# 1. Risk Assessment for: large Debris REmoval

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **WORK LOCATION:** |  | **DESCRIPTION OF WORK:** | Removing large natural (ex. tree stumps/trunks) and man-made debris (ex. docks) that has settled around public beaches and parks along area lakes | | |
| **COMPLETED BY**: |  | **ASSESSMENT DATE:** |  | **RANKING:** | **Medium** |

**2. WORK ACTIVITIES- (Include PPE Requirements for Quick Reference)**

|  |
| --- |
| **List Task Activity:** Using heavy equipment to remove large pieces of natural (ex. tree stumps/trunks) and man-made debris (ex. displaced docks) that has settled along public beaches and greenspace as a result a freshet flooding event. |
| **PPE Required:** CSA approved work boots, gloves, hard hat, eye protection, safety coveralls/high-vis, chaps (as required), hearing protection (as required), facial protection (as required), tow chain |

**3. HAZARDS & RISK LEVEL RATINGS: SCORE = C + P + E = Rate** 3-4 are L**OW** 5-6-7 are **MEDIUM** 8-9 are **HIGH** priority

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **HAZARD #** | **HAZARD IDENTIFICATION** | **CONSEQUENCES** | **PROBABILITY** | **EXPOSURE** | **RISK** | **RATING**  **L/M/H** |
|  | Slips and falls (uneven ground, branches, natural downed trees, large rocks etc.) | 2 | 2 | 3 | 7 | Medium |
|  | Awkwardly shaped and potentially heavy objects (branches, natural downed trees, large rocks) – possibility of musculoskeletal injuries (MSI) | 2 | 2 | 3 | 7 | Medium |
|  | Making contact with overhead/underground infrastructure with heavy equipment | 3 | 2 | 2 | 7 | Medium |
|  | Unwanted personnel in work zone | 3 | 2 | 3 | 8 | High |
|  | Inclement weather (hot summer temperatures, wind, rainfall etc.) | 1 | 2 | 1 | 4 | Low |
|  | Communication lapses between equipment operator and ground personnel | 3 | 2 | 3 | 8 | High |
|  | Chainsaw use | 3 | 2 | 3 | 8 | High |
| **RISK TOTAL:** | | **2** | **2** | **3** | **7** | Medium |

**Add up the individual columns: (Consequence, Probability, Exposure, Risk and divide by number of hazards)**

**4. MATRIX FOR RANKING THE HAZARDS:**

|  |  |  |  |
| --- | --- | --- | --- |
| **SCORE** | **1** | **2** | **3** |
| **CONSEQUENCES:** | first aid / minor damage | lost time injury/moderate damage | fatality / major damage |
| **PROBABILITY:** | unlikely | possible | likely |
| **EXPOSURE:** | rarely (less than 1/month) | often (3 times/week) | everyday |

**5. CONTROL MEASURES FOR EACH HAZARD IDENTIFIED IN SECTION 3**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **HAZARD #** | **LIST ALL EXISTING CONTROL MEASURES**  **(Eliminate, Substitute, Engineering, Administrative, PPE)** | **RECOMMENDATIONS** | **Date required** | **Person Responsible** | **Initial when complete** |
|  | Scan area for hazards before proceeding; select a safe area of travel, slow down and ensure secure footing; ensure boots are appropriate and are properly tied up | If within 10 feet of swift moving water, a coast guard approved foam filled PFD is required. If entry into the water must occur, a helmet made for water entries must be worn (chin strap, vents to allow water to pass out) |  |  |  |
|  | Assess whether you can safely pick-up different types of debris before picking it up; use proper lifting techniques; use heavy equipment to retrieve large pieces of debris (refer to separate RA and SWP) |  |  |  |
|  | Walk area and look for overhead hazards (ex. power lines, communication lines) before bringing equipment into area; mechanical digging not likely to be required however if it is, ensure locates are obtained |  |  |  |
|  | Cordon off work zone as required (do not enter/caution tape, signage etc.); maintain high level of situational awareness; effective communication with people in area |  |  |  |
|  | Take micro breaks throughout day; dress appropriately for weather; drink plenty of fluids; watch out for changing condition of co-workers etc. |  |  |  |
|  | Tailgate meeting before task begins to ensure everyone’s on same page with plan, hand/verbal communication signals; keep eyes and mind on task; when working near equipment, never walk under suspended load |  |  |  |
|  | Chainsaw training and knowledge; proper chainsaw PPE (chaps, hearing protection); cordon off work area; good communication with crew; |  |  |  |  |

