

# Parks & Open Spaces Seminar London, 30 November 2017

## **Safety at Work Drivers and Operatives**



Alan Plom, APSE Associate Trainer



- Key legislation related to delivering arboriculture, horticulture and open space services
- Measures to limit risks of Hand-Arm Vibration Syndrome
- Effectively managing Driver Safety + operatives and non-employees

Eg. Case studies/Prosecutions highlighting Hazards/Risks and who is responsible.....

# Legal framework

**Health and Safety at Work etc Act 1974**

**Powers of Inspectors**

- Entry, talk to employees, take photos
- Investigate
- Enforcement:
  - Advice- (written/verbal)
  - Require to 'make safe'
  - Issue 'Notices' – prohibition or improvement
  - Prosecution (companies and/or individuals)

- EU Directives/Regs:**
- Management Regs;
  - Supply of Machinery / PPE;
  - Provision & Use of Work Equipment (PUWER);
  - Lifting Equipment (LOLER)
  - Manual Handling Ops,
  - Display Screens, etc

**UK Regulations  
(A)COPs  
Guidance**

# What activities on (or near) roads?

Driving/being driven - at work, to/from worksites, egs:

- Litter picking (verges, central reservations) & road sweeping
- Fly tipping removal
- Cutting grass (verges, central reservations, roundabouts)
- Hedge cutting
- Tree felling and trimming
- Winter maintenance (salt spreading/snow clearance)
- Emergency clearance (wind-blown trees, road kill, RTAs?)
- Flooding, clearing drainage systems
- Waste collection – domestic & commercial
- Dog waste clearance/collection
- Street lamp maintenance
- etc

- Waste collection & recycling
- Litter picking/road sweeping
- Mowing roadside & on slopes
- Trees & treework
- Building/Streetlight maintenance/work at height
- Pesticide application – quads/ATVs (+ chemicals)

*NB. HSE focus on health issues*





# Tree Safety



- LAs' responsible for own tree stocks + line highways (58/day being felled)
- Responsible for 'clearing up' after storms, etc.
- Set standards for public
- Provide advice + TPOs.



***Yaxley PC - 13 yr old crushed by 20ft branch (6/11)***

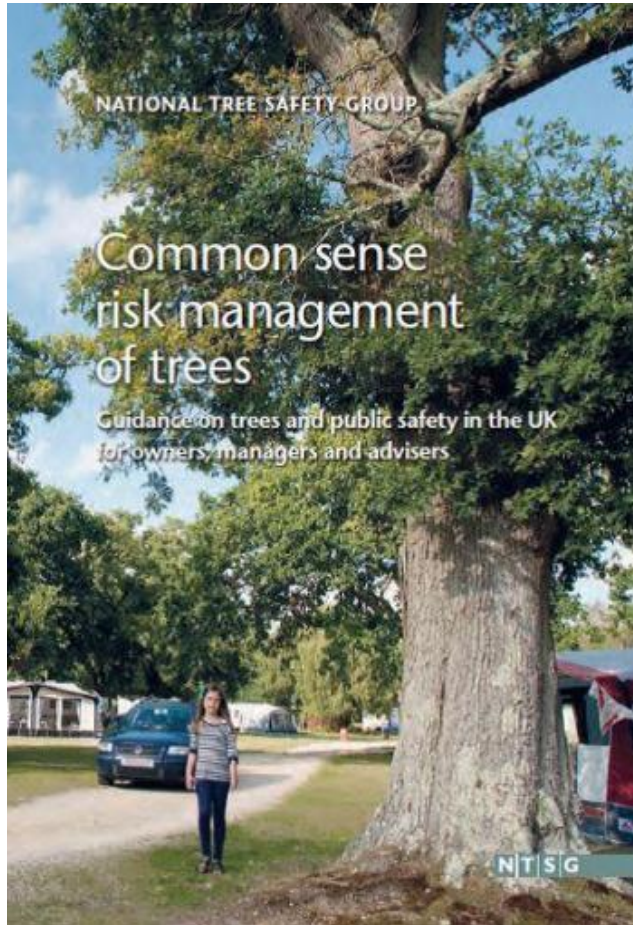
- *Another branch fell 2 days later – still not roped off!*
- *11 other trees 'high risk'*
- ***YPC paid undisclosed damages. (No prosecution?)***



# Tree Climbing vs MEWPs

Ladders vs Climbing vs MEWPs

= based on site / tree-specific assessment









# But could this happen to you?

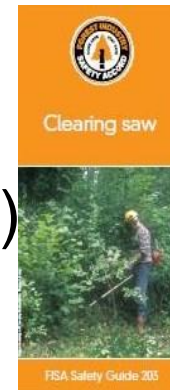
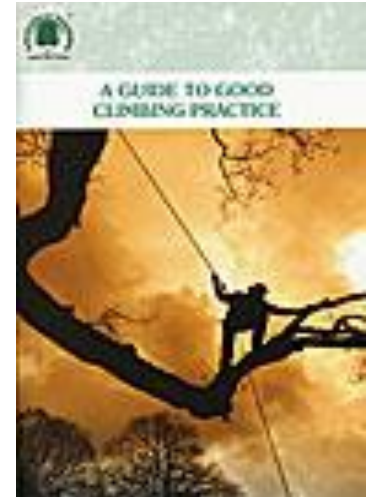
- **Gateshead Council** fined £40k + ~£6k costs (July 2014) for failing to ensure contractor competent to fell large tree (25m poplar) in Jan 2012.
- Tree on steep slope, fell on rail line and hit by train
- Contractor's penalty = 150hrs + £6k costs
- Worker knocked unconscious when hit on head by tree or train + fractured ankle!
- No winch used + R/A dubious?
- Damage to train?
- ~£100k !!! [+ £7k delays, etc]



# Engaging Competent Treework Contractors

## Questions to ask/evidence to look for:

- Emergency plans including **aerial rescue**
- Records of thorough examination – LOLER
- PPE – suitable, ‘in date’.
- What standard work is done to?  
eg Industry codes of practice (FISA/AFAG/AA)
- Track record
- References
- Means of keeping up to date on safety? eg Arb Assoc  
Approved Contractor Scheme [= CHAS approved too.]
- Insurance cover – ELCI, Public Liability, Professional  
indemnity.



