

## **A critical analysis of the riparian rights of water abstractors within England and Wales**

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### **Abstract**

This analysis explores how traditional riparian rights to abstract water have developed into English law. How the balance between private rights and state control is managed by modern society is examined. The main tool has been the use of exemptions. The practicalities faced by the regulator in enforcing the legislation are discussed.<sup>2</sup>

### **Introduction**

The right to water is a well established principle with a long history. However the right to abstract water from a water course is attached to land rights. The term riparian right describes this link. A person, who has a water course passing through or bordering their land, has a right to abstract water from that watercourse.<sup>3</sup> Where water availability exceeds demand, then abstraction has occurred generally with few problems. However where demand either spatially and/or temporally exceeds resource, then this has necessitated some qualification of this right, through law. While previously within the domain of Common law, water abstraction has increasingly been governed by statutory law – the Water Resources Act 1963, Water Resources Act 1991 and now the Water Act 2003. This paper describes how this transition has evolved and how traditional riparian rights are now being dealt with under current legislation. In particular the application of exemptions to the regulations, will be analysed.

### **The Common law foundations of the riparian right to abstract**

The first establishment of a riparian right to abstract water in the UK arose from a case *Chasemore v. Richards* (1859)<sup>4</sup> where it was deemed the right of a riparian landowner to have the river come to the owner “in its natural state, in flow, quantity and quality.”<sup>5</sup> This understanding was further enhanced in 1893 in the case of *John Young and Co. v. Bankier Distillery Co*:

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<sup>1</sup> Much of this paper was developed while studying for a Water Management MSc at Cranfield University

<sup>2</sup> The input and advice of Huw Williams, Senior Legal Advisor, Head Office, Environment Agency is acknowledged

<sup>3</sup> Howarth, W. (Ed.) *Wisdom’s law of Watercourses*. 5th Ed.. John Shaw & Sons Ltd. 1992

<sup>4</sup> Cook. H.F, *The Protection and Conservation of Water Resources – A British Perspective*. John Wiley & Sons Ltd. 1998. Ch.3, pp.44-45.

<sup>5</sup> McGillivray. D, *Legal Protection of the Aquatic Environment*. Environmental Law 2001/2002. <http://www.bbk.ac.uk/law/download/environ/water.pdf> (14 January 2004)

“A riparian proprietor is entitled to have the water of a stream on the banks of which his property lies, flow down as it has been accustomed to flow down to his property, subject to the ordinary use of the flowing water by upper proprietors, and to such further use, if any, on their part in connection with their property as may be reasonable under their circumstances. Every riparian owner is thus entitled to the water of his stream in its natural flow, without sensible diminution or increase, and without sensible alteration in its character or quality. Any invasion of this right causing actual damage, or calculated to found a claim which may ripen into an adverse right, entitles the party injured to the intervention of the court.”<sup>6</sup>

Both of the cases were adjudicated under common law in the House of Lords and apply to the abstraction of water from surface water sources only. The *Young and Co. v Bankier Distillery Co.* ruling applies a large amount of emphasis on the customary practices of riparian interests with terms such as ‘has been accustomed’ and ‘ordinary use’ and also brings into law the importance of ‘reasonable’ and ‘sensible use’. “In the United Kingdom, the common law riparian system existed until 1963 when licensing for the abstraction of water was imposed generally by statute. Nevertheless, many features of riparianism were preserved”.<sup>7</sup>

### **Water Resources Act 1963 – regulation but with exemptions**

Section 23 (1) of the Water Resources Act 1963<sup>8</sup> for the first time specified that the abstraction of water from a source of supply (surface water or groundwater) would require a water abstraction licence. Section 24(2) then introduces an exemption from this requirement whereby a contiguous occupier of a watercourse may abstract water for their own domestic or agricultural purposes (other than spray irrigation) without the requirement for a water abstraction licence.

A similar exemption is specified for the abstraction of water from a groundwater source under S.24(3), however, this only applies to the abstraction of water for domestic purposes.

There are several other exemptions listed under S.24(1) and (4) to (9) such as the allowance for small one-off abstractions, abstractions for dewatering purposes, the irrigation of land and emergency abstractions for fire fighting purposes.

