# A BRIEF HISTORY OF ASHBOURNE RDC WATER UNDERTAKING

Compiled from Public Health Reports - Some of which are missing.

1896	The Water Supply of your District is on the whole good, but the supply to the village of	
	Middleton-by-Wirksworth is very defective in quantity. All summer the inhabitants were	
	very short of water, but the Parish Council have now arranged to increase their supply.	
1901	In the Southern part of the District, lying on the Sandstone, water is fairly plentiful, but in	
	the Northern part, on Mountain Limestone, the supply is very scanty, indeed several houses	
	depend on stored rain water entirely.	
	1. At <b>Middleton-by-Wirksworth</b> there is a public supply from springs, the water being	
	stored in a reservoir.	
	2. At <b>Alsop-en-le-Dale</b> water is provided from a spring in <b>Dovedale</b> by the Landlord.	
	3. Other parts of the District depend on well-springs and stored rain water.	
	4. During the year the supply for the upper end of <b>Brassington</b> has been improved in	
	quality, the Well having been cleaned out and protected from the pollution previously	
	complained of. The water was analysed in September, and declared satisfactory; it is	
	proposed to examine it again in the coming summer.	
	5. At <b>Thorpe</b> and <b>Kirk Ireton</b> improved supplies are under consideration.	
1907	1. <b>Kirk Ireton</b> . The new Water Works for this village are completed, and several connections	
	have been made to the dwelling houses.	
	2. The Reservoir at <b>Biggin, (Hartington Nether Quarter)</b> has been cleaned out, and the	
	whole re-constructed. It is now in a satisfactory sanitary condition.	
1908	The reservoir at <b>Biggin</b> has been repaired and further facilities provided for increasing the	
1300	supply of water.	
	2. A branch main has been laid at <b>Middleton-by Wirksworth</b> .	
	3. The hydraulic rams at <b>Kirk Ireton</b> are satisfactory and a good supply of water is	
	maintained.	
	4. Several wells have been sunk and a good supply of water has been provided for the	
	greater part of the village of <b>Clifton</b> by the owner.	
1937	The scheme for supplying the parishes of Hartington Town and Nether Quarters has	
1557	been completed, and the water was first turned on for public supply on August 18, 1937,	
	This is a great advantage to the householders and farmers who have been greatly	
	inconvenienced, especially during the drought periods, Bacteriological examinations of the	
	water have been carried out and the results have been good.	
	2. <b>Bradley, Hulland and Hulland Ward</b> - The Council have under consideration a Water	
	Scheme to supply the villages in the central part of the District. As part of the scheme, two	
	bore holes have been sunk in the bunter sandstone at <b>Sturston</b> , about $^{1}/_{4}$ of a mile apart	
	and tested. The average daily quantity pumped over a 14 days test was 77,320 gallons from	
	the first hole and 152,250 gallons from the second hole. In both instances the water is soft	
	and of a very high degree of purity both chemically and bacteriologically.	
	3. An application was made to the Minister of Health on 24th August, 1937, for sanction to	
	borrow the sum of £13,200 to carry out the supply to the parishes of <b>Bradley, Hulland</b> and	
	Hulland Ward, and the Council are considering the question of extending the scheme to the	
	parishes of <b>Brassington</b> , <b>Bradbourne</b> , <b>Parwich</b> , <b>Hognaston</b> and <b>Atlow</b> , from the same	
	source.	
	4. <b>Doveridge</b> - The water mains were extended along the Hall Drive Estate, Doveridge, to	
	serve the new houses recently erected.	
	5. <b>Boylestone</b> - The Derbyshire County Council who are the owners of a number of farms at	
	<b>Boylestone</b> , have constructed a reservoir in the village and laid a pumping main from the	
	bore hole at <b>Sutton-on-the-Hill</b> , 'This supplies all the County Council's small holdings which	
	in the past have had a doubtful supply.	

