



Water quality protection note 29 September 2013

Mobile mechanical servicing and cleaning

Purpose

Mobile mechanical servicing and outdoor cleaning are common practices in Western Australia. They provide an important service to the community. However, these activities can affect the quality of our water resources via inadequate storage of chemicals, lack of operational safeguards and poor disposal of waste. These activities do not have the backing of an established workshop to assist in the storage and recovery of chemicals or spill containment during the service procedures. Servicing and wash down can occur in many different locations, with varied facilities and proximity to water resources. This places great importance on the equipment choices and procedures followed by the individual operator. There is a high risk that waste discharge will contaminate stormwater drains, rivers, lakes, wetlands or groundwater if effective environmental management practices are not followed.

The Department of Water is responsible for managing and protecting the state's water resources. It is also a lead agency for water conservation and reuse. This note offers:

- our views on the contamination risks posed by land use activities and facilities to water resources
- guidance on acceptable practices and statutory measures employed to protect the quality of water resources
- a basis for the development of a multi-agency environmental code or guidelines that consider the views of industry, government and the community, while sustaining a healthy environment.

This note is intended to inform industry operators, government officers, environmental consultants and community members on water quality protection aspects of this activity including initial planning, design, construction, operation and potential closure.

Appendices provide additional background and technical advice as follows:

- A. Information on sensitive water resources, note limitations and updates.
- B. Relevant statutes and administering agencies.
- C. Data needed for assessing developments.
- D. Useful contacts and information, followed by references and further reading, note disclaimer and how to provide feedback.

Scope

This note applies to all commercial activities involving mechanical servicing of vehicles and mechanical plant in settings outside of service stations and workshops. It covers mobile or home-based mechanics who manage waste oil, radiator coolant, brake fluid, solvents, lubricants, batteries, acid, tyres, machinery parts and oil filters. Vehicle repairs generally occur at non-specialised sites such as car parks and driveways.

The note also covers the outdoor cleaning of vehicles, mechanical equipment or pavements that have been contaminated by soil residue, tar, petroleum products (e.g. grease) and lubricating oils from spills or leakage from vehicles.

The note is not intended to cover non-commercial servicing or cleaning, however the recommendations may serve as a useful guide.

Advice and recommendations

Location

- 1 As the site normally changes for each job, an assessment of the work site should be done before any cleaning or servicing is commenced. This assessment should include environmental and safety considerations:
 - a How does rainfall drain from the site? The most common methods are direct soakage into sandy or gravel soils, and run-off into council or main drains for paved areas and impervious soils (such as clay).
 - b Are the chemicals being used likely to harm the environment? For example, coolant, detergent, lubricating oil, fuel residues and brake and transmission fluids can contaminate water resources if they are discharged to the environment (for regulatory aspects, see Appendix B and reference 1).
 - c If a chemical or waste spill does occur, what facilities are immediately available to ensure effective clean-up?
- 2 Where practicable, place the vehicle being serviced on an impermeable surface (such as concrete or chemical-resistant plastic-sheeted compound) in an area where any spills can be prevented from entering stormwater drains or the soil. Where a weatherproof covered area is available, it should be used, especially if rain is likely.
- 3 Any mechanical repairs should not be commenced that cannot be completed without the risk of waste entering the environment. Such repairs should be undertaken at a controlled site such as a workshop.

Within public drinking water source areas (PDWSAs)

- 4 In priority 1 (P1) or priority 2 (P2) areas of PDWSAs, automotive and plant mechanical servicing and outdoor cleaning are incompatible land use activities. This department will oppose such services in these areas, except in the case of emergencies and response to vehicle breakdowns.
- 5 In priority 3 (P3) areas of PDWSAs, vehicle servicing and wash down are activities that are accepted with conditions. Conditions applied in P3 areas should include use of best environmental practice as outlined in this note. Location information for PDWSA is available from any of our regional offices or online at <www.water.wa.gov.au> select

tools and data > maps and atlases > geographic data atlas > environment > public drinking water source areas.

Near estuaries, waterways and wetlands

- 6 Servicing and cleaning should (where practicable) take place at least 100 metres from any estuary, waterway or wetland to ensure an ample protective buffer is available to mitigate the impact of a chemical or oil spill, as described in water quality protection note (WQPN) no. 6, reference 3a. The site chosen for vehicle repairs should also have effective barriers that prevent waste discharge into any stormwater drains in the area.