The exemptions moderate technocratic control by ensuring that the common law right to water, the right of which society has become accustomed, remain preserved.<sup>9</sup> Section 26 of the Act acknowledged that these exempt supplies constitute protected rights just as any abstraction that requires a licence, they therefore warrant the same level of protection from derogation.

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<sup>6</sup> see note 5

<sup>7</sup> Caponera. D. A, *Principles of Water Law and Administration National and International. Existing Systems.* A.A. Balkema, Rotterdam 1992. Ch.5, pp82, Section 6.3.

<sup>8</sup> Water Resources Act 1963. HMSO Ch.38. pp.23-28

<sup>9</sup> see note 4

Looking further at the wording of this legislation there are several key parts that explain the restrictions and exemptions with respect to water abstraction.

### **Why the difference between the groundwater and surface water exemptions?**

In order to understand the possible reason for the distinction between the two sources the original intent of the law needs to be questioned. It is probable that the agricultural use of water facilitated by the surface water exemption was intended to allow cattle to drink directly from a surface watercourse without the requirement of an abstraction licence.<sup>10</sup>

The intention of the domestic exemption relating to a supply of water from a surface water or groundwater source may have been used to provide an essential, potable water supply to a property. In the past it is likely that surface water abstractions were more commonly utilized for domestic supplies with the water being readily accessible and therefore cheap to abstract although often unreliable in terms of water quality and quantity.

In more modern times a number of factors have amalgamated to make groundwater or spring fed supplies more favourable. Knowledge of human water quality requirements has improved and it is more commonly perceived that the quality of surface watercourses is inadequate for human consumption (without excessive treatment). It is generally accepted that the water quality of groundwater is much better suited to a potable water supply<sup>11</sup> and improvements in drilling and pump technologies have allowed easier access to this 'naturally treated' and generally more reliable (in terms of quantity and quality) source of water.

This is not to say that the right to abstract water for domestic purposes from a surface watercourse has become defunct but the practical use of the exemption is now very different from that which was originally intended. For example, the legal interpretation of the term 'domestic household' can also extend to the supply of water to an amenity pond that is located within the curtilage of a riparian abstractors property.<sup>12</sup> The abstraction of water for such non-essential purposes are now a common use of the exemption.

Where a groundwater source is being utilized for a domestic abstraction, the occupier will be keen to ensure maximum use of the domestic exemption and may therefore supply several other properties. Provided that the properties being supplied are 'tied' to the occupiers property then the exemption still applies. In this instance again the definition of 'domestic household' provides some room for interpretation within the law. A 'domestic household' in this instance has been interpreted to include the use of water, not only by the domestic occupier of the property comprising the borehole or well, but also by

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<sup>10</sup> Evans, D, Verbal communication with visiting lecturer David Evans during Cranfield University Water Law module, January 2004

<sup>11</sup> Drinking Water Inspectorate (DWI), 2002. Private Water Supplies. <http://www.dwi.gov.uk/pubs/private/index.htm> (14 April 2005).

<sup>12</sup> Environment Agency, South West Region, Information sheet: The Development of Lakes and Ponds – Legal Aspects. Environment Agency. 2004

properties inhabited by farm workers where a right to receive a supply of water may be a condition of their employment (known as 'tied' properties).

The Water Resources Act 1963 placed no limit on the quantity of water that was deemed to be appropriate for a domestic or agricultural abstraction, thus the common law, as founded in 1893 allowing the abstractor to abstract whatever was deemed 'reasonable under their circumstances' remained. Clearly the wording of this part of the Act was deemed too vague and may have been subject to exploitation. The Water Resources Act 1991<sup>13</sup> therefore adds a volumetric constraint to the legislation.

### **The Water Resources Act 1991 – the introduction of a volumetric limit to exempted abstractions**

Sections 27(3) and (5) of the Water Resources Act 1991 specify that a contiguous occupier (surface water) or occupier (groundwater) may abstract up to twenty cubic metres (m<sup>3</sup>) of water, in aggregate, in any period of twenty four hours for either of the exempt purposes mentioned above.