## Landscaping/amenity accidents

- Also a high incidence rate (178k workers)
- Similar rate to construction and not reducing:
  - ~2 fatal accidents/yr (eg mower overturns)
  - (+ ~3-4/yr treework – only 26k workers!)
  - ~3 major injuries/wk
  - ~10 over 3/7 day injuries/wk
  - ~8k ill-health reports/year
  - ~75% = musculo-skeletal disorders (incl HAVS)
- *NB. Significant under-reporting in this sector*
- *+ RIDDOR/ industry codes changed.*
- *Combine this high 'risk' activity with working on roads!*



# ('Dynamic') / site factors to consider



- Extreme conditions
- Poor visibility
- Fog
- Dark
- Storms: wind, rain
- Floods
- Snow & ice
- Steep ground
- Obstacles, eg road signs, barriers, vegetation, etc
- Road users & pedestrians!

## Potential hazards

during work activities on or near the road

Include:

- Struck by passing or reversing vehicles
- Slips, trips and falls
- Weather conditions
- Manual handling
- Violence/aggression (public, incl. other drivers!)
- Mobile phones / inattention
- + “Occupational Health” issues

- 'At work' incidents at 'road works' have caused:
  - ~25 deaths/227 serious injuries to road workers in 10 yrs (2001-10).
  - 8 'road workers' killed in last 3 years while maintaining England's road network + "many injured".  
..... + Scotland & Wales?
- 'At Work' deaths related to litter picking (in 10 yrs)?  
= 2 or 3 reported
- *nb. HSE's stats do not include RTAs.*



## Waste Vehicle Incidents

- ~30% of fatalities in ‘waste & recycling’ (2009-14) due to being *struck by vehicles*\*.
- ~31 RIDDOR-reportable fatalities (2004-10) relating to municipal and domestic collections
  - 17 = household waste collection
  - inc 9 members of the public.
- *Struck by moving vehicle* incidents are reducing but cause the most serious/severe injuries.
  - *nb. HSE’s stats do not include RTAs.*

# Refuse/Waste collection incidents

- Waste industry poor performance
- RIDDOR injuries 4x most other industries
- Main causes of accidents include:
  - Manual Handling (MSDs)
  - Slips and trips
  - Hit by moving, flying or falling objects
  - Falls
  - Contact with moving machinery
  - Needlestick/sharps
  - Hit by moving vehicles



## Designing a 'Safe' Service (Waste 23)



Considers:

- The collection process (bins/bags etc), area and route, etc;
- Size/spec of collection vehicle - geography, street layout/width of road, eg rural lanes;
- Timing - to minimise pedestrians in the area, traffic, etc;
- Eliminate or reduce reversing (*Daventry fatality April 16?*)
- Cameras, sensors, banksman used.



## Manchester litter picker case (2013)



- Good weather
- Council employee injured
- 60 yr old litter picker - struck by car when crossing dual carriageway
- Manchester CC fined £15k
- + ~£4k costs

# Manchester litter case

## HSE findings

- MCC litter pickers maintained ~1,000 miles of roads, BUT
- had not identified being struck by a car as a risk associated with litter picking work,
- no signs or safe system of work in place, AND
- staff not given information about controlling or informing traffic about them, when working on or near the road, SO
- HSE also issued Improvement Notice on MCC to review risk assessment and control procedures.

# Manchester litter case

## Outcomes

- MCC implemented further controls including:
  - updated health and safety training (*employees claimed ‘never seen’ 2012 risk assessment*)
  - providing more signs
  - new monitoring and review process.
- HSE guidance = for workers driving for work or working in or near live traffic (eg at construction sites and crossing roads on foot) - can be found at: <http://www.hse.gov.uk/roadsafety/>
- *WISH* have produced specific guidance [*‘Waste 24’*]

# Veolia Litter Picker killed in Kent (2007)

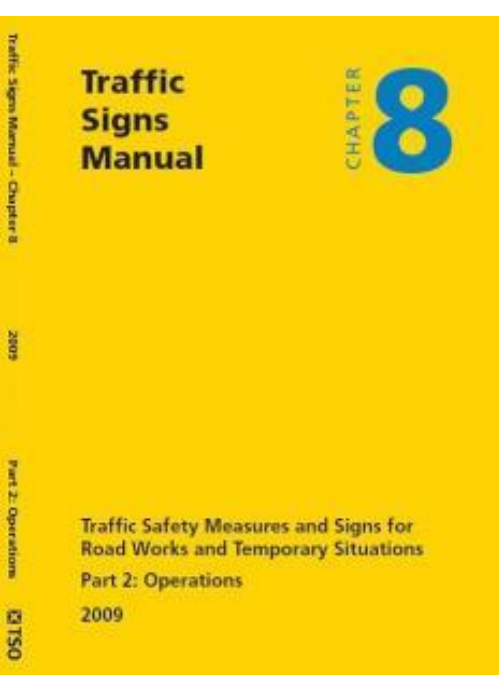
- 20yr old agency worker (Kent).
- Picking litter on grass verge.
- Dual c/way, bright day.
- Cage vehicle travelling behind litter picker was struck by HGV and pushed into him.
- HSE commented:
- “Work activity was not safe or properly planned” +
- “other road users also put at risk”.
- **Veolia fined** £225k + >£95K costs in Aug 2010.
- LA prosecution (HSWA s3) dropped at Court.



