MECHANIZED EQUIPMENT FOR FIRE AND FUELS OPERATIONS

2009

WITH CONTRACTOR DIRECTORY

Idaho, Montana, Oregon, Washington

by

Valerie Jaffe and Stephen “Obie” O’Brien
**Why use mechanized equipment on fires and fuel operations?**

The forest products industry has steadily replaced manual methods with mechanical means to accomplish tasks in the woods. Federal and state agency land managers currently seek to duplicate these improvements in cost efficiency and worker safety in its fire and fuels program.

Contracted mechanized forestry equipment provides these advantages to Incident Management Teams and land managers:

- Access to a motivated, woods savvy, highly skilled labor force with their own specialized equipment.
- As a “force multiplier” for crews and other fire resources, increasing their mutual capabilities, efficiency and safety.
- Allows other resources (aerial, engine, crew) to concentrate on tasks in areas where machinery is prohibited.
- Expands operational capabilities:
  - Safer, night-time fireline construction, when most fire activity decreases.
  - Faster, safer indirect and contingency fireline construction.
  - More opportunities for direct line on fires too dangerous for hand crews.
  - Safer methods of hazardous tree removal and brush clearing.
  - Expanded, 24-hour ground-based water delivery; beyond the reach of engines and tenders, and during hours when use of aircraft is prohibited.
ACKNOWLEDGEMENTS

Production costs for this year’s edition were covered by these organizations and individuals:

**Montana Logging Association (MLA)**

Founded in 1976, MLA serves and represents Montanans who work in our state’s logging industry. The non-profit organization works to ensure the state’s renewable forests provide opportunity for generations to come. MLA offers group health insurance and workers’ compensation plans, and professional development programs such as the Accredited Logging Professional, Professional Log Hauler and Safety Services. The staff represent member interests during state legislative sessions and to Montana’s congressional delegation in Washington D.C.

2224 Montana Hwy 35, PO Box 1716, Kalispell, MT 59903, 406-752-3168; www.logging.org

Contact: Keith Olson

**Associated Oregon Loggers (AOL)**

AOL develops timber harvest professionalism by providing continuing education for loggers, and promotes sustainable Oregon forests. The non-profit organization provides business services specifically tailored for the contract logger and related businesses. To maintain an acceptable supply of timber from all landowner sources, AOL works through all possible avenues and communicates facts about the logging industry to the public. The staff works to build and maintain support for the industry by bringing reason and practicality to those regulatory issues that confront contract loggers.

AOL, PO Box 12339, Salem OR 97309; www.oregonloggers.org

Contact: Jim Geisinger

**Northern Rockies Wildfire Contractors Association (NRWCA)**

NRWCA promotes communication between federal, state, local agencies and its members. The organization creates public awareness of wildfire contractors and their vital link to governmental agencies. NRWCA supports member businesses by promoting work opportunities, sharing technology, and collaborating to solve common problems within the industry.

NRWCA, PO Box 958, Belgrade MT 59752; www.nrwca.com

Contact: Rick Grady

**Montana Community Development Corporation (MCDC)**

MCDC fosters a resilient economy. Since 1989, MCDC has served hundreds of entrepreneurs with loans, consulting and training. The businesses created by MCDC clients help sustain their local communities and provide jobs in Western Montana. The Small Wood Utilization and TimberNetworks draw on all of MCDC’s resources to help create business opportunities with new wood products while helping to reduce hazardous fuel loads in Montana forests.

110 E. Broadway, 2nd Floor, Missoula, MT 59802. 406-728-9234, 888-745-5601; www.mtcdc.org

Contact: Craig Rawlings
Since 1975, each issue of TimberWest has been packed with valuable job stories on successful mechanized harvesting, wood processing techniques and equipment. Also inside you’ll find timely information on legislation, industry news, annual events, people profiles and products reviews.

TimberWest Publications, PO Box 610, Edmonds, WA 98020; www.forestnet.com
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As in the 1st Edition of this book, excerpts and images from the Big Iron Guidebook (J.Steele, et al, 2004) and Mechanized Fire Equipment CD (San Dimas Technology & Development Center, 2005) are included.

Reviewers and equipment specialists have generously provided valuable comments and suggestions. They include, but are not limited to current and retired personnel from state and federal agencies across the Pacific Northwest and Northern Rockies.

Special thanks are extended to Rex Mann, Pete Peterson, Dave Larsen, Dean Blomquist, Steve Martin, Marc Finney, Scott Kuehn, Jim Steele, Linda Rock, George Custer, John Shotzberger, Wally Bennett, Tony Willett, Dave Clay, Kevin Erickson, Bob Rummer, Jason Butler, Matt Eberlein, Keigh Smiley, Dave Clay, Dave McCann, Tim Droegmiller, Ray Ekland.

The alternative (to proactive forest management) is we will ultimately manage our public forests with wildfire.

Kevin Ryan, Research Fire Ecologist
USFS-Intermountain Fire Sciences Lab, Missoula, MT
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INTRODUCTION

In the hands of experienced operators, logging equipment can increase operational safety while reducing costs of initial attack, suppression, and post-fire rehab. As partners, equipment contractors can help to achieve land and fire management objectives while protecting both natural resources and property under emergency and project conditions.

In 2008, a booklet of the same title was published for the Montana Dozer Boss Workshop. This 2009 edition is another collaborative project between agency and forest industry, and offers operational recommendations, equipment profiles, and a directory of contractors from the Northwest and Northern Rocky Mountains.

Realistic training is the foundation for improving field operations. This second edition builds upon the first as a training guidebook and dispatching aid. Readers interested in the 2008 edition can still view and download it online (http://www.wildfirelessons.net/documents/MEFFO.pdf). Here, we continue work started in the 2002 Big Iron Use Guide to serve the need for a training tool, guidebook and handy reference document.

This edition includes a directory of experienced equipment operators with government contracts available for fire season and fuels project hire. Contractor invitations were structured to gather a representative directory of machines available in each agency equipment acquisition area of the Pacific Northwest (USFS, Region 6) and Northern Rockies (USFS, Region 1) regions of the United States.

Equipment categories include twelve common types of forestry equipment: dozers, pumpercats, wheeled and tracked skidders, feller bunchers, harvesters, forwarders, skidgines, super-skidgines, excavators, shovels, and mulchers. As safety is paramount among the many sound reasons for deploying mechanized resources, machines with Operator Protection Systems (OPS), Falling-Object and Roll-Over Protection Systems (FOPS and ROPS) are highlighted.

Copies of this document will be distributed to agency fire and land managers, including Incident Management Teams nationwide and dispatching centers in the West.

“Mechanized equipment is the most over-looked, under-utilized, and misunderstood firefighting resource.”

George Custer, Incident Commander National Incident Management Team (NIMO), 2008

“I recommend the Agency’s Dozer Boss Manual be re-written and named Mechanized Equipment Boss Manual.”

Dave Larsen Northern Rockies Type 1 Incident Commander (USFS, Retired 2009)
SECTION 1: LESSONS LEARNED

MECHANIZED FIRE EQUIPMENT HISTORY

Fire suppression operations are increasingly large and costly.\(^1\) Regardless of the causes, operational strategies must adapt to changing circumstances and offer viable alternatives to protect valued natural and human-made resources.

Use of logging equipment was at one time a primary response tool for extinguishing fire starts. Since the mid-1970s, the role of hand crews and aviation has broadened, while use of heavy equipment has declined. Equipment managers and contractor numbers have likewise declined. There are fewer individuals with the knowledge and field skills to effectively apply the full range of logging equipment to the fireline.

For the past thirty years, forestry equipment designs have improved to increase operational safety and production in all phases of vegetation clearing, handling and dirt work. Newer machine designs continue to replace less efficient and more risky manual methods. They also make it possible to operate on more difficult and steeper ground. In most cases, these increases in efficiency and safety also reduce site impacts, while helping to minimize suppression costs and losses to wildfire. Advantages of using heavy forestry equipment have come a long way when compared to the previous fire suppression machine era of only dozers.

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Julie Cart and Bettina Boxall, Los Angeles Times Staff Writers, reported in July 2008 that, “It costs up to $14,000 a day to keep an air tanker on call and as much as $4,200 per hour to put it in the air. Heavy-duty helicopters, the workhorses of aerial firefighting, can cost $32,000 a day on standby, plus $6,300 per hour of flight time.”

“The idea that you could burn 400,000 acres in a single fire in Arizona would have been considered lunacy 15 years ago,” says Kirk Rowdabaugh, Ariz. State Forester. “The idea that you could burn 10,000 acres in a single day in Arizona - nobody ever would have contemplated that. You can do that in a bad afternoon now.”

TimberWest Magazine, Sep-Oct, 2008

C. Scott Miller blogs about forestry and biomass issues, including examples where thinning forests works to spare forest resources at minimal cost. “Through a series of photographs Ron Vineyard of the Eagle Lake Ranger District of the Lassen National Forest showed how the 2002 Cone Fire in Northern California extinguished itself within about 20 yards of its entry into the mechanically thinned zone. Their studies place the cost of suppressing a fire in an unthinned forest at $1,726/acre. The cost of mechanically thinning a forest with an underburn is approximately $204 per acre.” (http://biostock.blogspot.com/search/label/forestry)
PRE-INCIDENT OPERATIONS - FUELS REDUCTION AND FUELBREAKS

“Fuelbreaks are not designed to stop fires but to allow suppression forces a higher probability of successfully attacking a wildland fire.” according to the Canada’s Wildland Fire Operations Research Group. Firebreaks, as opposed to pre-incident fuelbreaks, are a reactive measure during wildfires for suppression; whereas, fuelbreaks are a proactive program to affect fire behavior in anticipation of a future fire.

