

## Los Rios Community College District – Job Safety Analysis

<b>Job Category: Grounds Maintenance/Horticulture/Environmental Resources (Grounds Maintenance/Instructor/Instructional Assistant/Laboratory Technician) (For Specifics See Below*)</b>		
Required and/or recommended personal protective equipment: Protective clothing, gloves, goggles, respirator, ear protection		
Sequence of Basic Job Steps	Potential Hazards	Recommended Action or Procedure
Chemically, emotionally and psychologically imbalanced students	Physical harm	Contact college police for assistance and protection if student appears to be out of control. Use non-aggressive communication skills.
Tractor operation	Rollover, movement of unmanned vehicle. Getting caught in gears, chains and power take off shaft. Hearing loss due to noise.	Roll bars where applicable. Seat belts available and used. Positive locking brake installed and used. All moving parts must be guarded. Ear protection worn.
Refueling	Fire and explosion	Turn vehicle off when refueling. No smoking during refueling. Avoid inhaling vapors when refueling.
Inspection/cleaning of push mowers, lawn mowers and towable 5 gang mower, fail mower, edger's Check for grease/oil and or loose or worn parts Check tires for proper inflation Attaching mower to tractor	Getting caught in moving parts, cuts, amputation Electrocution/shock Hand injury	Protective guards must be in place. Make sure equipment is clear before starting up. Disconnect spark plug prior to inspection. Stop engine disconnect power source before servicing. Electric power should be locked-out before performing maintenance. Keep equipment at least 20 feet from power lines. Wear gloves and eye protection. Use stick to turn reels.
Cutting grass, weeding lawns and asphalt	Strain from bending, illness from toxic materials  Employee or others struck by foreign object	Bend at the knees. Check Material Safety Data Sheet (MSDS) for information on solutions being used. Read labels and instructions on spray equipment. Wash hands prior to eating. Protect eyes and wear respiratory protection. Spray out doors only. Do not spray if wind is blowing or raining. Police area to be mowed for foreign objects. Use proper lifting technique for grass cutting disposal.
Use of hand-held tools for cultivation	Musculoskeletal injuries (i.e., back strain)	Hand-held tools should be kept in good condition. Use of short-handled hoes not allowed. Employees should avoid stooping and squatting to the extent practical.
Mixing cement and concrete	Back injury, muscle strain/sprain, slipped disk, fingers caught in machinery	Proper use of cement mixer. Wear gloves and goggles. Use proper body mechanics for lifting/moving heavy objects.

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<b>Sequence of Basic Job Steps</b>	<b>Potential Hazards</b>	<b>Recommended Action or Procedure</b>
Grounds maintenance, mowing, disposing of debris	Tripping, slipping, and falling Flying objects  Animal and snake bites, insect bites and stings  Loss of hearing	Familiarize yourself with all potential tripping hazards such as faucets, sprinkler heads, curbs and gutters. Use proper body mechanics utilizing large leg muscles to empty grass catchers, load and unload hedge trimmings, etc. Wear safety glasses and sturdy work boots and be aware of possible flying objects from mower.  Employees should be trained with respect to biting and stinging pests that are prevalent in the area. Employees must notify the supervisor in the event of a bite or severe sting.  Ear protection
Using chain saw: Checking fuel/refueling chain saw  Starting/operating chain saw	Chemical burns to exposed skin or eyes  Employees arms, hands or legs caught, amputated Slipping or falling Straining of neck or back Injury to eyes or ears Ignition of flammable liquid	Fuel only in well ventilated areas at least 50 feet from any open flame. Observe no smoking rules/regulations. Wear gloves and safety glasses.  Be aware that chain engages automatically. Wear gloves, safety glasses, earplugs and sturdy work boots. Wipe off excess spilled fuel. Place chain saw on flat solid surface. Plant fit firmly away from chain. Bend knees and use leg strength when pulling rope. Rope off area around tree at least 20 feet in all directions past longest limbs. Check for overhead power lines. Shut down chain saw whenever you change positions. Check area below you before cutting limb.
Clean and store chain saw. Clean up debris	Slipping, tripping or falling Employee burned Hands or feet caught in, pinched or cut by sharp edge Ignition of flammable liquid	Wear safety glasses and gloves. Let chain saw cool down in a well-ventilated area for 15 minutes before cleaning. Never store chain saw next to flammable substance. Use caution when walking in and around fallen tree branches. Clear branches from one area at a time. Use proper body mechanics to lift and move debris.
Inspection of equipment	Employees hand/feet caught, pinched, cut by object	Wear gloves at all times.

