, having to go miles and buy water and get buckets of water and that sort of thing?—It arises from this fact, that there are many places and villages and cottages in this country that have been erected where it has been known from the moment that they were erected that it was practically impossible to take a piped supply. They have always relied upon the rainfall or shallow wells, and if we get times of exceptional drought they will suffer. But it is arising out of that fact that the Government has placed £1,000,000 at the disposal of rural

30436

authorities to try to bridge the gap in cases where people in the rural areas are prepared to pay.

267. Would this legislation proposed by the Advisory Committee help to solve the rural problem at all, because that is the problem, is it not, apparently?—That is a problem, but it is outside the purview of the three Reports to which I am directing your special attention.

268. But apart from this 20 per cent. of the people, you think there is no problem with regard to the other 80 per cent.?—I am quite certain there is not; and with regard to the 20 per cent., of recent times there has been a growing feeling amongst all statutory authorities and municipalities that wherever possible the old local idea of being bounded by their Parliamentary area should be broken down and that they should regard their responsibilities to the country districts, and as evidence of that I just stated that my own Corporation have spent over £100,000 in extending their supply, which they were under no obligation to do, into the rural districts. I think the problem is being solved day by day upon sound lines. Wherever a case is put up and help can be given and the problem can be solved, it is being done day by day.

269. It seems to me a little curious, if you have 80 per cent. of the people where there is no problem, and the rural problem is outside your purview, that legislation is needed. What do you want us to recommend?—The 20 per cent. all have their own public bodies, their Local Councils and County Councils, and it is up to those bodies to take steps if at all practicable, to afford the supply, and this 20 per cent. is scattered all over the United Kingdom.

270. I follow. I am not criticising at all; I am only asking for information?—Thank you.

Mr. Richard Evans.

271. Sir Albert, I take it the legislation dealing with rural water supplies enacted last year giving financial assistance is not a result of your Report? You have not dealt with rural supplies at all as an Advisory Committee?—No, we have not dealt with that aspect in our Reports.

272. When you found that your proposals were not being implemented by the Ministry, did you ask the reason why?—We have asked continually, all the time.

D 3

23^o Julii, 1935.]

Sir ALBERT ATKEY, J.P.

[Continued.]

273. What answer have you had?—It has been invariably the same: "There are no votes in it, and Parliament is too busy."

274. And your suggestion is that this Committee should urge the immediate implementing of your proposals?—I think, with the providential assistance of the drought and the advice of this Committee, Parliament might be tempted to do something.

275. So you think we have a useful function in that respect?—I do, Sir. I think you can save the situation alike for the interests of the water consumers and for the men who for the last fourteen or fifteen years have been giving so ungrudgingly of their time to this work.

276. Except for the rural problem, you think all the larger problems are dealt with adequately by your Reports?—I do.

Sir George Courthope.

277. You stated just now when you were reading your evidence that your Committee felt a sense of keen disappointment that no legislation had been introduced, and you added these words: "The Ministry of Health have shared this view"?—Yes.

278. Have they presented legislation?—No, Sir. When I speak of the Ministry of Health, unfortunately, I speak of the Ministry as an executive body in Whitehall. I cannot, unfortunately, say "the Minister" has shared that view.

279. Now we are getting at it. Really your complaint and the complaint of the Ministry should be against their Minister rather than against Parliament?—That is so.

280. I gather you support the view already expressed by Mr. Gibbon and Mr. Cash that the Ministry have in their possession all the material necessary for preparing immediate legislation?—I do.

281. Is it actually in draft, do you know? It is, perhaps, not fair to ask that question?—There is no Bill in draft. I have handed in samples, and the amount of information with regard to the sources of water supply in the Ministry's possession is colossal. All these Reports have come in in the last week or two. Now is the time when annual Reports are presented.

282. I know what Reports are; they come in in such quantities that one is buried in them before one has time to read them?—That is so.

283. But have they got to the stage that they are in a position to introduce legislation without spending months examining Reports?—Absolutely.

284. And there is no more information to be gained?—No.

285. Will you please tell me this: Are you aware of any responsible body of opinion which would take a contrary view to those recommended by your Advisory Committee?—Not specifically. I can quite appreciate that some of the proposals, more especially those in connection with compensation water, will meet with considerable criticism.

286. From whom?—After recent experience, I would say Catchment Boards, because we have had a very considerable "spot of bother" on the Derwent Valley Water Board with the River Trent Catchment Board, who for some reason best known to themselves have deprived us of the opportunity of getting eight million gallons a day more compensation water.

287. Perhaps I should explain what I am driving at. I share your view that all this is waste of time as far as hearing advocates of legislation is concerned, but I think if we are to do any useful work in promoting early legislation we must give an opportunity to responsible critics and opponents of the proposals. Who are they?—That is not so easily done. It is very difficult to say who they are; one never knows until the time arrives; but if this Committee expressed the view that these three Reports should be turned into a draft Bill for general circulation on lines on which I understand the Port of London Authority Bill was finally approved, then everybody would have the opportunity of expressing their views. They could be sifted and sorted, and by the time the Minister had to undertake the task of presenting the Bill to Parliament he would probably have a very nearly agreed Measure. The subject of water supply is not really a controversial one. We are all out to serve the community and give and take; we have no interests to serve except that of the majority; and if our Reports were put into a draft Bill and met with opposition I am quite certain that that opposition could be met, because we are all meeting on common ground with a desire to render a public service.

288. Then you cannot indicate any responsible body of opinion likely to criticise the proposals of your Committee that this Committee ought to summon

23^o Julii, 1935.]

Sir ALBERT ATKEY, J.P.

[Continued.]

and hear before presenting its Report?—I have not them in mind, but inquiries might with advantage be made. It would be possible by inquiries to find out who would like to be heard in opposition.

289. That is another matter altogether. Are they responsible bodies?—I really do not know. I am really so obsessed with the virtues of these Reports and the recommendations, that I do not know.

290. But you want this Committee to help you?—Yes, I do, Sir.

291. I am suggesting that the most effective way in which this Committee could help would be to hear in advance the possible or probable opponents of the legislation based on the Reports of your Committee?—That is exactly what we should like you to do.

292. I ask you to suggest any responsible body that is in that position whom we ought to hear?—I should not like to accuse anybody of wanting to oppose us, but there may be people who want to oppose us. There is always the odd man out in any transaction, and I would be delighted for them to come here and for you to hear them.

293. Is the Water Grid put forward by responsible people?—No, Sir, because it is an utterly fantastic idea. It is worse than the Douglas Credit Scheme.

Major Mills.

294. I should like to carry a little further some of the remarks you made in reply to Sir George Courthope on compensation water. You have handed in a memorandum, an extract from Minutes of Proceedings in the Bolton Corporation Bill, in which Mr. Swales was giving evidence. The point of that really was that more compensation water would have been got if it had been calculated in a different way, method No. 2 on the paper. I am not conversant with what happened on this Bill; possibly I ought to be, but I am not. Can you tell us whether anything was done to alter the amount of compensation water given in accordance with this or whether there was objection raised and substantiated?—Yes. I put this very question to Mr. Swales when he was in the box, and he said that it had been contemplated many times to ask Parliament to revise this, but they anticipated such bitter opposition that the proposal had never materialised.

295. So that nothing has been done in that way?—Nothing has been done, and I thought, if the Report of the Tech-

nical Sub-committee on Compensation Water were adopted and given legislative effect, cases like this might be reviewed with enormous advantage to the community as a whole.

296. But you would agree that the question of compensation water will be a ticklish matter, and that is more likely than anything to bring forth opposition?—I do.

Chairman.

297. You refer to this bore hole which had been plugged up, and which was spouting out in your district, and you also stated that the desire on the part of the water authority to make use of that water had been frustrated by the action of the County Council and other local bodies, but you did not give us any reasons for the County Council's obstruction. Parliament refused the application; they must have had some grounds?—They were full of reasons which time has proved, as we felt at the time, to be utterly fallacious. One of the reasons they strongly put forward to Parliament was that if we were allowed to take that water from that bore hole it would deplete the flow of the Dover Beck, a stream in close proximity, and which the local landowners find joy in fishing in. It was felt that the claims of those who fish were quite superior to those of the people who wanted to drink water, and there were many other objections raised.

298. The case was really very thoroughly gone into?—Yes, it was quite thoroughly gone into, but it was thrown out in the main, because Parliament believed we should deplete the resources of the district, in spite of our evidence and the fact now showing that the water has run to waste without depleting the resources of the district.

299. On another point, the question of rural supplies, I think you have indicated quite clearly to us that there is no problem so far as cities are concerned in regard to the supply of water as such, but you do say that in the case of rural supplies, there are areas where it certainly would not pay, or it would not be an economic proposition, to take a pipe line. Have you got or considered any schemes by which small communities or villages could get their own supplies by way, say, of a local reservoir; in other words, a big pond and just one distributing pipe with an electrical pressure system on it?—I cannot say that we have specifically considered that problem as a whole, because in the first place,

23^o Julii, 1935.]

Sir ALBERT ATKY, J.P.

[Continued.]

we have no evidence that people themselves want it. All I can say is that if any community in any part of the country feels that it would like a supply of water, and it shows a willingness to pay for it, it has at its disposal the kindest of assistance and sympathy in the way of the Ministry of Health, who will send their Inspectors down, who will report upon the situation, and who will offer every advantage.

300. There are no model schemes that have been prepared to deal with that kind of case?—No. Mr. Warner-Terry has just drawn my attention to a matter mentioned in one of our Reports. Rural supplies in scattered areas can be left to the exploitation of local sources on the most economic lines by the adoption of certain automatic pumping as suggested by a competent engineer. I do not think there will be any difficulty where a supply is possible, in having all the advice, but it would be difficult for the Advisory Committee to consider the problem as a whole, because it depends on the local conditions, and these vary so considerably in different parts of the country.

301. Generally, there is nobody competent in a small community either to make representations, or still less to work out a scheme?—No, but I have never found any community yet that is not competent to put up a moan or a complaint or to say that they would like water. They have only to put the request up, or indicate that they want assistance, and every assistance is available.

Sir Arthur Michael Samuel.

302. Do you consider that the recent outcry as the result of the drought about water difficulties in rural areas has been overdone, and do you consider that it has exaggerated the grievance?—It has been enormously exaggerated. There is a kind of feeling in many parts of the country against any other form of water except what they have been used to.

(The Witness withdrew.)

Mr. W. J. E. BINNIE, M.A., M.Inst.C.E., Mr. H. P. HILL, M.Inst.C.E., Mr. S. R. RAFFETY, M.Inst.C.E., and Mr. R. C. S. WALTERS, B.Sc., M.Inst.C.E., F.G.S., are called in and examined as follows:—

Chairman.

