

WDTAC – Parks and Recreation Sites

Table 1. Levels of Disturbance for Workers and Visitors at Recreation Sites

| Wind Speed Equivalency (km/h) | Level of Disturbance* | Example of Work Activities | Example of Target & Exposure Levels |
|-------------------------------|-----------------------|--|--|
| <40 | 1 (Table 3) | <ul style="list-style-type: none"> • Tree planting and brushing • Campsite maintenance • Tree pruning (stems <20 cm dbh) • Use of light-duty machinery (e.g., weed whips, brush saws, lawn mowers, bobcats where there will be no digging which could disturb tree root systems/stability) • Road travel with heavy vehicles (>5500 kg GVWR) on ballasted and PERMANENT roads (a cleared right-of-way) • Trail construction with hand tools • Fire control with hand tools and/or water hoses | <ul style="list-style-type: none"> • Hiking trails with interpretive signs • Motorized trail use (ATV, snowmobile) • Trail lookouts and viewpoints • Rest stops alongside hiking trails • Wheel chair trails |
| | 2 (Table 4) | <ul style="list-style-type: none"> • Road travel with heavy vehicles (>5500kg GVWR) on non-ballasted, TEMPORARY roads (no clear right-of-way) • Maintenance or construction activities without heavy equipment (e.g., small machines such as "bobcats") • Tree pruning (stems >20 cm dbh) • Spacing or slashing (stems <15 cm dbh) • Tree bucking | <ul style="list-style-type: none"> • Parking lots (paved or compacted roads) • Day use picnic sites • Public beach/swimming areas • High-use trails (e.g., tour bus groups) • Roadside viewpoints, rest stops • Portable/temporary toilet facilities • Portable/seasonal kiosks • RV sani-stations |
| 40–65 | 3** (Table 4a) | <ul style="list-style-type: none"> • Tree falling (any tree >15 cm dbh) • Tree yarding (winching or other ground system) • Use of light and intermediate helicopters where workers are exposed to rotor wash (e.g., helipads) • Maintenance or construction activities with heavy equipment (including rubber tire backhoe where digging could affect tree root systems/stability) | <ul style="list-style-type: none"> • Campgrounds and amenities • Playgrounds • Permanent buildings/facilities |
| +65 | 4 (Table 5) | <ul style="list-style-type: none"> • Harvesting operations in structurally damaged stands (e.g., wildfire burns) • Blasting • Use of medium and heavy helicopters where workers are exposed to rotor wash | |

* A dangerous tree assessment is only valid for the lowest level of disturbance at which the assessment has been done.

** If trees CANNOT be felled and yarded away from adjacent standing timber, then default to Level 4 disturbance.

Table 1A. Influence of Wind Speed on Level of Disturbance

| Wind Speed (km/h) | Description | Level of Disturbance Equivalency |
|-------------------|--|----------------------------------|
| 0–40 | light breeze (dust and loose paper raised; small branches move) to fresh breeze (small trees sway; tops of large trees sway) | 1–2 |
| 40–65 | strong breeze (small branches fly in the air; whole trees in motion; resistance felt when walking against wind) | 3 |
| 65+ | gale (branches broken off trees; walking impeded) | 4 |

Table 1B. Helicopter types

| Helicopter Category | Passenger Capacity | Lift Capacity |
|-----------------------|--------------------|--------------------------------|
| Type 1 (Heavy) | 15+ | Exceeds 2720kg (6000 lbs) |
| Type 2 (Medium) | 9 – 14 | 1135 – 2720kg (2500-6000 lbs) |
| Type 3 (Intermediate) | 5 - 8 | 680 – 1134kg (1500 – 2500 lbs) |
| Type 4 (Light) | 1 - 4 | Not exceeding 680kg (1500 lbs) |

The following listing provides examples of common aircraft by helicopter type, and is a useful guide when determining the appropriate level of disturbance for the type of aircraft being used.

Light Category: Jet Ranger (Bell 206), Hughes 500, Hiller 12, EC 120, R22 & R44

Intermediate Category: Long Ranger, A-Star (AS350), Bell 407, EC 130

Medium Category: K-Max, Bell 204, 212, 205

Heavy Category: Bell 214, Kamov, Sikorsky 61 & 64, BV 107 & 234

Summary of Assessment Requirements

All work activities EXCEPT those defined as “very low risk” require a pre-work inspection by a qualified person to determine if there are any trees that might endanger workers. A summary of activity level assessment requirements is shown below.

- **Very Low Risk (VLR) Activities** — No pre-work site inspection is required.
- **Level 1 Disturbance Activities** — A pre-work inspection by a qualified person is required. If trees with significant tree hazards (see Table 3) are observed, the appropriate safety procedures must be taken before work activities begin.
- **Level 2, 3 or 4 Disturbance Activities** — A pre-work inspection by a qualified person is required. If “suspect” trees (see Table 4, 4A, 5) are identified by a qualified person, then further assessment by a certified danger tree assessor is required and the appropriate safety procedures must be taken BEFORE work activities begin.

Steps Required to Determine Tree Danger Rating:

1. Determine the level of ground disturbance and visitor exposure (refer to Tables 1, 1A, 1B) and conduct a site assessment overview (refer to Table 2)
2. Conduct tree assessments (refer to Tables 3, 4, 4A and 5)
3. Make the appropriate safety decision (Safe or Dangerous)
4. Provide documentation and communicate safety procedures