This quantity of water appears to be extremely generous, particularly when considering the domestic exemption from either surface or groundwater. For example the water industry's average estimate of household water consumption in 2003-2004 was 154 litres per person per day<sup>14</sup>. The exemption would therefore facilitate the abstraction of water to supply 130 persons, or based on a average person per household figure of 2.4 persons per property,<sup>15</sup> 54 households! It is doubtful that this was ever the intention of the Act when considering the definition of the term 'household'.

In contrast the practical use of the 20m<sup>3</sup>/day surface water exemption for a supply of water to a domestic amenity pond becomes limited as most surface water abstractions into a pond will comprise of gravity flow through an open channel or via the use of a pipe. A 20m<sup>3</sup>/day flow in terms of an instantaneous volume equates to a flow of 0.23l/s which is a mere trickle of water. Pipe diameters therefore need to be impractically small in order to limit abstraction to this rate.

The surface water abstraction relating to agricultural purposes would allow the supply of water to an approximate 110 head of dairy cattle (for drinking, cleaning and plate cooler use) according to figures provided in the Environment Agency's Waterwise on the Farm document.<sup>16</sup> Twenty cubic metres per day therefore appears to be a substantial quantity of water for this purpose particularly when considering that that UK average herd size was

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<sup>13</sup> Water Resources Act 1991. Ch 57. [http://www.hmso.gov.uk/acts/acts1991/Ukpga\\_19910057\\_en\\_6.htm](http://www.hmso.gov.uk/acts/acts1991/Ukpga_19910057_en_6.htm) (18 January 2004)

<sup>14</sup> Office of Water Services (OFWAT), 2004, Household consumption in Security of supply, leakage and the efficient use of water 2003-2004 report. Ch.4, pp.47. Crown copyright 2004.

<sup>15</sup> Office for National Statistics, 2004.

<http://www.statistics.gov.uk/StatBase/Expodata/Spreadsheets/D3417.xls> (21 January 2004).

<sup>16</sup> Environment Agency (EA), 2002, Waterwise on the farm. Table 1, pp.23. Environment Agency 2002

approximately 82 in 2003.<sup>17</sup> It may therefore be anticipated that the exemption is commonly utilized in the UK to support a majority of agricultural abstractions?

**Table 1. UK numbers and sizes of enterprises (dairy cows)<sup>18</sup>**

		1998		2003	
		Number of holdings	Number of livestock	Number of holdings	Number of livestock
		(thousand)	(thousand)	(thousand)	(thousand)
Dairy cows	1 to 49 dairy cows	15.2	396.5	10.1	265.2
	50 to 99	12.7	910.2	8.7	658.2
	100 and over	7.5	1 115.7	7.8	1 268.9
	<b>Total</b>	<b>35.4</b>	<b>2 422.4</b>	<b>26.6</b>	<b>2 192.3</b>
	average size of herd (head)		68		82
% of total dairy cows in herds of 100 and over			46.1		57.9

As presented in Table 1 above, it is likely that the exemption is adequate to meet the water requirements of the majority of the dairy holdings in England and Wales (70% of the total number of holdings in 2003 contained fewer than 100 cows). There is however an increasing trend for many of the smaller herds to be merged (directly or indirectly) into larger businesses.<sup>19</sup> Between 1998 and 2003 the total number of dairy holdings reduced by 25% but the total number of cows only decreased by 10%, these cows are therefore being distributed amongst the remaining holdings. This is confirmed by a shift in the size of the holdings with the approximate number of holdings likely to qualify for the exemption i.e. with less than 100 cows being 79% in 1998 and decreasing to 70% in 2003. In reverse to this, the number of holdings with over 100 dairy cows has increased.

The irregular quality and quantity of water available for abstraction from surface water sources also reduces the value of the agricultural exemption to modern day abstractors.