Within Swan-Canning estuary catchment

- 7 The Swan River Trust is responsible for the protection and management of the Swan-Canning River system to safeguard its ecological and social values under the *Swan and Canning Rivers Management Act 2006*. Approval from the trust is needed for any land- or water-based development within the Swan, Canning, Helena or Southern rivers and their associated foreshore areas - the *Swan River Trust development control area* (DCA). Activities and developments close to these areas are likely to affect the waters of the river system. Development proposals within or abutting the DCA should be referred to the Swan River Trust for comment.

Developments distant from the DCA, but near river tributaries or drainage systems that could affect waters within the area (e.g. by leachate in groundwater flow), should also be referred to the Swan River Trust for assessment and advice. For detailed information, see online advice at <www.swanrivertrust.wa.gov.au>, phone +61(8) 9278 0900 or email planning@swanrivertrust.wa.gov.au.

Cleaning of vehicles, mechanical plant or paving

- 8 Where practicable, high-pressure jetting, mechanical scrubbing or steam cleaning should be used instead of chemical solvents to remove grime, especially on paved surfaces.
- 9 Washing of soil and road grime (excluding oils) from the exterior of vehicles should be carried out on turf. The grass and topsoil will soak up sediment, water and a large proportion of soap or detergent residues.
- 10 Quick-break degreasing compounds or biodegradable, phosphate-free soaps or detergents should be used where solvents are needed to remove tar, grease or grime. (Quick-break means that contaminants are separated from wash water shortly after cleaning, as solutions or emulsions formed during the cleaning process break down rapidly.) For a list of local suppliers, see the *Environmental code of practice for the automotive repair industry* 1997 (reference 1).
- 11 In sensitive settings, vehicles should be moved onto a roll-out, impervious spill-mat laid on a flat surface. The mat should either have a raised perimeter bund or be set in a depression to raise the sides to form a fluid capture basin. Any fluid run-off from the engine degreasing process should be contained on the mat. After the service is complete, mop up or pump the liquid into a recovery drum for later treatment and disposal. Any solid residues should be moved to an off-site depot for storage or treatment, then the residues disposed of appropriately.
- 12 Where wash down of hard surfaces drains into grated gullies, then into pipe-work discharging off-site, a temporary plug or plastic membrane in the gully should be used

(if viable) to allow recovery of wash down waters and sediment. This approach avoids release of contaminated water to the environment.

Mobile vehicle or mechanical plant servicing

- 13 A flat site should be selected, with a firm dry base that can adequately support the vehicle if it needs to be raised to allow service access.
- 14 Suitably sized spill mats or drip trays should be placed under the vehicle to capture leaks, spills and any fluid jetting.
- 15 Any parts to be serviced that are contaminated with grease, tar or soil should be cleansed as recommended in the section on *Cleaning*.
- 16 When changing lubricating oils (from the gearbox, transmission or differential), a drainage tray capable of holding all the fluid from the component being serviced should be placed under the sump. This tray should remain in place until the component has stopped dripping, the bung and seal have been replaced and the component refilled with new oil. The waste oil should then be decanted into a drum for transport to a recycling depot. For a list of oil recyclers, contact the Department of Environment Regulation, or contact your local government's recycling centre and ask if the council conducts kerbside oil container collection.
- 17 Used fluid from engine cooling systems can contain a mixture of glycol, corrosion inhibitors, oil residue, heavy metals and sediment which may harm the ecology of waterways. Drained coolant and flush water from radiators and engine blocks should be collected into a tray placed under the motor, decanted into a storage container, then removed to a recycling depot for treatment or to an approved local government disposal site. For more information, see our WQPN 42: *Radiator repair and reconditioning* (reference 3a).
- 18 Fluids from the brake, clutch and other hydraulic systems are often corrosive and toxic. They should be carefully drained into labelled storage vessels before removal to a recycling depot.
- 19 Vehicle batteries should not be overfilled as any acid loss may corrode any concrete or metal it comes into contact with. Where a battery needs to be replaced, the battery and its fluid should be disposed of by council kerbside collection (if available). Alternately 'dead' batteries should be transferred intact to an approved recycling depot. Local waste management facilities often include skips for recycling such items.
- 20 Vehicle tyres should be stored in a secure compound to prevent fires and vandalism pending recycling or disposal at an approved site. For online information, see www.wasteauthority.wa.gov.au > publications > search for *Tyres – overview*.

