

Shropshire Fire and Rescue Service

Brigade Order

Operations		
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Part	2	X
Section		2
Title	Provision of Fire Hydrants	

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Roles, Responsibilities and Review (see overleaf)

The XXXX is responsible for ensuring this Order is implemented across the Brigade.

The XXXX will be responsible for the day to day operation of the Order.

XXXX will review this Order when new legislation arises or as and when organisational needs require.

PART 2 – PROVISION OF FIRE HYDRANTS

PURPOSE

The Fire and Rescue Service has access to large number of Water Company owned hydrants throughout the county. The hydrants directly support Fire and Rescue Service activities and must, therefore, be identifiable and achieve an appropriate level of performance. Additionally, these hydrants represent a considerable investment and may have high operating costs.

STRATEGIC AIMS AND OBJECTIVES

Strategic Aim 1 "Reduce the risk to life and material loss from fire and other emergencies in the community".

Strategic Aim 2

"Protect life, property and the environment from fire and other emergencies".

Strategic Aim 3

"Secure the highest level of safety and welfare for all staff by providing effective supervision, training, equipment and systems of work".

ROLES, RESPONSIBILITIES AND REVIEW

The **Head of Operational Response** is responsible for ensuring this Order is implemented across the Brigade.

The **Contracts Manager – Water (CMW)** will be responsible for the day to day operation of the Order.

Incident Command (IC) will review this order biennially in *June* and when organisational changes take place.

BACKGROUND INFORMATION

LEGISLATION AND GUIDANCE DOCUMENTS

There are a number of existing pieces of legislation and guidance documents that have an impact on the provision, use and maintenance of fire hydrants. These are listed below and should be referred to if further information is required.

LEGISLATION:

THE WATER INDUSTRY ACT 1991, WATER ACT 1989

- Section 57 Duty to provide a supply of water for fire fighting.
- Section 58 Specially requested fire hydrants.
- Section 147 Charging for emergency use of water.
- Section 174 Offences of interference with works etc.

THE WATER ACT 2003

• Section 84 Fire hydrants – Amendments to Sections 57 and 58 of The Water Industry Act 1991.

THE FIRE AND RESCUE SERVICES ACT 2004.

- Part 2 Section 7 (2)(a) Provision of equipment for fire fighting.
- Part 5 Water supply.
- Section 38 Duty to secure a water supply.
- Section 39 Supply of water by water undertakers.
- Section 40 Emergency supply by water undertaker.
- Section 41 Supply by other persons.
- Section 42 Fire hydrants.
- Section 43 Notice of works affecting water supply and fire hydrants.

THE NEW ROADS AND STREET WORKS ACT 1991

• Sections 65 and 124 – Safe working in streets and roads, signing, lighting and guarding of works.

("Safety at Street and Road Works – A Code of Practice", available from The Stationery Office).

NOTE: The testing and inspection of fire hydrants in the road/street is covered by this act.

TRAFFIC MANAGEMENT Act 2004

GUIDANCE DOCUMENTS

FIRE SERVICE MANUAL VOLUME 1 - Fire Service Technology, Equipment and Media. Chapter 4 Water Supplies and Hydrants.

- Section 4.1 Legislation concerning mains water supplies.
- Section 4.11 New Roads and Street Works Act 1991.

THE NATIONAL GUIDANCE DOCUMENT ON THE PROVISION OF WATER FOR FIRE FIGHTING (2nd edition 2002)

MIDLAND WATER OFFICERS GROUP WATER COMPANY MODEL AGREEMENT (Issued 1997)

(Copies of the above documents are available from the Brigade Water Officer).