“The effectiveness of a fuelbreak depends not only on its design characteristics but also on the behaviour of fires approaching it. Such behaviour is strongly determined by fuel spatial pattern in the adjacent areas and any thinning beyond the fuelbreak will improve its effectiveness and is, therefore, highly recommended. Consequently, fuel treatments in adjacent lands would determine fuelbreak width and canopy alteration therein.”

The Herger-Feinstein Quincy Library Group in California can attest to effectiveness of fuelbreaks. Their latest report claims the installed system of Defensive Fire Protection Zones (DFPZ), i.e. fuelbreaks across the large landscape area, were instrumental in containing the Rich Fire at the Kingsbury Rush DFPZ...in 2008.... “Fire officials stated that if the DFPZ had not been there the fire would have been thousands of acres larger and cost considerably more to suppress.”

Mechanized shaded fuelbreak, St. Maries, ID

Mechanized fuelbreak connecting natural fire barriers (water bodies) installed to control fire spread from mountainside.
Section 1: Lessons Learned

Under the National Fire Plan, hazardous fuels reduction projects are tracked and documented by region with before and after conditions. The library of successful project examples across many vegetation types is sound promotion for beneficial, preventative, and least-expensive land stewardship. Whether used to protect municipal watersheds, or to abate spread of tree disease, mechanized methods of reducing hazardous forest fuels are often the most cost-effective and less risky options for reducing catastrophic fire damage.

Reducing hazardous forest fuels under non-emergency conditions has many advantages over emergency incident decision-making. Fuels treatment projects, similar to effective fire suppression operations, include the use of mechanized equipment choices to work at strategic locations and at an effective scale. Since the 1970s fuels projects in California have included installation of contingency firelines (i.e. shaded fuel breaks) and improvements for equipment access and prescribed burning preparations.

According to Hulsey and Ripley’s Net Cost Approach, the state of Washington found that the benefits of treating medium to high risk stands exceeded treatment costs by $1,000-2,000/acre. These projects may also provide equipment pre-staging opportunities in fire-prone areas, in the event of area wildfire starts.

State, federal, and tribal land managers in the West have active fuels reduction programs that use mechanized equipment; but, are they of a sufficient landscape scale to make practical use of fire for ecological restoration?

Wherever land managers are proactively addressing problems of unhealthy forests and dangerous fuel loads, mechanization offers opportunities for effective agency, industry, and community cooperation with at least local beneficial results.

“Firelines are like real estate... it's about location, location, location; and timing.”

Dave Larsen
Northern Rockies Type 1 Incident Commander, USFS (Retired 2009)

“The governors of Idaho, Oregon, Washington and Wyoming had stood at the same [in-woods demo] site...pondering how forest thinning bills will get paid in the absence of commodity income such as sawlogs, wood pulp or chips.”

Barbara Joyner
Capital Press, June 16, 2002

“Hazardous forest fuels reduction projects must be designed to work under the most extreme wildfire conditions.”

Marc Finney
Research Fire Ecologist
“We work to prevent wildfires, or at least reduce damages. Like the fuels reduction project we did for the Wyoming BLM from 2004-2006 in the Newcastle Fire Defense Zone. The Newcastle Field Office told us that the treated area was looking good, and in 2006 a fire dropped to the ground when it reached the edge of our unit because we removed the ladder fuels.”

Cecil Swaggart, Logger
Swaggart Enterprises, Inc.,
Ritter, OR

Mobile yarder for fuels reduction on steep slopes around Idaho City, ID, on the Boise National Forest

Photo Point #6 - Before
North Roslyn Fuelbreak, WA

Photo Point #6 - After
ESSENTIAL TRAINING

Realistic field training with mechanized equipment is essential for project and incident personnel. Classroom training alone cannot substitute for live in-woods teaching opportunities with the wide variety of modern equipment types found in the woods today.

Agencies can certainly expect cooperation with private industry to supply machines, operators and instructors for in-woods demonstrations and workshops. Pre-incident field training with heavy equipment is the best preparation for incident operations.

- To work in the woods, fire personnel must train in the woods.
- To work at night, firefighters must train at night.
- To work effectively with operating machines, agency employees need to train live with operating machines in the field.

Such was the case in 2008, for which the 1st edition of this book was created as a field training guidebook. The expanded weeklong Dozer Boss S-232 workshop held in Montana was conducted as a cooperative workshop with local logging contractors, Montana Department of Natural Resources (MT-DNRC) and Helena National Forest. It was a precedent-setting training opportunity including 20 machines with operators and 9 instructors working with 37 students under realistic day-shift and night-shift conditions. The machines operated as two mechanized task forces on two separate divisions.

Agency and industry worked with equipment operators to create machine access, build fireline, thin forest canopy and perform rehab tasks on Montana State Land. The work had a dual purpose of preparing the site for prescribed fire treatment the following year.

The dozer boss trainees came from seven western states. Instructors and contractors came from four northwest states and multiple agencies (USFS, BIA, BLM, USPS, State, County, City). The workshop also served as an instructional opportunity for Northern Rockies Incident Management Teams (IMTs, Type 1 and 2), agency land managers and Montana State Legislators to see 20 machines (12 equipment types) building and rehabilitating fireline under day and night operations.

Which would you rather have over your head in a snag patch on a windy day, a hardhat, a truck cab or a dozer canopy with sweeps?“

Pete Peterson, USFS Northwest Oregon Incident Management Team/Trainer (retired)

“More line officers and resource advisors should go to this workshop. This class is very progressive; looking to the future of equipment on the fireline and showed how we can do better work with less impact. What I learned will make me more efficient. The instructors were top-notch!”

Matt Weakland, BLM, Dozer Boss Trainee.

AGENCY EQUIPMENT POSITIONS

Dozer Boss (DOZB)

This position ensures that a dozer has been properly inspected, signed up, and the operator is qualified. Position responsibilities include tactical use and safety precautions required for effective dozer operation. Dozer Bosses use compass, GPS and clinometer to scout ahead (in daylight for day/night operations) and flag fireline or safety zone construction locations. They communicate directly with the machine operator and give instructions as to hazards, fireline location and standards. DOZB is a single resource position and can be filled by agency or casual hire (AD) personnel.

Equipment Task Force and Strike Team Leaders

Task Force and Strike Team Leaders are responsible for the direction of multiple machines. They report to the Division Supervisor and are responsible for performing tactical missions. They work through Dozer Bosses to direct the equipment.

Equipment Inspectors

Equipment Inspectors conduct inspections of contract equipment offered under the NRCG Area Equipment Solicitation, and hired under the NRCG Chapter 20 Requirements. The Equipment Inspection Team will inspect equipment assigned to incidents and assure they meet all agency, solicitation, and Chapter 20 requirements.

Inspectors assist in contract administration, equipment specifications matters, and documentation of inspections. Although not yet a requirement, it is good practice for the inspector to establish a photo record of initial and final inspections of incident machines.

The complete position description is available online from the NRCG website (http://www.fs.fed.us/r1/fire/nrcg/Committees/Business/supplements/NR_Equipment_Inspector_pd.pdf).

"We accomplished our (tactical) objectives due to the heavy use of equipment and lack of crew resources." said Wally Bennett, Northern Rockies Incident Commander, based in Northwest Montana. His Type 1 Incident Management Team took over the Chippy Creek Fire (MT 2007), where mechanized equipment played a significant role in containing the acres burned. [ref Chippy Creek Summary]

When asked for his advice to other fire managers, Wally noted, "The bigger issue in many (incident) cases was our ability to order and receive qualified Dozer Bosses to put with the equipment. I would say to other IC's, and Operations Sections that in today's fire environment and especially with the lack of needed crew and aviation resources on many occasions, heavy equipment use needs to be a priority consideration to meet tactical objectives. And, when in doubt order a Technical Specialist that can advise the team of the right combination of equipment to accomplish their objectives."

Dozer Boss Tool Kit
- clinometer
- fence pliers
- flagging
- light sticks
- waterproof camera with batteries
- topographic and slope map
color copies of area stereo photos
field stereoscope
covers for resource photos
GPS
2 walkie talkies
strobe lights
Northern Rockies Heavy Equipment Technical Specialist (HETS)

In 2008, the Northern Rockies Coordinating Group (NRCG) created the Heavy Equipment Technical Specialist (HETS) position. HETS personnel are resources for providing mechanized equipment technical assistance to Incident Command Teams (ICT) and Agency Administrators. This position acts as a liaison between local forest industry resources and the Agency Administrator and Incident Commander.

HETS must know the capabilities, limitations, cost, and potential site affects of heavy equipment to be used in various fuel types, soil types, and terrain. This technical specialist knows equipment operation standards, transportation requirements, and assists in safe, efficient use of the contracted resources by helping incident operations, logistics, and planning staff. The complete position description is available online from the NRCG website (http://www.fs.fed.us/r1/fire/nrcg/Committees/Business/supplements/NR_Heavy_Equip_Tech_Spec_pd.pdf).

“On the third day of red flag weather, a 3-machine task force (D5 Hi-track dozer in lead, Timbco with hot saw head, and a John Deere combo skidder/skidgine with 400 gallon water tank) put in 2.5 miles of direct and indirect line, snagging hazardous trees and clearing 1-2 tree length-wide critical sections in 5 hours in steep, heavily forested terrain.”