Liquid waste disposal

- 21 Liquid waste should not be allowed to drain into stormwater soakage pits, gullies or drains as residues are likely to seep into wetlands, waterways or groundwater (see references 3b, 5 and 6).
- 22 All wash down liquids from on-site vehicle repairs should be captured in weatherproof containers, then one of the following fluid management methods used:
 - a The waste liquid should be chemically dosed to settle out sediment. Separated scum and sediment should be contained prior to disposal at an approved site.

Solvents, oils, greases and tars should be removed by filtration or chemical separation and the treated water reused or recycled.

- b Any wastewater containing oil and engine flushing waste should pass through an oil separation system such as an inclined plate separator, dissolved air flotation tank or chemical flocculation and coagulation plant before discharge. If approved by the sewerage service provider (such as the Water Corporation), treated water may be discharged to a sewerage system, or any water tested and found clean, may be discharged to soakage (if sewer is unavailable).
- c The untreated liquid waste should be stored in chemical-resistant closed containers that are in good condition, prior to disposal at a local government approved site.

Solid waste disposal

- 23 Any redundant mechanical parts, or solid metal wastes, should be recycled through council recycling facilities or scrap metal merchants.
- 24 Oil filters, oily rags, cotton waste, used solvent containers, lubricants, packaging and sludge should be disposed of through a local government approved recycling or disposal site.

Depot construction and operation

The following recommendations refer to the base or depot where the service vehicle is held when not in use. They apply to chemicals stored before use, and wastes contained prior to removal to an approved waste treatment, recycling or disposal facility.

- 25 The location and construction of facilities at the base or depot should follow the recommendations given in our WQPN 28: *Mechanical servicing and workshops* (reference 3a). Local government approval may be required where buildings on residential lots are used to store chemicals. Please contact your local government.
- 26 Depots should always have sealed, reinforced concrete floors that are sloped to contain any chemical spills. Chemical stores should be securely locked when unattended to discourage vandalism.
- 27 Storage of waste oil, solvent and detergent at the depot should be securely contained. Storage of these bulk chemicals should be on pallets on a weatherproof concrete base area that is surrounded by impervious bunds. The storage area should have a containment capacity that is 110 per cent of the largest chemical container, plus 25 per cent of the capacity of all containers held (see WQPN 65: *Toxic and hazardous material – storage and use*, reference 3a).
- 28 If the depot requires handling or disposal of substantial quantities of acid or alkaline wastes, it may be regulated by the Department of Environment Regulation in accordance with the Environmental Protection Regulations 1987 (see Appendix B).

Accidents and emergency response

- 29 All fluid spills should be cleaned up immediately. The Motor Trade Association can provide information on where to purchase spill kits and mats (see Appendix D: *Useful contacts*).
- 30 As the locations visited by mobile service operators constantly change and may be close to sensitive water resources, an emergency (spill) response plan should be

prepared and implemented to avoid environmental contamination. A portable spill kit capable of cleaning up the largest probable spill should be carried in the vehicle at all times. The kit should be suited to the types of waste and chemicals used. It needs to be easily accessible and employees should be trained in its use.

- 31 Tools and materials that should be kept handy for dealing with chemical spills include absorbent pillows, sawdust, rags, 'kitty litter', mops, brooms and dustpans and chemical-resistant plastic drums. Appropriate protective clothing, footwear and face guards should also be used to maintain operator safety.
- 32 Details of any liquid spills (other than clean water), the cause of the spill, and the effectiveness of remedial action should be recorded for future reference, so the emergency response plan can be progressively improved.
- 33 Any significant spills that escape into the environment should be reported immediately to the Department of Environment Regulation, phone 1300 784 782.
- 34 Any large spills that may prove a hazard to people, property or other vehicles should be reported immediately to the Department of Fire and Emergency Services, phone 9323 9300.
- 35 The Motor Trade Association of Western Australia provides an environmental guideline *Cleaning up spills* (reference 4). For more information, also see our WQPN 10: *Contaminant spills – emergency response* (reference 3a).

Monitoring and reporting

- 36 Where treatment of waste occurs at a base or depot, the operator should regularly monitor (at a minimum of monthly intervals) the treated effluent quality to ensure that the treatment system is working effectively.
- 37 Where concerns arise about possible environmental impacts, government environmental officers may check on the business's equipment, operational records and registration.
- 38 The service vehicle and depot equipment should be periodically inspected by the local government (council) to ensure it complies with its development approval or business registration conditions.

