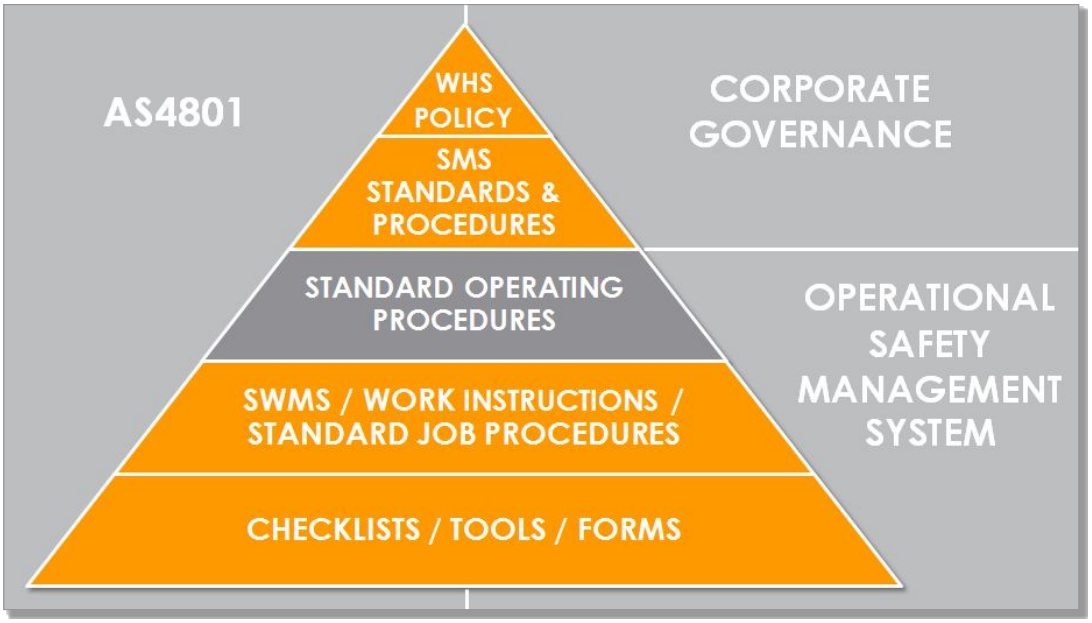
QUICK GUIDE

SAFETY Everyone. Everywhere. Every day

MANUAL TASKS

DOC ID	REF234	**VERSION**	2
DOC OWNER	Chris Newman	**ACTIVE DATE**	31/01/2017

1. SMS DOCUMENT HIERARCHY



2. PURPOSE

To ensure that risks associated with manual tasks are adequately managed in order to minimise the risk of injury or harm to workers.

This quick guide has been developed as information and planning resource only and is not to be used as a WHS inspection or audit tool. WHS audits and inspections must be undertaken using the relevant WHS audit or inspection tool as outlined in ***WHS Audit and Inspection Procedure (PRO366)***.

3. RELATED DOCUMENTS

- WHS Hazard and Risk Management Procedure (PRO363)
- WHS Incident Reporting, Investigation and Escalation Procedure (PRO364)
- WHS Audit and Inspections Procedure (PRO366)
- Health Management Procedure (PRO367)
- Fatigue Management Standard Operating Procedure (STD80)
- Manual Tasks Risk Assessment (FOR540)
- Office Ergonomics Risk Assessment (FOR539)

4. FURTHER INFORMATION

For further information, contact your Health and Safety Representative or the QUU Health and Safety Team.

5. PROCESS ACTIONS TO ACHIEVE COMPLIANCE

AT ALL TIMES	REFERENCE
1. Overview	
(a) Manual tasks cover a wide range of activities that involve using the body to move or hold an object, people or animals. Examples of manual tasks include jackhammering, stacking shelves, digging trenches, loading a truck, lifting a pit cover and entering data into a computer. Hazardous manual tasks can result in injuries (musculoskeletal disorders) to workers.	Section 7.1
(b) It is the aim of this procedure to assist QUU workers and contractors to identify, assess, control and review hazardous manual tasks in order to prevent musculoskeletal injuries at work.	
2. MUSCULOSKELETAL DISORDERS	
(a) A musculoskeletal disorder (MSD), as defined in the WHS Regulations, means an injury to, or a disease of, the musculoskeletal system, whether occurring suddenly or over time.	Section 7.2
(b) MSDs may include conditions such as: • sprains and strains of muscles, ligaments and tendons; • back injuries, including damage to the muscles, tendons, ligaments, spinal discs, nerves, joints and bones; • joint and bone injuries or degeneration, including injuries to the shoulder, elbow, wrist, hip, knee, ankle, hands and feet; • nerve injuries or compression (e.g. carpal tunnel syndrome); • muscular and vascular disorders as a result of hand-arm vibration; • soft tissue hernias; and • chronic pain.	
3. HAZARDOUS MANUAL TASKS	
(a) Hazardous manual tasks involve the use of one or more of the following: • repetitive or sustained force; • high or sudden force; • repetitive movement; • sustained or awkward posture; • exposure to vibration; and • Sedentary tasks.	Section 7.3
(b) Examples of hazardous manual tasks in QUU workplaces include sitting for long periods at a computer or in a vehicle, lifting equipment in and out of light and heavy vehicles, lifting valves/pipes/joiners, digging trenches and lifting Gatic covers.	
(c) Hazards that arise from manual tasks generally involve interaction between a worker and:	