DISTRIBUTION OF WATER SUPPLIES

Further information on how water is supplied, distributed and managed by Water Companies can be found in the FIRE SERVICE MANUAL VOLUME 1 – Fire Service Technology, Equipment and Media: Chapter 4 – Water Supplies and Hydrants

- Section 4.2 Distribution of water supplies
- Section 4.3 Water supplies for fire fighting
- Section 4.4 Pressure and flow in water mains
- Section 4.5 Special fire mains

SECTION ONE - CONSULTATION PROCEDURES

PLANNING APPLICATIONS

The six local council planning departments send copies of their weekly planning application lists to the Fire and Rescue Service (Incident Command) as part of their consultation process. Copies of any draft planning briefs that are produced are also sent for consultation. This allows the Fire and Rescue Service to identify any areas of concern or to make recommendations at an early stage.

Attention should be paid to the following:

- 1. **Proposed Development of Green Field Sites** It will be necessary to identify if existing Fire and Rescue Service resources will provide adequate fire cover for the new development. There may be occasions where new facilities may be required such as additional fire stations or where existing resources will need to be redeployed.
- 2. **Fire Hydrant Provision** Recommendations should be made identifying the need to provide adequate water supplies for fire fighting. This will normally be achieved through the provision of fire hydrants but alternative methods should also be considered where appropriate.
- 3. **Access for Appliances** Recommendations should be made to ensure that access for emergency vehicles conforms to the requirements of the current building regulations.

Appendix A details the procedures to be followed on receipt of planning applications for consultation.

NEW WATER MAINS SCHEMES

Severn Trent Water Ltd often receives requests from developers to install new water mains. The Fire Service is consulted on the requirements for fire hydrants on the new mains prior to works commencing. This ensures that adequate water supplies for fire fighting, in the form of fire hydrants, are provided on all new building developments at the same time as new water mains are being laid.

Appendix B details the procedures to be followed on receipt of plans for new water mains from Severn Trent Water Ltd.

REHABILITATION OF EXISTING WATER MAINS

Water Companies are constantly looking to improve the effectiveness and efficiency of the existing water systems. Where water mains are old, or inefficient, rehabilitation work may be carried out to meet the Water Company's aims.

Prior to any works being carried out, the Water Company will consult with the Fire and Rescue Service so that existing fire hydrant arrangements can be reviewed and amended where necessary.

Appendix C details the procedures to be followed when notification is received that rehabilitation works are to be carried out.

HYDRANT FLOW RATES

The Local Government Association(LGA)/Water UK National Guidance Document, on the provision of water from fire hydrants for fire fighting, gives the following flow rates as the minimum necessary for fire fighting, in particular risk categories, where new developments are under construction.

- 1. Housing Minimum of 8 l/sec (480 l/min) for detached or semi-detached of not more than two floors up to 35 l/sec (2100 l/min) for units of more than two floors, from any single hydrant on the development.
- 2. Transportation Minimum of 25 l/sec (1500 l/min) for lorry/coach parks, multistorey car parks and service stations from any hydrant on the development or within a vehicular distance of 90 metres from the complex.
- **3. Industry (industrial estates)** It is recommended that the water supply infrastructure should provide as follows with the mains network on site normally being at least 150mm nominal diameter:
 - **a.** Up to one hectare minimum of 20 l/sec (1200 l/min)
 - **b.** One to two hectares minimum of 35 l/sec (2100 l/min)
 - **c.** Two to three hectares minimum of 50 l/sec (3000 l/min)
 - **d.** Over three hectares minimum of 75 l/sec (4500 l/min)

High risk areas may require greater flow rates.

4. Shopping, offices, recreation and tourism – Minimum of 20 l/sec (1200 l/min) to 75 l/sec (4500 l/min) depending on the nature and extent of the development.

5. Education, health and community facilities

a. Village halls – Minimum of 15 l/sec (900 l/min) through any single hydrant on the development or within a vehicular distance of 100 metres from the complex.

b. Primary schools and single storey health centres – Minimum of 20 l/sec (1200 l/min) through any single hydrant on the development or within a vehicular distance of 70 metres of the complex.

c. Secondary schools, colleges, large health centres and community facilities – Minimum of 35 l/sec (2100 l/min) through any single hydrant on the development or within a vehicular distance of 70 metres from the complex.