Environmental education

- 39 Preventing pollution and ensuring the responsible disposal of wastes from the servicing of vehicles should be standard practice by the automotive repair industry. All industry participants should be informed of the possible impacts of mechanical servicing of vehicles on the environment, and the methods available to minimise harm. Pollution prevention and the effective waste containment rely on each service operator understanding and applying these concepts.
- 40 As identified in the *Code of practice for automotive repair industry* (reference 1), individual operators may feel that a small amount of environmental contamination is of little consequence. However, the cumulative effects of these small discharges on wetlands, waterways and groundwater can be significant. Training and support for the individual operator to achieve industry best environmental practice is vital.

- 41 In a broader sense, a qualified and environmentally aware mechanic is well placed to give sound advice to vehicle owners about minimising adverse effects on the environment and demonstrate that their business is environmentally responsible.

Approvals to commence or operate mechanical servicing or wash-down businesses

- 42 A summary of regulatory approvals is provided at Appendix B. This table summarises data requirements for assessments, approval or licence type, statute description, and the name of the managing agency.
- 43 Plans for establishing or expanding a home business normally require approval from local government. Contact your local council office for more information.
- 44 A licence from the Department of Environment Regulation may be required, depending on the scale of operations or whether the business produces significant liquid wastes from its commercial activities, (see Appendix B).

Appendix A: Information on sensitive water resources, note limitations and updates

Sensitive water resources

Our water resources sustain ecosystems, aquatic recreation and aesthetic values as well as providing drinking, industry and irrigation supplies. Along with breathable air, uncontaminated water is essential for viable communities. Natural water resources should remain within defined quality limits to retain their ecological, social and economic values. Hence they require appropriate protection measures to minimise contamination risks.

Information on water quality parameters and processes to maintain water values are published in the Australian Government's national water quality management strategy papers. These papers are available online at <www.environment.gov.au> select *water > water policy and programs > water quality*.

The Department of Water strives to improve community awareness of catchment protection measures (for both surface water and groundwater) as part of a multi-barrier protection approach to sustain acceptable water resource quality. Human activity and many land uses pose a risk to water quality if contaminants in significant quantities are washed or leached into water resources.

Sensitive waters include estuaries, natural waterways, wetlands and groundwater. These waters support one or more of the environmental values described below.

Public drinking water sources

Overview

Public drinking water source area (PDWSA) is the collective name given to any area proclaimed to manage and protect a community drinking water source. PDWSA include underground water pollution control areas, water reserves and catchment areas administered by the Department of Water under the provisions of the *Metropolitan Water Supply, Sewerage and Drainage Act 1909* or the *Country Areas Water Supply Act 1947*.

For online information on the location of PDWSAs, see <www.water.wa.gov.au> select *tools and data > maps and atlases > geographic data atlas*, then open *environment > public drinking water source areas*.

Within PDWSA, priority areas are defined (priority 1 (P1), priority 2 (P2) or priority 3 (P3)) via publicly consulted drinking water source protection plans or land use and water management strategies. Priority areas are used to guide land planning, rezoning and development approval processes. Priority areas are assigned considering the current local planning scheme zoning, land tenure, the water source's strategic value and its vulnerability to harm. Each priority area is managed using a specific risk-based strategy to provide for effective water resource protection. The Department of Water develops these documents in consultation with other government agencies, landowners, industry and the community.

P1 areas are defined to ensure human activity does not degrade a water source. These areas are declared over land where the provision of high-quality drinking water for public use is the primary beneficial land value. P1 areas typically cover land controlled by the

state government or one of its agencies. These areas are managed under the principle of *risk avoidance*, so most land development and human activity is normally opposed.

P2 areas are defined to ensure there is *no increased risk of pollution* to the water source once a source protection plan has been published. These areas are declared over land where low-intensity development exists (involving rural usage such as dry land grazing or cropping). Protection of public water supply sources is a high priority in P2 areas. These areas are managed in accordance with the principle of *risk minimisation*, and so the intensity of development should be restricted (via management conditions) and activities with a low water contamination risk are normally considered acceptable.

P3 areas are defined to *manage the risk of pollution* to the water source. These areas are declared over land where public water supply sources must co-exist with other land uses such as residential, commercial and/or light industrial development. Protection of P3 areas is mainly achieved through land use management measures e.g. contamination barriers. Environmental guidance (such as these notes) or site-specific development approval conditions are used to limit the water resources contamination risk from the land use or activity. If, however, the water source becomes contaminated, then water supplied from P3 sources may need to be more intensively treated or an alternative water supply source commissioned.