**6. HIERARCHY OF CONTROL MEASURES: (Must be followed in the order below)**

|  |  |  |
| --- | --- | --- |
| **ORDER** | **CONTROL** | **DESCRIPTION** |
| **1** | **ELIMINATION:** | Can the hazard be removed at the source? Can the task be eliminated entirely? Example: eliminating the need to have a worker enter an excavation by hydro-excavating to expose underground infrastructure. |
| **2** | **SUBSTITUTION:** | Can a hazard, hazardous process or hazardous material be substituted with one with no hazards? Example: using salt water brine instead of a chemical for deicing the roads. |
| **3** | **ENGINEERING:** | Engineering controls include isolation, ventilation and equipment modification. These controls focus on the source of the hazard. Example: a guard placed around a saw blade, or a shoring system placed in an excavation. |
| **4** | **ADMINISTRATIVE:** | Remove or reduce the exposures by reducing the duration, frequency and severity of exposure to hazards. Example: changes to work procedures & practices, scheduling, job rotation, breaks during heat/cold exposure. |
| **5** | **PPE:** | Personal Protective Equipment does not control the hazard but reduces the effect of exposure to the hazard has on the worker. PPE must always be the last line of defense Example: earplugs, latex gloves, CSA boots, CSA Hard Hats |

# 7. REVIEWED BY:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **DATE** | **REVISION DATE** | **PRINT NAME** | **POSITION** | **SIGNATURE** |
|  |  |  |  |  |
|  |  |  |  |  |

**THE HAZARD IDENTIFICATION AND ASSESSMENT PROCESS**

1. Identify the task to be assessed, determine if the task is **H**igh, **M**edium or **L**ow risk
2. Include workers who have experience in performing the task, ensure the process is lead by someone who has training and experience in

conducting hazard assessments. These individuals must have some type of formal training.

1. Identify hazards associated with the tasks. Consider PHYSICAL, CHEMICAL, BIOLOGICAL, AND PSYCHOLOGICAL
2. Rate the hazards by degree of risk using the following matrix:

|  |  |  |  |
| --- | --- | --- | --- |
| **SCORE** | **1** | **2** | **3** |
| **CONSEQUENCES:** | first aid / minor damage | lost time injury/moderate damage | fatality / major damage |
| **PROBABILITY:** | unlikely | possible | likely |
| **EXPOSURE:** | rarely (less than 1/month) | often ( 3 times/week) | everyday |

**TOTAL** the three columns: **(T)**

* 3-4 are **low** priority hazards
* 5-7 are **medium** priority hazards
* 8-9 are **high** priority hazards

The **high** priority hazards are addressed first, followed by the **medium** priority hazards. **Low** priority hazards may not require attention at this time, they may simply require monitoring. The Hierarchy of Control Measures must be followed when eliminating or mitigating hazards in the following order:

|  |  |  |
| --- | --- | --- |
| **1** | **ELIMINATION:** | Can the hazard be removed at the source? Can the task be eliminated entirely? Example: eliminating the need to have a worker enter an excavation by hydro-excavating to expose underground infrastructure. |
| **2** | **SUBSTITUTION:** | Can a hazard, hazardous process or hazardous material be substituted with one with no hazards? Example: using salt water brine instead of a chemical for deicing the roads. |
| **3** | **ENGINEERING:** | Engineering controls include isolation, ventilation and equipment modification. These controls focus on the source of the hazard. Example: a guard placed around a saw blade, or a shoring system placed in an excavation. |
| **4** | **ADMINISTRATIVE:** | Remove or reduce the exposures by reducing the duration, frequency and severity of exposure to hazards. Example: changes to work procedures & practices, scheduling, job rotation, breaks during heat/cold exposure. |
| **5** | **PPE** | Personal Protective Equipment does not control the hazard but reduces the effect of exposure to the hazard has on the worker. PPE must always be the last line of defense Example: earplugs, latex gloves, CSA boots, CSA Hard Hats |

Hazard Assessments **must be reviewed** in accordance with Hazard Assessment Program Guide.