When the flow rates cannot realistically be achieved from local mains, Fire and Rescue Services should plan to use alternative supplies to address any shortfalls.

PROCEDURE FOR DEALING WITH PLANNING APPLICATIONS

- 1. The local planning departments send copies of weekly planning lists to **Incident Command.** One Incident Commander will take a lead role in water issues and in his/her absence a deputy will be nominated.
- 2. **Incident Command** will check the lists for the following:
 - a) New developments of 5 or more houses.
 - b) New industrial/commercial developments.
 - c) New education, health and community facilities.
 - d) Any other applications worthy of comment.
- 3. Incident Command will highlight any of the above on the planning lists
- 4. Using the Map Information database **Incident Command** will assess the existing water supplies around the proposed site. The Ordnance Survey (OS) map grid references provided on the planning lists can be used to identify site locations.
- 5. If existing water supplies are considered satisfactory no further action is necessary and the planning lists should be forwarded to Fire Safety, Shrewsbury.
- 6. If additional water supplies are required to cover the new development **Incident Command** will mark on the planning list, against the specific planning application, a request to send a letter highlighting the need for additional water supplies.
- 7. Incident Command will then send the planning lists to Fire Safety, Shrewsbury.
- 8. **Fire Safety** will check the planning lists for instances where advice may be required concerning access for fire appliances.
- 9. **Fire Safety** will then send out letters to the planning departments as necessary indicating the requirements for water supplies and access. It will be the responsibility of the Building Regulations/Technical Officer to ensure that the appropriate letters are sent out
- 10. **Fire Safety** will keep on file copies of all letters that are sent out.

APPENDIX B

PROCEDURE FOR DEALING WITH FIRE HYDRANT REQUIREMENTS ON NEW WATER MAINS

Severn Trent Water Ltd (STWL) will send three sets of plans showing the layout of the proposed new water mains to the Contracts Manager Water (CMW).

The **CMW** will record receipt of the plans.

The **CMW** will then forward the plans to Incident Command.

Incident Command (IC) will mark on the 3 sets of plans the number and location of any new fire hydrants that are required. Plans should be marked up as follows:

- a) Fire hydrant locations should be identified by a red H on the plans.
- b) Each plan should be marked with the appropriate red ink stamp i.e. 'Nil Requirements' or 'Fire Hydrant Requirements'.
- c) Where new fire hydrants are requested a minimum flow rate requirement should be stipulated on the plans. (Guidance on appropriate flow rates is given in the 'Model Water Agreement' document).
- d) The Incident Commander should then sign and date the plans.

STWL will on occasions stipulate on drawings that temporary wash-outs at the connection with the old mains should be retained for Fire Service use. If this wash-out is not required as a fire hydrant it must be specified on the drawing.

IC will then return the plans to the CMW.

The CMW will send one set of plans to STWL.

STWL will install fire hydrants as requested and will inform the **CMW** when works are completed.

The **CMW** will arrange for the new fire hydrants to be tested and inspected by **appointed specialist contractors**.

The **Contractors** will send a report of the inspection to the **CMW** indicating the new installations are satisfactory/unsatisfactory.

If satisfactory the **CMW** will arrange for payment to be made to **STWL** for the completed works.

If unsatisfactory the CMW will refer any defects to STWL

On confirmation that the fire hydrants have been installed and tested the **CMW** will arrange with the contractors to amend the hydrant database.

PROCEDURE FOR DEALING WITH WATER MAINS REHABILITATION SCHEMES

When Water Companies carry out rehabilitation work on mains the following procedure will be adopted;

- 1. The **Water Company** will arrange to meet the **IC** to discuss fire hydrant requirements for each individual project. Accurate up to date plans (3 sets) will be provided showing all existing hydrants.
- 2. The **IC** will indicate on the plans the hydrants that are to be retained, replaced, relocated, abandoned or added to the scheme. The plans will then be signed and dated by both parties to confirm agreement has been reached. At this point no changes should be made to the requirements on the drawings unless full consultation has taken place.