309. The Committee have the names of four gentlemen before them, who have come here on behalf of the Institution of Civil Engineers, and the Association of Consulting Engineers. Is Mr. Raffety

Water, in the minds of a good many people in the rural districts of this country, is a gift from God, and it is little short of sacrilege for anyone to expect to be paid for it, and they have been used to those conditions, and they are prepared to put up with them. They know when they go what the conditions are, and it has really been grossly exaggerated, in my view.

303. There is one other question I want to ask. In the event of competent public authorities saying that here and there there is danger of disease owing to a bad or insufficient water supply, could that 20 per cent. margin of rural water supplies, to which you refer, be reduced to a very little by providing those areas where the water supply is not adequate, or is impure, with supplies from a tap on pipes running through those areas? To what extent could you get over that difficulty?—According to the measure of its financial—

304. No; what percentage of that 20 per cent. of rural supplies which might come under those difficulties, could be reduced?—I cannot give any definite percentage. All I can say is it is being reduced day by day.

305. Is there a large amount of rural supply which could possibly be met by the pipes which pass those rural districts?—I should say there is quite a considerable portion of the country.

306. Half of the 20 per cent.?—Part of the 20 per cent.

307. Half of it, do you think?—It is every difficult to say; a considerable portion, I think.

308. Therefore, the outcry about insufficient rural supply, if it only applied to 20 per cent. of the water supply could be still further decreased by using the pipes which pass through the districts?—That is so.

Chairman: It only remains for me, as Chairman, to thank you for the evidence you have been kind enough to give us.

speaking on their behalf?—(Mr. Raffety.) Yes, my Lord.

310. The other gentlemen support you?—Yes, Mr. Hill, Mr. Binnie, and Mr. Walters. I think you have a Precis of the evidence we have prepared before you?

23^o Julii, 1935.] Mr. W. J. E. BINNIE, M.A., M.Inst.C.E., [Continued.
Mr. H. P. HILL, M.Inst.C.E., Mr. S. R. RAFFETY, M.Inst.C.E., and
Mr. R. C. S. WALTERS, B.Sc., M.Inst.C.E., F.G.S.

311. Yes, we have.—I do not know that I want to take up your time in repeating what is in that. It has been kept as short as possible, and there may be things in it which are not quite clear which we should be only too pleased to explain to the Committee, but I think perhaps I might at the outset, if you would allow me, explain to you really who we are; that is, the kind of work that we do.

312. We have a fairly good idea from your Memorandum itself, of course, on the opening page?—Very good, my Lord. I just wanted to emphasise the fact that we are, of course, all waterworks engineers, but, in the course of our practice, we have to advise other interests, perhaps inimical, for the time being, to waterworks as such, therefore we know a little bit of both sides of the question, so to speak. The first point that we, as engineers, would wish to emphasise is the necessity of having accurate data as to our water resources. As engineers, we are so frequently called in to advise an authority or a district, and find a complete absence of records; the flows of streams, the quantities of water in certain streams are not known; no attempt has ever been made to get that information. Then again a certain amount of underground water may be obtained by private wells or other wells; there again there is no record of it. It is extremely difficult in many cases to form an estimate of what can be done in a district without a great deal of preliminary investigation, which naturally extends over a short period, and it is really the long period records that are so valuable. A great deal more is done in America, for instance, in this way. There are Departments in America that have been responsible for many years for obtaining much of the kind of information that we suggest ought to be obtained in this country. The chief point of our evidence in this respect is that this information will never be obtainable unless there is a statutory obligation on people to supply it. Many attempts have been made in the past (the Institution of Water Engineers, for instance, have attempted on several occasions) to get this information voluntarily, but the position is, of course, that although much of this information would be given, it is not obtainable because it may be used against the authority who gives it, and they are not prepared to give it unless

their neighbours and everybody else have to do the same. Your Lordship will, of course, be aware of the Inland Water Survey Committee which has recently been set up by the Ministry of Health, and we suggest that that Committee would be a very suitable co-ordinating Committee in obtaining these records. As regards the principle rivers, we suggest that the Catchment Boards would be the obvious authorities for making gaugings. Some of the Catchment Boards have already started recording gauges, but they are under no obligation to gauge their rivers. I think I am correct in saying that. As regards the underground sources of supply, we suggest that the Geological Survey should have their authority enlarged considerably. At the present time they issue, from such information as they can get, certain volumes or memoirs which are called Water Supply Memoirs. The whole of the information in those Memoirs is supplied by people willing to supply it, but, of course, it is not complete. There are many bore holes and many wells of which no mention is made in the Memoirs, and also, generally speaking, the information is supplied after the bore hole has been put down; therefore the Geological Survey themselves have no opportunity of checking the accuracy of the records. We wish to call attention to the fact that under the Mining Industry Act of 1926, in the case of borings over a certain depth for minerals, a notification has to be given before the hole is put down, and, if that could be extended to apply to all bore holes it would, we suggest, be of very great assistance to the Geological Survey. In the publication of the geological maps, there again, they are very much behind the times, and, in many parts of the country, quite out of date through lack of funds. That may seem rather far from the functions of this Committee, but those geological maps are of the greatest use to anybody who is advising on the question of water supply. Therefore, if they can be kept up to date, it all helps this problem. As regards the Reports of the Advisory Committees to the Ministry of Health, to which I think your attention has been already called, as regards the Report on the Protection of Underground Water, we definitely wish to support the recommendations in that Report. We can give you illustrations to emphasise that, if it is necessary, but, I think, the Report

23^d Julii, 1935.] Mr. W. J. E. BENNIE, M.A., M.Inst.C.E., [Continued.
Mr. H. P. HILL, M.Inst.C.E., Mr. S. R. RAFFETY, M.Inst.C.E., and
Mr. R. C. S. WALTERS, B.Sc., M.Inst.C.E., F.G.S.

itself contains sufficient in that respect. The only comment that we have to make on that Report is that it refers to certain information being given to the Ministry, and we think that that should be given in the same way as all other information; that is, it should be published. If it is merely given to the Ministry, if I may say so, with the utmost respect, it is buried in the archives of the Ministry, and other people who are concerned in water supply do not have the advantage of referring to it, and therefore it is only partly used. As regards the Pollution of Rivers, that is another point which is of great importance in conserving our water resources. The use of our rivers (that is, one may call them, the lowland rivers, apart from the upland impounded streams) is becoming much more frequent, and must become more frequent in the future. The South of England, in particular, is coming to rely upon river supplies in a way that a comparatively few years ago would not have been believed. Therefore, the question of the purity of the rivers is of more importance than it was. It is true that we have now methods of purification which were not available a generation ago, but, in spite of that, prevention is much better than cure. The Rivers Pollution Prevention Acts are quite adequate in themselves, but, unfortunately, the powers are not always exercised in a satisfactory manner. The water authority who may take a supply from the stream, and is responsible for the purity of that supply, has no powers under the Rivers Pollution Act unless it obtains them by a special Act. Of course, in the case of a River like the Thames, where there is strong controlling authority, such as the Thames Conservancy Board, the situation is quite satisfactory, but, in many of the other Rivers, pollution goes on, much of it avoidable. The Acts have to be put into force, either by the County Council, or by the local sanitary authority, and the local sanitary authority may often be the worst polluting offender from their sewage works.

On the question of compensation water, we would wish to emphasise what has been said by other witnesses, that there are no doubt many cases where the giving out of the statutory compensation water is really a waste. It is not so in every case by any means. Chiefly it is

the result of faulty data and information when the special Act was passed. We are supporting, generally, the Technical Sub-Committee's Report on Compensation Water which, I think, you have had before you before, but when it comes to the application of those recommendations it becomes so complicated that it is very difficult to get it generally accepted; in fact, it never has been generally accepted. It is, of course, a Report that has been drawn up by one side, so to speak, and, so far as we know, it has never been accepted by the other. I have heard it referred to in the Rooms upstairs this Session as the "Poachers' Report," but I do not really think that there is much in the general recommendations to which other people could take exception, but it is very difficult in application. We, therefore, suggest that until some information is obtainable of the actual flows of our rivers, the accepted basis should remain, that is to say, either one-third, or one-fourth, or one-fifth of the estimated total flow, subject to this, that where it is clearly shown that a river is abnormal in its variations between summer flow and winter flow (what is commonly referred to as a flashy river), then those proportions should be lower and that there should be more or less a general overriding rule that the compensation water should never be less than the average of the driest months, that is to say, that if you get a flow down the river in a month of so many million gallons, divide that by 30 days, that is the average over that month, and that should be the minimum quantity of compensation water. Of course, there must always be special considerations in nearly any case, and one of those is a case where a river is impounded very near an estuary where practically no use of the water is made afterwards. Then we would also like to draw your attention to a method of saving compensation water by reducing the amount during the winter months. Really a start on that has been made. It has been suggested in one or two Bills before Parliament.

It has been proposed in several cases, but I am not quite sure whether there is a statutory example yet. But, of course, it is obvious that in the winter when, perhaps, the river below may be in flood, to have to turn down the statutory com-

23^d Julii, 1935.] Mr. W. J. E. BENNIE, M.A., M.Inst.C.E., [Continued.
Mr. H. P. HILL, M.Inst.C.E., Mr. S. R. RAFFETY, M.Inst.C.E., and
Mr. R. C. S. WALTERS, B.Sc., M.Inst.C.E., F.G.S.