S.A. O’Brien, HETS/Task Force Leader
Bear Gulch Fire, near Townsend, Montana, 2008

Mechanized fireline, MT 2003
Tips from the field...

An effective dozer boss needs to work ahead of the equipment with which he/she is assigned. A thorough size-up of slopes, riparian habitat, conservation areas, stream crossings, and fuel types will ensure efficiency in operations, effective line construction, and better decisions for the landscape.

- Take responsibility for mapping fire suppression construction activities and follow up to ensure these efforts make the big board. If something you see on the ground doesn’t make sense for suppression strategy or will cause irreparable harm to the resource, find an alternative.

- Consider what the future holds for his/her machine and its transport. Anticipate well in advance what your low-boy needs may be as well as the logistics of turning the truck around and its route of travel.

- Accommodate safety and contain costs. Make a daily assessment of your ‘on fire’ transport needs for heavy equipment. If action on the ground is hot and heavy there is probably a need for plenty of low boys. During mop-up there does not need to be a truck for every piece of equipment on the fire.

- During night operations, check all lights on heavy equipment including safety lights and working lights before the start of the operational period. Anticipate your needs and order trailer mounted light towers as needed.

- Identify and make visible improvements on the ground including survey monuments, culverts, utilities, and fences. Carry a camera and a GPS unit to assist your documentation and mapping efforts.

K. Smiley,  
Forester/Resource Advisor  
Tally Ranger District,  
Flathead National Forest

“...the dozers were really struggling on the rocky steep terrain. With his feller buncher, Larry moved to the front and put in the fire line. Alvin followed with his masticator (mulcher) to knock down brush along the fire line.”

LTL Forestry  
Brushy Creek Fire, 2007, MT

Minimal impact in riparian area achieved by laying logs and brush down for tracking over.
RISK REDUCTION AND SAFETY

Working with logging equipment is potentially dangerous, and each machine hired for fire and fuels jobs must be outfitted with operator protection systems (OPS/FOPS/ROPS). Equipment safety design and skills of each operator are what make each piece of equipment function safely. Field conditions may require less or more operator skills and experience; so, confirm their training and work record. Match operational plans with machine capabilities. Use the correct tool for the tasks it was designed to accomplish.

<table>
<thead>
<tr>
<th>FOPS</th>
<th>Falling Objects Protection System (canopy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROPS</td>
<td>Roll Over Protection System (cage)</td>
</tr>
<tr>
<td>OPS</td>
<td>Operator Protection System (screens, doors, enclosed cab)</td>
</tr>
</tbody>
</table>

Night lighting, especially 360° on machines is another common safety feature that allows for assertively building fireline at night when most fires lay down. This translates to reduced risks of overhead hazards and fire hazards to crews. Enclosed cabs also protect the operator’s lungs and hearing. Climate controlled cabs reduce operator fatigue. While line building production using machines working night or day can be significantly greater and less expensive than hand crews, safety is the primary advantage.

In the 2006 Evergreen Magazine issue, Ring of Fire, Dave Skinner notes E.D. Hovee & Company, reported in its Baseline Forest Growth and Mortality Assessment, 2005,

“(Tree) mortality is substantially higher on public lands than private lands in western and eastern Oregon. On federal lands, mortality far exceeds harvest removals on both sides of the Cascades (with) adverse implications for forest health and risk of uncharacteristically intense forest fire.”

“Establish good escape routes and safety zones for all the equipment, and give them plenty of time to get there if things don’t go quite as planned. ...be ready to move the equipment in a hurry and have lots of room.”

Dave Clay
Timber Management
Assistant/Division Supervisor
Tally RD, Flathead NF, MT

Fragile snag would prove fatal to a manual faller; but, FOPS on this feller buncher protected the operator from injury.
OCCUPATIONAL SAFETY REGULATIONS

Federal Occupational Safety and Health Administration (OSHA): Regulations (Standards - 29 CFR Logging Operations 1910.266)

General OSHA machine safety requirements

- All machines and vehicles must be maintained in a serviceable condition as determined by inspection at the beginning of each work shift. Those with defects or damage affecting their safe operation must not be used. [1910.266(f)(1)(i) and (ii) and 1910.266(g)(1) and (g)(2)]

- Each machine cab must have a second means of exiting, with walking and working surfaces having slip resistant surfaces which are kept free of material that may result in fire, slipping or falling. [1910.266(f)(5)(i) - (iv)]

- The engine exhaust pipes must be effectively muffled and be located to direct the exhaust away from the operator, guarded or mounted to protect employees from contact, and equipped with spark arresters. [1910.266(f)(6)(i) thru (iii)]

- Guards must be in place at all times the machine is in operation to protect employees from exposed moving parts of the machine and flying debris from the operation of the machine. [1910.266(f)(8)(i) thru (iii)]

- Seats, securely fastened to the vehicle, and seat belts must be used by persons operating and riding in or on machines and vehicles. [1910.266(g)(6) and 1910.0266(f)(2)(viii)]

- Vehicles used to transport employees off public roads or to perform logging operations must meet applicable requirements for machines. [1910.266(g)(7)]

OSHA operational requirements

- Machines must be operated so no hazards are created to employees or equipment. [1910.266(f)(2)(vii)]

- Before leaving a machine, the operator must secure it by applying the parking brake or brake lock, placing the transmission in park position, placing each moving element to the ground position, and discharging the pressure or stored energy in the moving elements. [1910.266(f)(2)(x)(A), (B), and (C) and 1910.266(f)(2)(xi)]

Protective structures for operators

There are three primary hazards for in-woods equipment operators addressed by features of the cab structure: machine rollover, falling objects, and poking or cab penetrations by limbs or trees. The Society of Automotive Engineers (SAE) has developed performance criteria for the design of forest machine cabs.

For example, the SAE criteria for

- **Operator Protection System (OPS)** against poking hazards (cab screening or windows) must resist a 2” diameter object forced into the cab with 4000 lbs of force.

- **Falling Object Protection System (FOPS)** states that the cab roof must be able to stop a 10” diameter object that weighs 500 lbs falling from 20 ft above the cab.

- **Rollover Operator Protection System (ROPS)** have to be able to support the dynamic loading of the whole machine in a rollover event.
Federal OSHA has adopted some of the SAE standards as requirements for forest machines. Because the current version of the OSHA standard was developed in the mid-90’s there are different requirements for machines manufactured prior to 1995.

The Logging Safety Standard requires logging machines manufactured after 1996 to have cabs that are certified to SAE ROPS and FOPS requirements. In addition, new machines must have a fully enclosed cab with openings no larger than 2” in the smallest dimension. There are additional details in the OSHA standard; check the actual document for specifics.

Finally, OSHA treats swing machines (machines that have an upper structure that can rotate 360˚ with a boom) differently. Because of the belief that the boom provides some protection to the operator cab, OSHA excluded swing machines from the general requirement for ROPS. USFS, Region 1 requires additional front window guarding on swing machines.

<table>
<thead>
<tr>
<th>Mfg Date</th>
<th>OPS</th>
<th>Swing?</th>
<th>ROPS</th>
<th>FOPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to 8/96</td>
<td>Must meet 4 OSHA reqs; allows open doors.</td>
<td>Yes</td>
<td>None req</td>
<td>None req</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>If placed into service after Feb 1995 must have some form of FOPS and ROPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>After 8/96</td>
<td>Must be fully enclosed cab with doors. &lt;2” mesh or other solid material.</td>
<td>Yes</td>
<td>None req</td>
<td>None req</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>Must have an SAE-certified ROPS/FOPS structure. Look for a label in the cab.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1. OPS / FOPS / ROPS Standards for Logging Machines

Additional Machines Information: Currently, only the State of Oregon Safety Code addresses wildland fire suppression and prescribed fire operations.

Oregon OSHA Forestry Standards- Division 7-N, Wildland Fire Suppression and Prescribed Fire, [437-007-1340-1345, OAR 437-007-0935 (1) and (2)]

“The use of mechanized equipment brings a level of built-in safety that manual methods do not have, primarily due to fatigue. If a machine is kept within its design capabilities, both safety and efficiency are worked into the operation.”

Jim Steele, Wildland Fire Specialist/Trainer, Arlee, MT
Safety tips from the field...

“Logistics of traffic associated with logging equipment, lowboys, maintenance vehicles and dust control can create a safety hazard. Plan ahead to separate crew traffic from lowboy traffic on narrow roads whenever and wherever possible. For example, off-shift equipment to and from firelines before normal crew transport. Get heavy machines out of camp and working ahead of crew personnel on the line.”

Dave Clay  
Timber Management Assistant/Division Supervisor  
Tally RD, Flathead NF, MT

“Critical access and escape roads and trails can be made safer using mechanized equipment to brush and snag out ahead of crew transports. Assign felling and skidding, or excavator and skidgine task forces to trip and remove hazard trees along roads. Routine, early morning mechanized patrols along road segments passing through burned areas can avoid dangerous accidents to personnel and prevent enroute delays.”

Jim Steele  
Fire Safety Consultant, Arlee, MT

“Dozer bosses and mechanized task force leaders can leave camp early and be briefed either by radio or by Operations overhead when they arrive on the line. This way, machines are out ahead of crews and separated from personnel at roadways, drop points and on the line. Make arrangements before hand with Operations planners and Division Supervisors.”