If a site visit is necessary then consideration should be given to a joint inspection with the Water Company.

- 3. The Water Company will forward two copies of the 'proposed' plans to the Contracts Manager Water (CMW) who will retain them on file.
- 4. On completion of work the **Water Company** will send two copies of **'as laid'** plans to the **CMW**.
- 5. The **CMW** will arrange for the new scheme to be tested and inspected by the hydrant maintenance contractors.

The scheme will only be accepted if all work is of a satisfactory standard and in accordance with the requirements shown on the **'proposed'** plans.

6. The hydrant maintenance contractors will amend the hydrant data base to reflect any changes made.

MARKING OF SCHEMES

- 1. When marking up plans a red H in a red circle should indicate new hydrants.
- 2. Shared washouts should be indicated SWOH in red.
- 3. The following information should be indicated on the drawings;
 - a) Where it is not apparent, the size of the main on which the hydrant is to be installed.
 - b) The location of the hydrant, i.e. footpath, verge, road etc.
 - c) The minimum flow requirements from the hydrant.

4. Where an existing hydrant is to be abandoned it should be identified by a red cross through the hydrant.

5 When completed all drawings should be signed and dated in the bottom right-hand corner by the **IC** and **Water Company representative**

SECTION TWO - FIRE HYDRANT REQUIREMENTS

Fire hydrant requirements will be determined on a **'risk assessment'** basis taking into account existing 'guidance' contained within the following documents.

'National Guidance Document on the Provision of Water for Fire Fighting' (2nd edition 2002).

This document has been produced jointly by the water industry and the Fire and Rescue Services to improve working relationships and secure co-operation in meeting the challenges facing both parties.

CFOA Midland Water Officers Group Water Company Model Agreement (Issued 1997).

Officers representing Severn Trent Water Ltd, South Staffordshire Water plc and Fire Authorities in the Midlands region have signed up to this Agreement.

It details the procedures to be followed right through from planning the provision of hydrants to maintenance issues and charges.

SITING OF HYDRANTS

Hydrants should be sited in footpaths or verges when ever possible.

When it is necessary to install a hydrant in the roadway, a risk assessment must be carried out to ensure the location does not put operatives in danger (i.e. on a bend in the road or at a busy junction). Where the proposed location is hazardous the hydrant must be relocated.

Water Companies are reluctant to place hydrants on spurs off mains because they hold stagnant water that may contaminate drinking water supplies when disturbed.

DISTANCES BETWEEN HYDRANTS

The following criteria have been used to determine the distance between hydrants in low risk urban areas.

- Two fire appliances are mobilised to all property fires.
- Modern branches and fire fighting techniques require less water to effectively extinguish compartment fires.
- Each appliance carries 1800 litres of water.
- Each fire appliance carries 10 lengths of 70mm and 6 lengths of 45mm hose.
- The maximum distance to the nearest fire hydrant should be 150metres.
- A time delay of ten minutes from setting onto a hydrant to delivering water to the incident.

In other circumstances the provision of specialist equipment, such as Pumping Units and Water Carriers, has been taken into consideration along with the availability of alternative water supplies.

The distances between hydrants given below may be increased or reduced to satisfy the requirements of the risk assessment:

- **Housing estates and low risk areas** 300 metre intervals. A fire hydrant should be located at the entrance to the estate where ever possible.
- **Higher risk areas (industrial estates, offices and shops etc** 100 metre intervals.
- **Rural areas** Sited near to groups of properties a maximum of 500 metres.
- **Farms** Should be treated on merit whilst giving consideration to alternative water supplies.
- **Sparsely populated areas** Strategically sited hydrants as fill up points.
- **Strategic hydrants** Where flow rates from hydrants in the immediate vicinity of an identified risk premises are considered insufficient to deal with a worst case scenario fire, it may be necessary to install strategic hydrants on water mains with greater flow rates some distance from the risk. These strategic hydrants will be identified on fire appliance mobile data terminals (MDTs).