pensation water is not only wasteful but it is almost harmful. Then another method of securing that the river gets what one may say is proper compensation without being wasteful is suggested in the next paragraph. I would explain that compensation water at the present time is always measured just below the dam of the reservoir; generally speaking, about 200 yards below the dam of the reservoir. That is where it is measured according to the local Act. We suggest that in many cases if a gauging weir were put a good deal lower down the river—two or three miles lower down, according to circumstances—and a minimum flow over that weir prescribed, it would not matter what compensation water was turned out from the reservoir so long as that minimum flow was maintained at that point. I am quite sure there are many cases where that could be found to work to advantage. We call attention in that respect to a precedent in the Durham County Water Board Act, 1922. I have copies of that Section, if the Committee should wish to have them. That is a case where there is a prescribed level below the reservoir and the quantity of water turned out from the Burnhope Reservoir can be reduced if the level of the stream is not below that prescribed mark. On the Legislation Sub-Committee's Report, I think a good deal of that is outside our scope, but we would like to call attention to one thing which is not mentioned in that report, and that is the fact that under the Waterworks Clauses Act—in fact under any Waterworks Legislation—there is really no power for anyone to demand a supply of water unless the property already in existence is of sufficient rateable value to yield a definite return on the cost of laying the pipes. If property has to be built or if an area has to be supplied which obviously will not yield that return, it is a matter of arrangement or agreement with the Water Undertaker. There is no means of compelling a supply to be given on what one might call fair terms. I wish to add this, that the fact that there has not been a great outcry about this shows that the water undertakers as a whole are extremely reasonable in the agreements they make, but there are isolated cases where some water undertakers do ask for very hard

terms from would-be consumers in that respect. Generally speaking now, in the case of village supplies, and so forth, a guarantee is given by the local Rural District Council, but that guarantee at the present time is merely a matter of bargaining beforehand. The Rural District Council try to keep it down; the water undertakers naturally keep it up to a safe figure. The fact that that bargaining has to go on very often results in this, that the supply is not laid on at all. The Rural District Council may consider that they ought to have got slightly better terms; and rather than accept the terms offered to them they may not lay on the supply at all. We call attention to a Clause in the Taunton Corporation Act, 1931; it is a very long Section, and a lot of it is quite a matter of detail, but the gist of it is this, that that was a Clause put into that Act by agreement between the Taunton Corporation and the Wellington and Taunton Rural District Councils by which the exact terms under which mains should be laid by the Taunton Corporation in those rural districts are defined. Therefore, once that Clause is in, all the Rural Districts have to do is to request the Corporation to lay certain mains and they know exactly what their position is. That seems a very useful Clause, which might have more general application. A very similar case is the case of a perhaps smaller local authority that needs a water supply for its district, or needs to augment its supply, and desires to take a bulk supply from its larger neighbour. There, again, there are no means of their getting that supply other than by negotiations. Very often they get very fair terms. There are other cases where supplies are held up for a great many years through the difficulty of arriving at what are regarded on both sides as fair terms. The chance of the small Rural Authority usually comes when the larger undertaker is in Parliament; then they can probably get a Clause that satisfies them, but otherwise they can simply ask for it. There is no power of compelling a supply to be given, if it is available. Of course, it should not be given if the larger undertaker has not the water, but if they have the water it would seem a solution of some of the difficulties if there were some machinery by which this question could be settled and not left to mere

23rd Julii, 1935.] Mr. W. J. E. BINNIE, M.A., M.Inst.C.E., [Continued.
Mr. H. P. HILL, M.Inst.C.E., Mr. S. R. RAFFETY, M.Inst.C.E., and
Mr. R. C. S. WALTERS, B.Sc., M.Inst.C.E., F.G.S.

bargaining. The Report of the Triple Conference I think you have before you. We wish generally to support what is said in that with some modifications. We suggest that it is not necessary for Regional Committees to be set up throughout the whole country, because we suggest the experience is that a Regional Committee set up where it has not really sufficient work to do does not function at all, and it is rather a clog on the wheels than otherwise. The Regional Committees, from our experience, function very satisfactorily and do very good work in regions where there is a difficulty in allocating the sources of supply, but otherwise in other districts they would have nothing much to do, and if their only function is going to be to acquire data, we suggest that that function would be much better performed under the control of the Inland Survey Water Committee. We also suggest that it is no good collecting statistics and data from water undertakers if the industrial and private user is left out. To illustrate that, in a Bill recently taken upstairs this Session evidence was given that in one chalk area of a distinctly limited extent there were 17,000,000 gallons a day pumped by industrial users—underground chalk water—and it was estimated that 10,000,000 gallons per day of that was potable water. That will give the Committee some idea that it is not merely the water undertaker who is the user of underground water. The largest of all those industrial users are electricity works, which use it for cooling, circulating; there are paper works, cement works, and so forth. We have said nothing in this precis on the question of rural water supplies. I know that is a question of very great interest to some Members of the Committee. I would like to say that there are parts of the country where the question of supplying the rural districts is not merely a financial one, but it is also a question of extreme difficulty in getting any source of supply at all. I was wrong, perhaps, in saying it was not financial because, of course, it all does come back to cost in the end. Also there is a very great difference in the view taken in rural districts. I have had a case myself where I was told by a Rural District Council that their own people—and when they said their own people they meant the real rural population—always had

carried water for a mile, and they would go on carrying water for a mile and they would not object to it. What they wanted to be sure of was that when they had walked the mile there was water to be obtained. They did not mind walking the mile, but they wanted to be sure of getting the water when they had walked that distance. That is the whole problem they intended to tackle. But, of course, pipe supplies are being laid now in other rural districts where there are very few houses and where—there is no question about it—although the mains go by cottages, those cottages will not take the supply for a good many years. Those are the two extremes. But a lot has been done within the last five years—more I suggest than in any other five years—in dealing with the question of rural supplies; and it has largely followed, I think I am correct in saying, from the assistance rendered by the County Councils. The Rural District Councils can, of course, now assist a rural supply from the whole of the Rural District, that is to say, they can bring the rates in; the County Council can help, and, of course, the Ministry of Health can also make a grant out of the £1,000,000. In the experience of our Members, speaking now for the Association of Consulting Engineers, there are a lot of cases where the County Council have appointed a Consulting Engineer to advise them on the schemes that are put up from time to time by the Rural District or Parishes, and they are just sent up to look through, and express an opinion as to whether they are sound or not, and if they are reported upon as being sound that County Council makes a grant towards the scheme, and it generally goes forward. That has worked very well indeed and has the advantage that money is not spent on schemes which may look to be satisfactory but only last for a year or two and are then found to be insufficient. In the final paragraph of our precis, we refer to what we call, generally, the controlling authority. I think it will be generally agreed that there is some need for some central authority having further powers in connection with water supply, and we would respectfully submit that if further powers are conferred upon the Ministry of Health—and the Ministry of Health is the obvious Government Department—regard should be had to the difference between the administrative and the judi-

23rd Julii, 1935.] Mr. W. J. E. BINNIE, M.A., M.Inst.C.E., [Continued.
Mr. H. P. HILL, M.Inst.C.E., Mr. S. R. RAFFETY, M.Inst.C.E., and
Mr. R. C. S. WALTERS, B.Sc., M.Inst.C.E., F.G.S.

cial functions. What we have in mind is shortly this: The Ministry of Health should in a few cases—I myself know one—bring pressure on the local authority to do something in the matter of their water supply. I would add that the Minister has really very little power in that direction, unfortunately. I think he could do with more, but it is very difficult for the Ministry, if they have been pressing a local authority to get on and put their water supply in order, to be the authority which has, perhaps, to hear objections from land owners or other people who may be affected by the scheme. Therefore, we do suggest that in the end, if there is opposition to a scheme, the scheme should be subject to the confirmation of Parliament, so that that opposition can be put before somebody who has not been interested in the preliminary proceedings. Of course, Parliamentary procedure is well understood by everybody. Certain notices have to be given a long time in advance, and there is very little excuse for anyone who has not heard what is proposed, but with the Special Orders and other shortened procedure it has very often happened that a thing has been done, so to speak, before some very interested party has appreciated that it has ever been proposed. I do not think I have any more to add.

Chairman.

313. Have you an example of that last statement?—Not with water, because the Ministry has no such powers; but I have, in my own personal work, come across a case where a drainage board has been set up and one big estate did not even know that this drainage board had been set up till a few years afterwards. That was due to a combination of circumstances. One was that an advertisement had not been put into the papers of the county in which the estate was situated; and, secondly, it was due to the fact that when the Board was set up the Clerk did his job so badly that he did not send out his demand notes for rates until they were three years in arrear, and that was the first this estate knew about the Board having been set up.

314. That is a very exceptional case?—No doubt, but it may happen to a lesser degree.

315. Does that conclude your statement?—That concludes all I have to say.

316. Do any of your colleagues desire to add anything, quite briefly—(Mr.

Binnie.) I think if the Ministry drafted and circulated a Bill, that would be the best way of inviting criticism which, in all probability, would be removed. There are matters of detail which could be adjusted. (Mr. Hill.) I could add something on the subject of compensation water. I have here a diagram—it is an old one but it is very interesting—to show the principle of compensation water. (The witness produces and explains diagram to the Committee.)

317. In other words, there has been a very much more even flow during the dry season?—Yes. I think there is one point that needs to be borne in mind, that in many of these old cases of compensation water the amounts were computed, or rather, they were arranged—I will not say “computed”—in the times when water power was very much more to the fore than it is now. It has been superseded by electricity and steam. The amount of water that was found generally necessary was somewhere about eight or nine inches of the available rainfall. That development took place largely in the Pennine Chain between Lancashire and Yorkshire, in the industrial districts during the rise of the textile industry, and as the available rainfall in that area generally varies between 24 and 27 inches it came about that one-third was generally looked upon as sufficient for compensation purposes.

318. That is where you get those figures?—That was the origin of the system. Of course, times have changed since then. Water powers are not nearly so important. As an example Sir Albert Atkey was citing the case of Bolton just recently; the latest reservoir at Bolton is the Delph. That was built a long time after the original ones. The compensation from that reservoir, although it is in the centre of the existing reservoirs, is only one-third; the adjoining reservoirs are two-thirds.

319. Are there any other points?—(Mr. Walters.) I should like specially to stress the great value of the geological survey memoirs and maps for water supply. Many of the areas are very well covered, but the memoirs and maps frequently want bringing up to date; some counties have no water supply memoirs at all, like Staffordshire, Cumberland, Cornwall and Devonshire. Similarly the one-inch maps we find extremely valuable, particularly the coloured printed editions, but the old maps are very difficult to follow, and I

23^d Julii, 1935.] Mr. W. J. E. BINNIE, M.A., M.Inst.C.E., [Continued.
Mr. H. P. HILL, M.Inst.C.E., Mr. S. R. RAFFETY, M.Inst.C.E., and
Mr. R. C. S. WALTERS, B.Sc., M.Inst.C.E., F.G.S.

can show you some examples, if you like, of what I mean, quite briefly.

320. I do not think we will bother you with that?—That is the point, that there are vast differences between the coloured printed maps and the old hand printed maps, and more money is wanted for the geological survey, to push ahead with these maps and the water supply memoirs to cover the whole of England.

Sir Arthur Michael Samuel.

321. You stress the need for geological maps and memoirs. Were you here at the opening examination of one of the earlier witnesses?—No.

322. If I may remind you, I drew attention to the lack of knowledge of the location of septic tanks which might constitute possible danger spots to underground supplies from floods causing overflow of tanks and pits. Can you confirm that there is any danger?—Yes, undoubtedly. Of course, the whereabouts are generally shown for sewage works on the one-inch ordnance maps and the ordinary ordnance maps.

323. For sewage works?—For sewage works.

324. I am talking of septic tanks which might be put down in a private owner's garden long after the house had been built, which might cause pollution, owing to a flood, or even in the case of a cesspit of earlier construction. Do you mean to tell us there is no geological map or memoir to show the existence of these possible sites of contamination?—No.