Additional protection zones are defined close to the point where drinking water is extracted or stored. These zones are called *wellhead protection zones (WHPZ)* and *reservoir protection zones (RPZ)*. Statutory land use constraints apply to activities within these zones surrounding sources to safeguard these waters most vulnerable to contamination.

WHPZ are assigned around water production wells based on hydrological factors. Statutory land use restrictions apply within these zones as groundwater moves rapidly towards wells due to aquifer depressurisation by pumping. Any contaminants leaching from the ground surface in a WHPZ could rapidly migrate into scheme water supplies (before effective remedial action can occur). In sedimentary basins, WHPZ are usually circular, with a radius of 500 metres in P1 areas and 300 metres in P2 and P3 areas. These zones do not extend outside PDWSA boundaries.

RPZ are defined over and around public water supply storage or pipe-head reservoirs. Statutory access and land use restrictions apply in RPZ. The aim is to restrict the likelihood of contaminants being deposited or washing into water sources in any runoff. RPZ are normally within state-controlled areas encompassing land up to two kilometres measured outward from the reservoir top water-level and include the inundated area when the reservoir is full.

For additional explanatory information on PDWSA, see our Water quality protection note (WQPN) 25: *Land use compatibility in public drinking water source areas*, WQPN 36: *Protecting public drinking water source areas*, WQPN 75: *Proclaimed public drinking water source areas*, WQPN 76: *Land use planning in PDWSA* and WQPN 77: *Risk assessment in PDWSA*. These notes are available online at <www.water.wa.gov.au> select *publications > find a publication > series browse*.

Established activities within PDWSAs

Many land use activities were approved and established before publication of a source protection plan or land use and water management strategy.

Activity operators should ensure that modern environmental facilities and practices are progressively implemented and maintained so that the water resource contamination risk is minimised (within practicable and economic constraints).

New or expanded activities in PDWSA

Any development proposals that could affect a drinking water source should be referred to this department's local regional office with detailed supporting information for an assessment and written response.

The development proposal may be:

- approved (with or without conditions)
- delayed pending receipt of additional information before a decision is made
- opposed due to a statutory or policy conflict or inadequate protective measures provided to safeguard the water source.

To assist the assessment, operators should demonstrate that under all operating conditions the facilities and processes used on-site do not pose a significant water contamination risk.

Buffers to water supply sources

Native vegetation buffers should be used to separate compatible land use areas from the sources of drinking water including the full supply margins of reservoirs, their primary feeder streams and/or production bores. Advice on suitable buffer forms and dimensions is provided in our WQPN 6 *Vegetated buffers to sensitive water resources*.

Within clearing control catchments

Controls on vegetation clearing for salinity management in country areas are provided under part IIA of the *Country Areas Water Supply Act 1947*.

These controls apply in the Wellington Dam, Harris River Dam, Mundaring Weir and Denmark River catchment areas and the Kent River and Warren River water reserves.

Details of clearing controls may be obtained from our regional offices, see online information at <www.water.wa.gov.au>, select *Contact us*.

Private water supply sources

Private water sources vulnerable to contamination include:

- drinking water sources for people or domesticated animals
- commercial or industrial water supply sources (requiring specific qualities that support activities such as aquaculture, cooling, food and mineral processing or crop irrigation)
- urban or municipal irrigation sources (where water quality may affect vegetation performance or people's health and wellbeing).

Underground ecosystems

Important underground ecological functions that may be at risk of contamination include groundwater- and cave-dwelling animals and microorganisms (generally located within soils that have open pore spaces such as sand, gravel and limestone).

Waterway ecological and social values

Waterways that have high social and conservation significance are described in the Western Australian Environmental Protection Authority (EPA) Guidance statement 33 *Environmental guidance for planning and development*, section B5.2.2. This statement is available online at <www.epa.wa.gov.au> select *policies and guidelines* > *environmental assessment guidelines* > *guidance statements*.

The Department of Water manages natural waterways under Section 9 of the *Water Agencies (Powers) Act 1984* and the *Rights in Water and Irrigation Act 1914*. For online information, see <www.water.wa.gov.au> and select *managing water*. Apart from aquatic ecosystems and water sources, waterways provide social values including aesthetic appeal, drainage pathways and recreational opportunities for watercraft use, fishing, tourism, swimming and related aquatic activities. Engineered drains and constructed water features are normally not assigned ecological values because their primary function and operational factors outweigh their ecological value.