The location of existing wash-out hydrants should be taken into consideration when determining requirements. They should only be adopted as fire hydrants if they are an economic and effective way of satisfying recognised requirements.

IDENTIFICATION OF HYDRANTS

All hydrants will be identified by a yellow indicator plate giving the main size and distance in metric measurement. A unique hydrant identification number will be also be marked on the top of the plate. In most instances the plates will be fitted to small purpose built concrete posts. However, on occasions, this type of post may be considered inappropriate and one of the following alternatives may be used.

In rural hedgerows/grass verges the plates may be installed on 1.8 metre high steel posts similar to those used for road signs. This reduces the risk of damage to the smaller concrete posts and enhances visibility which can be affected by undergrowth.

At some locations it may be inappropriate to fit a post of any kind (open plan housing estates, conservation areas etc). On such occasions the plates may be fitted to existing street furniture such as lamp posts or a nearby wall. Marker plates are normally positioned to face a hydrant. Where this is not possible an arrow is used to indicate the hydrants location.

Where conditions allow, hydrants may additionally be identified by a yellow painted cover, a yellow painted marking on an adjacent kerb or by reflective bands on street furniture above and below the marker plate. The identification number is additionally recorded on a plastic tag attached to the hydrant spindle.



OPERATIONAL USE

If a hydrant is used to supply water to an incident, this information must be passed to Fire Control at the earliest opportunity in an informative message so that the Water Company can be informed. This is not necessary if the hydrant is being used to refill a fire appliance water tank after an incident.

When water is required from a hydrant it should be operated as follows:

- Ensure that appropriate scene safety measures are put in place before using a hydrant
- Remove the lid and place in a safe location
- Ensure a false spindle is in place and affix the hydrant key and bar to the false spindle
- Affix standpipe to hydrant outlet and partially open to flush out any debris
- Close the hydrant and attach the hose
- Slowly open the hydrant fully. Note: hydrants may open clockwise or anti-clockwise, this is indicated by a directional arrow on the spindle
- Clearly mark and protect the standpipe and open pit using cones, signs or lights as appropriate

On completion all equipment must be removed and the lid replaced securely. If it is not possible to fully close the hydrant this should be reported to Fire Control immediately as a defect. Following this procedure will minimise the risk of damage to the hydrant and contamination of the water supply.

REQUESTS FOR WATER COMPANIES TO INCREASE MAINS SUPPLIES FOR FIREFIGHTING

Water Companies have the facility to redirect additional water supplies through mains to areas where it is required for fire fighting; although there will be occasions where this is not possible.

The amount by which normal water supplies can be increased will initially be determined by the quantities available in surrounding areas. Demand on existing supplies from other users will also have an effect and will be directly linked to the time of day.

Where requests to increase supplies are made there will inevitably be a delay between the Water Companies receiving the request and being able to take action on the ground.

Any such requests must be made to Fire Control who will contact the Water Company using previously agreed procedures.

The Water Company will send a representative to the incident to liaise with the Incident Commander regarding improvements to water supplies.

In instances where, in spite of action taken by the Water Company, the water supply remains inadequate for fire fighting, a report giving full details should be forwarded to the Contracts Manager – Water CMW.

SECTION THREE - INSPECTION AND MAINTENANCE

Hydrants are maintained either by the Water Company or by appointed specialist contractor, depending on the type of work to be carried out.

Hydrants on Water Company mains will be inspected by appointed specialist contractors on adoption, and every four years thereafter, at which time the hydrant is visually inspected and necessary maintenance works carried out.

However, there may be circumstances identified through risk assessment where this frequency needs to be reduced to three or maybe two years.