1938	1. Hartington. The mains of the Hartington Water Scheme have been extended along Biggin	
	Moor and down the Parwich Moor Road as far as Whitecliffle Farm, a total distance of	
	approximately 1 <sup>1</sup> / <sub>2</sub> miles.	
	2. During the year 2,696,700 gallons of water were pumped from the <b>Sheen Boreholes</b> , and	
	of this quantity 1,258,700 gallons were used at <b>Biggin</b> and 638,000 at <b>Hartington</b> .	
	3. There were 77 new service connections made to the mains in the two parishes.	
	4. Hulland and District Water Scheme. The Minister of Health has approved the	
	Council's scheme for providing a piped supply of water to the parishes of <b>Atlow, Bradley,</b>	
	Bradbourne, Brassington, Carsington, Hognaston, Hulland, Hulland Ward, and Parwich at a	
	total cost of £32,000. It is anticipated that the work will be commenced early in the new	
	year.	
	5. <b>Thorpe.</b> The Council are considering the provision of a piped supply to the village. A well	
	has been sunk, and a supply of pure water obtained.	
	6. <b>Kirk Ireton</b> , A small electrical driven pump has been installed at <b>Kirk Ireton</b> to	
1020	supplement the supply delivered by the hydraulic ram.	
1939	Further consideration of the scheme to supply the village of <b>Thorpe</b> has been postponed until the end of the War.	
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1940	1. <b>Hartington</b> - The Council have had under consideration a scheme for the removal of the	
	iron from the water, but owing to the present emergency, the scheme has been deferred.	
	2. <b>Bradley</b> , etc., water Scheme: The automatic electric water scheme to supply the parishes	
	of Atlow, Bradbourne, Bradley, Brassington, Hognaston, Hulland, Hulland Ward and	
	<b>Parwich</b> from boreholes at <b>Bradley</b> , was completed and put into operation in June. By the	
	end of the year, 255 Service Connections had been made to the mains.  3. <b>Kirk Ireton Water Scheme</b> . The water mains on the above scheme were found to be	
	practically choked with iron deposit from the water. This has necessitated their having to be	
	scraped and re-lined with bitumen.	
	4. <b>Doveridge Water Scheme</b> - The <b>Uttoxeter Urban District Council</b> have arranged to	
	chlorinate this supply at the source at <b>Somersal Herbert</b> .	
1941	The work of scraping and relining the mains at <b>Kirk Ireton</b> been completed and it has been	
	decided to chlorinate the Supply.	
1943	1. An interconnection has been made between the <b>Bradley Etc, Water Scheme</b> and the	
	private supply for the Village of <b>Osmaston</b> in order to augment the latter supply.	
	2. Wherever the Councils mains are laid, the supply has been constant except in the case of	
	parts of the Village of <b>Doveridge</b> where the pressure fails during the day but recovers at	
	night.	
	3. The heavy iron content of the water for the <b>Hartington Scheme</b> has been the source of	
	trouble causing discoloured and unpalatable water also blocked services.	
	4 A scheme of water supply for the Villages of <b>Cubley and Marston Montgomery</b> is under	
	consideration as the present supplies to these villages are both inadequate and impure.	
1944	1. A scheme for supplying <b>Cubley</b> and <b>Marsdon Montgomery</b> has been approved and for a	
	trial boring for water.	
	2. Approval to extend <b>The Hartington Water Scheme</b> to <b>Parwick Moor</b> and erecting a	
	50,000 gallon reservoir.	
1945	1. The trial borehole at <b>Cubley</b> in connection with the <b>Cubley and Marston Montgomery</b>	
	water supply, yielded 188,000 gallons per day was obtained during the14 days continuous	
	test pumping.	
	2. The Council have decided to extend the Scheme to the additional Parishes of <b>Alkmonton</b> ,	
	Hungry Bentley, Yeaveley, Rodsley, Roston, Snelston, Doveridge, Somersal Herbert and	
	provide for augmenting the private supply to <b>Sudbury</b> .	
	3. A scheme has also been prepared and submitted to the of Ministry Health for extending the existing <b>Bradley Etc. Water scheme</b> to the following additional Parishes — <b>Brailsford</b> ,	

Hollington, Kniveton, , Fenny Bentley, Thorpe, Mappleton, Carsington, Hopton and Ballidon. It also includes interconnecting with the Hartington Scheme and supplying the "Sturston" Water to this area in lieu of the "Sheen", Water which is causing so much trouble owing to the high iron content.