325. Do you consider the non-existence of them a danger?—Undoubtedly. They have to be examined very closely by us.

326. Do you recommend that steps should be taken by the Ministry to obtain information as to the location of these septic tanks and pits?—It would be very valuable, particularly in conjunction with the geological maps.

327. Mr. Raffety, you heard the evidence of Sir Albert Atkey. You are aware of the three Reports to which he has referred?—(Mr. Raffety.) Yes.

328. To what extent are you against them in principle? Are you against them in principle, or do you merely wish to amplify them and add some points to them to repair omissions?—In general we support them.

329. You are not against them?—No.

330. You would merely amplify the proposals which they contain, and add

some things which you consider essential additions?—Or modify some of the recommendations.

331. Do you think you can in the provision of legislation improve upon the method for future handling of the problem of compensation water, and does the Ministry accept in principle your views?—I could not say whether the Ministry accept in principle the views we put forward.

332. Are theirs contrary to yours with regard to compensation water?—I do not think so in general.

333. What is the reason for your giving evidence if you are not in principle against the proposals of the Reports, and you do not know whether the Ministry will oppose any additions you may suggest? What is the reason for your being here?—When I say I do not know whether the Ministry will oppose them, I do not suppose the Ministry—certainly officially—have yet heard what we have said. We are simply giving the views of those we represent. We agree with the Ministry, and in fact I think we agree with anybody who has yet spoken on this subject, that there is a great deal of waste of water going on through the statutory provisions which now exist regarding compensation water.

334. The Ministry agree with that in principle?—I think so.

335. Therefore, you are not against anything they have said?—The difference of opinion comes in as to how that is to be met.

336. That is a matter of detail?—Yes. We make a certain suggestion from our experience which we think might be used as a satisfactory solution of that problem.

Lord Milne.

337. Have you had an opportunity of expressing the views in your Memorandum to the Ministry or to one of these Committees?—No, my Lord.

338. You have never had an opportunity?—Not officially. I would say that I have had an informal conversation with Mr. Hetherington after this was prepared. He expressed a wish to know generally what the lines of our evidence were, and I saw him on Saturday morning, but that was purely informal and unofficial.

339. And even the Technical Sub-Committee on the Assessment of Compensation Water, who differ from you very

23^d Julii, 1935.] Mr. W. J. E. BINNIE, M.A., M.Inst.C.E., [Continued.
Mr. H. P. HILL, M.Inst.C.E., Mr. S. R. RAFFETY, M.Inst.C.E., and
Mr. R. C. S. WALTERS, B.Sc., M.Inst.C.E., F.G.S.

strongly on the question of detail, not in principle, you were not able to give the benefit of your views to simplify their ideas?—No. All these Advisory Committees of the Ministry of Health consist of representatives of waterworks or water undertakings, and we, as Consulting Engineers, do not take part in any of those deliberations, and I do not know that they took evidence. I really do not know what the procedure was. I think they got such information as they could. Information was given to them by Consulting Engineers and others for their private use in compiling these Reports, but the Report was never discussed; it was simply a Report of that Sub-Committee.

Marquess of Aberdeen.

340. I gather you are not altogether satisfied with the present control or administration for the prevention of pollution of rivers? That is so.

341. Have you any suggestion as to who should be the controlling authority for the prevention of pollution?—The question has been solved in certain cases by the water undertaker himself obtaining powers under his special Act to exercise the powers of the Rivers Pollution Acts with the consent of the Ministry of Health when the other authorities have not done so. That is rather a long way round. Under the Land Drainage Acts the Minister of Health has power to set up a Pollution Prevention Authority over a wide area. That is one line which might be further exercised. That has been done in the case of the River Dee. It was done originally, I think, at the instance of the Chester Water Company at the mouth of the river, who complained of the pollution. The making of the Order was very heavily opposed but eventually a representative Board was set up, covering the whole of the authorities through the country through which the Dee runs, as a special Board to deal with river pollution.

342. Were they representative of all interests?—Yes; the County Council, the District Councils, the Water Authorities—I think they were all represented on that Board.

343. Do you consider that would be satisfactory from the point of view of water undertakers?—That is satisfactory so far as it goes, but it is a very difficult thing to get that Board set up, and

probably a simpler way might be arrived at by which these Boards were generally set up.

344. In your opinion, ought the water undertaker to be supreme in the matter of the prevention of pollution, or do you think the Sanitary Authority ought to be the Authority, or who should be the predominating influence?—The Sanitary Authority ought to be the Authority in the first instance because it is obviously a sanitary job, but where they do not move I think other interests ought to be able to get them to move.

345. You do not think that the water undertaker would be the best authority, as being the most interested and the prevention of pollution being most essential for the protection of the public using water?—I think it is better that more interests should be represented. For instance, there are the Fishery Boards where such exist; they are also interested in pure water.

346. Certainly?—It is much better that you should spread the powers so long as you do not spread them too far and get people whose pockets are directly affected if the pollution is stopped.

347. Do you think the new authorities as a whole come up to the desired power of preventing pollution?—There are very few of them.

348. You do not think the Drainage Boards are altogether satisfactory?—They do not have powers over river pollution unless they are specially conferred upon them. A Catchment Board as such has no powers under the Rivers Pollution Act unless they are specially conferred upon that Board. The Thames Conservancy is a different thing because it was a Conservancy Board before it became a Catchment Board in the sense of the Land Drainage Act.

349. I rather gather you hold up the Thames Conservancy as an ideal?—It is wholly satisfactory.

350. There is one other point in your proof with regard to legislation. You wind up by saying: "No undertaker should be forced to supply outside its limits," and the rest of that paragraph. Would you mind illustrating that paragraph, say, by the late bill of the Croydon Corporation? Croydon promoted a Bill this Session?—I was in it.

351. It seems to me that is the sort of example which might be taken under this paragraph of yours?—Yes, but generally speaking nowadays in any Bill

23rd Julii, 1935.] Mr. W. J. E. BINNIE, M.A., M.Inst.C.E., [Continued.
Mr. H. P. HILL, M.Inst.C.E., Mr. S. R. RAFFETY, M.Inst.C.E., and
Mr. R. C. S. WALTERS, B.Sc., M.Inst.C.E., F.G.S.

that is promoted before Parliament for an authority that goes outside its area it is practically taken for granted that they have to supply the area from which they take the water at cost terms. It is not laid down in any actual Statute, but that is the generally recognised thing, that if you take water from an area you become responsible for supplying that area on reasonable terms.

352. Then you would really be in favour of having one water undertaking where the sources of supply are common rather than a multiplicity of authorities?—Generally speaking, that is better, either by one authority or a combination of authorities forming a joint board.

Mr. Richard Evans.

353. You complain that you had not accurate data always with regard to water supplies?—Yes.

354. You are aware, as you indicated, of the inland water survey which is now going on?—Yes.

355. What would you have done additional to the work of the inland survey?—I would give them statutory powers to demand this information. That is essential in our mind, that so long as we are relying on information given voluntarily it is bound to be incomplete.

356. Do you regard that as a matter of great urgency?—Of great importance, and it is difficult to rate its urgency because the value of it would accrue in the future. It will be the next generation that will benefit by it, because they will have these records of gaugings which we now have to do without, and, of course, it will be in the future when the need for utilising more generally the sources of water supply that are not used now will be wanted.

Sir George Courthope.

357. I gather that you agree with other evidence that has been put before us that legislation dealing with compensation and distribution and kindred matters is urgent?—Yes.

358. And that all the material necessary for the preparation of that legislation is in existence?—I do not know about that; it may or may not be. I should not say that it was entirely complete but I should say that sufficient information was available for a very great improvement in the present statutory position.

359. I gather that you and the Institution which you represent are in general supporting the recommendations of the Triple Conference?—Yes.

360. And you would agree that any qualifications of that, any detail on which you would differ, could be dealt with better by the preparation and issue of legislation?—A Draft Bill.

361. By a Draft Bill than by the presentation of further evidence before this Committee?—I would rather not express an opinion on that. That is not quite a question to which we have turned our minds.

362. May I put it in a simpler form, that you would support a proposal that a Draft Bill should be prepared and issued to interested bodies in the near future?—I think we would.

363. What is your view with regard to the proposal commonly known as the Water Grid?—From my experience and the experience of others it would not really meet the problem at all, because obviously the best solution of water supply is to use first the sources of supply near at hand. Further than that, the engineering difficulties of conveying water over large distances and making it to a certain extent interchangeable one with another make the thing really impracticable altogether.

364. You do not think it is a desirable or a practicable proposal?—Neither desirable nor necessary.

365. One question about the Ordnance maps, if I may. I understand that you consider that the one-inch geological maps now issued by the Ordnance Survey are good?—(Mr. Walters.) Yes, certainly.

366. But you advocate more frequent revision?—Yes.

367. You attach importance to that? I want to get your opinion about that in evidence?—Yes.

368. How frequently does revision take place now?—Some of the old maps are 50 years old, and earlier than that perhaps.

Major Mills.

369. You will have gathered by looking into the matter that there is a great mass of critics of a scheme. Can you suggest any people who ought to be heard, for instance, on compensation water?—(Mr. Raffety.) The Catchment Boards, the Fishery Boards, and I have no doubt the

23rd Julii, 1935.] Mr. W. J. E. BINNIE, M.A., M.Inst.C.E., [Continued.
Mr. H. P. HILL, M.Inst.C.E., Mr. S. R. RAFFETY, M.Inst.C.E., and
Mr. R. C. S. WALTERS, B.Sc., M.Inst.C.E., F.G.S.

Minister of Agriculture would have something to say about it, himself or his Department. Of course, the millowners and the process manufacturers, that is to say, the calico printers, are the chief ones, and the bleachers will all have something to say on compensation water, I have no doubt. Possibly, also, the County Councils, the Urban District Councils and the Rural District Councils Associations and the Municipal Corporations, of course. All those are bodies that one can imagine would wish to have some say in the matter.

370. I gather that the Associations you gentlemen represent are not quite so enthusiastic about the Regional Water Committees as the Triple Conference was when Mr. Gibbon was giving evidence before it. Of course, there will only be a comparatively limited number of these Regional Water Committees. Can you visualise any area of the country where there would be no problems for a Regional Water Committee to consider?—There are many parts of the country where there would be practically nothing for them to do, and if such an authority is set up, unless there is a Central Authority with either sufficient money or sufficient enthusiasm really to make the thing work, it would simply become moribund, and that is why we suggest that in such parts of the country the obtaining of data would be much better controlled direct by the Inland Survey Water Committee, who could delegate somebody to supervise that or in whom they would have confidence, one who they know would really look into the thing and do it properly.

371. You would leave in such regions the actual provision and consideration of needs to the Local Authority whose statutory duty indeed it is to provide their population with water?—Yes, and if the need for a Regional Committee came later on I think that Regional Committee would automatically be set up when the time came.