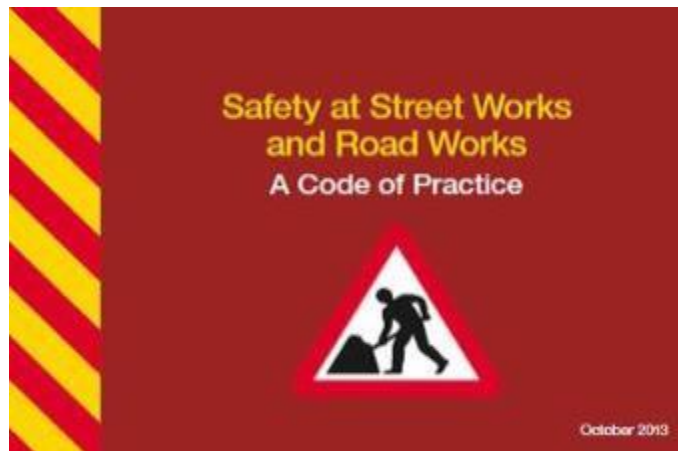


# Kent litter picking fatal crash scene





# 'Relevant Guidance'



- **'Red Book'** - Safety at Street Works and Road Works Code of Practice (revised 1/10/14)
- **'Chapter 8'**: Traffic Signs Manual - Safety Measures and Signs for Road Works and Temporary Situations.
- **+ HSWA, 'RSPs' (regs), CoP's, guidance**
- **+ Relevant Industry Guidance :**
- eg *'WASTE 24'* – *produced by WISH*

- DfTr Minister wrote to CE's of all Highways Authorities in E&W (2/7/14) stating Red Book = “mandatory >1/10/14”.
- Red Book (pg6): “Failure to comply is a **criminal** offence and may lead to prosecution.”
- But HSE has issued no specific guidance on this activity.
- HSE's 'mantra' = “*Sensible management of h&s*” .....  
+ encouraging industry to produce its own guidance.
- HSE considers the Red Book/CoP describes standards for compliance, but accepts it is not 'absolute', nor the only requirement.
- So, the *Waste Industry Safety & Health Forum* (WISH) produced 'Waste 24' in consultation with LAs and contractors + via LAWS.
- It is 'endorsed' by HSE.

## 'Safe Cleansing on the Highway'

- Guidance on 'assessing and managing the risks of manual & mechanical cleansing'.
- 'Applies to and will assist' those responsible for design, specifying contracts, and managing operations.
- Includes advice on monitoring, supervision and training.
- Defers to 'Chapter 8' & 'Red Book', BUT
- Emphasises LAs must base decisions on risk assessment of each situation.

**WISH** Waste Industry Safety and Health Forum  
**FORMAL GUIDANCE DOCUMENT**

**SAFE CLEANSING ON THE HIGHWAY  
 MANAGING THE RISKS ASSOCIATED  
 WITH MANUAL AND MECHANICAL  
 CLEANSING**

This guidance has been developed by the Waste Industry Health and Safety (WISH) Forum to help control safety and health risks in the waste management industry associated with safe cleansing on the highway. The Health and Safety Executive (HSE) was consulted in the production of this publication. It endorses the sensible, proportionate, reasonable and balanced advice to owners on managing the risk from this guidance during the waste-related activities as set out in the guidance.

This guidance is aimed at those responsible for the design, specification, operation, management, and monitoring of cleansing operations on the highway. It primarily focusses on traffic related issues associated with manual and mechanical cleansing including secondary cleansing, more commonly referred to as litter picking. It contains advice relating to good working practice that spans all aspects of the cleansing operations including temporary traffic management operations where required. It is not intended to be exhaustive and the guidance will point the user towards other relevant guidance that is freely available. It also includes broader management and monitoring issues, as well as the supervision and training of staff.





WISH WASTE 24 Safe cleansing on the highway - Issue 1, 2018
1 of 21

<http://ciwm.org.uk/wish>



# ‘Risk Profile’?

Maintaining verges, paths,  
highways & roundabouts



# Visibility

“Signs and PPE must be selected and suitable for the working environment.”





# Hazards maintaining verges, hedges and trees

- Dangerous litter (>850k fly-tippings/yr!)
- Obstacles, wires, poles, slopes, traffic, pedestrians



**'Sideways Safety Zone' =**

- Minimum space to be maintained between the edge of the working space (nearest to live traffic) and moving traffic.
- No work should take place inside the sideways safety zone.
- No vehicles or equipment should be parked or stored in the safety zone.
- Distance depends on type & speed of road, ie:

Single carriageway roads, and all-purpose dual carriageway road restricted to 40mph or less.

0.5 Metres

Single carriageway roads and all-purpose dual carriageways with a speed limit of 50mph or more.

1.2 Metres



# Working on Slopes: Death, injury or near 'miss'?



## Solutions

- ✓ Know the limits
- ✓ Use improved designs
- ✓ Use other methods
- ✓ Use dedicated 'banks mowers' or 'robots' (specialist contractors?)
- ✓ Review contracts, ie Adequately costed?
- ✓ Differentiate areas, eg slopes  $<15-16\text{deg}$
- ✓ Improve training & awareness
- ✓ Improve monitoring and management





