



# Water Company perspectives on the management of surface water from highways

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## Content

- Historical context
- Legislative framework
- Funding arrangements
- Challenges
- Alternative approaches

## Historical Context



- Historically, responsibility for the drainage of properties, highways and many types of land, lay largely with local and national government
- With the privatisation of the water industry in 1991, the property drainage function was transferred to the private sector
- Highway drainage remained within the public sector
- However the drainage of highways and properties in urban areas, are seldom discrete from one another

3

## Public Health Act 1936, s.21



- 21.—(1) Subject to the provisions of this section, a county council and a local authority may agree that—**
- (a) any drain or sewer which is vested in the county council in their capacity of highway authority may, upon such terms as may be agreed, be used by the local authority for the purpose of conveying surface water from premises or streets ;**
  - (b) any public sewer vested in the local authority may, upon such terms as may be agreed, be used by the county council for conveying surface water from roads repairable by the county council.**

4

## Public Health Act 1936, s.21



(2) Where a sewer or drain with respect to which a county council and a local authority propose to make an agreement under this section discharges, whether directly or indirectly, into the sewers or sewage disposal works of another sewerage authority, the agreement shall not be made without the consent of that other sewerage authority, who may give their consent upon such terms as they think fit.

5

## Public Health Act 1936, s.21



(3) A county council or local authority shall not unreasonably refuse to enter into an agreement for the purposes of this section or insist unreasonably upon terms unacceptable to the other party, and a sewerage authority shall not unreasonably refuse to consent to the making of such an agreement or insist unreasonably upon terms unacceptable to either party thereto, and any question arising under this section as to whether or not any authority or council are acting unreasonably shall be referred to the Minister, whose decision shall be final.

6

## Water Industry Act 1991 s.115



### 115 Use of highway drains as sewers and vice versa.

- (1) Subject to the provisions of this section, a relevant authority and a sewerage undertaker may agree that—
  - (a) any drain or sewer which is vested in the authority in their capacity as a highway authority may, upon such terms as may be agreed, be used by the undertaker for the purpose of conveying surface water from premises or streets;
  - (b) any public sewer vested in the undertaker may, upon such terms as may be agreed, be used by the authority for conveying surface water from roads repairable by the authority.
- (2) Where a sewer or drain with respect to which a relevant authority and a sewerage undertaker propose to make an agreement under this section discharges, whether directly or indirectly, into the sewers or sewage disposal works of another sewerage undertaker, the agreement shall not be made without the consent of that other undertaker.
- (3) Subject to subsection (4) below, a consent given by a sewerage undertaker for the purposes of subsection (2) above may be given on such terms as that undertaker thinks fit.

7

## Water Industry Act 1991 s.115



- (4) Neither a relevant authority nor a sewerage undertaker shall—
  - (a) unreasonably refuse to enter into an agreement for the purposes of this section; or
  - (b) insist unreasonably upon terms unacceptable to the other party;
 and a sewerage undertaker shall not unreasonably refuse to consent to the making of such an agreement or insist unreasonably upon terms unacceptable to either party.
- (5) Any question arising under this section as to whether or not any authority or undertaker is acting unreasonably shall be referred to the Secretary of State, whose decision shall be final.

8

## Summary of legislation



- Highway drains can be used to drain water from properties
- Public sewers can be used to drain highways
- Connections between highway drains and public sewers and vice versa, must be subject to agreement by both parties
- Grounds for refusing connection must be reasonable
- Terms of agreements must be reasonable and acceptable
- Legacy highway drainage connections to public sewers are protected by the Highways Act 1980

9

## Water Company Funding



- Water company investment programmes are approved by Ofwat on a 5 - yearly “AMP” cycle
- Benefits are measured in the following “Output Measures”
  - QUALITY – environmental improvements e.g. STW effluent quality
  - BASE – maintaining performance of existing assets
  - ENHANCEMENT – e.g. Alleviating sewer flooding or odour
  - GROWTH – increasing capacity to accommodate additional connected properties

10

## Sewer Flooding Definitions



- A flooding incident is defined as an event of internal or external flooding from a public sewer (whether foul, combined or surface water.)
- “Internal flooding” - flooding, which enters a building or passes below a suspended floor. Buildings are restricted to those normally occupied and used for residential, public, commercial, business or industrial purposes
- “External flooding” - flooding which is not classed as internal. For reporting purposes, external areas will be split into curtilages, highways and other external areas
- Performance of flood alleviation schemes is measured by the number of properties that will be afforded a higher level of service
- A scheme which is can be justified by the number of properties addressed can in some cases, be expanded to alleviate related highway flooding

11


## Challenges




- Water companies have no explicit remit for highway drainage
- There is no direct funding mechanism
- There are no defined standards for performance (for e.g. flooding)
- Ownership of assets is often unclear
- When highway runoff discharges via public sewers – who is responsible for resulting pollution? (Water Framework Directive could force this issue)

12

## Case study – Brent Cross/A41




- Junction of two major trunk roads
- Olympic route
- One of UK's largest retail centres
- Flooding disrupts traffic for up to 12 hours, 3-4 times/year but no properties affected
- Problem believed to have existed for @ 40 years




13

## Resolution



- Until 2009, no driver for highway flooding
- In AMP5, Ofwat accepted the economic impact of the disruption as a driver (£250k)
- With the help of TfL, TWUL secured funding for a solution
- It is the volume of traffic on the route which made it cost-beneficial
- 1-off. No indication that it establishes a precedent



14

## Alternative approaches



- Better communication and cooperation
- Better understanding of interactions between systems and downstream risk – both ways!
- SuDS and Source control – permeable road surfaces?
- Flood storage and routing on roads?
- Collaborative solutions e.g. water companies, highway authorities and EA adopt a joint approach to WFD – e.g. combine resurfacing with source control?

15



Questions ?

16