Mr. Richard Evans.

372. If a Draft Bill were issued, are you satisfied, drawing on your experience as a Consulting Engineer, that the op-

position would become vocal, that you would know exactly in what direction it was? Could it be organised?—It usually does become vocal, especially if it has anything to do with compensation water.

Chairman.

373. You do not anticipate any difficulty in finding the opposition?—No; I do not think so.

374. You referred to the question of the Sanitary Authority being the principal offender—I think you used that word—in regard to the pollution of certain streams. I was not quite clear about that. What is the remedy, what machinery exists now for dealing with the Sanitary Authority other than an application to the Ministry of Health?—If it is a local sanitary authority itself that is polluting the river the County Council would be the authority who should get the matter put right.

375. In the case of a municipality of any kind whom would you appeal to then?—If it is a non-County Borough the County Council would be over them. If it is a County Borough there would be nobody.

376. What happens in the case of a County Borough which applies to a Borough of over 75,000 population?—I am not sure the Ministry can act on their own. If the pollution is so bad as to become a definite nuisance, so as to kill fish or anything of that kind, then, of course, private persons can act, but not under the Rivers Pollution Acts. They can go to the Courts and obtain damages, but they cannot act under the Rivers Pollution Act. I think that is so.

377. So the machinery is not really strong enough, in your view?—No. The Rivers Pollution Act is intended to prevent pollution, and, if it is properly exercised, it does do so. I think I am right in saying that in any case where the Water Authority has been given the powers it has never been necessary to exercise them. It has always been done by inspection and agreement.

Chairman.] Thank you very much, Mr. Raffety, and your colleagues. The Committee will meet on Thursday next at eleven o'clock.

(The Witnesses are directed to withdraw.)

(Ordered: That this Committee be adjourned to Thursday next, eleven o'clock.)

Die Jovis, 25° Julii, 1935.

Members Present:

Marquess of Aberdeen and Temair.
Lord Darcy (de Knayth).
Lord O'Hagan.
Lord Sanderson.
Lord Milne.
Lord Eltisley.

Sir George Courthope.
Mr. Richard Evans.
Sir William Jenkins.
Major Mills.
Colonel Sir Edward Ruggles-Brise.
Sir Arthur Michael Samuel.

The LORD ELTISLEY, in the Chair.

Sir ARTHUR ROBINSON, G.C.B., C.B.E. (Secretary, Ministry of Health) is called in and examined as follows:—

Chairman.

378. The Committee have invited you to come here this morning especially in order that you might inform the Committee as to the work that you visualise lies ahead of the Committee, and the special reasons for the setting up of this Committee. The Committee has, as you are no doubt aware, had one or two witnesses before it, and, amongst others, representatives of your Department. They have come to the conclusion that there is a great deal of evidence available as to the needs of something being done, and, further, that there are a great many recommendations which you have in your Department which might be implemented in the form of a Bill, and they were anxious to hear you before they hear any other witnesses, particularly on the point in regard to any further work which you feel should be especially undertaken by the Committee. I do not think I have anything more to say than that, except to thank you for coming here to-day. I think you are aware already that that is the main purpose of our inviting you to come here this morning?—Perhaps, Mr. Chairman, I might deal with the thing best by explaining what the Minister had in mind in proposing the appointment of a Select Committee.

379. Yes, I think that is really the point on which the Committee desire to hear you?—I think I can explain it best in this way: We have been conscious in the Ministry of Health for a very considerable time that one of the sections of Legislation which needed overhauling and bringing up-to-date was the body of Legislation dealing with water supplies. There have been various inquiries into that, culminating with the

Inquiries made into it by our own Advisory Committee on Water Supplies. That Committee went into various points and put in two or three Reports, and we were faced with the question how it was possible to base Legislation on the Reports of that Committee. We had also before us the fact that we had had the water organisation of the country tested by two years of exceptional drought, and we thought it desirable to look into that question of organisation with reference to the strain that had been put on it, and to consider whether any improvements in it might be made. We were also faced with the fact that this year was a year in which Parliament was very fully occupied. It is always difficult to find time for Legislation on questions, especially a Bill of this sort, which by its nature must be rather a long Bill, and it appeared to us that before, therefore, considering Legislation it would be highly desirable that some at all events of the issues raised should be considered by some independent body, some body about the impartiality of whose opinion on these issues there could be no question whatever. The parts of the Reports of the Advisory Committee which we had particularly in mind were those parts of the Reports which affected not only water interests, but also other interests. There are quite a number of those; I think I might refer to two. They made some proposal with regard to the control of underground water supplies (that was one of them) and they made also proposals with regard to amending the law as to compensation water. That was another. I quote those two as instances of it. We felt that these two proposals and others had such a bearing on industry that, before we went to the stage of trying to frame

25° Julii, 1935.]

Sir ARTHUR ROBINSON, G.C.B., C.B.E.

[Continued.]

a Bill, it was highly essential that Industry should have an opportunity of being heard on those proposals. We, at the Ministry of Health, as you know, are responsible for water and not for industry and trade, and we felt there should be some impartial body before which industry could make its appearance. Then there were other aspects of the matter which did not arise so much out of the Report of the Advisory Committee as out of the drought. It seemed to us that the central organisation for dealing with water required a certain amount of strengthening. You had, I think, evidence from Mr. Gibbon of the Ministry of Health at the end of his appearance before you, indicating one or two points of that kind. There is, for example, the question of Regional Water Committees. At the moment those things can only be formed by consent. They form a very important part in what I might call a far-sighted water policy, and the question was whether there should not be some power of securing the appointment of those Committees. There are various other matters there in which it appeared to us that the powers now given to the Central Department by the law were worth while considering and deserved to be considered.

The Minister then came to consider what was the body which he might fairly ask to consider these two problems, first of all, especially the views of industry on some of these recommendations, two of which I have quoted as instances, and then this question of the position of the central authority, and whether the powers of the central authority should be in any way amended or expanded. We thought that a Select Committee of both Houses of Parliament had very many advantages as a body of that description. It was being called on to deal with this question of water supply which comes before the House constantly in Private Bills, and, therefore, is a thing with which Members of the House of Commons and the House of Lords are familiar. We thought that it represented both Houses of Parliament and represented all parties, and we had in our minds also the fact that previously we have found the Reports of Select Committees extremely valuable to us at the Ministry of Health; for example, the whole policy of the Ministry of Health in regard to loan sanctions goes back to the Report of a Select

Committee which considered the whole of that problem and gave us a report on the whole problem, with reference to which the policy of the Local Government Board and the Ministry of Health has been framed ever since. Therefore, we thought that both from the point of view of suitability for the purpose and from the point of view of knowledge of the subject and from the point of view of impartiality, a Select Committee of both Houses of Parliament was the appropriate body to consider these matters and to report on them. I think that is roughly how the Resolution came to be proposed by the Minister.

380. Have you anything to add to that?—No.

Major Mills.

381. Is there anything in Sir Arthur's mind to bring home to us the point that this Select Committee ought to make recommendations before a Bill is drafted for the criticism of interested bodies, or should it not be *vice versa*?—I have thought that the Committee would offer an opportunity for selected bodies to appear before it, and to express their view which might not be the same as the water view embodied in the Reports of the Advisory Committee on some of those points, two of which I have mentioned to you. I thought that after hearing those views the Committee, as an impartial body, will be able either to say that the Advisory Committee was right, or that industry was right, or that some course between the two was right. That is what was in the mind of the Minister, I think.

382. It had rather occurred to me that, so much information being already at the disposal of the Ministry, it would have simplified the work of this Committee a great deal to have had something concrete to examine rather than to have had to wander over the whole field again for ourselves exploring things which were already known?—Do you mean that it would help the Committee if it were possible to put into some paper or memorandum a statement of the concrete points to which it seemed to the Minister that the Committee might primarily at all events devote their attention?

383. That was my point?—Yes, that could be done if that is the wish of the Committee. There is no difficulty about that.

25^o Julii, 1935.]

Sir ARTHUR ROBINSON, G.C.B., C.B.E.

[Continued.]

Lord Darcy (*de Knayth*).

384. I think that largely meets my point, but I think what you want this Committee to do is to decide principles for legislation to be submitted and for the draftsman to carry out afterwards, and not to leave everything in the hands of the draftsman and then to say that he is working on the wrong principles afterwards?—Neither in the hands of the draftsman nor in the hands of the Ministry of Health, if I may say so.

Colonel Sir Edward Ruggles-Brise.

385. Does Sir Arthur contemplate that amending legislation should be brought in quite soon? Is it urgent?—What the Minister had in mind was to endeavour to introduce amending legislation next year, subject to Parliamentary exigencies, which you know as well as I do.

386. But there is a definite urgency or an urgency within reasonable time for amending legislation?—Certainly; the legislation is overdue.

387. Has the drought of the last three years made it overdue, or was it always necessary that there should be some amending legislation?—It has been necessary for a very large number of years. It is like other commitments of the Ministry of Health. If you have to bring the whole of the Ministry of Health legislation up to date you have to have a continuous process of doing that, and subject to Parliamentary conditions it is extraordinarily difficult to do it. This is one which is recognised as a heavily overdue commitment, drought or no drought.

388. In the legislation which you envisage there is no question of major principles about which your Department is not clear; that is to say, there is no major alteration of policy to which you desire to see legislative effect given?—There are certain proposals, for example, with the regard to the control of underground water supplies. There are certain proposals with regard to compensation water. There are certain suggestions with regard to the powers of the central authority in regard to water supply which those interested in water and those interested in industry might call major policy.

389. There are some important questions of policy?—Quite important questions.

390. Which your Department desire to see put into legal form?—Quite.

391. As regards the conflict of interests, am I right in saying that the conflict exists between water undertakers and certain industries?—We wanted, if I may say so, to ascertain the extent of the conflict. Our experience in water matters is that there is nearly always a conflict of some kind. We have had it up recently in other spheres, and it appeared to us that in the Parliamentary conditions one of the things that this Committee would advise about was the extent of the conflict, and how it could be reconciled.

392. If a memorandum were prepared by your Department for the Heads of a Bill, and were circulated to all the parties interested, would that not bring out the points of conflict?—No. We want to carry it, if I may say so, further than that. What we want is not only to elicit the points of conflict, but to get the advice of an impartial body of this description as to what the right solutions are of those points of conflict, and, when that is done, then we could usefully proceed to the drafting of a Bill.

Lord O'Hagan.

393. In the event of your preparing a Memorandum such as you have been mentioning, how would you suggest that the different points of view of industry should be secured before the Committee?—I do not know, but I take it that you are hearing in evidence representatives of industry on the Memorandum which we put before you summarising the views of the Advisory Committee. That is what I understood your procedure was, and I thought, therefore, before you got to the question of a consideration of the precise points, you would be in possession of, at all events, some expression of the views of industry on the points of controversy.