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Climbing ladders	Falls causing injuries	<p>Proper ladder for the job-no use of unsafe ladders-no splicing ladders together. Set the straight ladder against the wall at the proper angle of about 75 degrees with the floor or ground. The horizontal distance from the wall to the foot of the ladder should be ¼ the length of the ladder. Do not lean the ladder against a moveable object. Protect the man on the ladder, have an employee stand guard in dangerous circumstances, or when ladder has to be in front of a doorway, or if there is a danger of a person or vehicle bumping into the ladder. Always face the ladder when going up or down. Do not carry tools or materials while going up or down the ladder. Strap them over the shoulder, or raise and lower with a rope on a bucket. Ladders should be climbed properly one worker at a time. Ladders should have safety feet and placed with secure footing. Ladders with broken rungs or steps should not be used. Ladders should not be erected on boxes or other supports. Ladders should not be placed in front of doors or against windows. Ladders should extend 3 feet above roof if climbing to the roof. Tops of stepladders should not be used for step. Employees should not climb higher than the third rung from the top of straight ladders and second step on stepladders.</p>
Rototilling	Bodily injury	<p>Wear protective clothing. Protect eyes from flying debris and check equipment prior to operation--wear goggles. Hold firmly when in operation. Check ground for obstacles prior to rototilling. Use proper loading procedures.</p>
General work area	Injury due to slips, trips, falls due to uneven floor surfaces, curling rug corners, missing tiles. Excess of paper/carbon dust, unsafe conditions, debris, blocked aisles.	<p>Report any unsafe conditions. Report all accidents, injuries and illness. Do not store excess amounts of combustibles in work area. Keep an aisle clear. Know location of fire extinguisher and alarm devices. Practice evacuation procedures.</p>

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<b>Sequence of Basic Job Steps</b>	<b>Potential Hazards</b>	<b>Recommended Action or Procedure</b>
Transporting furniture/supplies to work site	Auto accident causing bodily injury, back injury	Wear seat/shoulder belt at all times. Follow safe driving rules/regulations. Practice defensive driving. Park in legal spaces, not obstructing traffic. Do not consume alcoholic beverages or other intoxicants prior to or during work. Lock vehicle when unattended. Use proper body mechanics. Get help on heavy items.
Grinders	Flying pieces of metal	Wear eye protection and gloves.
Pesticide/fertilizer application	Illness from toxic materials Bodily injury from lifting, pushing and pulling	No employee may apply fertilizers or use pesticides unless adequately trained and supervised. Read and comply with MSDS and label instructions. Proper protective equipment (gloves, respirator, and clothing, as appropriate) must be worn. No smoking. Pesticides should only be mixed per label instructions and training. Fertilizers should only be applied per label instructions. Refer to MSDS sheets for handling, storing and disposal of pesticides and fertilizers. Use proper lifting techniques. Wash hands prior to eating. Symptoms of pesticide poisoning should be immediately reported.
Sprinkler and valve repair	Back injury, electric shock, exposure to toxic substances	Follow proper bending and lifting procedures. Make sure electric circuit is secured off. Read MSDS as it applies to materials being used.
Exposed areas to be repaired	Hand and back injury, tripping or falling	Wear gloves and use proper digging method. Barricade exposed area.
Repair to P.V.C. or valve	Exposure to toxic materials, electric shock	Read current MSDS as it applies to materials being used. Make sure electric circuit is secured off. Wear gloves and use proper digging procedures. Barricade exposed area.
Pruning trees and shrubs	Bodily injury from chainsaw, grass powered edger, falls, hits by branches and lifting	Get assistance. Check equipment prior to operation. Use proper operating procedures. Check safety guards. Wear protective clothing/gloves. Use proper ladder for job. Lift with legs and bend at the knees.

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<p>Removing trash/debris</p>     <p>Hauling debris/rubbish to dump site</p>	<p>Strain from lifting</p>     <p>Vehicle accidents</p>	<p>Get assistance when lifting. Use proper body mechanics, bending knees and using leg muscles to lift heavy items. Wear gloves and proper footwear.</p>     <p>Use defensive driving techniques. Wear seat belt. Check brake lights and trailer connection. Balance load in the trailer.</p>
<p>Trenching</p>	<p>Cave-ins, equipment or spoils collapsing into trench onto workers. Striking underground utilities. Falls and pinch injuries.</p>	<p>Permit from Cal/OSHA required prior to placing workers in a 5 feet or deeper excavation. Shore, bench, slope to protect against cave-ins. Locate spoils 2 feet or more from the edge. Provide a safe means of egress every 25 feet. Do not excavate near building foundations, walls, sidewalks, etc. Erect barriers around excavations. Contact underground services alert (USA). Determine location of underground utilities from owners, utility companies, etc. Dig carefully for the first 6 feet, spotting for possible utilities. Workers are prohibited from riding in power shovel, backhoe buckets or any other equipment not designed for this purpose.</p>
<p>Trimming hedge with motorized/electric hedge trimmer</p>	<p>Fingers/hands caught in or cut by sharp edge Tripping, falling, cutting hand, arm or leg Eye injury and back injury</p>	<p>Wear gloves when inspecting hedger. Wear gloves, safety glasses and proper footwear. Check ground for standing water if using electric hedger. String cord out on flat ground. Do not drape cord across obstacles. Use caution when plugging in hedger, blades can engage automatically. Clear hedge of all potential hazards. Police area on both sides of hedge for tripping hazards. Use proper body mechanics to avoid muscle strain and back injury. Clean up all debris and place in proper disposal bins.</p>
<p>Office work (after hours, evenings/weekends)</p>	<p>Physical harm</p>	<p>Lock office door if working late at night and alert college police of your presence on campus.</p>

Date: July 2, 1991 / Analysis By: S. Holmes, C. Bettencourt

\*Note: This Job Safety Analysis form includes the following positions in the Los Rios Community College District: Grounds Supervisor; Grounds Irrigation Specialist/Groundskeeper; Grounds Maintenance Technician; Groundskeeper; Head Grounds Maintenance Technician; Head Groundskeeper; Instructor-Horticulture; and Laboratory Technician - Welding / Horticulture