

Contractor Standard Operating Machinery STD003

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EAST GIPPSLAND CATCHMENT MANAGEMENT AUTHORITY WORK STANDARD STD003

TASK: Operating Machinery

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Objective: Operate heavy machinery to undertake works including log brushing, rock beaching, rock chutes, mechanical willow removal and pile driving.

This document sets a standard expected by the Authority for machine operating tasks - the Contractor / Supplier of Services must adapt their Safe Work Procedure to meet or exceed these standards and ensure that a Safe Working Method Statement (SWMS) is completed with reference to the Contractor / Supplier of Services' procedures.

This is a Working Outdoors activity- Relevant requirements of the Working Outdoors Standard STD005 apply to this task before the controls specified in this document are applied.

When planning works under this Standard, the requirements of the Occupational Health and Safety (Psychological Health) Regulations 2025 apply and must be considered.

Activity	Hazard Description	Control Measures - Actions to be Taken
Transporting materials and machinery to and from site	<p>Risk of injury during transport of heavy equipment to/from the worksite caused by:</p> <ul style="list-style-type: none"> • unstable load • machinery rollover • low level bridges • exceeding load limits • travelling on narrow winding roads • oversized loads • oil leaks 	<ul style="list-style-type: none"> • The driver and operator must be licensed and obey the road rules at all times. • Permits for over size and restricted road use must be carried at all times • All vehicles and plant must have a prestart check documented. • All loads to be securely tied down using load binders. Lever type dog tie downs must not be used. • All anchor points on machinery are to be used in accordance with the manufacturer's guidelines. • Floats and machinery are to be fitted with rotating flashing lights and movement alarms. • Bridge and road load limits must be adhered to at all times. • Pilot vehicles are to be used for transporting wide and long loads in accordance the State transport regulations.

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Activity	Hazard Description	Control Measures - Actions to be Taken
<p>Loading / unloading of machinery</p>	<p>Risk of injury during loading and unloading of heavy machinery caused by:</p> <ul style="list-style-type: none"> • slips, trips and falls • machinery rollover • manual handling of ramps, chains, etc. • unrestricted public access <p>Risk of injury during loading or unloading of rocks or logs</p>	<ul style="list-style-type: none"> • Load/unload trucks in compliance with all applicable regulations and organisational procedures, ensuring a stable load in transit with a strong emphasis on public safety and that of the workers. • A licensed operator must oversee the placement of ramps into position for loading or unloading of the equipment. • Where the contractor / Supplier of Services is responsible for providing traffic management controls for pedestrians and vehicles during unloading and loading of machinery, appropriate and required traffic management controls are to be used. Contractor / Supplier of Services staff must be appropriately trained in traffic management. • Unauthorised personnel are not permitted in the defined loading/unloading site. • A manual handling risk assessment must be undertaken. • Do not unload or load machinery under or near power lines or underground cables. • Machinery to be loaded and unloaded on flat stable ground at all times. <p>PPE</p> <ul style="list-style-type: none"> • Appropriate PPE must be worn at all times on the worksite. • Steel capped boots must be worn at all times on sites where machinery is operating. • Appropriate hand protection (gloves) must be worn when appropriate • Hi-vis clothing must be worn by all workers on site. • Helmets to be worn where required.
<p>Using heavy Machinery</p>	<p>Risk of injury due to the operation of heavy machinery at a site caused by:</p> <ul style="list-style-type: none"> • rollover on uneven terrain • contact with overhead or underground power lines • exposure to hazardous noise levels • machinery roll over on land or water • unrestricted public access 	<p>All earthmoving equipment is to be fitted with ROPS built to specification and certified.</p> <ul style="list-style-type: none"> • Never approach an excavator from the blind side of the Operator. To gain attention stand well outside the swing arc of the boom and wait until the operator indicates you should approach. Maintain eye contact with operator. • Earthmoving equipment should work up and down the slope not across • The worksite is to be established with a safe area identified, marked out, and recorded in the SWMS. • Ensure permits/licences are suitable and current.