Dave McCann  
Timber Sale Administrator/Dozer Boss  
Helena NF, MT

Roadside mulching to increase travel route visibility and reduce ladder fuels.
**MECHANIZED STRATEGIES AND TACTICS**

Equipment task efficiency is the goal of modern equipment design. Working in tandem or task force, machines can offer enhanced capabilities during all phases of fire suppression (initial and extended) and rehab. Fire operations today have more equipment types and models to choose from than ever before. Selecting from the wide array of machines is not a simple task, especially when terrain is rough and the dispatching system is over-extended. Choices are affected by availability, access, maneuverability, timing, soil and vegetation impacts, night and reclamation capabilities.

“This guide book will look at machines that can clip, snip, prune, skid, haul, bunch, pile, yard, saw, chew, push, dig, scrape, scratch, dump, slosh, squirt, and plow. In some cases, there may be a newly designed machine that can do most of these actions. The tactical key is knowing what you want to occur, where, and for how long. Anticipating your needs will definitely facilitate the ordering and mobilization phase particularly if the equipment has to do interstate travel.”

Jim Steele, et al.  
Big Iron Guidebook, 2004

---

**Table 2. Types of machines used for various fire tasks.**

<table>
<thead>
<tr>
<th>FIRE TASK</th>
<th>Feller Bunchers &amp; Harvesters</th>
<th>Rubber Tired Skidder &amp; Grapple Cable</th>
<th>Dozer &amp; Tracked Skidders</th>
<th>Soft Tracks/KMC</th>
<th>Excavators &amp; Tracked Shovel</th>
<th>Log Bunching</th>
<th>Log Stacking</th>
<th>Fireline/Fuelbreak Construction</th>
<th>Water Hauling</th>
<th>Water Use</th>
<th>Emergency Vehicle Recovery</th>
<th>Site Rehab</th>
<th>Road Work</th>
<th>Night Operations</th>
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<tr>
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</table>
Effective Mechanized Fireline and Fuelbreak Strategies

Mechanized Task Force:
4 Dozers (D7, D6s, D5)
1 Feller Buncher
- 1-3 blades wide, plus 1 tree-length clipped and pushed into the green with the D5
- Production rate: 3.5 miles of line in 2.5 days + 0.5 night
- Retardant dropped on green side
- No burning operations or crews on the fireline during this operation due to timing and unavailable resources
- Machines were staged (unmanned) at anchor point in meadow (at bottom of slope). Allowed rapid re-deployment after fire reached the line to pick up slops.

Results: 9 slops, all caught with combination aerial bucket drops and machine lined within 4 hours.
Equipment strike teams and task forces

Equipment teams of complimentary machines, directed in proper series, expand tactical options and strategies. The following sample scenarios from the Big Iron Use Guide (J. Steele, et al, 2004) illustrate mechanized operational opportunities matched with good machine options.

Incident Command System (ICS) strike teams include two like machines for safety, and to reduce impacts of breakdowns on time-critical tasks. ICS task forces are made of different machine types.

Fireline construction where shrubs comprise the majority of the tree understory pose an important threat as ladder fuels and contribute significantly to fire spread. Consider using some kind of brush cutter or mulcher ahead of 1-2 feller bunchers. Follow this with a couple skidders with swing grapples.

Fireline construction in light fuels can occur in several ways that include small dozers, rubber tire skidders using their blades, excavators, or mulchers. Can also rely on soil exposure caused from whole tree bundles, clipped and built by feller bunchers and skidded by grapple skidder. Mulchers can process slash into the soil.

On steep terrain, or where light hand tactics are desired, a control minimal width fuel break may be constructed using tracked feller bunchers, a tracked skidder to remove trees, and an excavator to put in fireline.

Open stands or where there is abundance of old growth, disease or snags, the fireline can be constructed using a shovel or excavator with thumb followed by a feller buncher that removes hazard trees and snags. The feller buncher can also cut apart log jackpots that are close to the fireline and pose a threat that will later be mopped up.
**Strike Teams and Task Forces (cont.)**

Fuel breaks and shaded fuel breaks can be constructed as mentioned above, and then improved for holding or major burnout operations using boom-mounted mulchers to treat shrubs and litter, as well as prune trees 20-30 feet up their boles.

Newly constructed firelines can be worked with crews supported by track, wheel, or soft-track skidgines. They provide water support through mobile hot spotting and mop up, hose lays, refilling crew bladder bags, or mobile attack on running surface fires beyond engine accessibility. Their light duty blades can also move or reposition downed trees and scratch in line.

Skidgines can be supported with excavators for holding and improving fireline. They can also be used to support crews during mop up in heavy fuels, as well as initial attack on spot fires. Both of these pieces of equipment are good for backing up burnout operations. Excavators are also good to follow dozers and improve their fireline by breaking up and sorting through the berms of dirt and slash.

Combining aerial water delivery to Type 1 skidgines (super-skidgines) increases the efficiency of ground-based water availability compared to air bucket drops by eliminating empty skidgine refill cycles and increasing ground and ladder-fuel water delivery.

Super-skidgines, wheeled skidgines, soft-track skidgines and pumper-cats can extend water delivery to crews beyond the reach of engines and tenders. They can operate at night, when aerial delivery is not possible. In pairs, they are also good for patrolling line, between engines on roads and a super-skidgine acting as an off-road tender.
MECHANIZED TASK FORCE CONFIGURATIONS

Task forces (mix of machines) listed by terrain/vegetation/task:

**Gentle ground** (<35% slope), forested with maximum root collar diameter <32”, traditional pioneering and clearing vegetation for a fireline.

- 1 dozer strike team (one larger dozer with winch, one smaller), or 1 dozer and 1 shovel
- 2 feller bunchers with high-speed “hotsaw” heads
- 1-2 rubber-tired skidders
- 2 mulchers
- 2 skidgines
- 1 super-skidgine

**Steep ground** (35-55% slope), forested with maximum collar diameter <24”, traditional fireline construction.

- 2 large dozers with winch or excavators with dozer blade
- 1 high track dozer or excavator
- 2 steep-slope feller bunchers with hot saw heads
- 2 boom-mounted mulchers
- 1-2 tracked skidders
- 2 pumpercats or soft track skidgines

**Steep ground** (>55 uphill, <75% slope), forested with big timber, traditional fireline construction.

- 2 large dozers with winch or large excavators with dozer blade
- 2-5 hand faller pairs
Mechanized Task Force Configurations (cont.)

Wildland Urban Interface (WUI) fuelbreak construction

- 1 large dozer with winch or large shovel with large cable
- 1 smaller dozer with 6-way blade or small excavator
- 1-2 feller bunchers with intermittent heads, bar saws or harvesters
- 1-2 boom-mounted with horizontal shaft mulching head, or substitute
  a horizontal strip mulcher for a boom-mounted

If gentle ground, 2 skidgines; if steep and broken, 2 soft-track skidgines.
If a long way to water, add a super-skidgine working on a trail.
If material needs to be moved, either skidders or forwarders.
If paved access, switch to rubber tires or tracks

Brush vegetation
- 1 large dozer with winch and brush blade,
  or large shovel with large cable
- 1 smaller dozer
- 2-4 mulchers, Rubber tired for gentle, boom for steep
- 2 skidgines for patrolling line

Grassy vegetation
- 1 medium dozer with winch
- 1-2 road graders
- 1-2 wheeled muchers
- 2-4 skidgines or off-road engines

Good holding task force (excavator, super-skidgine, soft-track skidgine)

Mechanized equipment gives the Incident Commander options: 1) to take back the night as a time for aggressive fire fighting, 2) can act as a force multiplier when mixed with other resources (especially crews), 3) can be ‘light on the land’ when compared to dozer-only fireline or the many more acres burnt.”

Rex Mann, USFS Timber, Wildlife, Fire Staff Officer/National Area Commander (retired)

“Order two, if you need to get through. Always account for potential breakdowns.”

Old Dozer Boss
EQUIPMENT ORDERING AND SELECTION CONSIDERATIONS

The following provides an initial set of criteria for equipment selection.

- Scope of the work (line building, patrolling, snagging)
- Time frame opportunity or need for night-time operations
- Area(s) affected, and potentially affected
- Tandem and complimentary machine availability.
  (refer to previous pages)
- Type of terrain and vegetation
- Size of forest fuels
- Reclamation required
- Remoteness of worksite area
- Hand crews support (water and hose delivery, crew and supplies transport)
- Property type and inclusions
  (WUI, structures, private, public)
- Area access and road conditions
- Equipment extraction and transport options
- Nighttime lighting options
- Available information (slope class, vegetation, and ownership maps, photos, local hazards, water sources)
- Presence and hazard of danger trees (snags, spiketops, windthrown, widow-makers)

Knowing how to distinguish machine attachments and their functions improves ordering the correct item. Equipment nomenclature varies by region, and is not always covered by agency dispatch terminology. Therefore, using the photos in this book can assist in communications between line, camp, and dispatch.

Bar saw

When ordering felling machines, specify the type of cutting head and maximum size of vegetation to cut. Cutting attachments in the Mountain West are commonly boom mounted. Drive-to-tree carrier-mounted feller bunchers do exist, and are common in the South. Generally harvesters use bar saws, run intermittently, and are safer around crews and houses. High speed disc saws (hot saws) run continuously and might throw debris; but, they can lift, place and bunch bundles of stems. Know what you want the machine to do when ordering.

Combining equipment orders for individual machines into strike teams or task forces presents opportunities for both agencies and contractors to increase efficiency and reduce fire suppression costs.