### **General awareness of abstraction rights and regulations**

In practice the exemptions are uncommonly known and also difficult to explain and enforce. In explaining, for example, the volumetric constraint of the exemption, it is very difficult for the general public to form an accurate idea of what 20m<sup>3</sup> of water looks like in terms of a volume or flow rate. Where a pump is used to supply an exempt abstraction then a simple assessment based on the capacity of the pump and the number of hours of its operation, or the use of a water flow meter, may be used to monitor abstraction. However, where water is abstracted through gravity flow (as is common from a surface watercourse or spring) then measuring the flow becomes much more complicated, especially when considering the variable flows and levels that occur in surface watercourses.

<sup>17</sup> Department of Environment Food and Rural Affairs (DEFRA), 2005. The Structure of the Industry in Agriculture in the United Kingdom 2004. Ch.3, pp.24. London: The Stationary Office 2005

<sup>18</sup> see note 17

<sup>19</sup> DEFRA, A Strategy for Agriculture, Annex II. Current situation and future prospects in the Dairy Sector. 2000. <http://www.defra.gov.uk/animalh/welfare/farmed/advice/cowatgrass.pdf>. (21 January 2004)

Though an exemption may negate the requirement for a water abstraction licence and associated compliance with licence conditions (such as measuring and recording the quantities of water abstracted), the Environment Agency has retained powers to request this information from “any person who is abstracting water from a source of supply”(S.201, Water Resources Act 1991). These powers may therefore be exercised when there is a suspicion that the quantities of water being abstracted are greater than authorized by the exemption and where the impacts of abstracting over this rate may cause significant environmental damage.

As with any exemption there is a heavy emphasis on trust. The driller of a borehole, if its depth is greater than 50ft (15.24m), is required to notify the British Geological Survey (BGS) of the drilling (S.198, Water Resources Act 1991). It is also good practice (though not a legal obligation) that the driller will inform their client of the legal requirements for a licence where necessary. A private domestic borehole for a potable water supply also requires registration with the local council who have a legal duty to sample the water in order to assess its suitability for human consumption.<sup>20</sup> The purpose for sinking a borehole by the original occupier may however be very different from the requirements of a subsequent occupier so there is always an element of risk associated with the abuse of an exemption when a readily available source of water is present on a person's property.

Regulatory officers within the Environment Agency have found that it is often the case that the public is not aware of the water abstraction legislation, often people who hold a licence to abstract water are not aware of the licences existence and are certainly unaware of licence conditions. It is therefore not surprising that a borehole that may have originally been drilled for an exempt purpose may now be being used for a licensable purpose. For example, many properties that were formerly tied to a farm may have since been sold individually, therefore becoming private residencies. The supply of water to these properties also then becomes a private water supply, the purpose of would require a water abstraction licence under the Water Resources Act 1991. The actual environmental impact of such a change of use is unlikely to be significant (as there may have been no increase in abstraction) but such a change would result in the requirement for a licence.

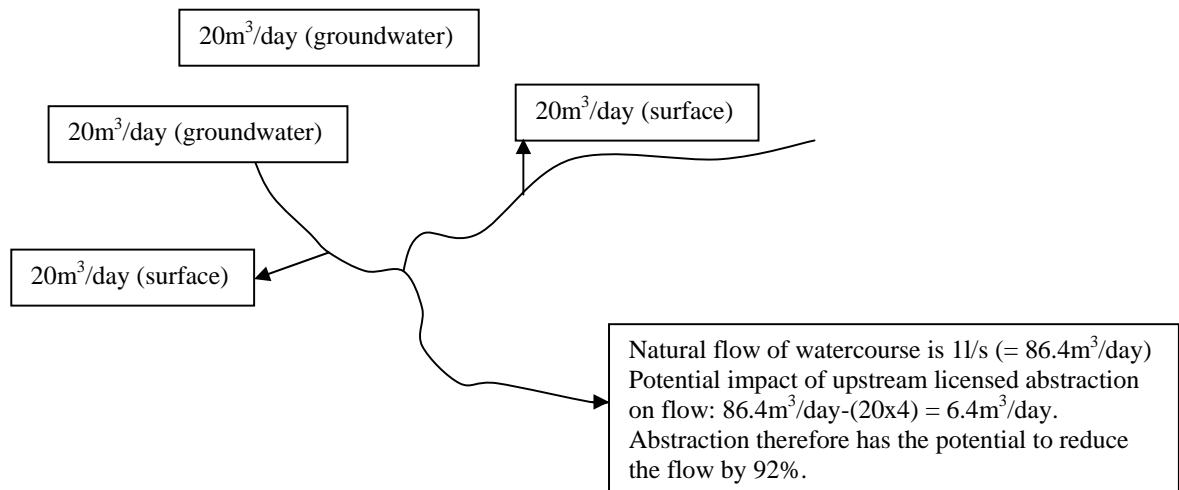
The Environment Agency often has no reason to communicate with non-licence holders with regards to water abstraction, therefore unauthorized abstractions are only commonly identified by chance through a water interests survey (a requirement in the procedure for an application for a groundwater investigation consent required under S.32(3) of the Water Resources Act 1991), or through a solicitor's search conducted during a property sale. Similarly, prior to deregulation (see Water Act 2003 below) small licensed abstractions (those that authorize the abstraction of up to 20m<sup>3</sup>/day of water) were rarely contacted as they were not required to submit annual returns of the quantities of water that they abstracted and were seldom visited as the enforcement effort focused upon larger licences where the risk of non compliance with the abstraction licence was deemed to be more ‘critical’ to the integrity of the environment. “The Agency is often not aware