Sir George Courthope.

394. Sir Arthur, are you aware generally of the evidence which has been put before this Committee by your own Department and others? May I put it this way? Are you aware that the witnesses who appeared for your own Department made it quite clear to this Committee that, in their opinion, the Department possessed all the experience and material necessary for the drafting of a Bill?—I should be rather surprised to hear that was so, because, if I recollect rightly, in the evidence of Mr. Gibbon, he said, in embryo, something of the same sort of

25^o Julii, 1935.]

Sir ARTHUR ROBINSON, G.C.B., C.B.E.

[Continued.]

thing as I have been saying this morning. It is quite true, he said, that we had a lot of information about water. If we had not it, we ought not to be there, but he did make a point, or he tried, at all events, to make the same sort of point, as I am making to-day, that, over and above that information, we required the judgment or advice, or the opinion of an impartial body on some of the important issues.

395. You disagree with the recommendations of your Advisory Committee and what is known as the Triple Conference that, in order to ascertain, to use your own words, the extent of the conflict, it is advisable that a Bill should be drafted and circulated?—We neither at the moment agree or disagree with the views of the Advisory Committee; I have forgotten the precise name. We express no opinion on that at the moment. What we want before making up our minds is to get, if we could, the advice of an impartial body on these points.

396. But unless you make a proposal, how are the bodies who are likely to be critical, and possibly to be controversial on the subject, to know what your points are?—The Reports of the Water Advisory Committee do make certain proposals which were embodied in a Memorandum or a Precis which was laid before this Committee.

397. But you have just said yourself that you are not prepared to accept those proposals in the form of Legislation?—What I have said, if I may say so, is that those proposals are put forward by persons concerned with water only. It is purely the water interests. In respect of some of those proposals, that interest comes into conflict with other interests. What we wanted, if we could, before basing Legislation on those proposals, was to get the assistance of an impartial body to say how far those proposals were sound, or how far those proposals required to be modified.

398. You expect all the bodies concerned to make a study of recommendations of an Advisory Committee which the Ministry have not themselves accepted, and to present evidence to this Committee upon them?—What we did, if I remember rightly, was to summarise the proposals of the Advisory Committee in the form of a paper which was laid before this Committee, and one assumes that on that summary the interests concerned would apply to appear before the Committee and register any views or any

dissent that they felt about it. That would be the ordinary procedure, I think.

399. In order to ascertain the extent of the conflict, would it not be very much better that the Ministry itself should formulate proposals?—We think not.

400. And invite criticism upon them?—We think not; we think that the proposals we formulate will be water proposals.

401. Of course?—That is our interest, and we think that if you formulate a Bill based purely on the water point of view, the only effect of that is going to be a prolonged controversy in Parliament, and, under Parliamentary conditions as they are now, it will be very difficult indeed to get Legislation of that sort put through, and it appeared to us that before getting to the point of committing ourselves to a definite Bill, it would help us enormously if we had the advice and opinion of a Committee of this kind.

402. If you were inviting the criticism and opinion of bodies (we will say the Landowners' Association and the Chartered Surveyors, the County Councils' Association, and a number of other bodies), first of all they would say: "What are we to criticise?", and this Committee would say "We do not know; the Ministry of Health will not tell us"?—It is there.

403. Secondly, if they are asked to express an opinion, what will the opinion of all those industrial and land-owning bodies be? They will say "Leave us alone." That always is what they say?—Yes.

404. The one thing they do not want is to be interfered with?—By bureaucracy.

405. By a Departmental body at all?—Yes.

406. And, unless there is an indication given to them as to what measure of control or interference is in contemplation, they have nothing to criticise. Will you deal with that?—If I may say so, they have before them a Summary of the Reports of the Advisory Committee.

407. Do you suggest that that should go out to all these bodies as a thing for them to criticise?—Yes.

Sir George Courthope.] I am surprised.

Sir Arthur Michael Samuel.

408. Sir Arthur Robinson, you said that you are not yet able to make up your minds. How can the Committee make up

25^o Julii, 1935.] Sir ARTHUR ROBINSON, G.C.B., C.B.E.

[Continued.]

its mind or advise on the points of conflict until they have learned what those points of conflict are after they have taken a concrete form as a result of the perusal by the consumers and undertakers of a draft Bill?—The answer I think to you, Sir Arthur, is the same as the answer to the other Member. You have had a Memorandum here circulated containing the summary of the Reports of the Advisory Committee. The Federation of British Industries, or whoever it is, have that document, and they can pick up quite easily from that document the points on which they choose to make observations to the Committee.

409. As a rule in Parliament we generally find that the Minister gives a lead; if it is a Government Bill we have the thing in concrete form before us; if it is a Private Bill on Private Members' Day, the Minister who looks after certain definite forms of Legislation would give the House a lead. Do not you think it is the function of your Ministry to give the country a lead as to what it thinks should be done in the form of a draft Bill?—No, I do not. I think, myself, that given the conditions of Legislation as they are, the lead which the Ministry of Health will give to the country by way of a draft Bill will be a very much better lead if the lead is not taken till it has the assistance of the advice of this Committee.

410. How can we give that advice, which I take we are perfectly willing to do, until we know what the points of conflict are?—As I said to the Chairman I understood the situation to be that you were hearing evidence from industry, and so on, and that evidence will show you what the points of conflict are.

411. So far, we have had no points of conflict?—Because you have not yet heard the representatives of industry; you have heard nothing but water interests, so far.

412. Quite so, but cannot you confer with the Board of Trade to obtain their views as representing industry, and then weld those views into your own views?—The answer to that is that you will then get a long and controversial Bill which will be fought out before the House of Commons, and that, under modern Parliamentary conditions, is a thing which you ought to avoid if you can.

413. Would not this Committee be in a position to avoid that by having a

Bill drafted containing such points as you may think proper to put in representing the conflicting interests? We can weed it out?—You cannot draft a Bill, if I may say so, until you have some sort of decision on the policy which is to be embodied in the Bill.

414. You cannot get that decision, I submit, until the people who are touched by the Bill have seen what is proposed. Was not that a form taken in, perhaps, the Port of London Bill, and many other Bills drafted by Mr. Neville Chamberlain in his day to see what the points of conflict were?—The Bills drafted in Mr. Neville Chamberlain's day were different Bills from this Water Bill. You did not get there the conflict between interests represented by the Ministry, and industry and so on. Take compensation water. You have had a perfectly concrete proposal made for altering the compensation water in that Committee's Report and summarised in the Memorandum. It is perfectly possible for the people concerned with that to say whether they think it is fair, and what alterations should be made, and I take it they could take up that point before the Committee.

415. Is not your Ministry in a position to say "We hold the scales evenly, and we are advised that such and such a course should be followed resulting from this concrete proposal"?—The Minister, as I understand the situation, is anxious to get the advice of an impartial and competent body like this Committee to fortify himself in taking a line of that kind. That is the point.

416. How can we help you until we know exactly from every angle what the points of conflict are? We cannot know the points of conflict until the proposals have been circulated for the conflictors to have a look at?—That is exactly what has happened. You have had circulated, as I understand it, a Memorandum which summarises the findings of the Advisory Committee on Water, summarises certain proposals taken from the Water standpoint, and, I understand, your next stage is to hear representatives of industry on those proposals. Those are the points. That is where the points of conflict will arise.

417. May I put it rather roughly, and, perhaps, rather discourteously. I do not wish to be discourteous. Are not you asking us to hold the baby for you and do the work which you yourselves ought to do, to shield you?—No, not in the

25^o Julii, 1935.] Sir ARTHUR ROBINSON, G.C.B., C.B.E.

[Continued.]

very least. What we are asking a Select Committee of both Houses of Parliament to do is to judge a question which raises interests very much wider than the interests of the Ministry of Health.

418. Without your giving us the material on which to work?—We have done that already. We have given you the water view in the Report of the Advisory Committee.

419. You have not given us the conflictors' views?—No.

420. Ought not you to collect them for us?—Not in the least. As I understand the proceedings of a Committee, that is what a Committee is for. We have put before you the Memorandum that we have; that is the summary of the water point of view as reflected in the findings of the Advisory Committee on Water. As I understand the situation the other interests concerned are appearing before you to express their views where they differ from that. That is surely the ordinary procedure of a Committee, is it not?

421. I do not want to delay the Committee any further, but it seems to me that you are asking us to analyse and precipitate the evidence for you instead of you doing it for us?—I should not accept that, Sir Arthur.

Sir Arthur Michael Samuel.] That is all I have to say, my Lord Chairman.

Mr. Richard Evans.

422. Shall I put it this way, Sir Arthur? Let us take the formula to deal with a revision of payment for compensation water?—Yes.

423. Suppose we do hear the various interests, riparian owners, mill-owners and industrial undertakings, and so forth; they say "We disagree with this formula; we think it is manifestly unfair". We should adjudicate and say "The interests of the community must be paramount, and we agree with this formula". Would that help you in any sort of way?—Enormously.

424. And, if you did draft a Bill and it went upstairs to the Committee, do you think the opposition would be any less? Do you think our decision would make that Bill a non-controversial one?—It would not make the Bill a non-controversial one; but it would strengthen the hands of the Ministry enormously in making up their minds what is a fair compromise between the interests.

425. Your Department is fully aware of the character of the opposition?—No;

we are not fully aware of the character of the opposition to the proposals of the Advisory Committee. That was one of the things that we assumed that your Committee would define or would lead to a definition of.

426. Is it not the case with other Departments, if they are promoting a Bill and there are zones of conflict traversed by their Bill, that it is customary for the Minister or his Department to canvass the views of potential opposition?—Yes, it is done.

427. Why is it not done in this case?—Because we thought that this case raised questions of such importance to industry that industry ought to have the right to make its views known to an impartial body before the Ministry, and the Government proceeded to draw up a Bill and submit it to Parliament.

428. Supposing we adjudicated on those issues and made a Report, and we said: "We agree with the Advisory Committee's proposals on this with regard to underground water supplies, and so forth", do you really believe that it would strengthen your position?—Enormously. There is no question of that.

429. It would not minimise the opposition?—There is no question that it would strengthen the position of the Minister responsible for the Bill enormously if the Committee did that.

Sir William Jenkins.

430. Sir Arthur, the controversy is with the industries. That is where the controversy has been?—Yes, that is one of the elements. The other point was the question of the central powers, and so on. That is a different point which is raised in the evidence you had.

431. You think that we ought to have those interests here?—Yes.

432. So that they may be examined and cross-examined on the various interests?—Yes.

433. You think before you could promote a Bill you would like to get that information from an impartial body?—Yes.

434. You said that you could produce a Memorandum to us on the special points of conflict?—Yes, we could produce a Memorandum setting out the points (if it would help the Committee) which appear to us to require a decision by the Committee. We could do that if that would help the Committee, I think.