Example: a felling machine, a skidding machine, a skidgine and a dozer are ordered. This task force configuration mimics the staffing and efficiency of a typical mechanized whole-tree logging side. When one contractor provides a task force of machines, it reduces the contractor’s cost and increases safety by having crew members familiar with working together.

“Remember, specifications for machine speed and operable slope are based on perfect conditions. There are many variables to consider when planning for equipment. For example, changes in vertical and side slope, embedded rocks, and soil types. Equipment managers need to set realistic expectations based on actual ground conditions.”

John Shotzberger
Timber Sale Administrator/Division Supervisor
Libby Unit, Montana DNRC

High speed disc saw
SPECIALIZED EQUIPMENT APPLICATIONS

Wildland-Urban Interface (WUI)

Populated forest areas create a conundrum for firefighters. Site access is generally better, while protection of private property can be highly complex and an expense multiplier. Fire protection is best accomplished as a preventative measure, when it can be executed without haste site damage and costs are minimized.

There are no standard equipment guidelines for WUI fuels reduction or fire suppression operations, as property development varies widely. Both large and small machines can prove effective depending on circumstances. Empathy for landowner concerns is more easily accommodated prior to an emergency.

Steel tracks with grousers, tire chains, and track bands damage pavement. Rubber tires, rubber tracks, smaller and lighter machines may be better suited for moving over pavement and curbs.

“We are very grateful for the professionalism, skill and efficiency of all involved (in removing beetle-killed trees). The quality of the work was absolutely beyond our expectations, and the empathy, kindness and understanding of how traumatic this dramatic change in the landscape was for us made this experience one we will always remember very positively.”

D. Longdon, Helena Independent Record, May 4, 2009
Referenced work done by Northwest Management, Inc. and Mountain Fire Mitigation, LLC.
Helena, Montana

Equipment ordering must take into account the overall terrain, as the logic of deploying equipment to “lookout situation” areas instead of defensible ridges may be folly.

Dean Blomquist,
USFS Timber Sale Administrator (retired)/Division Supervisor

“WUI residents often envision defensible space to be like a highway or utility powerline, which is farthest from what we try to explain. As a landowner they have the control to dictate how that fire will react when it gets there.”

Matt Eberlein, Washington Department of Natural Resources Communication, 2009

Foam Application
Where trees become a hazard by falling onto access routes, work areas, along powerlines, campgrounds, or in WUIs, equipment size and maneuverability must be balanced with required urgency.

Early morning patrols by mechanical felling machines, shovels, dozers, or excavators can reduce hazard materials and trees from blocking fire crew buses, travel between drop points, and other incident related traffic. Boom mulchers reduce driving hazards by mulching brush along travel routes, increasing visibility along roadsides.

Insect damage claims millions of acres in the western states, increasing fire risk and falling tree hazards.

Public access hazards

Road clearing for sight distance.

Hazard tree, too fragile for manual felling without injury can also be pushed over.

**Hazardous Tree Removal**

*Site Safety and Protecting Historic Cabin, Helena NF, MT*
SECTION 2: MACHINE CATEGORIES AND PROFILES

Mechanized equipment categories are based primarily on carrier type:

- Dozers / Tracked Skidders / Pumpercats
- Excavators / Shovels / Log Loaders
- Forwarders / Super-Skidgines
- Wheeled Skidders / Skidgines
- Softtrack Skidders / Skidgines
- Felling Machines
- Mulchers

Most are commonly found working in the woods today. These general categories, and a few hybrid and unique machines are described in upcoming sections using example machine profiles. The profiles show variety within machine categories and the wide distribution of available equipment across the Northwest and Northern Rocky Mountains. Agency contracting and current dispatch designations are noted to assist ordering. Note: Equipment designations are still evolving toward universal national designations.

Each machine may have distinct features that improve or customize its capabilities; if not factory installed, logger ingenuity most often applies. Opportunities to select for distinguishing features within an equipment category are limited under fire suppression conditions; so, be very specific when ordering. Fuels reduction projects can plan for more contractor discretion, as long as project objectives and agency standards are met.

Machines with like features in a category may also perform differently, depending on the operator’s talent and experience. Fire personnel require training and experience to correctly assess their task objectives, machine capabilities and limitations, and to assign the correct tool for the right place and job. Existing agency information such as GIS-generated slope maps, aerial photos, stand data, and local knowledge of soils, terrain and hazards are critical in making informed equipment selections and division assignments.

Hiring and use of local operators and equipment provides non-local Incident Command Teams with valuable information. Often, local operators have modified their machines to work best under local conditions. Local contractor knowledge of ground and vegetation conditions have proven invaluable; particularly those lessons learned from previous local fire incidents and existing fuels treatments.

Many individuals affecting fire management and fuels reduction are not familiar with the broad range of modern forestry equipment options. This is particularly true with Incident Command Teams brought in from out-of-state. Likewise, many agency managers are unfamiliar with machine limitations, capabilities, costs, and site impacts. Most equipment owners appreciate being asked and are pleased to show you what they can do.
**DOZERS, TRACKED SKIDDERS, PUMPERCATS**

Dozers (Bulldozers, Tractors, CATs) are the most widely recognized mechanized fire-fighting tool across North America. They are built for pushing soil or clearing vegetation with their blade. Most contractors have dozers for road building. Add a pin-on brush rake/blade for piling brush and slash. The winch or a length of cable is for retrieving overturned machines or stuck vehicles. Mount ripper teeth on the rear and they rip rock or help anchor the machine. Dozers are the primary machine when agency fire personnel refer to heavy equipment.

Tracked skidders are dozers rigged with chokers/winch or a grapple, and are designed for skidding trees and logs. Pumpercats are dozers with a water tank, pump and live hose reel. They function as a tracked skidgine. Both configurations still have fully functioning blades. All three are mounted on rigid steel tracks with grousers (cleats) to ensure good traction. Dozers are stable, powerful, moderately fast and versatile.

The agency types dozers: Type 1 (largest/most powerful), and Type 3 (smallest). Regions within the agency have similar, yet not equal typing criteria.

According to the inter-agency Fireline Handbook, dozers are limited to a maximum of 75% downhill slope and 55% uphill.\(^9\) Common forestry practices are that tracked skidders have an operational ground slope limit between 40-50%, depending on other site factors. Dozers are used to access ground too steep or rough for wheeled machines. The most critical terrain hazards for dozers are side slopes over 40%, rock, unstable soils, wet areas, and boulders.

Dozers with angle and 6-way blades are used to cut firelines, pioneer trails and push over snags. Dozer fireline construction production rates are listed in the inter-agency fireline handbook, including comparative up and down slope production rates.\(^10\) Most mechanized task forces include a large dozer for quick line pioneering, safety zone construction, and assistance with machine breakdowns. Dozers have faster track speed than tracked excavator-type machines for emergency escape.
DOZER ATTACHMENTS - BLADES, GRAPPLES, CABLE WINCH & ARCH, RIPPERs

BLADES TYPES

- **U-Blade**
- **Angle Blade**
- **Brush Blade**
- **6-Way Blade**

GRAPPLES (fixed, swing boom), CABLE WINCH & ARCH, RIPPERs

- **Rippers**
- **Cable Winch & Arch**
- **Swing Boom Grapple**
- **Fixed Boom Grapple**
OPERATOR PROTECTION SYSTEMS - TREE SWEEPS AND GUARDING

Enclosed cab FOPS/ROPS, sweeps, screens

FOPS / ROPS, sweeps and partial screens

Extended FOPS/ROPS, sweeps and partial screens

Enclosed cab FOPS/ROPS, sweeps and screens
### EQUIPMENT PROFILES - DOZERS, TRacked SKidders, PumPERCATS

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<th>Company</th>
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<tr>
<td>Havillah Lumber/</td>
<td>Mike or Bonnie</td>
<td>PO Box 109</td>
<td>509-486-4650</td>
<td><a href="mailto:bsmith@nvinet.com">bsmith@nvinet.com</a>, <a href="mailto:SmithTimber@Synthasite.com">SmithTimber@Synthasite.com</a></td>
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<td>509-679-9853</td>
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<td>509-486-4650 fax (Phone first)</td>
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<tr>
<td>Sun Mountain Logging</td>
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<td>PO Box 389</td>
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<td><a href="mailto:majesticmtnlogging@hotmail.com">majesticmtnlogging@hotmail.com</a>, <a href="http://www.sunmtnlumber.com">www.sunmtnlumber.com</a></td>
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</table>
## AC Logging

Alan Conover  
300 Riverside Dr  
Dillon, MT  59725  
406-925-1392  
406-683-4570  
Aclogging1@hotmail.com

**Dispatch:**  Dillon, MT  
**Dozer / Tracked Skidder, Grapple, Type 2**

**Specifications:**  1991 D5H Dozer  
**Attachments:**  ROPS, enclosed cab; sweep guards, 6-Way blade, winch, fixed boom grapple and lights  
**Transport:**  40 T detachable or 35T beavertail lowboys

## Mark Rector

Mark Rector  
PO Box 336  
Powers, OR 97466  
541-439-4901  
541-439-3591

**Dispatch:**  Medford, OR  
**Pumpercat / Dozer / Tracked Skidder, Cable, Type 2**

**Specifications:**  D7 CAT Dozer, 175 hp, with adjustable angle blade  
**Attachments:**  removable mounted 1500 gal water tank, 18 hp pump, live hose reel, foam unit, lights, winch.  
**Note:**  The tank is equipped with supports. It can be lowered on the fire ground to support the tank, leaving HydroCat free to move about without the tank. Trailing can be done with or without the tank mounted on the cat.
### Western Reclamation, LLC