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<sup>20</sup> Private Water Supply Regulations 1991. HMSO, Crown Copyright 1991, Part IV, S.8

of abstractions that may affect the environment or damage the water supply of other abstractors.”<sup>21</sup>

Problems with the 20m<sup>3</sup>/day exemption may also arise when there are localized groupings of abstractions, each qualifying for abstraction up to the exempt rate whose combined impact upon flows within a catchment prove significant (see figure 1 below). A 20m<sup>3</sup>/day abstraction on its own may cause significant environmental damage if it has a direct impact upon flows of a small watercourse, such as a small spring fed watercourse.



**Figure 1. Demonstrating the possible combined impacts of a cluster of exempt abstractions upon small stream flows.**

### The new Water Act 2003

The Water Act 2003<sup>22</sup> has brought changes to the exemptions and extends the 20m<sup>3</sup>/day exemption rule by substituting S.27 of the Water Resources Act 1991 with a new S.27. This new section of the Act allows the abstraction of up to 20m<sup>3</sup>/day of water irrespective of purpose and is seen as a fairer application of the exemption as “many of the exemptions are based on abstraction purpose, which often has little relation to the environmental impact of the abstraction.”<sup>23</sup>

The legislation extending the 20m<sup>3</sup>/day exemption to include abstractions for any purpose was implemented on 1 April 2005 and has led to the deregulation of some 23,500 abstraction licences in England and Wales (49% of all licences). 8,000 of these licences

<sup>21</sup> DEFRA, The Review of the Water Abstraction Licensing System in England and Wales. A Consultation Paper. 2003. <http://www.defra.gov.uk/environment/consult/waterab/chap3.htm> (20 January 2004)

<sup>22</sup> Water Act 2003, <http://www.legislation.hmso.gov.uk/acts/acts2003/30037--b.htm> (14 January 2004)

<sup>23</sup> Environment Agency, Review of the Water Abstraction Charges Schemes. Consultation document. 2004. [http://www.environment-agency.gov.uk/commondata/105385/wm\\_english\\_640536.pdf](http://www.environment-agency.gov.uk/commondata/105385/wm_english_640536.pdf). (22 January 2004)

were chargeable (accounting for only 1% of the total income from abstraction charges<sup>23</sup>). The remaining 15,500 were therefore agricultural abstractions from groundwater that were non-chargeable. The fact that most of the licences that shall become exempt are agricultural highlights the value of the 20m<sup>3</sup>/day exemption for agricultural purposes from a groundwater source. It is felt that removal of these licences will allow the Agency to concentrate its administrative and enforcement efforts upon those abstractions that are perceived to be of a higher risk of causing environmental degradation whilst also reducing some of the legislative burden placed on the licence holders.