25^o Julii, 1935.] Sir ARTHUR ROBINSON, G.C.B., C.B.E.

[Continued.]

435. Before the Committee could come to a decision on that it would be necessary for them to get information from the people affected?—In so far as they have not got it with such evidence, for example, as you are to have. I am not thoroughly familiar with the proceedings.

Marquess of Aberdeen and Temair.

436. Sir Arthur, you paid this Committee a compliment in describing it as impartial and competent?—Yes.

437. I am quite prepared to agree with the "impartial", but how do you consider this Committee more competent than the Ministry itself which has had all the experience behind it for years to judge what should be and what should not be done?—I beg your pardon.

438. You do not follow?—Have I to explain why I think the Committee is competent?

439. You have described this Committee as competent as well as impartial?—Yes.

440. Why is it more competent than the Ministry which has all the information behind it to be able to draft a Bill? Why should this Committee be more competent than the Ministry?—I do not think it is a question of greater or less competency as between the Committee and the Ministry. It appeared to me that the Committee was on one side impartial, and that it was competent, because it consists of Members of Parliament and men of affairs who are able to form an effective judgment on issues in a sphere in which there is, as you know, a very considerable experience already in the House of Parliament, because of the enormous number of Private Bills, and so on, that come before the Houses.

441. Then, I presume, this Committee is not more competent than a Committee of the House upstairs when a Bill is before the House?—I think that is rather a difficult question to answer, is it not?

442. May I ask whether the Ministry have done anything in the way of circulating the Advisory Committee's Reports to other interests than those concerned with water, in order that they may find out what the opinion of those interests is?—We have adopted the method of laying a Memorandum before this Committee, the idea being that the interests should be heard before this Committee.

443. Have you taken any steps to find out from other sources than water undertakings what the opinion is on the Advisory Committee's documents?—I think the answer to that is No. We have not carried out any consultation of the other interests on the Reports of the Advisory Committee.

444. I think you told one of my colleagues just now that the Ministry of Health do not know who the opponents are?—I think I said that the Ministry of Health were not able to judge the strength of the opposition, did I not? That was rather what I had in my mind.

445. How is the Committee to find out who the opponents are in order to get them here?—I assume that you have in your proceedings this *Precis* of evidence and that persons or bodies concerned in the matter would volunteer to give evidence before you. That would normally happen, I think.

446. Would you be surprised to know that the Committee do not know now, although we have had three or four sittings, who the opponents are?—Not a bit.

447. Then if we do not know who the opponents are, is the Minister prepared to help us to find them?—I thought, as a matter of fact, that you were already hearing representatives of industry. I thought the situation was that you were already hearing representatives of industry, and had arranged to do that, and I thought that in that way you would discover whether industry does wish to oppose these recommendations.

448. As far as I understand from the Clerk to the Committee, we do not know (we have not heard) of any desire to come and express opposition to the documents put before the Committee, or to the evidence given by Mr. Gibbon. Does that surprise you?—If that be so, that is so much to the good.

449. Will you help us to find out the opponents and get them to come here to tell us?—Does that mean that we should produce evidence for the Committee? Is that the question? I am not clear.

Chairman.

450. I think I may intervene here to this extent, to say that we are in communication with 13 or 14 different interests, and until we get their Memorandum we do not know quite what their view point is?—I did not quite understand from the noble Lord's question what I was to do.

25^o Julii, 1935.]

Sir ARTHUR ROBINSON, G.C.B., C.B.E.

[Continued.]

Chairman.] That is the actual position at the moment.

Lord Sanderson.

451. Am I right in thinking that you believe that if we reported after having had witnesses from the opposition, and people who are not altogether in agreement with the Ministry's policy, we should send in a much stronger Report, and a Report much more helpful to the Ministry than would be the case if we reported after hearing only evidence from the Ministry?—Yes.

Chairman.] Are there any further questions that any Member of the Committee desires to put?

Colonel Sir Edward Ruggles-Brise.

452. Sir Arthur, the points which you mentioned as being those which really want to be cleared up, do not seem to square at all with the Terms of Reference upon which this Committee was appointed?—I do not carry in my mind at the moment what the Terms of Reference were. They were rather widely conceived, were they not?

453. They were extremely wide. We were to enquire into the whole of the water resources and supplies of this country, which was apparently an undertaking of some magnitude, but at the same time one of first importance?—Yes.

454. It appears that that is not really what was in the mind of the Minister of Health, judging from what you have told us. You have certain points of conflict which you envisage, and you want us to disentangle these points, and then to give a lead to the Ministry before they draft the Legislation. Have I interpreted it correctly?—I think I used at one point the word "primarily".

455. Yes.—It appeared to me that, as you know, Committees are apt to interpret their own Terms of Reference, and that when the Committee was appointed, we, at the Ministry, had to consider what would be the most useful method by which we could start its operations, and that is as far as we carried it, and that is what I think I conveyed. I think I said it seemed to me that the first one, at all events, was this one which we are discussing now, but, as you know, Committees do interpret their own Terms of Reference quite often.

456. Yes; but do you appreciate that the evidence given on the first day by Mr. Gibbon on behalf of your Department definitely disposed really of all the main points of the Terms of Reference

upon which this Committee were set up?—I am sorry, I have not read the evidence of Mr. Gibbon yet, but I will take it from you.

457. You can take it from me that the Terms of Reference, which were to consider the whole of the water supplies of this country were finally disposed of, I think, to the entire satisfaction of the Committee by the evidence of Mr. Gibbon?—Disposed of in what sense?

458. Disposed of as being satisfactory, and that all the information and knowledge necessary was in your possession?—That was on the question, for example, whether the drought showed that the water supply of the country was bad and needed to be expanded; that is the sort of point you had in mind?

459. Yes, and generally beyond that?—I take your point. That was general evidence of what the water supply is like now and how it does its job and that sort of thing. I can see all that.

460. Particularly on the question that the water resources of this country were adequate for all purposes not only now but for the future, at all events for a reasonable time in the future?—I do not quite get your point. I think all that evidence was properly led on your Terms of Reference, but I thought the point I was to discuss this morning was this question why we at the Ministry of Health thought this Committee was required on this narrower question of legislation and powers.

461. The point I am making is that it seems to me that the narrower points which you are indicating this morning have very little to do with the major points set out in the Terms of Reference?—I could not accept that, if I may say so, because I think these particular points—I have only quoted a few—from the point of view of getting a proper Water Bill are of very great importance, and a proper resolution of the difficulties with regard to them as I have it in my mind is a matter of very great public importance. That is what I should like to say.

Sir Arthur Michael Samuel.

462. Do you express doubts as to the effect of the proposed legislation on the minds of the industrialists, that is, as water users? You said you were not quite clear as to what effect those proposals would have on the minds of industrialists, did you not?—I have forgotten the exact words. What I meant was

25° Julii, 1935.] Sir ARTHUR ROBINSON, G.C.B., C.B.E.

[Continued.]

that it seemed to me quite clearly that those industrialistic minds ought to have some method or means of expressing their views on those proposals before an impartial body.

463. I agree that they should have an opportunity of expressing their views, but have you not asked the Board of Trade already, its views, and ought you not to do so?—If you deliberately propose to deal with this problem in this way you will deal with it in this way. In one way or another the views of these interests have to be ascertained, and this appeared to the Government and to the Ministry to be the best way of doing it, and on that we stop.

464. You say if we are going to deal with these matters in this way. Might I suggest it is a rather otiose way of dealing with it, not getting down to the opinion of some of the greatest users, namely, the industrialists? Is not it otiose not to have taken the views of the Board of Trade?—No, not if you have provided or if you are providing a means whereby these people can express their views, not to a Government Department but to an impartial body.

465. You are aware, as I am aware from my own official work, that the Board of Trade is daily in contact with the spokesmen of forty thousand firms, namely, the Association of British Chambers of Commerce?—Yes.

466. I am astonished to hear that you have not taken the precaution to have a word with the Board of Trade to ask them to get into touch with the forty thousand firms to hear what they have to say on broad lines?—These people will have their opportunity at a later date of expressing their views to this Committee, and that appeared at the moment to be all that was required.

467. Is not that rather late in the day?—No, not late in the day at all.

Sir George Courthope.

468. You said in answer to Sir Arthur Michael Samuel just now that in your opinion the industrialists should have an opportunity of expressing their opinion on the proposal?—Yes.

469. What proposal, if your Ministry do not formulate it?—The proposals in the Memorandum containing the suggestions of the Advisory Committee which has been circulated as one of the papers of this Committee. That is the paper.

470. In answer to a previous question of mine, you said the Ministry were not

sufficiently satisfied at the moment to adopt that proposal. It is not a proposal upon which the industrialists can express an opinion?—It is a proposal of the Advisory Committee on Water, and, therefore, it is a proposal, whatever else it is, and it is a proposal on which these people can express their views; and I tried to make it quite clear that before making up its mind as to what should be done with this proposal the Ministry had adopted the method of trying to get the advice of a competent and impartial body before which conflicting views could be put on record. There is surely no inconsistency there.

471. In my opinion, great inconsistency. Would it not be better that the Ministry, who would have to be responsible for legislation if and when it is proposed, should indicate the points upon which criticism and opinion are sought in a draft Bill?—I do not agree for one moment that it is any good whatever drawing up a draft Bill until you have settled some of the fundamental principles upon which the draft is to be drawn; otherwise, it is simply a waste of time. There seems to me to be the whole difference between putting forward such a summary as you have circulated and assuming solutions of the problems there, and putting it into the form of a draft Bill.

472. I hope I am not putting it unfairly. Is not the position this: With the exception of yourself, every witness we have had and the Reports of these Committees have all indicated to our minds that your Department is in a position now to prepare legislation? The Advisory Committee have recommended that a draft should be prepared. If we ask all these other bodies—fourteen or fifteen have been approached and asked whether they would care to give evidence—they would all say one thing: "Leave us alone"; and you have not formulated any proposal. How is this Committee going to help? You do not tell us what you want, and we find out everybody else wants to be left alone. That is not going to be helpful?—I should have thought myself that before you say that everybody says they want to be left alone you ought to hear what they say about it, before you come to that conclusion.

473. The first thing they want to know before they say anything at all is what the proposal is?—The proposals are the proposals in the Memorandum which you have had circulated.

25° Julii, 1935.]

Sir ARTHUR ROBINSON, G.C.B., C.B.E.

[Continued.]

474. There is not a single proposal there?—There is the proposal for dealing with compensation water, for example. That is a highly concrete example. That is one.