- 4. Approval has been given by the Ministry of Health to that part of the interconnecting scheme which provides for a 50,000 gallons reservoir on **Parwich Moor** and about  $1^{1}/_{2}$  miles of main to the same. A contract has been let for the work and it is hoped to commence early in the new year as soon as the weather conditions permit.
- 5. Hartington Scheme During the year 18,037,000 gallons of water were pumped from the Sheen Boreholes, and of this quantity 11,907,000 Gallons were used at Biggin and 6,130,000 at Hartington which is equivalent to a daily average of 49,400 total or 32,600 to Biggin and 16,800 to Hartington.
- 1. By the aid of Prisoner of War labour they have laid a 4" supply main to Parwich Moor, 1946 and have let a Contract for the construction of a 30,000 gallons Reservoir on the highest point of the moors. Work is also wall in hand with laying a 3" service main to Pike Hall farms from the above Reservoir. When the Contract is completed, a piped supply will be available to all the moorland farms in the area.
  - 2. Cubley Water Scheme A revised scheme of water supply has been submitted to the Ministry of Health for supplying villages in the South Western part of the District from a Borehole at Cubley which has been sunk near the Bentley Brook adjoining Cubley village and from which a supply equivalent to 14,000 gallons per hour was obtained during test pumping. The Water is hard, but arrangements are being made to provide for softening in the pumping arrangements. Arrangements have been made to take over the private reservoir and mains supply of **Snelston** and connect the same to the above scheme. Part of the mains for this purpose have already been laid.
  - 3. Brailsford, Carsington, etc. Water scheme A scheme for supplying villages in the central part of the area with a piped supply has been submitted to the Ministry of Health and an enquiry was held on the 5th, September. The scheme includes boreholes and pumping station at Yeldersley; additional 150,000 gallon Reservoir at Hulland; a booster station attached, an additional booster station at Longeliffe: pumping mains and service mains to Carsington, Kniveton, Fenny Bentley, Thorpe and Mappleton, also Brallsford, Hollington and Clifton.

Approval to parts of the scheme have been obtained and Contracts are being arranged. By arrangement with the Shirley Park Estates Co. the private scheme owned and operated by the Estate which supplied Osmaston and Shirley has been taken over by the Council and a connection made to the **Sturston** Mains via the mains supplying the R.A.F. Aerodrome. When all the various schemes are carried out, there will be a satisfactory piped supply in nearly every village in the District.

1948 1. The water main extension to supply the villages of Carsington, Ballidon, Kniveton, Fenny Bentley, Thorpe and Mappleton has been laid and put into service. A reservoir of 20,000 gallons capacity has been constructed at Haven Hill in connection with the same. The private scheme which supplied Thorpe village has been taken over by the Council and

incorporated in the Regional Scheme.

- 2. In order to increase the supply of water, also with a view to extending the mains to Brailsford, Hollington and Longford, a borehole has been sunk at Yeldersiey and tested by a continuous pumping test over 14 days and nights when a supply equal to 237,000 gallons per day was found. A duplicate borehole is now being sunk.
- 3. A start has been made with the **Cubley Regional Water Scheme** main laying and erection of 150,000 gallons capacity reservoir. A duplicate borehole has also been sunk. The Ministry of Health hive given permission for the installation of an iron removal plant and provision for adding a water softener plant at the pumping station which is in course of construction. When this scheme is completed next Spring, it will provide a piped supply to all villages in

the district south of **Clifton - Rodsley, Alkmonton**.

4. The last section of the main journey - the **Brassington** water main to **Hartington via Longeliffe** has been commenced, and when completed the mains will be continuous from **Hartington** in the North to **Clifton** and **Shirley** in the centre of the District.

1949

The interconnection of the mains between **Hartington and Brassington** has been completed and the installation of a booster station at **Longcliffe**. This extension has made an adequate water supply to about 30 moorland farms which were previously practically waterless.

The water from the **Sturston** boreholes has been substituted for that from **Sheen** boreholes for the village of **Biggin** and thereby overcome the difficulty of temporary failures of the supply.

The extra demand for water brought about by these extensions and changes has greatly increased the demand from the **Sturston** boreholes, the pumps at these stations are now running almost continuously, especially during dry periods when the water demand for the combined northern and central area amounts to 300,000 gallons per day, which is equivalent to the total yield of the various pumping plants.

To meet this growing demand for water, the duplicate borehole has been sunk at **Yelders**ley and when tested by means of a continuous pumping test yielded 7,600 gallons per hour from a depth of 102 Feet.

The complete scheme has been prepared for the installation of duplicate pumps at **Yeldersley**, a new reservoir at **Hulland** of 150,000 gallons capacity and a booster station to augment the existing **Sturston** supply. The mains will also be extended to **Brailsford**, **Hollington** and **Longford**.

In the southern part of the area, the **Cubley** scheme has been nearly completed, one set of pumps have been installed and put into operation. Delay in servicing the mains has been occasioned by the difficulties met during testing. The installation of the iron extraction plant has not been completed owing to the late delivery of certain special valves etc.

Application has been made to the Ministry of Health to sanction extensions of the mains to the village of **Boylestone**, also to **H.M.' Barless'** Prison at Sudbury, where the inmates are drinking water drawn from the River Dove.

Arrangements have been completed for the Council to afford & bulk supply of water to the **Leek B.D.C**. for the parishes of **Ilam, Alstoneficld and Wetton** from the mains at **Thorpe**,. A similar arrangements has been made with Uttoxetor R.D.C. for a bulk supply to **Ellastoane** from the main at **Norbury & Roston**.