# Examples of good practice

## Measure & map slopes & other hazards

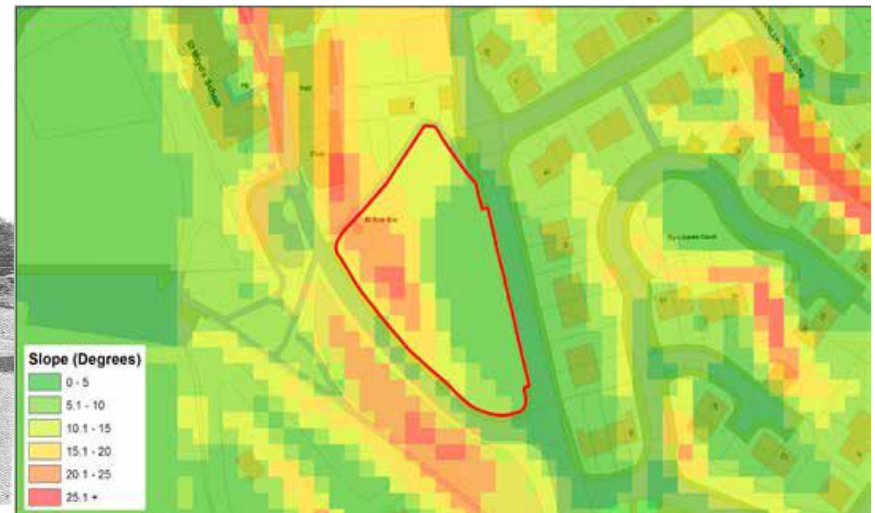
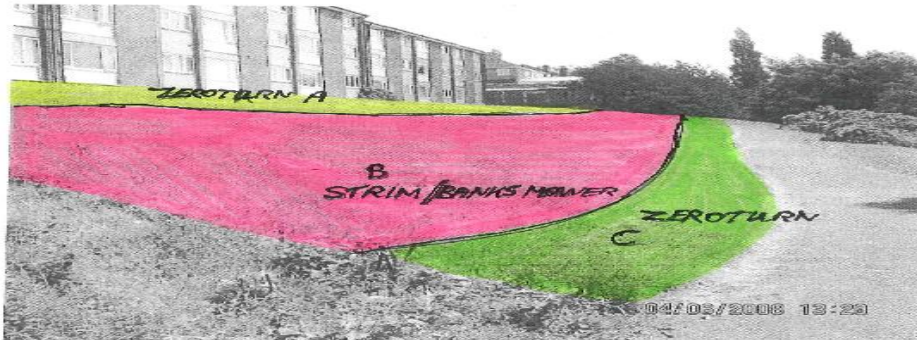


Keep it simple - use maps, take photos of slopes, roads, hazards.

- OS MasterMap® Topography Layer.
- OS Terrain® 5

ATT ST KIDSGROVE SECTION N°2

A - ZERO TURN MOWER ON LEVEL SECTION  
B - BANKS MOWER OR STRIM WITH SUITABLE FOOTWEAR  
C - ZERO TURN



# Linking Information, Risk Assessments, Training & Supervision



Type and model of ride-on machine	Category	Angle of slope																							
		10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	35+	40+	
4wd tractor over 4.5hp	A																								
4wd compact tractor up to 4.5hp	B																								
Ranemær 2130 w/ch/without ROPS	C																								
Ranemær 2250 w/ch/without ROPS	C																								
Ranemær 3250 w/ch/without ROPS	C																								
Ranemær 328 w/ch/without ROPS	D																								
Ranemær A8250 w/ch/without ROPS	D																								
Ranemær 6010 w/ch/without ROPS	D																								
Ranemær T10418 w/ch/without ROPS	C																								
beds 51303 w/ch/without ROPS	D																								
Harner 13322	C																								
Harner 13322 ROPS	C																								
Harner 13324	C																								
Harner 13324 ROPS	C																								
Harner 8314	D																								
Harner 8314 ROPS	D																								
Harner 1424	C																								
Harner 1424 ROPS	C																								
John Deere 1445 w/ch ROPS	D																								
John Deere 1545 w/ch ROPS	D																								
John Deere 495	E																								
John Deere 595	E																								
Fendt 50100	F																								
Fendt 50300	F																								
Fendt 50500	F																								
John Deere T275	A																								
New Holland MC28 w/ch/without ROPS	D																								
beds 50822 w/ch collector	H																								
beds 50822 w/ch collector	H																								
Etnes Hubel24	H																								
Etnes Hubel	H																								
Etnes 8045	E																								
Ranemær Spider	N																								
Type and model of pedestrian machine																									
John Deere 4500	M																								
Hoada/Sega/Vera/Hanqama rotary mower	K																								
John Deere 4500	L																								
Ranemær Oltima/Mini epistolar mower	J																								
Fendt Huber 40	G																								
Fendt Dual Drive	G																								
Fendt Dual Drive (twinn wheel)	G																								
Riko TR100 banks mower	K																								





# Vehicle Safety



**Bristol CC** fined £20k +£4.7k costs (Jan14) - tractor overturn:

- 51yr old lady, broken pelvis, off work 12 months.
- No lap strap or training.
- Tractor new & not sourced through normal route so no dealer training provided.



## The wrong tool (7/16) #1

58yr old LB Havering road maintenance worker suffered serious injuries using cut-off saw (3/15):

- Pruning trees above blocked drain
- Cut-off saw used once before to lop trees.
- Blade stuck and as he pulled it free, leg cut to bone.
- Needed 60 stitches + muscle/ligament damage.
- HSE found:
  - wrong equipment used +
  - no RA for saw and blade
  - only manufacturer's generic RA available.

## The wrong tool (7/16) #2

Also:

- IP had received no training from LA,
- never read or directed to manuals for the equipment he used – didn't even know where kept!
- IP shown training video after incident - specifically stated this type of blade not to be used on the saw.
- Blade was purchased by a council manager.
- LA pleaded guilty under PUWER, Regs 4(2) & 4(3).
- Level of fine?
- Fined £500,000 (+ £8k costs)!!!

# Why £500,000 fine?

- First LA fined under new sentencing guidelines (2/16)
- Judge set Council's culpability as **medium** because clear warnings in manual.
- Emphasis on **potential harm** rather than actual harm.
- **Likelihood of injury = high** and **potential = level A**. (*"It could have been fatal if blade had come down on his neck + manual warned about that."*) = **Category 1** offence.
- LA's turnover assessed on annual budget, ie £159m (2016-17) = a **large** organisation.
- **Assessed fine = £1.3m** (range £800k to £3.25m).
- Judge allowed for guilty plea + potential cuts in services.
- Council considered appealing because penalty too high!



‘Competence’?  
.....Discuss!

“Competent person ” means  
having the:

- relevant knowledge, skills and experience;
- ability to apply these, but recognise the limits of their competence, and
- necessary training to acquire and maintain their competence.

*Q: Competence to manage/supervise?*



- Identify training needs
- Refreshers, updates, induction?
- ‘Toolbox’ Talks?
- In response to relevant incidents, near ‘hit’ reports, etc?
- New communication and training methods, eg 360-degree on-line training tools or for ‘situational awareness’.