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Activity	Hazard Description	Control Measures - Actions to be Taken
	<ul style="list-style-type: none"> • musculoskeletal injury due to poor ergonomic set out of work area • errors due to fatigue • risk of harm to the environment due to fuel or lubricant spills 	<ul style="list-style-type: none"> • Control site access to authorised persons only. • Provide traffic management controls where necessary. • Trucks carting materials to a stockpile shall give right of way to machinery and workers on the work site and will unload in the designated area as defined in the SWMS. • Adequate breaks must be taken by contractor / Supplier of Services personnel. • A spill kit must be present on site. • Seat belts to be worn were fitted. • Identification of powerlines and underground cables to be conducted prior to works commencing by the contractor / Supplier of Services. • A spotter must be used as required by legislation. <p>PPE</p> <ul style="list-style-type: none"> • As per “Loading/unloading of machinery”
<p>Barge Operation</p>	<p>Risk of injury caused by:</p> <ul style="list-style-type: none"> • contact with overhead or underground power lines • exposure to hazardous noise levels • machinery roll over on water • unrestricted public access • musculoskeletal injury due to poor ergonomic set out of work area • errors due to fatigue 	<ul style="list-style-type: none"> • The delivery barge must be secured to the bank/site by three anchor points. • The vessel is to be in survey with an accredited coxswain present at all times when the barge is in use. • The barge is to be operated in accordance with all Marine Regulations and Rules. • The crane being used must be suitable for purpose with appropriate SWL. • Barge skipper to be in control of all operations on barge. • The barge must not be loaded over its plated weight limit. • A safety rail must be placed around the edge of the barge to prevent workers falling overboard (with allowance for excavator movement). • Guard rails are to be placed in the line of excavator movement to prevent the excavator going over the edge. • The excavator must be located on a barge of sufficient capacity, and in a balanced position. • The barge and excavator must not be operated in wet and/or windy conditions. • Ensure permits/licences are suitable and current. • Control site access to authorised persons only. • Provide traffic management controls where necessary.

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Activity	Hazard Description	Control Measures - Actions to be Taken
		<ul style="list-style-type: none"> Trucks carting materials to a stockpile shall give right of way to machinery and workers on the work site and will unload in the designated area as defined in the SWMS. <p>PPE</p> <ul style="list-style-type: none"> As per “Loading/unloading of machinery” Footwear with high grip soles should be worn and steel capped boots are preferred unless a risk assessment deems them to be unsafe Level 100 PFD (Type 1) must be worn at all times by workers working on the barge
<p>Using heavy machinery to remove willows</p>	<p>Personal injury or damage to equipment resulting from:</p> <ul style="list-style-type: none"> falling trees and branches machinery rollover physical contact between workers and machinery 	<ul style="list-style-type: none"> All earthmoving equipment is to be fitted with ROPS and FOPS built to specification and certified to industry standards. All personal to be outside of a safe working distance to be specified by the machine operator whilst the machine is in use. An adequate spill kit must be on site which has the capacity to address machine oil spills on site.
<p>When using a chainsaw to remove willows</p>	<ul style="list-style-type: none"> falling trees and branches 	<ul style="list-style-type: none"> Workers using a chain saw for felling willows must hold a Tree Felling Manually (Advanced) qualification and must not operate outside of their qualification Operators are to: <ul style="list-style-type: none"> Select the most suitable chainsaw for the task. Smaller chainsaws are easier to control and have a lower risk of injury from kickback and musculoskeletal disorder. Ensure the chainsaw is regularly maintained and cleaned to facilitate detection of loose, worn or defective parts and other safety hazards. Ensure all guards are fitted, secure and functional. Check effectiveness of the chain brake and operating controls including interlock throttle system. Inspect fuel lines, tank, and area around the carburettor for fuel leaks. Do not operate unit if leaks are found. Wear mandatory PPE as prescribed by formal chainsaw training. Only conduct chainsaw work at a safe distance from other workers, plant and equipment.