AT ALL TIMES	REFERENCE
• the work tasks and how they are performed; • the tools, equipment and objects handled; and • the physical work environment.	
(d) In order to assist in identifying hazardous manual tasks, QUU will use a range of measures including consultation with workers, review of workplace incidents/injuries, worker's compensation data, direct observation of manual tasks and discomfort surveys.	Section 7.3
4. HAZARDOUS MANUAL TASK RISK ASSESSMENT	
(a) The process involves: • Identification of the hazardous manual task; • Assessment of the risk factors for hazardous manual tasks including posture, force, repetition, time and exposure to vibration; • Identifying the source of the risk such as work area layout, systems of work, nature of the work or load and the work environment; • Identifying suitable controls for the risk with reference to the hierarchy of controls; • Provision of adequate training and awareness of issues such as fatigue management; and • Reviewing the effectiveness of controls that have been implemented.	Section 7.4
(b) In order to assist in the assessment process for hazardous manual tasks, QUU has developed a Manual Tasks Risk Assessment Form (FOR540). This should be used by all QUU managers, supervisors, HSRs and workers when hazardous manual tasks are identified or suspected.	
(c) If the hazardous manual task is related to computer work or an office workstation, the Office Ergonomics Risk Assessment Form (FOR539) should be used.	
5. IDENTIFYING HAZARDOUS MANUAL TASKS	
(a) Can be tasks that: • are difficult to do (or appear harder than they should be); • are very tiring (muscle fatigue reduces work capacity); • are awkward or dangerous (for example, difficulty controlling loads); and • cause discomfort.	Section 7.4.1
(b) Records of workplace injuries and incidents, inspection reports and any workers compensation claims made for MSDs will be reviewed by managers in consultation with the QUU Health and Safety Team to help identify which manual tasks may cause harm.	Section 7.4.1
(c) Refer to Appendix C of the Manual Tasks SOP for guidance and examples for each of the characteristics of hazardous manual tasks.	Section 7.4.2
6. ASSESSING THE RISKS	
(a) The Manual Tasks Risk Assessment Form (FOR540) should be used to conduct assessment of hazardous manual tasks.	Section 7.4.3
(b) Conducting a risk assessment will help QUU managers, supervisors and staff to determine: • which postures, movements and forces of the task pose a risk;	Section 7.4.3

AT ALL TIMES	REFERENCE
• where during the task they pose a risk; • why they are occurring; and • what needs to be fixed.	
(c) Increasing the **force** in any task will increase the risk of MSD. Forces may be a whole of body force such as lifting a heavy box or tool kit, or they may be high forces on a discrete body part such as squeezing tightly on a pair of pliars to cut a piece of wire.	Section 7.4.3
(d) **Awkward postures** will increase the risk of injury, especially if combined with high force, repetition, or sustained movement. Any deviation from a neutral posture is deemed to increase the risk of MSD. Refer to the Manual Tasks SOP for more detail on what an awkward posture looks like. Bending, twisting and over-reaching are typical awkward postures.	
(e) As a general rule, a **repetitive task** is one that is repeated more than twice per minute and a sustained task is held for more than 30 seconds. In order for these repetitive and sustained tasks to be a risk for MSD, there must also be either an element of high force, or an awkward posture (or both). Where a repetitive task is sustained, the risk is further increased.	
(f) The **duration** of the task is how long the task is carried out over a whole shift or continually at any time during a shift. Tasks that continue over a long period or are repeated over the work day increase the risk of injury.	
(g) Prolonged exposure to whole-body or hand-arm **vibration** increases the risk of MSDs and other health problems. The degree of risk increases as the duration of exposure increases and when the amplitude of vibration is high.	
7. IDENTIFYING THE SOURCES OF THE RISK	
(a) When conducting the assessment, think about the sources of any risks that are present in the task. These will be the things that you may be able to change to eliminate or reduce the risk of MSD.	Section 7.4.4
(b) The main sources of risk are: • work area design and layout; • the nature, size, weight or number of things handled in performing the manual task; • systems of work; and • the environment in which the manual task is performed.	
(c) A **work area** includes work benches, conveyors, furniture and fittings and the equipment used by workers doing that job. The positioning and relationship of the different elements in a work area to each other and to the worker are important because of the effect on working postures. Many QUU work environments may carry an inherent risk due to the nature of the work (i.e. confined spaces, trenches, water meter pits).	
(d) **Loads** can be a source of risk due to the amount of muscular effort needed to handle them. The harder it is to grip and control a thing, the greater the force that may be required to handle them. For instance, lifting and moving a gatic cover is risky due to the limited purchase available on the cover and the ground-level location of it.	
(e) **Tools** that are unsuitable for the task can be a source of risk by increasing the force required, or by promoting sustained or awkward postures.	
(f) **Task factors** such as systems of work, or the way work is organised, can	Section 7.4.4