# Assessing Training Needs

## SWITCH\* Competence Assessment Tool

### SWITCH Competence Framework Assessment Tool - Level 1

EMPLOYEE NAME:



Please read the requirements for each of the competencies shown below that are applicable to your job role  
For each requirement rate yourself using the following descriptors and select either 1, 2, 3 or n/a from the drop down menu next to each requirement

COMPETENCE  
RATING  
DESCRIPTIONS:

- 1** I have very little knowledge or experience of this and would need some guidance or further training to achieve it
- 2** I have enough skill and /or knowledge to do this confidently on a regular basis without any support
- 3** I am very confident I can do this and feel I have developed such a high level of knowledge and / or experience that I could help others do this also
- n/a** Competence not required for my job role

JOB ROLE: MRF - HWRC - COLLECTION - DRIVING - MANUAL STREET - MACHINE

COMPETENCE: I am able to:

Select your rating below

Average rating

COMPETENCY	DESCRIPTION	Rating	Average
1. COMPLY WITH LEGISLATION	1.1 Operate in accordance with the organisation's safe working practices and procedures	2	1
	1.2 Comply with statutory legislation and regulations including environmental, criminal and highways legislation	1	
2. COMPLY WITH EMERGENCY PROCEDURES	2.1 Identify and respond to emergency situations/accidents in accordance with approved organisational procedure	n/a	2
	2.2 Understand and comply with the organisational procedures for reporting accidents, incidents and dangerous occurrences	2	
3. COMPLY WITH ENVIRONMENTAL LEGISLATION	3.1 Understand and comply with the environmental legislation and instructions relevant to my own areas of work	2	2
	3.2 Report issues of environmental non-compliance within my area of responsibility to the appropriate person	3	

\* Scottish Waste Industry Training Competency and Health & Safety Forum



# Case Study(3)





## Sevenoaks Road Sweeper case (Dec 2015)

- M/cyclist killed (Sept 2010) trying to avoid road sweeper travelling at 4mph in outside lane of 40mph dual lane slip road (off A20) – sweeper obscured by bend.
- Sweeper had flashing beacons and 610 (blue arrow) sign on back, but no advance warning (cones or road signs) or temporary traffic management (TTM) in place.
- HSE: “There should have been significantly more controls in place for sweeping a stretch of road like this.”
- Councils’ generic road sweeping RA - didn’t identify all suitable control measures needed for sweeping this road.
- ‘Chapter 8’ cited as “starting point for what advance warning and TTM was required to warn motorists of the slow moving vehicle in lane 2”.

- Sevenoaks DC fined £40k + £32k costs (pleaded guilty, s2(1) and 3(1) of HSWA. [*Financial implications considered*])
- HSE's comments: "Competent risk assessments are essential... to identify appropriate controls and such controls need to be implemented and checked to ensure they remain suitable and sufficient," and....
- "Relevant industry guidance is there to be viewed when deciding what controls are needed," AND...
- "This incident shows how important it is for local councils and companies to properly assess the risk of work tasks. If (it) had been properly risk assessed, planned and suitable controls used, Mr McCulloch would not have been killed. This is truly a tragic case and was entirely preventable."
- .....***The Judge agreed!***

HSE's "expected standard" = Ch 8?  
[eg = work on verge /hard shoulder + warning signs?]  
*nb. NOT TESTED IN COURT BUT IMPROVEMENT NOTICE ISSUED*