Ken Verley  
Willie Peck (Manager)  
506 Quartz Loop  
Superior, MT 59872  
406-822-4544  
406-239-8074 c (Ken)  
406-822-2536 c (Willie)  
406-822-4546 fax  
kdv@blackfoot.net

**Dispatch:** Missoula, MT  
**Pumpercat / Dozer, Type 2**

**Specifications:** 1998 CAT D5M Dozer, 110 hp, 30,000 lb, enclosed cab

**Attachments:** 250 gal water tank, 6-way blade, lights

**Transport:** lowboy

### Danielson Logging, Inc

Robert Danielson  
17637 Hwy 5  
St. Maries, ID 83861  
208-245-5818  
208-245-7742 fax  
danielsonshop@gmail.com

**Dispatch:** St. Maries, ID  
**Dozer /Tracked Skidder/Grapple, Region 1 Type 1/Region 6 Type 2**

**Specifications:** 2007 CAT 527 Track skidder, 166 hp, FOPS/ROPS/OPS, sweep guards

**Attachments:** Lights, swing boom grapple, 6-way blade

**Transport:** lowboy
Wheel or Rubber Tire Skidders (RTS) are the most common machines to drag (skid) logs, or felled trees off the line. Wheel or Rubber Tire Skidgines are RTS with generally a 200+ gallon tank, pump and live reel, or water cannon mounted on them. Regions 1 and 6 both type wheeled skidders and skidgines based upon flywheel horsepower.

Tires make wheel skidders and skidgines faster than tracked (dozers), soft-tracks, and track banded vehicles (forwarders). They are better suited to patrolling firelines or covering greater distances to find water. They are also the most terrain limited. In western logging operations RT skidders are usually limited to maximum ground slopes between 35-45% favorable, and adverse slopes half that given the same load. Both machine types are articulated; so, they work well in tight stands or on narrow trails.

Both machine types have light duty blades for pushing brush, slash and light earth moving. They can also be used for putting in quick scratchlines. Rubber tires make them more stable on slide rock than tracked machines. RTS and skidgines are often fitted with tire chains to increase traction. Note: If these are advisable for your situation this is a dispatch request item.

RT skidders use one of three skidding attachment methods: 1) Cable winches, with an arch and chokers, 2) Grapples (large fixed or smaller swing boom) or 3) both. Cable Skidders are useful for reaching from the machine to trees, or to reach brush beyond the normal 8-15 ft reach of grapple skidders. These are generally older or are used in country with bigger trees, and generally carry 80 ft of bull-line on the winch. This cable setup requires the operator to leave the cab, or a second person (hooker).

Grapple Skidders are usually paired with mechanized felling operations. The felling machine bundles the stems in a position for the grapple to grab. The operator need not get out of the machine to attach the trees to be skidded. This is the most common skidder type found in the West.

Wheeled Skidgines come with two types of tanks, fixed or detachable. Fixed tanks are attached to the body of the machine and are not easily removed. Wheeled skidgines with detachable tanks use the skidding attachment method (cable or grapple) to attach the tank assembly. These machines are very versatile, as they can quickly attach or detach their tank assembly, and switch from skidgine to skidder, or back, in a matter of minutes. This versatility makes it a great second machine for initial attack on gentle terrain.
### DS Jr., Inc

Dave Sheets Jr.  
Janice Grosfield  
Drawer D  
Drummond, MT 59832  
406-544-0555  
406-240-7053  
406-288-0085 fax  
sheetstrucking@hotmail.com

**Dispatch:** Dillon, MT  
**Rubber Tire Skidder / Skidgine, Type 1**

**Specifications:** 2008 John Deere 648G; 185 hp; dual function grapple, FOPS/ROPS/OPS; full brush guarded; back-up alarm; independent fire suppression system, light duty blade

**Attachments:** 9' blade, winch, lights, quick attack 405gal water tank with hitch setup for skidder/skidgines conversion within ½ hour, tire chains

**Transport:** Contractor provided; 3-axle tilt bed or larger lowboy, i.e. single and double drop

**Note:** Detachable gray tank attached to yellow grapple

### Drake Logging, Inc

Dave Drake  
111 Olson Court  
Columbia Falls, MT 59912  
406-261-8222  
406-862-8222  
406-862-8222 fax  
drkgln@hotmail.com

**Dispatch:** Missoula, MT  
**Rubber Tire Skidder, R1 Type 1 / R6 Type 2**

**Specifications:** 2008 John Deere, Model 648 H skidder, 185 hp, 30,625 lbs operating weight, light duty blade, FOPS/ROPS/OPS

**Attachments:** 9 ft blade, continuous rotating grapple, tire chains, pressurized water system for extinguishing small fires, lights
Havillah Lumber/Smith Timber

Mike and Bonnie Smith
PO Box 109
Tonasket, WA 98855
509-486-4650
509-679-9853
509-486-4650 fax
bsmith@nvinet.com
SmithTimber@Synthasite.com

Dispatch: Wenatchee, WA
Rubber Tire Skidder, R1 Type 1 / R6 Type 2

Specifications: 1990 Clark Ranger F-666, 148 hp, Rubber Tire Skidder with light duty blade, FOPS/ROPS, partial screened cab, light-duty blade

Attachments: Attached 400 gal water tank, hydraulic pump, live hose reel, winch

Note: Tire chains on request

Tom Davis Livestock Inc

Paul Davis
46008 Alvord Ranch Ln.
Princeton, OR 97721
541-495-2240
541-495-2243
541-589-2123 c
208-475-6023 fax
alvordranch@gmail.com

Dispatch: John Day, OR
Rubber Tired Skidgine, Region 1 Type 1 / R6 Type 2

Specifications: Clark 668 Rubber Tire Skidgine, light duty blade, enclosed cab, sweeps

Attachments: Attached 840 gal, hydraulic pump, live reel, cab controlled water cannon, rear water bar for dust abatement
**FELLER BUNCHERS AND HARVESTERS**

The biggest changes in forestry operations over the last three decades have been the invention and widespread use of mechanized felling machines. These machines have reduced the exposure of loggers to the most dangerous job in the woods (i.e. greatest US fatality rate per 1000 workers, manual tree felling, based upon OSHA data).

Mechanized felling has also been widely adopted by loggers because of the speed (1-3 trees/min), and efficiency created by positioning the stems for pickup by the skidder. All mechanized felling machines can move a tree after it is felled. This repositioning of a felled tree is not possible with manual felling.

Felling machines, with operators inside protected cabs and equipped with 360° lighting, routinely log at night.

There are two common types of mechanized felling methods:
1) Feller-bunching - where the tree is grabbed, felled and is placed on the ground
2) Directional felling with harvester (dangle) heads - where the tree is grabbed, felled and the butt end of the tree while still secured is guided to the ground.

**Feller bunchers**, depending on the head, can handle trees up to 28” diameter on the butt with a single cut. Larger wood <40” diameter can be felled with double cutting techniques but only on gentle ground.

In the mountainous West, feller bunchers are commonly track mounted with the felling head attached to a short boom (24 ft). For steep slopes (40-55%) the machine has a self-leveling cab (36°). For gentler slopes (25-40%) there are excavator/shovel mounted carriers, with longer (30-50 ft) booms. For flat ground (<25% slope) they can be mounted on 3 or 4-wheel rubber tired drive-to-tree machines, common in the South. Felling heads with continuous high speed disc saws (commonly called “hot saw” heads) can fell multiple stems at a time. Those having rotational heads can cut in horizontal or vertical positions. Buncher heads have accumulator arms to build multi-stem bundles.

**Harvesters** are both track-mounted for steep ground (35-55%) or rubber tired with steel track bands for gentler ground (<40%). Newer machines are currently designed for cutting on up to 80% slopes. Most harvesters have intermittent boom-mounted bar saw cutting heads (dangle head), which both fell, delimb and buck trees. They are designed to cut one stem at a time, and the bar chain only moves when activated. Harvester heads are lighter than feller buncher heads, and the booms are generally lighter and longer (24-33 ft). Harvester heads can be used in both the vertical and horizontal positions; useful for cutting downed logs, and jack-strawed timber.

A new class of harvester heads designed for larger wood (up to 34” diam.) is being mounted on large excavator and shovel carriers. This is in response to the rising cost, safety risk and a lack of availability of large wood manual fallers.
FELLER BUNCHER AND HARVESTER TASKS

Felling machines are best suited for quick line clearing and opening up wide sky space in accordance with the long-standing fireline width rule:

1 ½ times as wide as the height of the dominant fuel

Thus, in 100 ft tall timber the fireline width to successfully reduce fire spread from convection and radiation heat would be 150 ft. As a rule, at 100-150 stems felled/hour, or approximately 4 acres cleared a day, for a 150 ft wide fireline one feller buncher can clear about 1200 ft of line in 10 hrs (2400 ft if double shifted, or by adding another machine). At a modest 50 ft wide fireline canopy opening, one machine could clear the recommended open space for approximately 3500 ft in 10 hours (or 7000 ft/double shift day).

If lowboy access is available felling machines can be useful for initial attack, as they can fell trees and clear fireline space around small fires during the first night when manual felling options are too risky. Hot saw equipped machines can also rapidly mow down undergrowth and ladder fuel vegetation. These machines have integrated light systems that provide wide area illumination.