The risk assessment should look at the following criteria, all of which may affect whether the hydrant will be easily located and in working order when required;

- The type of surface the hydrant is set in.
- The likelihood of silting in the chamber.
- The likelihood of damage to the hydrant chamber or post.
- The likelihood of vandalism in the area.

In exceptional circumstances, such as a strategic hydrant covering a high risk premises, it may be considered necessary to carry out annual inspections.

HYDRANT DEFECTS

All hydrant defects should be reported by telephone to Fire Control at the earliest opportunity. When reporting defects it is important that the following information is provided to ensure the correct hydrant is identified.

- Fire hydrant identification number (shown on marker plate and plastic tag on hydrant outlet)
- 12 figure grid reference (available on appliance MDTs)
- Location and address details
- Where the hydrant is sited (road, footpath etc)

Fire Control will record all this information on Brigade form FB298 (see Appendix A) and send the completed form direct to the CMW for action.

HEALTH AND SAFETY – There have been occasions where used hypodermic needles have been left in hydrant pits. If personnel discover any needles they should be left in situ and the incident reported to Fire Control. Arrangements will be made to have the needles removed by the Water Company at the earliest opportunity.

When hydrant pits are found to contain dirty water and visibility is obscured personnel should refrain from putting their hands in the pit.

INSPECTION OF REPAIR WORK

On completion of work the Water Company will inform the CMW who will arrange for the hydrant to be inspected by the appointed specialist contractors.

The hydrant will only be accepted if it has been repaired to a satisfactory standard.

On confirmation of this the CMW will process any invoices received from the Water Company.

PRESSURE/FLOW TESTING OF HYDRANTS

Because of the risk of water discoloration the Water Company must be informed before carrying out flow tests. Flow tests will only be carried out by appointed specialist contractors on the instructions of the CMW.

HYDRANTS USED FOR PURPOSES OTHER THAN FIRE FIGHTING

Illegal use or misuse of hydrants may render the persons concerned liable to prosecution and a fine. Anyone who damages or obstructs a hydrant, unless using it for an authorised purpose, is committing an offence. (Section 42 – Fire and Rescue Services Act 2004).

Where persons need to use a fire hydrant for purposes other than fire fighting, they must seek permission from the Water Company before using the hydrant. In most circumstances only specially adapted standpipes fitted with a check valve are authorised for use. The user will be liable to pay for any defect or damage caused by any such use.

If it is suspected that a hydrant is being illegally used the CMW should be informed immediately. The following information should be provided:

- The location of the hydrant being used
- The date and time of the occurrence
- The identity of the company/person using the hydrant

NOTE: If the person using the hydrant becomes aggressive as a result of being challenged personnel should leave the scene and report the information available to them to the CMW.

SHROPSHIRE FIRE AND RESCUE SERVICE



FIRE HYDRANT DEFECT REPORT

FROM: Fire Control

 FIRE HYDRANT LOCATION::

 Outside Building No
 Building Name:

 Street:

 District/Village:
 Town:

 Sited in:
 Road / Footpath / Verge / Other (please specify)

IS A YELLOW 'H' MARKER PLATE INSTALLED?

YES / NO

SHARPS FOUND IN

TO: Water Officer

OPERATIONAL PERSONNEL TO PROVIDE:

 1. FIRE HYDRANT No
 YES / NO

 2. GRID REFERENCE
 If YES do not touch or remove. STWL will be advised by Water Officer.

 3. MDT CHECKED & FH NOT FOUND ON RECORD
 advised by Water Officer.

DEFECT DETAILS:

CALLER'S DETAILS :

ADDITIONAL INFORMATION (please continue overleaf if necessary):

Name:

Address:....

Contact No: Date:

Date:.....Time:....