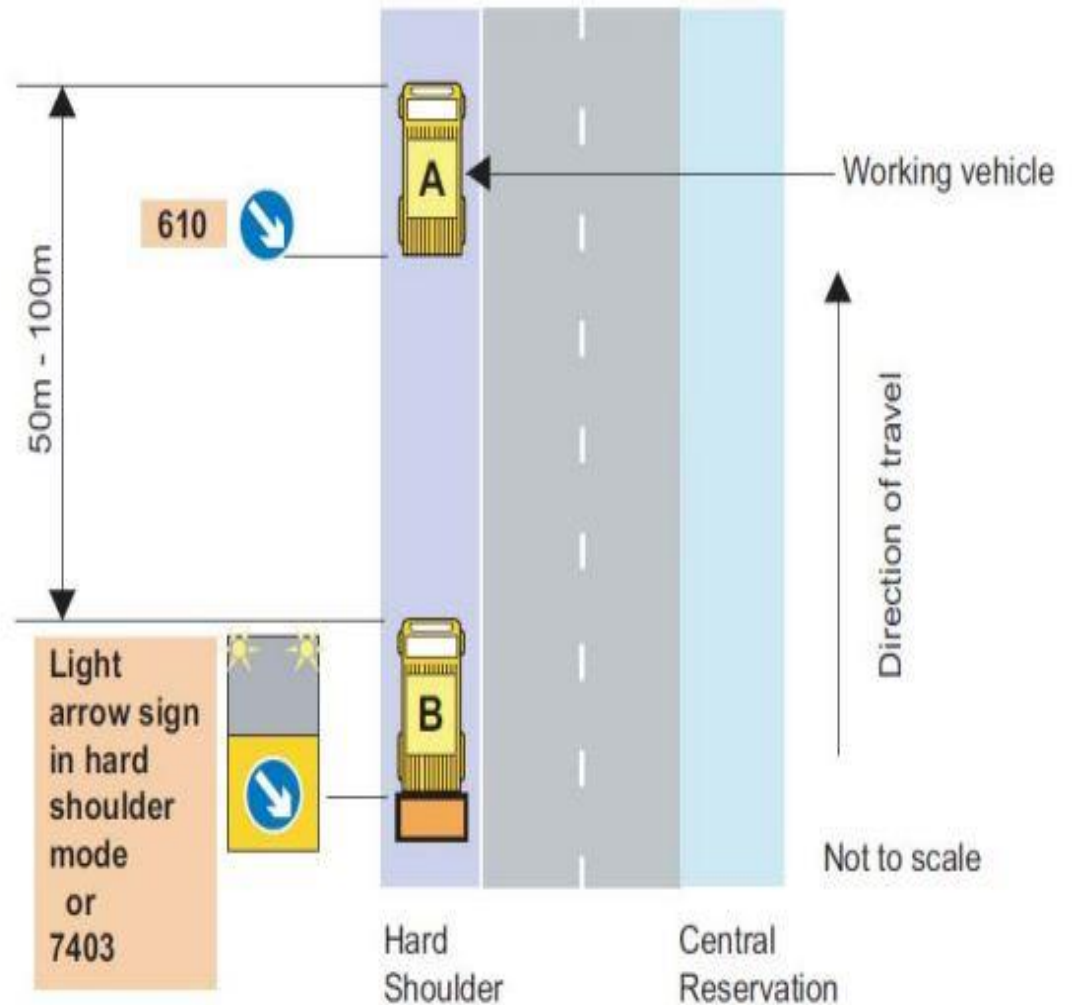
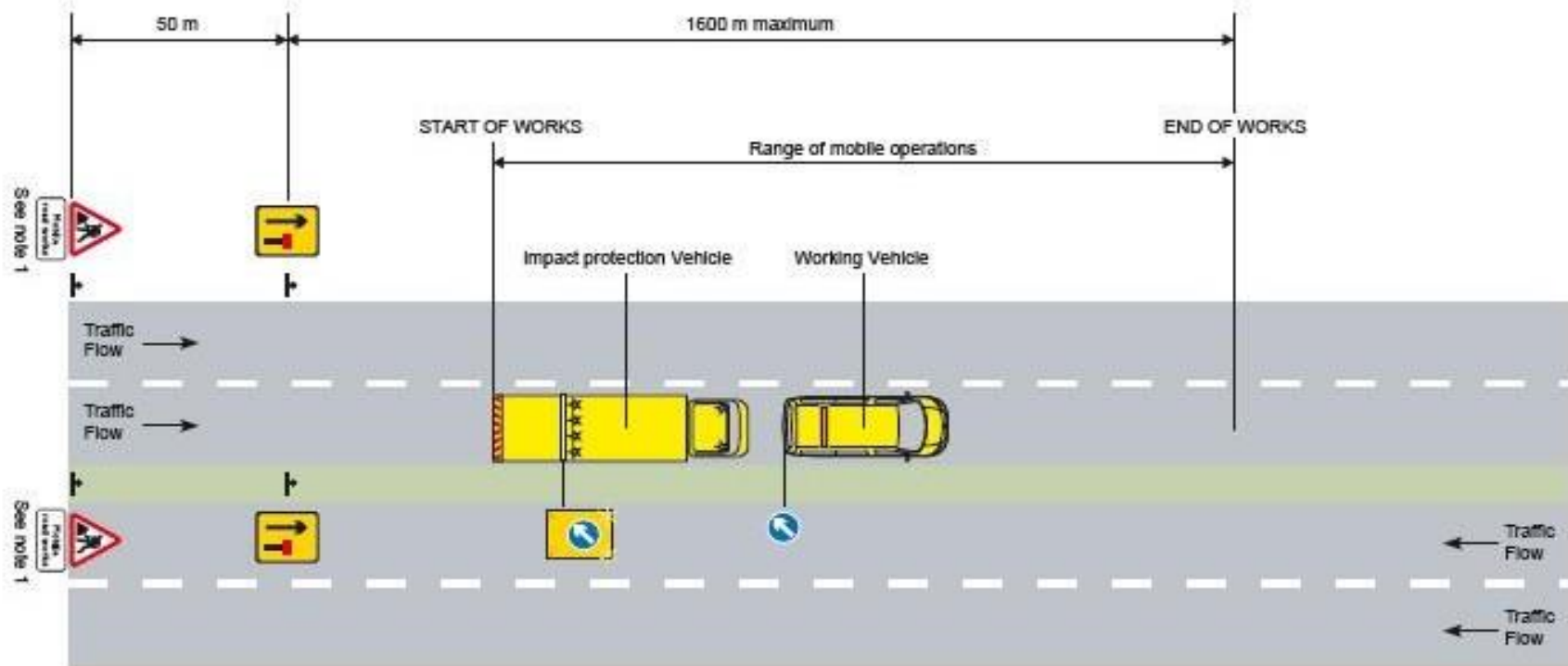


Figure 3: Plan MLC6

(reproduced from the Traffic Signs Manual Chapter 8 Part 1: Design, 2009)

Mobile works on a dual carriageway with a speed limit of 40 mph or less



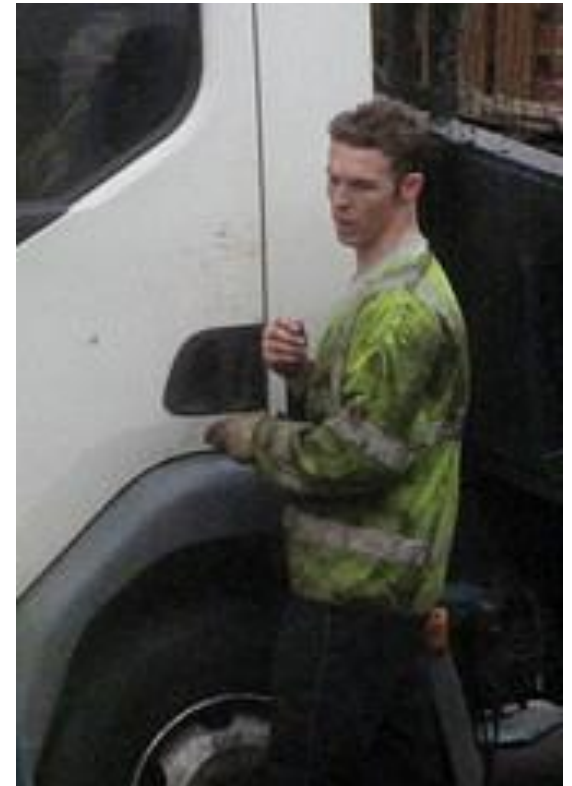
## Notes

- 1 Or permitted variants.
- 2 The need to place signs in the central reservation must be assessed before you proceed and you should consult your [supervisor, manager or other competent person](#).
- 3 It is recommended that, on dual carriageways, works are carried out with an impact protection vehicle to safeguard operatives.
- 4 Where a risk assessment determines that it is necessary to display signs on the vehicles, they must comply with TSRGD (TSR (NI) in Northern Ireland). For offside closures, it is strongly recommended that vehicle-mounted signs are provided.