1952

The water main extension to supply part of **Yeldersley**, **Brailsford**, **Hollington** and **Longford** has been brought into operation, and 150 applications have been received for a supply from the same.

The new supply from the boreholes at **Yeldersley** forming part of the above scheme has considerably increased the reserves. Water is being pumped into the Central scheme at the interconnection at Hulland.

Water main extensions have also been caried out at **Hulland** and **Hulland Ward** to supply the area known as **Cross o'th-Hands** and **Blackbrook**, which were previously very badly watered, also extensions to **Biggin and Kirk Ireton** in order to link the latter village into the main area scheme.

Since 1946 the demand for water from the Council's supplies for domestic and farms has risen from about 90,000 gallons per day to 400,000 gallons per day, and is continuing to rise at this rapid rate owing to :-

- 1. Water main extensions to previously un-watered areas.
- 2. The installation of modern sanitary conveniences in existing houses,
- 3. The erection of new houses,
- 4. The greater demands for agriculture owing to the high or standards of cleanliness now required.

	In consequence of these changes, it is anticipated that the present supplies, and in some	
	cases, the mains, will be inadequate to meet the needs of the area within the next two	
	years.	
	Plans have been prepared for supplementing supplies, increasing reservoir capacities in	
	addition to laying further mains.	
	This first portion of this scheme will affect the parishes of Hartington Town and Nether	
	Quarter where plans have been prepared in detail ready for submission to the Ministry of	
	Housing and Local Government	
1953	At <b>Cubley</b> , preparation has been made to receive the water softening plant, also the pumps are being re-built.	
	<b>Sturston No.l.</b> used as standby to <b>Sturston No.2</b> . pump Total capacity 70,000 gallons per day.	
	Sturston No. 2. Running continuously to full capacity. Total output 125,000 gallons per day.	
	Yeldersley - One pump running six days per week and delivering 200,000 gallons per day.	
	Sheen - One pump running about 5 hours per day and delivering about 30,000 gallons per	
	day. The water is heavily charged with iron and free carbonic acid gas causing nuisance in	
	mains and to the services.	
	<b>Cubley</b> - A temporary submersible motor pump has been in use during the year and is	
	pumping on the average 100,000 gallons per day.	
	Kirk Ireton - The small pump is supplying about 5,000 gallons per day.	
1954	The water softener plant has been installed at the <b>Cubley</b> pumping station, and in	
1334	conjunction with the iron extraction filter is capable of reducing the hardiness to 50 parts	
	per 1,000, 000, The temporary pumps have been removed and the permanent machinery	
	installed.	
	Applications have been made to the Ministry of Housing and Local Government for	
	, ,	
	permission to sink a trial borehole at Ladyhole, Yeldersley and build a 240,000 gallons	
	capacity reservoir at <b>Newhaven</b> , <b>Hartington Nether Quarter</b> , also lay larger interconnecting mains.	
	An agreement has been made for the <b>Leek R.D.C</b> , to take a bulk supply of water from the	
	Council's main at <b>Thorpe</b> for the villages of <b>Ilam, Astonfield</b> and <b>Whetto</b> n. Main laying on	
1055	the scheme commenced in the late Autumn.	
1955	Permission has been received to advertise for tenders for a Reservoir)	
	of 240,000 gallons capacity at <b>Newhaven</b> with interconnecting mains, This when carried out	
	should enable the Council to provide a constant supply to the <b>Biggin by-Hartington Area</b>	
	and also enable the Council to dispense with the <b>Sheen</b> supply for the village of <b>Hartington</b> .	
1956	A bulk supply has also been afforded to the <b>Belper R.D.C,</b> for property in the <b>Mugginton</b>	
	Lane End area. This supply is limited to 7,000 gallons per day by agreement.	
	It has now been possible to supply <b>Hartington Village</b> with water from the Bunter series of	
	boreholes and the <b>Sheen supply</b> is only being used in case of emergency, The change of	
	supply has been greatly appreciated by the residents.	
	Since 1905, most of the village of <b>Kirk Ireton</b> had taken the supply from seven stand taps	
	fixed in different parts of the village, These have now been removed and a piped supply has	
	been connected to all the houses,	
	Considerable troubles are experienced in certain parts of the area by reason of mains	
	fracturing. The cause has been traced to two different sources. Firstly, the ground	
	alternately being wet and dry, thereby causing a movement under certain sections of the	
	pipe and setting up strains which ultimately cause it to break in two. Most of these cases	
	have been traced either to surface water drains which are un-jointed or mains laid near to	
	road-side ditches which only run in wet weather.	
	The second reason for failure has been traced to electrical action from certain clays and	
	The second reason for failure has been traced to electrical action from certain clavs and	1
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	marls. In these cases, the pipes are very badly pitted and weakened, and cathodic protection is applied.	

