TONBRIDGE & MALLING BOROUGH COUNCIL

PLANNING and TRANSPORTATION ADVISORY BOARD

26 February 2007

Report of the Director of Planning, Transport & Leisure

Part 1- Public

Matters for Recommendation to Cabinet - Non-Key Decision

1 CONSULTATION ON WATER EFFICIENCY IN NEW BUILDINGS

Summary
This Consultation seeks views on proposals to set minimum standards for water efficiency in new dwellings and new business premises in England and Wales and proposes to extend the scope of the current Building Regulations to achieve this. The standards for business use relate only to domestic uses e.g. canteens and washrooms and not to process uses.

1.1 Background

1.1.1 The drought of 2004-2006 across much of England has raised awareness of the need to secure the sustainability of long term water resources into the future. The most pronounced supply and demand issues are in the drier parts of the country but this is an issue for all of us. There are infrastructure and energy costs of supplying water, which in turn has other environmental implications e.g. for climate change.

1.1.2 Currently the government uses a twin-track approach to balancing supply and demand and this has traditionally been focussed on developing new sources of supply. However there is a clear case for making the water infrastructure more efficient at all stages. In the longer term this will deliver a greater resilience to increased risk of drought due to climate change and enable development in areas of limited water availability.

1.1.3 It will be essential to develop some new sources, but it is important that the right balance is struck between supply and demand and where the overall benefits outweigh the costs, measures to reduce demand need to play a role.

1.1.4 It is not the intention of these proposals to discourage the normal use neither of water resources nor for essential safety uses such as fire suppression systems (e.g. residential sprinklers). Equally it is important that plumbing systems are carefully designed and properly maintained to ensure that contaminates do not enter the public drinking water supplies.

1.2 Supply

1.2.1 Across much of England the amount of water being abstracted accounts for all the available water resources in summer months and in many places groundwater resources are also being fully used. In some places existing licences to take surface water granted in the past are already causing damage to the environment. In other areas licences to take water already contain conditions to protect other uses of water during periods of low flow or to protect river levels.

1.2.2 By way of illustration it should be remembered that this year, following two very dry winters, we have seen hosepipe bans in force for eight water companies in the south and south east of England, in some cases (as here) for the second year running. Drought orders were also applied for by four companies. These planned measures were in force to restrict demand for water that is not essential (garden watering, Car washing). If we are able to reduce the 'baseload' demand through water efficiency measures then the need for such restrictions would become less likely, without the need for expensive and potentially environmentally damaging developments such as reservoirs.

1.3 Demand

1.3.1 Average household demand for water has increased dramatically over the last 25 years; and we use 55% more water than we did in 1980, mainly due to changes in lifestyle and an increasing range of water-using appliances. Approximately 95% of households now have a washing machine and around 33% have a dishwasher. It is the convenience and ease of use of these appliances that encourages water demand, not the amount of water they use per cycle which in fact may be relatively low. In addition the use of power showers, aerated spa baths and other 'lifestyle' uses of water have become more popular. The increased use of water from all these sources has been exacerbated by an increasing population and the household formation.

1.3.2 It has been estimated by water companies that household use of water could increase by a further 12% over the next 25 years unless action is taken to constrain this increase in demand. It is against this background that the government is consulting and bringing forward proposals to bring water efficiency within the scope of the Building Regulations.

1.4 Amending the Building Regulations

1.4.1 The governments preferred route to introducing minimum water efficiency standards is via the Building Regulations. This would be achieved by amending Schedule 1 of the Building Regulations 2000 to include provisions for water efficiency. They believe it would be preferable to have a single set of regulations that deal with the most important sustainability requirements within buildings. There are two main advantages in using the Building Regulations route. First, to bring the regulatory requirements for construction, design or fitting of a new building into one place, in order to make the regulations as simple as possible.

Second as Building Control bodies already help confirm compliance with Building Regulations, this additional requirement would fit well with the existing remit.

1.4.2 The proposals for regulation seek to 'design in' water efficiency in new buildings as a base to secure greater efficiency in the use of water in both the home and the workplace. For the purposes of both the regulations and this consultation the proposals are concerned only with those uses which take water from the public water supply system. The main thrust is to ensure that buildings are provided with water efficient fixtures and fittings so that when people use toilets, showers, baths and so on they can do so using less water, without any appreciable loss of performance.

1.5 The options

1.5.1 There are 2 practical options put forward.

A Whole building performance standard based on 120-135 litres per capita consumption (based on bedspace/potential occupancy) per day.