# Hi-Vis?

- Suitability? (eg. vests vs sleeved?)
- Colour? (eg. yellow vs orange or mixed?)
- Worn? (ie. 'when required', or all the time? Heat?)
- Standard? (ie. EN 471 Class 3, or 2 used?)
- Maintained? (ie. Is it still 'hi-vis'?)



# Use 'pictorial' assessments and plans?



- eg. 'Streetmap' style, with different colours highlighting 'green lanes' (less risky) and red routes or areas (higher risk)
- Also key hazardous points, safety and litter drop points, safe vehicle parking, etc.
- 'Take a map, some coloured pens and a packet of biscuits to the depot!'

- **Vibration: Hand-Arm (HAVS) & Whole-Body**
- Noise – operators & bystanders
- Musculo Skeletal Disorders (MSD)
  - Manual handling, Repetitive Strain Injuries (RSI)
- **Diseases, eg blood-borne (Hepatitis, HIV, etc from accidental injection), zoonoses (eg Tetanus, Leptospirosis / Weil's Disease, Lyme Disease, Toxicara), Legionella, etc**
- **Chemicals, eg pesticides, gases, fluids, poisonous plants, irritating saps and insects, [ie dermatitis, photo-sensitivity]**
- Respiratory, eg dusts, biological agents, spores, fumes, etc
- **Sun – Skin cancer**
- Drugs and alcohol (Testing policy?)
- Fatigue >>>>>>
- *STRESS.....*



# The effects of HAVS

- Disrupted blood circulation (VWF)
  - Fingertips can develop gangrene if exposure continues
- Neurological damage
  - Clumsiness
- Bone and joint disorders
  - Fingers no longer straighten
  - Muscles weaken





# Thanet Council HAVS case (Nov 2016)



- Strimmers used for 6 hrs/day
- for up to 10 yrs
- with no risk assessment or controls in place until 2014 .
- 12 grounds maintenance workers diagnosed with HAVS
- + 40 others referred to 'Occupational Health'.
- **Fined £250k** + £18k costs
- Judge considered Council's cash reserves already 'dangerously low'.
- Civil claims will follow
- Total payouts likely to run into £millions....

## Most recent HAVS Case Wrexham (Oct 17)

- Judge: “A significant case, from 2011 to 2016.”
- An affected worker complained
- Others found to be suffering HAVS - mainly Street Scene operatives, using mowers, strimmers, leaf blowers
- Written policies in place but no system to ensure they were put into practice
- Despite being updated in 2004, 2006, 2011
- HSE working with the LA to ensure their Action Plan is implemented.

## Management of N&V in practice (2)

- Identify relevant 'high N&V' machines - Typical egs:
  - Ride on Mower 110db
  - Large pedestrian mower 112db
  - Hedge Trimmer 112db
  - Hand Held Leaf Blower 114db
  - Strimmer 114db
  - Chainsaw 120db
- Other 'high N&V' machines used? eg:
  - Woodchippers, stump grinders?
  - Other hand tools (grinders, drills, etc)
- Consider nature of work, ie routine, seasonal and occasional/infrequent operations.

# Measurement of Noise, HAVS & WBV





## PPE – Suitability

- HAV?
  - No suitable PPE
  - A/V gloves ineffective
    - can even amplify!
- WBV?
  - No suitable PPE
- Noise?
  - Personal hearing protection BUT
  - Don't rely on it – must control exposures by organisational/technical means first.



# Noise & Vibration KEY STEPS (2)

- Manage exposure (eg points-based systems\*) +
- Training
- Monitoring
- Health surveillance – *‘where appropriate’, ie*
  - above 85dB or susceptible individuals if requested between 80 and 85dB
  - baseline assessment + annual for 2 years
  - 3 yearly thereafter, unless cause for concern
- Keep records!



eg Using HSE's Ready Reckoner [H13]

Vibration magnitude m/s <sup>2</sup>	40	800										
	30	450	900									
	25	315	625	1250								
	20	200	400	800								
	19	180	360	720	1450							
	18	160	325	650	1300							
	17	145	290	580	1150							
	16	130	255	510	1000							
	15	115	225	450	900	1350						
	14	98	195	390	785	1200						
	13	85	170	340	675	1000	1350					
	12	72	145	290	575	865	1150	1450				
	11	61	120	240	485	725	970	1200	1450			
	10	50	100	200	400	600	800	1000	1200			
	9	41	81	160	325	485	650	810	970	1300		
	8	32	64	130	255	385	510	640	770	1000	1200	
7	25	49	98	195	295	390	490	590	785	865		
6	18	36	72	145	215	290	360	430	575	720		
5.5	15	30	61	120	180	240	305	365	485	605		
5	13	25	50	100	150	200	250	300	400	500		
4.5	10	20	41	81	120	160	205	245	325	405		
4	8	16	32	64	96	130	160	190	255	320		
3.5	6	12	25	49	74	98	125	145	195	245		
3	5	9	18	36	54	72	90	110	145	180		
2.5	3	6	13	25	38	50	63	75	100	125		
2	2	4	8	16	24	32	40	48	64	80		
1.5	1	2	5	9	14	18	23	27	36	45		
1	1	1	2	4	6	8	10	12	16	20		
		15 m	30 m	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	
Daily exposure time												