This department also administers the *Waterways Conservation Act 1976* which defines Western Australian waterways subject to specific regulatory controls. Currently proclaimed waterways include the Avon River, Peel-Harvey Inlet, Leschenault Inlet, Wilson Inlet and Albany waterways management areas.

Within the Swan-Canning Estuary catchment

The Swan River Trust is responsible for the protection and management of the Swan-Canning River system. The trust safeguards ecological and social values under the *Swan and Canning Rivers Management Act 2006*. Written approval is needed for any land- or water-based development within the Swan, Canning, Helena or Southern rivers and their associated foreshore areas within the *Swan River Trust development control area (DCA)*. Human activity and development close to these areas are likely to have an effect on the waters of the river system. Development proposals within or abutting the DCA should be referred to the trust for assessment.

Developments outside the DCA, but near river tributaries or drainage systems should also be referred to the trust for assessment and advice. This is because water quality within the area may be affected by chemicals leached into groundwater flow. For detailed information, see online advice at <www.swanrivertrust.wa.gov.au>, phone 9278 0900 or email: planning@swanrivertrust.wa.gov.au.

Wetland ecology

Many important wetlands have been given conservation status under the Ramsar convention (described online at <www.ramsar.org>), Japan and Australia migratory bird agreement (JAMBA), China and Australia migratory bird agreement (CAMBA), and Republic of Korea and Australia migratory bird agreement (ROKAMBA).

Wetlands are also protected under various national and Western Australian government policies. Conservation wetland data to guide land planning and development activities is provided via the following publications:

- *Directory of important wetlands in Australia* defines wetlands scheduled by the Australian Government. It is available online at <www.environment.gov.au> select *water* > *water topics* > *wetlands*.

- Wetlands with defined high conservation significance are described in the EPA (WA) guidance statement 33 *Environmental guidance for planning and development* (section B4.2.2). This statement is available online at <www.epa.wa.gov.au> *select policies and guidelines > environmental assessment guidelines > guidance statements*.

The Department of Parks and Wildlife is the custodian of the state wetland datasets, and is responsible for maintaining and updating relevant information. These datasets are available online at <www.dpaw.wa.gov.au>.

Wetlands datasets identified for conservation value or for resource enhancement include:

- *Geomorphic wetlands of the Swan Coastal Plain*
- *South coast significant wetlands*
- *Geomorphic wetlands Augusta to Walpole* (this dataset awaits detailed evaluation).

Wetlands that are highly disturbed by land use, or have been landscaped to provide a social amenity or drainage control function in urban settings, may not be assigned conservation values unless they are actively managed to maintain these values.

Note limitations

Many Western Australian aquifers, waterways and wetlands await detailed scientific evaluation, present data on their quality is sparse and their values remain unclassified. Unless demonstrated otherwise, any natural waters that are slightly disturbed by human activity are considered to have sensitive environmental values. Community support for these water values, the setting of practical management objectives, provision of sustainable protection services and effective implementation are vital to protecting or restoring water resources for both current needs and those of future generations.

This note provides a general guide on environmental issues, and offers solutions based on data searches, professional judgement and precedents. Recommendations made in this note do not override any statutory obligation or government policy statement.

Alternative practical environmental solutions suited to local conditions may be considered. This note's recommendations shall not be used as this department's policy position on a specific matter, unless confirmed in writing. In addition, regulatory agencies should not use this note's recommendations in place of site-specific development conditions based on a project's assessed environmental risks. Any regulatory conditions should consider local environmental values, the safeguards in place and take a precautionary approach.

Where a conflict arises between this note's recommendations and any activity that may affect a sensitive water resource, this note may be used to assist stakeholder negotiations. The negotiated outcome should not result in a greater water quality contamination risk than would apply if the recommended protection measures were used.

Water quality protection note updates

This note will be updated as new information is received, industry/activity standards change and resources permit. The currently approved version is available online at <www.water.wa.gov.au> *select publications > find a publication > series browse > water quality protection notes*.