Form rev MAY 06. PROCEDURE CHANGE FROM 'FAX TO CONTRACTOR' TO 'REPORT TO WATER OFFICER'

Time:

SECTION FOUR - PRIVATE FIRE HYDRANTS

Private fire hydrants are located on private water mains that are not the responsibility of the local Water Company or the Fire and Rescue Service. They are normally found on large sites such as hospitals, military establishments and industrial estates but may also be installed to provide cover for specific risk properties. Private hydrants are the responsibility of the owners/occupiers on whose land they are installed and will not be inspected or maintained by either the Water Company or the Fire and Rescue Service.

PROVISION OF PRIVATE HYDRANTS

Private hydrants for fire fighting should only be requested as a last resort where other options are not available. Because the Fire and Rescue Service has no control over testing and maintenance it cannot be guaranteed that the hydrants will operate safely and effectively when required. Private hydrants should only be used if agreement has been reached between the Fire and Rescue Service and the responsible owner/occupier to ensure appropriate testing and maintenance is carried out. Where this is not the case private hydrants should be disregarded and alternative supplies utilised.

METER BY-PASS VALVES

Private hydrants fed from water mains are normally metered and their use for any purpose is subject to payment being made for all water used. A by-pass valve is usually fitted adjacent to the meter itself for use by the Fire and Rescue Service in emergency situations. The position of the valve is identified by a standard indicator plate bearing the words 'Meter By-pass'.

The by-pass valve should only be opened when water is being used for fire fighting and must be closed again after operations have ceased.

The position of any such valves must be identified in the relevant contingency plan/risk information sheet and personnel should be aware of their locations.

INSTALLATION, TESTING AND MAINTENANCE

Private hydrants should be installed in accordance with the appropriate British Standards and should be compatible with Fire and Rescue Service equipment.

Private hydrants should be capable of delivering a sufficient flow of water to deal effectively with any fire that occurs in the premises that they cover.

Where private hydrants are installed they should be tested and maintained in good working order by the responsible person(s) especially if they are identified on Fire and Rescue Service risk information sheets as a reliable water source for fire fighting.

SECTION FIVE - WATER PRESSURE LOGGERS

In order to monitor water pressures and to assist in leak detection Water Companies are installing devices known as 'Water Pressure Loggers' on selected fire hydrants around the county. Monitoring is carried out on a continuous cycle and as a result the location of the devices constantly changes. They may be in position for days or months depending on the situation being monitored. Around 200 loggers will be in use around the county but not all of them will be fitted on hydrants. Some will be fitted on other Water Company equipment i.e. Wash-outs.

TYPES OF LOGGERS

Water Spider Loggers (Fig 1) – These devices are connected to the <u>hydrant outlet</u> using a flexible coiled hose, which is secured to a hydrant cap by means of a quick release coupling. When the device is in use the hydrant is partially open and the cap on the outlet is under pressure. This poses a risk to personnel if attempts are made to remove the device without first closing the hydrant fully. They are used to monitor water pressure.

REMOVAL OF LOGGERS BY FIRE SERVICE PERSONNEL

LOGGERS SHOULD ONLY BE REMOVED IF ABSOLUTELY NECESSARY

Loggers should not be removed for the purposes of hydrant inspection or to allow a hydrant to be used for replenishing fire appliance water tanks.

If the hydrant is required for fire fighting the following procedures should be adopted.

Water Spider Loggers –

- 1. Turn off the hydrant using a standard hydrant key and bar.
- 2. Release the snap lock quick release coupling on the hydrant outlet cap and remove the flexible coiled hose and logger.
- 3. Remove the hydrant outlet cap using the hydrant key and bar.
- 4. Operate the hydrant in the normal manner for fire fighting purposes.
- 5. Following completion of activities, place the logger, hose and hydrant cap in the hydrant pit. **DO NOT ATTEMPT TO REFIT THE LOGGER.**
- 6. At the earliest opportunity inform the CMW that the logger has been removed. Details of the exact location of the hydrant involved must be provided.

The CMW will inform the appropriate Water Company that the device has been removed.

FIGURE 1`