The daily patrolling and dropping of burned, burning or hazard trees by felling machines along travel roads reduces the risk of injury to incident personnel, and later to the general public using forest roads. This critical task is made safer by feller bunchers. Combined with a shovel, rubber-tired skidder, or dozer they can complete daily removal operations along all roads carrying incident traffic before buses leave camp for their drop points. This reduces the danger of trees falling on personnel; especially through burned-out areas where fire within old, decayed, or damaged trees (particularly fir, cedar) may burn through and fall unexpectedly.

Feller bunchers and harvesters can also make mop-up and rehab safer and faster assisting hand crews, reducing the need for manual felling and bucking. They can cut, grab and reposition jack-strawed timber, cut out and spread burning piles.
**FELLING SAFETY**

Mechanical felling of trees allows for safely dropping limb-bound trees from tight canopies and danger trees hazardous to crews passing through the area. Mechanical felling of burnt or burning trees also eliminates the risk to manual fallers from overturned stumps, and to injuries from rapid release of brush, branches and poles under tension, or falling, burning tree parts.

The common “hot saw” heads are high speed continuously rotating metal discs with cutter teeth. They can propel rocks, chips or metal from broken teeth many hundreds of feet with lethal force. Even at 300 ft (the warning stay back distance posted on the machine booms) thrown objects have pierced through truck door panels.

Crews and more than one machine do not mix safely. It is not practical for the machine operator to perform their task and keep track of nearby personnel. The enclosed cab that protects the operator and the 360° boom rotation on mounted swing machines makes it critical to only approach a machine after the operator is aware of your presence. This is best done by radio, phone, or flagging/strobe light signals. Swing machines do not have a safe approach path.

The high-speed rotation of the hot saw disc (200+ mph) can start fires by friction on stumps, clogged vegetation in the shroud, rubbing on the saw, or sparks due to metal striking rock. Machines can be ordered with fire prevention systems mounted in the boom, or with intermittent, bar saw or shear type felling heads. The most common precaution is to have skidgines or a quick water source nearby the felling machines.

Generally these track carrier 360° rotational swing machines have slow track speeds (8-9 mph). They will be the slowest machine in a task force in case of emergency escape. Keep this in mind when putting together different types of machines and estimating time back to safe zones.
### Kelly Logging Inc

Jerry P. Kelly  
PO Box 16067  
Missoula, MT 59808  
406-251-4600  
406-240-2292 c  
406-251-3317  
Kellytrees@aol.com

**Dispatch:** Missoula, MT  
**Feller Bunchers, Steep Slope (2), Type 1**

**Specifications:** (2) Timberjack 608L Feller Bunchers, 241 hp, self-leveling cabs, 28 ft boom reach  
**Attachments:** 20” high speed disc hot saw feller bunching heads, lights, FOPS/OPS  
**Transport:** company lowboys

### Bear Mountain Cutters Inc

Doug Korevaar  
PO Box 38  
Leavenworth, WA 98826  
or  
PO Box 354  
Bay Center, WA 98527  
503-812-5454 c  
dkorevaar7@msn.com

**Dispatch:** Wenatchee, WA  
**Feller Bunchers (2) , Type 2**

**Specifications:** (2) Kobelco 200 and 210, tracked excavators with 32 ft booms, enclosed cab  
**Attachments:** 33” and 28” bar saw feller head with buncher arms, lights
### Flanagan Quality Contracting

Dale Flanagan  
8940 Sharptail Lane  
Missoula, MT 59808  
406-239-4031  
406-531-7323  
406-549-9881 fax  
dale.flanagan@Yahoo.com

**Dispatch:** Missoula, MT  
**Harvester, Steep Slope, Type 1**

**Specifications:** 2003 Timberjack 608L tracked harvester, 241 hp, 60,000 lbs operating weight, 30 ft reach, FOPS/OPS, self-leveling cab  
**Attachments:** Waratah 470 dangle harvester head for 24” maximum stem diameter, lights

### Miller Timber Services, Inc.

Dan Mace  
PO Box 638  
Philomath, OR 97370  
541-929-2840  
541-740-4338  
541-929-4489 Fax  
dan@millertimber.com  
www.millertimber.com

**Dispatch:** Eugene, OR  
**Harvester**

**Specifications:** 2005 Ponsse Ergo Harvester, 250 hp, weight: 34,170, 32 ft boom reach, enclosed cab  
**Attachments:** Harvester Head (Ponsse H73T) for tree diameters: up to 27.5 in, 280 degree rotation for cutting and processing in horizontal and vertical positions, lights  
**Transport:** Company owned/operated lowboys
### Danielson Logging, Inc.

**Robert Danielson**  
17637 Hwy 5  
St. Maries, ID 83861  
208-245-5818  
208-245-7742  
danielsonshop@gmail.com

<table>
<thead>
<tr>
<th>Dispatch: St. Maries, ID</th>
<th>Feller Buncher, Steep Slope (5), Type 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attachments:</strong></td>
<td>28 in capacity “hot saw” feller bunching heads, lights</td>
</tr>
<tr>
<td><strong>Transport:</strong></td>
<td>18 ft bed (50T), 16 ft bed (40 T) lowboys</td>
</tr>
</tbody>
</table>

### Quartz Logging, Inc.

**Kevin Donally**  
322 William Lloyd Ln.  
Superior, MT 59872  
406-822-4889  
406-822-2336 c  
406-822-4889 fax  
donallys@blackfoot.net

<table>
<thead>
<tr>
<th>Dispatch: Missoula, MT</th>
<th>Feller Buncher, Steep Slope, Type 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Specifications:</strong></td>
<td>2001 Timbco T445D Feller Buncher, FOPS/OPS, 24 ft boom, self-leveling cab</td>
</tr>
<tr>
<td><strong>Attachments:</strong></td>
<td>22 inch Quadco “hot saw” (high speed disc saw) head, lights</td>
</tr>
<tr>
<td><strong>Transport:</strong></td>
<td>double drop lowboy</td>
</tr>
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</table>
EXCAVATORS, SHOVELS (HOES), TRACKED LOG LOADERS

Excavators, shovels (hoes), and tracked log loaders are tracked machines with 360° rotating (swing) capabilities that have a boom. Different attachments can be placed on the end of the boom (buckets, rakes, felling heads, processing heads, log grapples or tongs).

TYPES

Generally, excavators are built with buckets for earthwork. Thumbs or clam grapples allow operators to grab and pick up rocks or vegetation. Tracked log loaders, a common machine on logging sides, have log grapples mounted on the ends of their booms for picking up logs, slash and vegetation debris. A special class of log loaders, commonly found in very steep ground and designed to handle large logs are called shovels or hoes. They are built to travel off trail, cross country with beefed-up undercarriages, higher clearance, and aggressive tracks. They are built to lift, heel and swing large logs or whole trees.

Another newer specialty class of 360° swing boom machines, popular in the Northern Rockies, are combination mid-size excavators (40,000 lbs, 120 hp class) with a permanently fixed 6-way dozer blade. These are sometimes referred to as dozavators. They combine the boom attached versatility of an excavator and the blading capability of a dozer. The blade allows additional stability for these machines to work on steep slopes and broken terrain.

Both regions type all the above machines as excavators, and according to machine weight and flywheel horsepower (FWHP). Region 1 requires a bucket with thumb or clamshell bucket, and forestry cab guarding.

TASKS

These machines are versatile based upon the attachment ordered. For digging fireline, especially narrow, rocky or broken terrain, buckets with thumbs are a good machine/attachment combination. Matched up with a lead dozer, the excavator can dress the line and pull slash, deadfall, ladder fuels, and brush away from the fireline edge. Excavators with bucket and thumb are excellent for initial attack as first machine on scene. Equipped with lights they can build line or increase access for engines through the night.

In areas of large timber (Old Growth), jack-strawed downed logs, the excavator or shovel can pick up and position vegetation, clearing a path for the dozer or another excavator to dig a line with minimal damage to the rest of the stand.
Equipped with powered clam buckets or brush grapples excavators can prune ladder fuels, pull and pile small trees and underbrush away from leave trees, fences, powerpoles, and in WUI’s around houses with less chance of damaging the improvements.

Due to the boom reach capabilities (25-50 ft), these machines can reach into sensitive areas to remove vegetation or scratchline without disturbing sensitive sites or short inaccessible, steep areas. This is useful around water, riparian and houses with buried septic tanks.

Teamed with manual timber fallers these machines can assist with felling problem trees. Due to the larger boom reach it can reach in where other machines can’t get close. This is useful along powerline and around structures.

LIMITATIONS

Cross-slope travel is generally limited to 35% for all these types of machines. However, excavators with aggressive track grousers, especially shovels made for off-trail travel, can take on much steeper slopes (especially in broken ground where trails can be located and the machine can reach onto the steeper ground). Experienced operators can work 50% slopes. For dozer blade equipped machines many operators specialize in working 40-65% ground, and can go beyond that; but, this is not within common machine use limits.

ATTACHMENTS

Clamshell (or Clam) bucket

Bucket with thumb

Brush grapple

Log grapple
SAFETY

Federal OSHA-logging regulations do not require roll over protection (ROPS) for excavator 360° swing machines with booms. The presence of the boom is presently considered to reduce the risk of catastrophic machine roll over. OPS are required, and are available as operator cab guarding, enclosed cab window and screening systems. However, rollovers can happen.