B Component based approach, with minimum standards for key fittings

1.5.2 **Option A** would require new dwellings to meet a calculated average whole performance standard based on litres per head per day. They would work like the 'miles per gallon' figures quoted for the efficiency of a car and are based on average use assumptions. Assumptions about the amount of water used are based on data about the average frequency and duration of use and the performance of the water fittings specified. A similar approach is used to set carbon emissions limits for new buildings. However, calculations for water efficiency do not affect the fabric of the building and so are less complex than carbon emissions.

1.5.3 **Option B.** This would set a performance based standard for each group of water fittings such as toilets, taps and showers rather than having a performance standard for the building. Each group of water fittings would have a water efficiency performance specified as a maximum water use (toilets) or flow rate (taps and showers). This option has an advantage of encouraging a higher level of market change and would ensure a level playing field across all new housing developments. The downside is that it would be possible to comply with the minimum standards in key components such as showers, toilets and taps, but still install high water using items if they were outside regulation.

1.6 Water use in the workplace.

1.6.1 Approximately 90% of businesses pay for their water on a metered basis, and thus there is an incentive in principle to use less water. But in practice, unlike in homes, the users of the facility are not the bill payers so the incentive to reduce water use for financial reasons is less.

1.6.2 The intention is therefore to include the domestic use of water in non-domestic properties within the regulations, but to exclude the process use of water for industrial or manufacturing purposes.

1.7 The consultation therefore poses the following questions

- What is your view on the whole building performance standard approach for water? Can it be made to work?
- If this was the approach chosen, which is the four target levels (in the range 120 to 135L per head per day) should be used.
- Are there any constraints on using the existing system of building control to ensure compliance?
- Should we regulate separately for very high water use items. If so, how?
- Which option (A or B) will give housebuilders the most flexibility and be most cost effective and practical.
- Which option (A or B) would provide the best incentives for driving innovation in the marketplace?
- Will the market be able to supply compliant fittings in sufficient quantities within the timescales proposed i.e. for 2008 onwards?

1.8 Our response

1.8.1 Overall it seems sensible to bring in some form of regulation of water use within the current system of Building Control given that the Building Regulations are being used already to manage other matters around sustainability.

1.8.2 It is noticeable over recent times, that the industry has been giving consideration to these matters albeit in a small way. It is now almost universally the case that duel flush toilets are installed and increasingly showers are installed in ‘main bathrooms’ with the bath being installed in the ’en-suit’ facility again with a shower head over. This does go some way in encouraging economy in the use of water in domestic situations.

1.8.3 Turning to our response to the specific questions asked it is considered that the councils reply should be as follows.

- That the whole building performance standard approach should be adopted as this has the potential for greater impact as the ‘higher use’ fittings can be taken into consideration as an overall package.
- Given the current level of use of around 150L per head per day, clearly any reduction would be welcome. Therefore rather than introducing specific targets (120-135L), it may be better to introduce these levels as a ‘range’

which would be both achievable and make a marked contribution to the objective of reducing the use of potable water.

- The use of the existing system of Building Control is seen as a sensible avenue to pursue this particular aspect of sustainable construction given the exiting role that local authorities have in this area.

- The use of 'whole building performance standards' would make separate regulation for high water use items unnecessary. It would only be required if Option B were used.

- As noted above option A is the preferred method of achieving the objective.

- Option A would have more impact on the 'high use' range of fittings and be a greater driver of innovation.

- There is already a general use of water efficient fittings on the market (including white goods), therefore this timescale is not seen as being a problem.

1.9 Recommendation

1.9.1 That the Council's response should be that we support the 'light touch' approach to the proposals, that water efficiency is brought within the scope of the Building Regulations and that they are amended to reflect this sustainability remit.

1.10 Legal Implications

1.10.1 The Council already has a statutory duty to enforce the Building Regulations within its area and so the extension of the Regulations is not seen as making a change to existing legal implications for the council.

1.11 Financial and Value for Money Considerations

1.11.1 It is anticipated that the proposals outlined in the report, if implemented, can be met from within existing resources.

1.12 Risk Assessment

1.12.1 As noted above the Council already has a duty to enforce Building Regulations and this extension to the Regulations is not seen as posing any significant increased risk to the council.

1.13 Recommendation

1.13.1 The approach set out in this report form the basis of the consultation response.

Background papers: contact: Mike Ingram

Nil

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