Appendix B: Regulatory approvals may include -

What is regulated?	Western Australian statutes	Regulatory agency
Impact on the values and ecology of the environment (including water resources)	<i>Environmental Protection Act 1986</i> <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i> <i>Environmental Protection (Controlled Waste Regulations) 2004.</i>	Department of Environment Regulation www.der.wa.gov.au
Transport, storage and handling of fuels, solvents, explosive and dangerous goods	<i>Dangerous Goods Safety Act 2004</i> Dangerous goods safety Regulations 2007	Department of Mines and Petroleum – Resources safety division www.dmp.wa.gov.au
Mobile mechanics operating in public drinking water source areas – letter of approval	<i>Metropolitan Water Supply, Sewerage and Drainage Act 1909</i> <i>Country Areas Water Supply Act 1947</i>	Department of Water – regional office www.water.wa.gov.au
Operation of a business from home	<i>Local Government Act 1995</i> <i>Planning and Development Act 2005</i>	Western Australian Planning Commission Department of Planning www.planning.wa.gov.au Local government council

Relevant statutes are available from the *State Law Publisher* at <www.slp.wa.gov.au>.

Appendix C: Data needed to support project assessments

Where facilities near sensitive waters are to be established or upgraded, the following data should be supplied with the development proposal:

- 1 Site owner or operating tenant's name and contact details.
- 2 Information on the areas and suburbs where the business will operate.
- 3 The present local government planning scheme land use zoning (where applicable).
- 4 Description of the intended business commencement date, operating hours and any expansion options.
- 5 Description of all materials and chemicals to be stored or used on-site in commercial quantities, including a water use budget.
- 6 Description of the types, quantities and quality of solid and liquid waste (if applicable) that will be generated at or disposed from the business.
- 7 Description of planned material containment, waste management (treatment and disposal) and water recycling; with an environmental management plan and nutrient and irrigation management plan (where applicable).
- 8 Planned operational and equipment maintenance procedures.
- 9 Details of any contingency measures proposed to minimise the impacts of chemical spills and safely dispose of contaminated waters that may result from storm, fire, flood, equipment malfunction or vandalism. Information should include workforce training, site monitoring and emergency response facilities.
- 10 Any project contractual agreements or regulatory approvals received.

For significant projects, development proponents should engage the services of a qualified and experienced consultant to professionally prepare their development proposal. This should ensure that government agencies can efficiently assess and respond to the proposal without delays caused by inadequate or poorly defined information.

Appendix D: Useful contacts

- 1 Curtin University - Centre for excellence in cleaner production
Phone: 9266 4519
For online information see <<http://cleanerproduction.curtin.edu.au>>
- 2 Motor Trade Association of Western Australia
Phone: 9345 3466
Information is available online at <www.mtawa.com.au>

References and further reading

- 1 The then Department of Environmental Protection publication, now available by contacting Department of Environment Regulation (not electronically available):
Environmental code of practice – *Automotive repair industry*, 1997.
- 2 Department of Environment and Climate Change (New South Wales) online environmental information for small business - advice notes for mobile businesses; see web page <www.epa.nsw.gov.au>, search *mobile mechanics*.
- 3 Department of Water (WA) publications, available online at <www.water.wa.gov.au> select *publications* > *find a publication* > *series browse* >
 - a Water quality protection notes (WQPN)
 - WQPN 6 *Vegetated buffers to sensitive water resources*
 - WQPN 10 *Contaminant spills - emergency response*
 - WQPN 25 *Land use compatibility in public drinking water source areas*
 - WQPN 28 *Mechanical servicing and workshops*
 - WQPN 36 *Protecting of public drinking water source areas*
 - WQPN 42 *Radiator repairs and reconditioning*
 - WQPN 65 *Toxic and hazardous substances - storage and use*
 - WQPN 68 *Wash-down of mechanical equipment.*
 - WQPN 93 *Light industry - establishment and management.*
 - b *Stormwater management manual for Western Australia.*
- 4 Motor Trade Association of Western Australia – Green stamp program; Environmental guidelines, and Environmental product and services directory, online at <www.mtaw.com.au>
 - a *Environmental guideline for mobile mechanical repairers*
 - b *Cleaning up spills.*
- 5 Swan River Trust publications available online at www.swanrivertrust.wa.gov.au, select *River science* > *Healthy rivers program* > *Drains to river, Environmental management and cleaner production directory for small to medium businesses.*
- 6 Western Australian Planning Commission publication, available online at www.planning.wa.gov.au, search *Better urban water management*, 2008.

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Feedback

We welcome your thoughts on this note. Feedback will help us prepare future versions.

To comment on this note or seek any clarification, please contact our water source protection planning branch (details below), citing the note topic and version.

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