AT ALL TIMES	REFERENCE
influence the physical and mental demands that a manual task places on a worker. The fatigue and strain (physical and mental) that may arise from the aspects of work (task demands, task control and resources and support provided) bring on physiological responses such as increased muscular tension and affect the function of muscles, nerves and blood vessels, increasing the risk of the worker developing an MSD.	
(g) Due to the nature of responsive work such as attending to a burst water main, there may be increased demands placed on workers if they have already completed much of a standard shift and are required to do overtime. Refer to the **Fatigue Management SOP (STD80)** for further guidance on managing the risks associated with fatigue.	Section 7.4.4
(h) **Environmental conditions** such as cold, heat, humidity, wind and lighting may also increase the likelihood or severity of a MSD.	
8. CONTROLLING THE RISK	
(a) The ways of controlling the risk of MSDs are ranked from the highest level of protection and reliability to the lowest. This ranking is known as the hierarchy of risk control.	Section 7.5
(b) **Elimination** - The most effective control measure involves eliminating the hazardous manual task and its associated risk. Eliminating hazards and risks is usually easier and cheaper to achieve in the planning or design stage of an item, process or place used for work. For instance, when constructing a new STP hazards associated with manually winching a pump from a settling tank can be eliminated using an electric winch. Robotic designs or fully automated processes in the sewerage treatment process can eliminate manual task hazards from lifting, pushing and pulling.	
(c) **Substitution -** Replace heavy items with those that are lighter, smaller and/or easier to handle. Replace hand tools with power tools to reduce the level of force required to do the task. For instance use a driver/drill in preference to a screwdriver to remove screws from a pit cover; use an electric winch in preference to a block and tackle.	
(d) **Isolation -** isolate vibrating machinery from the user, for example by providing fully independent seating on mobile plant; use a remote control for the power pumper rather than operate via the truck control panel.	
(e) **Engineering –** This can include a range of mechanical controls such as the use of trolley jacks, trolleys, adjustable height workstations, tools for removing pit covers, leverage, etc.	
(f) **Administrative –** Administrative controls for reducing the risk of MSD at QUU work sites will include task rotation, training in use of mechanical aids and safe manual handling, safe work procedures, work scheduling and Safe Work Method Statements.	
(g) **Personal Protective Equipment –** For manual task risk management, there are few examples of PPE, however some include vibration absorbent shoes and gloves and heat resistant gloves.	
9. OFFICE ERGONOMICS	
(a) Assessment of tasks associated with office workers can be accomplished using the same methodology incorporated into this SOP. Office Ergonomic Risk Assessment (FOR539) is to be completed by all office based staff to assess work station setup for office-based tasks.	Section 7.6
(b) All staff shall be given the Office Ergonomic Risk Assessment upon commencement of work at QUU and upon moving work areas or substantial change in work role.	

AT ALL TIMES	REFERENCE
(c) Some of the key considerations in office ergonomic risk assessment include: • Suitability of office chairs and sitting posture; • Height and position of the monitor; • Use of a laptop with/without separate monitor, mouse and keyboard; • Footrest, document holder and head-sets; and • Regular breaks from continuous computer work.	
10. TRAINING	
(a) All new employees will need to complete an online manual handling training program as part of QLD Urban Utilities' induction process.	Section 7.7
(b) It is intended that this online training program will provide the basic foundations of manual handling techniques and injury prevention strategies until practical manual handling training is provided.	
(c) Within 3 months of commencing with QUU new employees are to receive training in the practical manual handling program.	
(d) The manual handling training program will be closely aligned with the principles of Workplace Health and Safety QLD's PErforM program and leaders within each work area will be nominated to provide ongoing delivery of the PErforM principles to employees.	
(e) It will be a mandatory training requirement that site-based practical manual handling refresher courses are run every 2 years to ensure that all employees are up to date with their training. On alternate years employees will be required to complete the online manual handling training package.	
(f) It will be a requirement of all QUU staff that perform part of their role in an Office / Desk Based Environment to undertake Office Ergonomic Training.	
11. DOCUMENTATION AND RECORD KEEPING	
(a) A copy of all manual tasks records (i.e. completed Manual Tasks Risk Assessments, Office Ergonomic Risk Assessments) will be held in QUU's Record Management system with physical hard-copies securely kept / held at site in a manner that affords confidentiality (where required), easily accessible for audit and review process.	Section 7.8

6. REVIEW PROCESS

This document is to be reviewed every 2 years or earlier if:

- there is an identified risk to business,
- a significant safety event occurs,
- incident investigation or audit results show that application of the Quick Guide fails to deliver the required outcomes,
- there are changes in associated legislation, and
- there is evidence that the Quick Guide is not having a positive impact on safety-related KPIs.