The level of protection conferred to a deregulated source remains the same as the abstraction licence prior to deregulation, i.e. the Agency will ensure that it protects the rights of the abstractor to abstract up to the full previous licensed quantities. Protected rights will remain for abstractors who previously held licences or who were subject to the domestic or agricultural exemptions under Water Resources Act 1991.

If, however, there is a change in occupation then the subsequent occupier cannot succeed to this 'protected right' status but will still qualify for the exemption as a lawful user of the water. The subtle difference between the two statuses relates to the level of protection provided to the abstractions. If the Environment Agency was to grant a new licence that derogated a protected right then they would be liable to pay compensation. If however the Agency granted a licence that interfered with a lawful use then the abstractor would need to make a claim against the holder of the licence (the party causing the derogation) and not against the Agency. In practice this is very unlikely to happen as the Agency ensures through careful auditing of water interest surveys that other water users are not affected as a result of granting new abstraction licences. For protected rights holders, the affected party may wish to sign a consent to derogate their source.

It is arguable that the extension of the exemption to cover all uses adds a greater degree of risk to the environment giving abstractors more freedom to abstract without being audited for compliance with licence conditions. These risks are acknowledged by the UK Environmental Law Association "the supervision of these unlicensed abstractions will be difficult. Removing them from the system will lead to rogue individuals abstracting more than the threshold. The Agency must not be seen to let such individuals go unregulated if abuse of the system is not to become widely recognized."<sup>24</sup> In practice however, these licences were seldom visited prior to deregulation and upon deregulation only a very small minority of the licensed abstractors were found to be abstracting above the threshold. With the many duties that the Environment Agency presently faces it is doubtful that much effort shall be invested in qualifying that exempt sources are operating within the exemption limits unless local issues of environmental degradation are raised by a member of the public and reported to the Agency.

The details of these formerly licensed abstractions shall remain on the Environment Agency's licensing database for future reference so the details of these sources shall not

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<sup>24</sup> UKELA, Response to DETR Consultation. Draft Water Bill. by the Water Working Group of the United Kingdom Environmental Law Association. 2001.  
<http://www.ukela.org/Downloads/response%20to%20draft%20water%20bill.rtf> (January 2004).



be lost altogether. This information is also essential in order to establish whether an abstraction has retained its 'protected right' status.

The Water Act 2003 exemption also adopts the precautionary principle whereby the Agency may, via an order made to the Secretary of State, apply to lower or higher the 20m<sup>3</sup>/day exemption threshold value according to local water resource requirements (S6, 27A Water Act 2003). Hence, if a cluster of small licences are identified as having the potential to cause a significant impact upon flows in a watercourse then the exemption threshold can be lowered in order to reduce the impact to a tolerable level and ensure that the abstractions are regulated.

### **Summary**

At present it does not seem that the deregulation of small abstraction licences and extension of the 20m<sup>3</sup>/day exemption to cover all uses will lead to a dramatic increase in private abstractors or therefore pose a large environmental risk. Since the statutory requirement for water companies to provide water to domestic premises (Sections 37, 41 & 52 Water Industry Act 1991)<sup>25</sup> there has been less reliance on riparian rights to abstract water. The convenience, efficiency and cleanliness of a mains water supply proving a much more attractive proposition than the maintenance of a private water undertaking. In England and Wales only around 1% of the population is now served with water by a private water supply.<sup>26</sup>

In the future as pressures upon water supplies increase and therefore the potential cost of water increases, current trends may be reversed as it may prove cheaper for individuals and communities to once again exercise their customary rights to water and re-commence abstraction from local boreholes and wells.

Due to the increased effort required by a private abstractor and the personalization of the use of the resource there is the potential for improving society's attitudes towards water and achieving reductions in water consumption.

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<sup>25</sup> Water Industry Act 1991. Ch 56. [http://www.hmsso.gov.uk/acts/acts1991/Ukpga\\_19910056\\_en\\_1.htm](http://www.hmsso.gov.uk/acts/acts1991/Ukpga_19910056_en_1.htm) (02 May 2005)

<sup>26</sup> Drinking Water Inspectorate (DWI), 2002. Private Water Supplies. <http://www.dwi.gov.uk/pubs/private/index.htm> (14 April 2005)