475. There is a summary of other people's suggestions?—The suggestions of the Advisory Committee.

476. I have read that Memorandum of the Ministry with great care, and I cannot find any proposal in that Memorandum which any industrial or any other body could criticise?—Of course, there are no proposals from the Ministry; it is the proposals of the Committee.

477. The Ministry steadfastly refuse to prepare anything on which to focus attention?—They do not steadfastly refuse to do anything; they say these proposals raise issues which affect interests which are not their interests, and it is no more than fair that those interests should have an opportunity of expressing their views on those proposals to an impartial body; that is all.

478. But until a body that is competent to make those proposals—and the only body is the Ministry—formulates them, is it not a sheer waste of time to ask people to express opinions on proposals which they know nothing about?—Surely.

479. Surely?—Surely not a waste of time. In that way they have an opportunity to express their views and to contribute their share to the formulation of actual Government proposals.

480. Their views are, "Leave us alone"?—You say so, but you do not know that.

Sir George Courthope.] I know it from three. Three of the bodies approached do not know. They want to be left alone, and they have asked me to let them know if any points arise which they ought to take notice of.

Chairman.] I do not think we ought to assume that, Sir George. It has been indicated to us that the Calico Printers and the Bleachers and the Rural District Councils and the Municipal Corporations all might have views. I do not want to intervene in any way, but I do not think we ought to assume that.

Major Mills.

481. I think in answer to Sir William Jenkins you suggested that a Memorandum might be got out putting shortly the chief points of controversy?—If that would help the Committee.

482. Would that be in such a form—it would be more or less an expurgated edition of this Memorandum, no doubt—that it could be circulated to possible critics of a Bill with the recommendations of the Advisory Committee? Would it be in such a form or could it be prepared in such a form?—I am rather in the hands of the Committee as to what they want. If they take up the proposal, no doubt that could be done. I understood the point to be that somebody wanted to have rather more precision to the issues on which we hope the Committee will give an opinion, and I thought that it might conduce to that if we drew up a Memorandum of that sort as clearly as we could, saying what the points are, picking out of that paper what the points are on which a decision of the Committee would be valuable.

483. That was my point. In your opinion would it bring out the criticism and the contrary evidence as clearly as the presenting of a draft Bill?—Quite.

484. And would it also save the Department a tremendous amount of work in drafting a Bill which might be found unnecessary?—It might be thrown away. I think it would be much better than doing it in a draft Bill, because, as you say, there is the risk of very very great waste of work over that, and one does not want to start drafting Bills when there are so many to draft unless one knows what the principles are and where one is.

485. You think you could focus public opinion on it?—We should try to.

Lord Darcy (de Knayth).

486. Reference has been made to our Terms of Reference. I will draw your attention to them. They were "to consider and report on measures for the better conservation and organisation of water resources and supplies in England and Wales." It has been suggested to you that because you have a large amount of information about what I may call the physical characteristics of the case, there is no need for us to work, because you have enough information to draft a Bill. I suppose with the information available you could draft fifty Bills, but that it is rather important to decide what lines you want to draft those Bills on?—Yes.

487. In other words, you say you could draft fifty Bills, but you ask this

25° Julii, 1935.]

Sir ARTHUR ROBINSON, G.C.B., C.B.E.

[Continued.]

Committee to decide what Bill you are to draft?—To advise us on that.

488. Controversial matters will arise in the House whatever Bill is presented in the end, but I suppose that what are the controversial portions of that Bill will depend on what is the nature of the Bill when it is presented?—Yes.

489. I suppose it is rather important in the public interest to know what those controversies should be—that the ground should be properly chosen?—Yes.

490. Is this Committee appointed by Parliament in your view to watch over the public interest in that matter?—Yes.

Chairman.] Are there any other questions which any member desires to put?

Marquess of Aberdeen and Temair.

491. I think you said that the Ministry of Health hoped to promote legislation next Session?—Next year, I said.

492. What is the Ministry of Health exactly expecting this Committee to do? What were they actually expecting from them in the way of a programme which would help them to draft that Bill?—To hear the evidence of interests other than water interests on the proposals in

the Memorandum circulated by the Committee; to consider those views, and where those views differ from the views of the water interests, to say which is right, and, if neither is right, to say what is the right sort of compromise between them.

493. Were you expecting the Committee to be able to report, say, by the end of the year?—That is for the Committee to settle.

494. That was the sort of expectation, was it?—I should hope that the Committee might be in a position to report by the end of the year, but when I say that we hope to get legislation next year I must be understood to speak as I did speak, subject to Parliamentary exigencies. It is no more than a hope.

Chairman.

495. Sir Arthur, I do not know whether there is anything you want to ask the Committee in your turn?—No.

Chairman.] I should like to thank you for coming here to-day. I should particularly like to thank you for the courteous manner in which you have replied to the innumerable questions which have been put to you.

(The Witness withdrew.)

(Adjourned sine die.)

APPENDIX.

HANDED IN BY MR. J. K. SWALES, M.INST.C.E. (See page 73).

BOLTON CORPORATION BILL.

HOUSE OF COMMONS—SESSION 1922.

Extract from Minutes of Proceedings (page 175).

WATERWORKS.

Allocation of Water in respect of the Belmont Springs and Dingle Reservoirs authorised by the Act of 1843.

(1) Under the provisions of the Act of 1843 :—

Gallons per day
(reckoned as if
delivered on every
day of the year at
a uniform rate).

June 21,
1922.
Mr. John
Kirkby
Swales.

Town's supply	...	...	...	...	1,391,111
Compensation (Statutory rate so far as there is water in the Belmont Reservoir available)	...	...	...	...	3,438,675
Total	...	...	...	...	4,829,786

Deduct—

Deficiency in yield of the Belmont Watershed to maintain the statutory rate of compensation water

103,559

Yield for town's supply by utilisation of excess storage in the Springs, Dingle and Sweetloves Reservoirs

89,111

192,670

Total yield on which compensation would be assessed by the usual practice

4,637,116

(2) The total yield allocated in accordance with the practice of one-third for compensation water :—

Town's Supply	...	...	...	...	3,091,411
Compensation	...	...	...	...	1,545,705

4,637,116

(3) Additional Town's Supply which would be available by allocating the available yield in accordance with (2) :—

Town's Supply by (2)	...	...	...	...	3,091,411
Town's Supply by (1)	...	...	...	...	1,391,111

Additional Town's Supply by the adoption of the usual practice of allocating compensation water

1,700,300

(4) Reduction in Compensation Water by the adoption of the usual practice of allocating compensation water :—

Present rate of compensation water which can be maintained by the Present Reservoir	...	...	...	...	2,750,579
Compensation water by (2)	...	...	...	...	1,545,705

Reduction in Compensation Water by the adoption of the usual practice

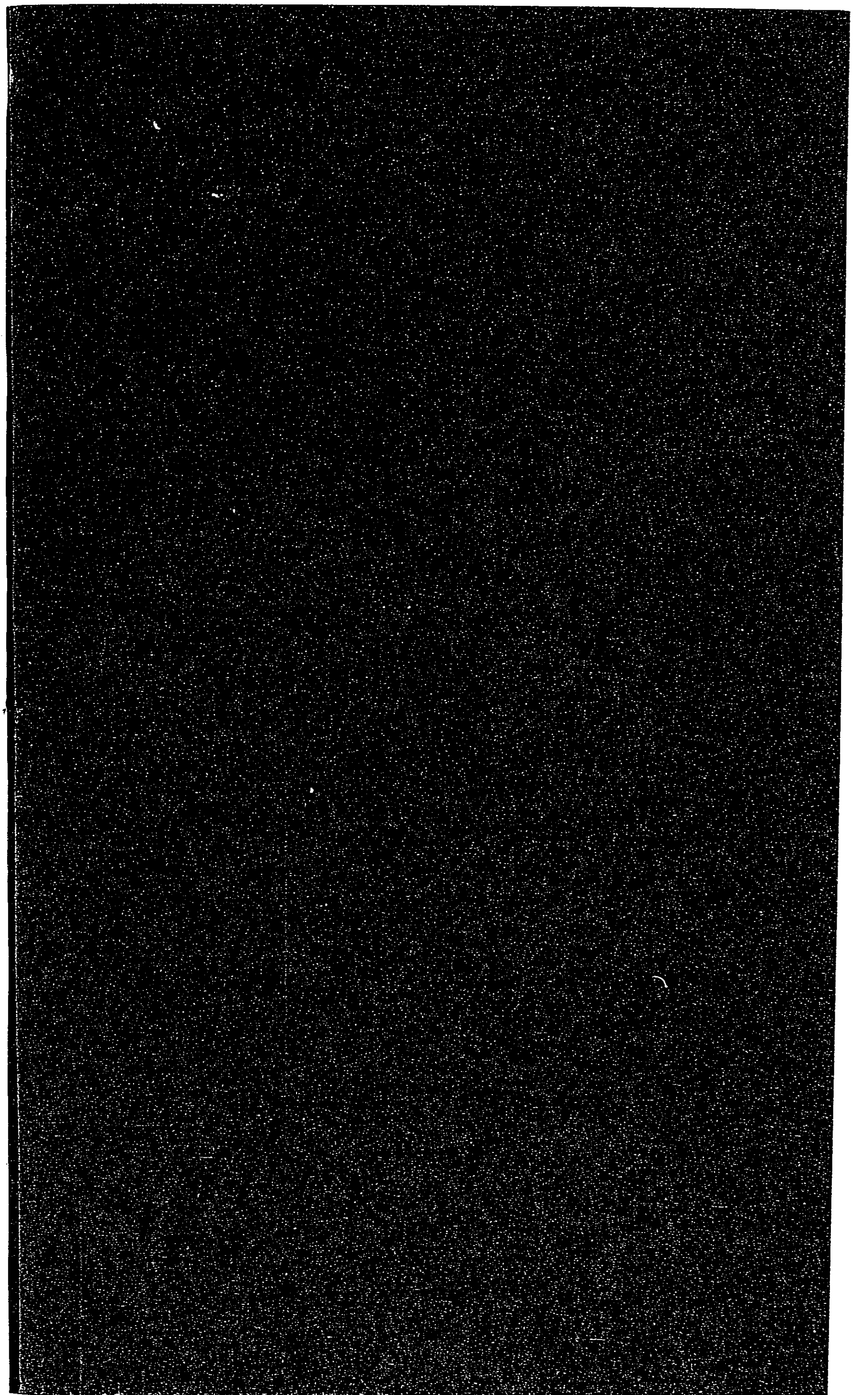
1,204,874

1944

1944

1944

1944



JOINT COMMITTEE
ON
WATER RESOURCES
AND SUPPLIES

[Session 1934-35]

VOLUME II

MINUTES OF EVIDENCE

[11th to 25th July 1935 (inclusive)]

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