### 1957

The mains on the site of the disused RAF station known as the **Darley Moor Aerodrome** have been taken over by the Council and a length of main laid in the village of **Wyaston** and services transferred from the **Ashbourne Urban District Council** main to the new main.

A very much softer supply of water is provided also at a constant pressure.

The reservoir and mains extensions at **Newhaven** are still held up by the Ministry of Housing and Local Government owing to the financial squeeze.

Permission was granted by the Ministry of Housing and Local Government to sink a borehole at **Ladyhole**, **Yeldersley** as the first stage of a schema to augment the supplies of the district also duplicate the trunk main and provide additional storage capacity. The hole was sunk to a depth of 225 feet to the base of the Bunter series and on pumping test, yielded 200,000 gallons of water per day.

Owing to a breakdown of one of the pumps at the **Sturston** boreholes, an emergency supply has been taken from this borehole by installing a submersible

Pump and laying approximately 1000 yards 5" mains to connect to the existing mains. During the year, the various boreholes have yielded supplies as set out on the following tables:-

*	Sheen	2, 270, 000
	Sturston No.1	2,424,000
	Sturston No.2	50,000,000
	Yeldersley	82,821,000
	Yeldersley(Ladyhole)	Not in use
	Cubley	36,103,000

Bulk supplies to neighbouring authorities have been afforded as

## follows:

Leek RDC, at Thorpe	2,852,000	
Belper RDC at Hulland Ward	726,000	
also to HM Sudbury Barless Prison	9,545,000	

### 1958

**The Sturston No.2 Borehole** has been out of commission during the year due to breakdown and awaiting the delivery of suitable spares, and as a result, the **Sheen** Borehole has been in constant use.

The **Sturston** pumps are at the maximum depth, but the **Yeldersley** pumps can be lowered a further 120' when it is hoped the yield will be considerably Increased.

Considerable inconvenience has again been caused by cracked mains, and 37 repairs have been carried out.

In every case, the cause of the fracture has been due to some outside agency, and my be divided into the following groups:

- 1. Due to ground on a hillside slipping and carrying the min with it,
- 2. Uneven drying out or wetting of the sub-soil, causing upward thrust.
- 3. Blast shock from quarries.
- 4. Bad pitting of the mains from iron deposits in the shale or action of the marls.

In the last case, cathodic protection is being applied at each fracture and this already is having a tendency to reduce the number of failures.

The mains through Thorpe have been taken over from the Leak Rural District Council.

## 1959

As a result of the shortage (of water) at **Newhaven**, the Ministry of Housing and Local Government were pressed to permit the **Newhaven Reservoir** and main extension scheme to proceed.

The **Madge Hill Water Scheme** when carried out will materially assist in overcoming these difficulties. The tenders for this scheme have been submitted to the Ministry of Housing and Local Government and approved subject to a licence being obtained to sink a borehole in the **Hole-in-the-Wall area of Bradley**. After numerous delays the application for the licence has been made to the appropriate government department.

1960	Negotiations have been taking place throughout the year for the formation of a joint water board, which it is hoped, will relieve the Council of their responsibilities for this public service.  It may be of interest to note that in 1905, the Kirk Ireton water scheme was carried out, and until 1937, this was the only public water scheme in the District.  In 1938, the Hartington scheme was put into operation, to be quickly followed by the first regional scheme linking Bradley, Halland, Hulland Ward, Atlow, Hognaston, Brassington, Bradbourne and Parwich.  The War prevented any further extensions, but immediately after the war, further extensions were commenced and by the end of the year, only the scattered hamlet of Callow and Ible were without a piped supply and tenders had been accepted for a piped supply to the latter hamlet.  After the drought year of 1959, it was felt that the scheme for augmenting supplies and provision of additional trunk mains was urgent, and as a result, permission was granted to submit the reservoir and mains extension for Hartington Nether Quarter for tender, also the Mage Hill Reservoir and new pumping and supply main from Yeldersley.  By the end of the year, the tenders had been received and submitted to the Ministry of Housing and Local Government for approval.  A Tender has also been accepted for the extension of the mains to supply Ible.  Negotiations for the formation of the South Derbyshire Water Board which will absorb the water scheme of the Council are now in an advanced stage.	