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<p>Using heavy machinery to construct rock beaching and rock chutes</p>	<p>Personal injury or damage to equipment resulting from:</p> <ul style="list-style-type: none"> • machinery rollover on land or in water • unstable stockpile resulting in collapse • physical contact between workers and machinery 	<p>Applicable control measures identified under "Using heavy machinery" applies to this task.</p> <ul style="list-style-type: none"> • Trucks carting rocks to a stockpile shall give right of way to machinery and workers working on the work site and will unload in the designated area as defined in the SWMS. • The rock stockpile should be kept at a minimum height (equal to one truck load) to prevent instability.
<p>Log brushing - bank stabilisation with the use of tree trunks placed in position with mechanical plant</p>	<p>Injury to workers or damage to equipment caused by:</p> <ul style="list-style-type: none"> • machinery rollover into water • uneven or loose terrain • unauthorised workers access to site • unstable log pile • tying of logs together with wire cable 	<p>Applicable control measures identified under "Using heavy machinery" and "Using heavy machinery to construct rock beaching and rock chutes" apply to this task.</p> <ul style="list-style-type: none"> • Chainsaw operators must be trained and have as a minimum trim and cut felled trees qualifications. • Refer to "When using a chainsaw" under "Using heavy machinery to remove willows". • Logs should be placed flat on the ground and on a stable footing established before drilling holes in logs. • Electrical items not to be used around water. <p>When using a grinder to cut wire cable for tying of logs, safety glasses or a full-face helmet must be worn.</p> <p>Note - The most common causes of injury to operators and nearby workers from angle grinders are lacerations from attachments that break and become projectiles and lacerations from angle grinder kickback.</p>
<p>Bank stabilisation, creation of fish structures and river flow management by use of piles driven into the riverbed</p>	<p>Injury to workers or damage to equipment caused by:</p> <ul style="list-style-type: none"> • machinery rollover into water • poorly maintained pile driving helmet • uneven or loose terrain • unauthorised workers access to site • chainsaw injury 	<p>All applicable control measures identified under "Using heavy machinery" and "Using heavy machinery to construct Log brushing - bank stabilisation with the use of tree trunks placed in position with mechanical plant" and "Using heavy machinery to construct rock beaching and rock chutes" apply to this task.</p> <ul style="list-style-type: none"> • Operator is to secure the helmet so that piles do not slip out. Appropriate sized logs for the helmet must be selected. • Log stockpiles are to be securely barricaded with safety fence panels to avoid unauthorised access.

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	<ul style="list-style-type: none"> • falling tree or branches from overhanging vegetation 	<ul style="list-style-type: none"> • Logs should be placed flat on the ground and a sound footing established before pointing. • If a barge is required for the piling operation the controls relating to barge use defined under "Barge operation" shall apply to this task. • Refer to "When using a chainsaw" under "Using heavy machinery to remove willows". • All timber offcuts are to be removed from the worksite.
<p>Burning of Heaps</p>	<p>Personal injury or damage to environment resulting from:</p> <ul style="list-style-type: none"> • fire escaping burn site • smoke causing low visibility formation of unstable debris heaps • use of accelerants • use of chainsaws to trim logs 	<p>Applicable control measures identified under "Using heavy machinery" apply to this task.</p> <ul style="list-style-type: none"> • Ensure all relevant permits are held. Don't burn during fire restriction period without a permit. • Stack logs on even ground, in small manageable heaps. • Monitor weather closely and cease burn if winds rise to unsafe level. • Burn only in cleared areas with surrounding fire breaks. • Allow burn to proceed only when firefighting unit/water cart and rake hoes are present. • Light using specifically designed fire lighters, no other accelerants to be used at any time. • Refer to "When using a chainsaw" under "Using heavy machinery to remove willows".
<p>Removing dead animals from waterways</p>	<p>Personal injury or damage to environment resulting from:</p> <ul style="list-style-type: none"> • Falling overboard from boat • Manual handling • Machine operation • Exposure to biological hazards 	<p>Applicable control measures identified under "Operating heavy machinery" must be applied to this task</p> <ul style="list-style-type: none"> • Ensure boat is in survey and capable of towing a dead animal. • Do not exceed 5 knots. • Use a towing bridle to ensure the animal is towed from the centre of the back of the boat. • Use a small disposable towing leader attached to the long tow rope to avoid contact with animal. • Use a loader to lift the animal onto a truck for transfer to a municipal tip. • Remove ear tag if attached and present to the appropriate authority to allow notification to the farmer. <p>PPE</p> <ul style="list-style-type: none"> • Level 100 PFD (Type 1) must be worn • Wear impervious gloves