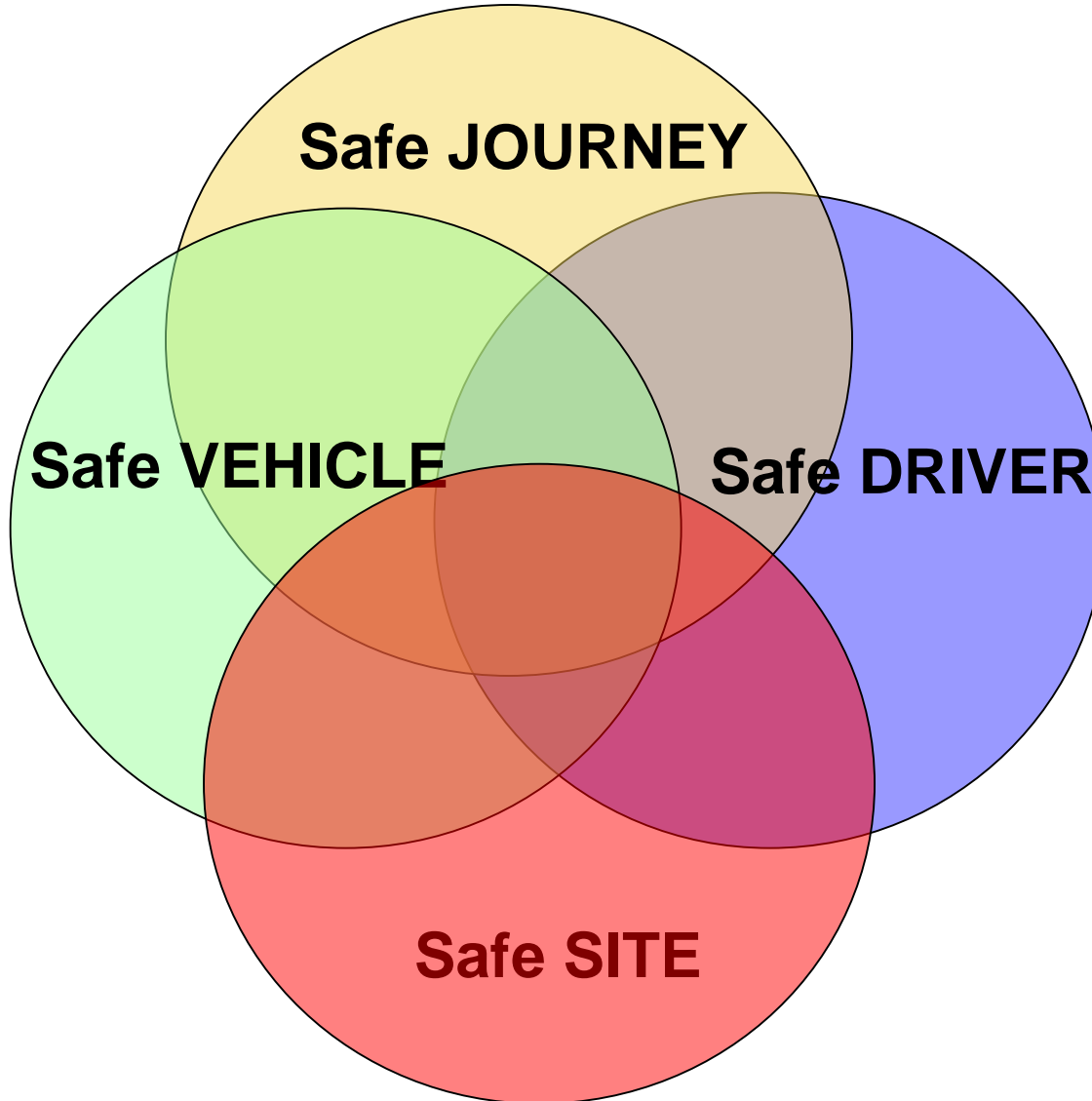
	Above limit value
	Likely to be above limit value
	Above action value
	Likely to be above action value
	Below action value

## Safe(r) Driving

- Management of HSW Regs (1999) - Employers should consider the risks to employees on the road in the same way as for those in a workplace.
- 'SatNav'/GPS tracking systems increasingly being used to monitor driving standards, speed, braking & fuel efficiency, lone/remote working, etc.
- 'The 'Driving Recklessly on Pavements' BIFFA-led campaign to raise awareness of the hazard to waste collection teams, etc.
- 'Defensive Driving' training [eg IAM] - Useful for all staff!



# Transport - Key messages



## The Code of Practice for Highways Maintenance Management, s.13 (2)

- 13.7.21, (et seq)... “Ensure adequately trained and experienced staff :
- ...”To ensure appropriate level of competence, training and development needs of all personnel should be established and reviewed annually”
- “including health and safety and appropriate vocational qualifications”
- “Training provided - before the Winter Service season !
- This includes those who might be drafted in, eg refuse collection, street cleansing and grounds maintenance staff.

## Other organisations

**IOSH:**

- + Environment & Waste Management Industry Group  
(*guidance on Collection Route Planning*)

**Films, eg:****“Roadworker Safety : Silence is Consent”**

- Part 1 is available on You Tube at:

<https://www.youtube.com/watch?v=oAvrFYkP3P0>

Part 2:

<https://www.youtube.com/watch?v=j0Os9wxZKog&t=103s>

**APSE** - *articles, advice, questions, surveys, etc.*

- Highways Officers Safety Group (HOSOG) – film, workshop and quiz, at: <http://www.hsog.org.uk/>
- Road Workers' Safety Forum (RoWSaF )  
[www.rowsaf.org.uk/pdfs/RoWSaF\\_strategy\\_2015.pdf](http://www.rowsaf.org.uk/pdfs/RoWSaF_strategy_2015.pdf)

# Guidance HSE

- **General guidance** - via HSE webpages
- ***Managing work-related road safety:***  
<http://www.hse.gov.uk/roadsafety/>
- ***Safe use of vehicles in the workplace:***  
[www.hse.gov.uk/workplacetransport.](http://www.hse.gov.uk/workplacetransport.)
- ***Driving at Work*** - INDG382(rev1)
  - Remember >25% of all road traffic incidents involve somebody driving as part of their work (DfTr stats).
- ***Crossing high-speed roads*** [on foot during temporary traffic management works]:
  - Construction Information Sheet CIS53



*At the end of the day...*

*This is what we are all trying to avoid*



Good luck

*..... or good management?*