Where necessary, mechanized equipment (dozers, excavators) can open, close, replace, or repair damaged bridge structures, stream crossings and roads.
**EQUIPMENT PROFILES - EXCAVATORS AND SHOVELS**

### Blackfoot Reforestation

Art Wear  
Sam Smith  
11960 Buffalo Speedway  
Missoula, MT 59832  
406-542-7480 c (Art)  
406-240-9508 c (Sam)  
406-542-7480 fax  
teewear@msn.com  
samjulie@q.com

**Dispatch:** Missoula, MT  
**Steep-slope Excavator (3)**

**Specifications:**  
2007 Kobelco ED 190, 112 hp, 25 ft boom reach, enclosed cab with screens, Type 2  
2005 Kobelco ED 150, 94 hp, 25 ft boom reach, enclosed cab with screens, Type 3

**Attachments:** 11 ft 6-way dozer/stabilizer blade, bucket with thumb, lights

**Transport:** lowboys provide

### TBC Timber, Inc

Paul Tisher  
Paul Brown  
PO Box 1490  
Libby, MT 59923-1490  
406-283-1915  
406-293-7536  
406-293-7596 fax

**Dispatch:** Libby, MT  
**Steep-slope Excavator / Feller Buncher / Harvester**

**Specifications:**  
(2) 2000 Timbco T445D Excavator with self-leveling cab, 24 ft boom  
(1) 2003 Timbco T445D Excavator with self-leveling cab, 24 ft boom

**Attachments:** a bucket with thumb (pictured), 22” hot saw head or harvester head, lights

**Transport:** lowboys provided

**Note:** Quick attachments allow carrier to be configured as a feller buncher, harvester, and/or steep-slope excavator. One machine serving different roles during different phases on an incident (i.e. suppression, rehab).
**Timberlake Landworks and Excavation**

Mike Wilson  
Caleb Bonny  
PO Box 645  
Lakeside, MT 59922  
406-844-3965  
406-249-1604 c (Mike)  
406-471-8170 c (Caleb)  
406-844-3965 fax  
mike@timberlakelandworks.com

**Dispatch:** Missoula, MT  
**Excavator:** R1 Type 2, R6 Type 3

**Specifications:** 2007 John Deere 160C LC, 28 ft boom reach, 36,000 lbs, 109 hp, enclosed cab, screening, FOPS/OPS

**Attachments:** bucket with thumb and log grapple (both pictured)

**Transport:** lowboys

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**John F Richmond Contracting Inc**

John Richmond  
P.O. Box 27  
Bly OR 97622  
541-891-0745

**Dispatch:** Lakeview, OR  
**Excavator:** Type 3

**Specifications:** CAT 315L excavator, 17 ft boom reach, 99 hp, 37,000 lbs, enclosed cab

**Attachments:** bucket with thumb (pictured)

**Transport:** lowboy
### ALM, LLC

Alan McDonald  
310 Gosney X Rd.  
Columbia Falls, MT 59912  
406-249-9387 c  
406-892-4780 h  
Alm.llc@hotmail.com

<table>
<thead>
<tr>
<th>Dispatch:</th>
<th>Kalispell, MT</th>
<th>Steep-slope Excavator, Type 3</th>
</tr>
</thead>
</table>

**Specifications:** 2006 John Deere, Model 135-C. 25,000 lbs, 81-110 hp, 27 ft boom, enclosed cab, screens, FOPS/OPS

**Attachments:** quick attach bucket and thumb, Rotobec rotating power grapple, Hyd rock breaker, 10-ft 6-way dozer blade, fully guarded.

**Transport:** Lowboy

### LTL Enterprises LLC  
dba LTL Forestry

Larry and Sheree Roberts  
45 Willow Drive  
Kalispell, MT 59901  
406-756-6214  
406-253-9368 c Larry  
406-261-5773 c Sheree  
406-756-0177 fax  
smalldetails@bresnan.net

<table>
<thead>
<tr>
<th>Dispatch:</th>
<th>Kalispell, MT</th>
<th>Excavator</th>
</tr>
</thead>
</table>

**Specifications:** 2001 Caterpillar Excavator 318B LN, 115 hp, 41,000 lbs operating weight, 30 ft boom, enclosed cab, FOPS, screens

**Attachments:** Winch - 200 feet of line, Huldins 550 Super Cut Saw - attached to the power clam grapple; 2004 IMAC Power Clam Grapple - 360 degree full articulating grapple

**Transport:** Company trucks and lowboys
MULCHERS (MASTICATORS)

Mulchers, also known as masticators, are described by carrier type and mulching head shaft orientation. All mulchers are designed to knockdown, break, chew, or grind woody material at the stump. Carbide tipped teeth can incorporate the material into the soil.

Mulchers can be used on many types of terrain and vegetation, generally sub-merchantable size timber, dead vegetation and brush. They are good tools for WUI’s where burning is risky and moving vegetation off-site leaves site impacts or there is no dumping site. Both work best in light to moderate fuel loads.

TYPES

Boom-mounted mulchers are rubber tire or track mounted excavator type 360° swing machines with the mulcher head mounted on the boom. These are maneuverable and can reach areas inaccessible to carrier-mounted mulchers. Generally they are most efficient on material <10 inch in diameter. Boom-mounted mulchers come in all sizes, and can operate on much steeper ground, up to 70% depending on carrier design, operator skill and site factors effecting traction. On gentle ground a boom mulcher can mulch 3-5 acres of 15 year old PP saplings in an 8 hour day.

Carrier-mounted mulching heads, commonly called strip mulchers, are mounted directly to the machine’s frame or tool attachment bar. Given the same size these are more powerful and faster than boom-mounted mulchers. They can mulch through downed material up to 30” diameter. They can knock down and mulch rows of 12” pine as fast as a firefighter can walk. Most can travel at speeds approaching wheeled skidders (12-15 mph). Strip mulchers can operate on slopes up to 40%, depending on site conditions, and design (wheeled, tracked rubber or steel).

TASKS

Primarily mulchers are used as hazardous fuels reduction equipment. They are faster and safer than manual chop, lop and scatter options. Boom-mulchers can also reach up and prune branches on trees beyond the height of fire crews. These machines can handle both gentle and steeper slopes. Boom-mounted mulchers are often used under powerlines to chop down and set back vegetation regrowth.

Boom-mounted mulchers are excellent machines for reducing driving hazards due to short sight distances on roads. Mulching back saplings and brush increases sight distances for drivers and improves dust dispersal. Most large fire incidents must contend with these problems.

Either type of mulcher, paired with a mechanized felling machine in a task force can increase fireline or fuelbreak construction for both machines. Depending on the mix of larger trees, downed wood, seedlings, saplings, poles and underbrush, the mulcher can handle the smaller diameter material, making it easier for the felling machines to locate tree root collars and position their cutting heads for felling. Where the timber is thicker and less brushy the felling machine can lead and the mulcher thins ladder fuel and underbrush adjacent to and in the
fireline. This can reduce the need for multiple passes with a dozer digging down to mineral soil, lowering site rehabilitation costs and reducing soil disturbance.

The Canadians are presently looking at using mulchers to build firelines in light fuel, fine soil conditions. This method is both faster than dozers, can be safer than handline, and reduces site impacts. Less site impacts, where most of the root structure is left in place, greatly reduces the need and cost of line site reclamation.

**ATTACHMENTS**

Most **strip mulchers** use 5-8 ft wide horizontal shaft spinning drums or cylinders with various types of teeth attached; carbide tips if ground disturbance or incorporating vegetation into the soil is desired.

**Boom-mounted mulchers** can have either horizontal or vertical shaft spinning heads. Some heads are built with a thumb for grabbing and lifting logs and vegetation.

**SAFETY**

Boom mulchers are more dangerous around crews due to the potential height of the mulching head, and because the vertical shaft (spinning disc) heads discharge chips and loose rocks in all directions unless shrouded, similar to a rotor lawnmower.

Strip mulchers throw their discharge down onto the ground below the head; but, due to the speed and power of these machines they do not mix well operating close to crews.
## Equipment Profiles - Mulchers

### C. Richard Nordstrom

C. Richard (Dick) Nordstrom  
208-682-2660  
208-661-9524 c  
Jay Nordstrom, foreman/operator  
404 Klette Rd  
Kingston, ID 83839  
208-755-0345 c  
208-682-2660 fax  
nordstrom@imbris.net  
nordstromfuelsreduction.com

**Dispatch:** Coeur d’Alene, ID  
**Boom-Mounted Mulcher (2), R1 Type 1 / R6 Type 2**

**Specifications:**  
- 2003 CAT 322C FM excavator, 168 hp, 33 ft boom, 80,000 lbs, enclosed cab, FOPS/OPS  
- 2001 CAT 322 BL excavator, 161 hp, 33 ft boom, 60,000 lbs

**Attachments:** vertical shaft mulching head with 270 degree rotation, powered by 150 hp auxiliary engine hydraulic thumb, lights

**Transport:** 80,000 lb machine 11.6 ft wide seven axle lowboy required

### Get’er Done Wiest, LLC

Gary Wiest  
Sharon (admin)  
561 Wiest Rd  
Brady, MT 59416  
406-753-2393  
406-753-2393 c  
406-753-2395 fax  
wiest@3riversdbs.net  
www.geterdoneboys.com

**Dispatch:** Great Falls, MT  
**Carrier-Mounted Strip Mulcher (2), Type 1**

**Specifications:**  
- (2) Gyro-Trak 25XP, 23,500 lbs, 260 hp, nylon/poly tracks reinforced with steel crosslinks, FOPS/ROPS.

**Attachments:** cutter head (8 ft cutting width);, planar fixed-tooth head, 6 lights, forestry sweeper guards, Lexan windows, 15K lb. winch

**Transport:** company trucks and trailers
### Fire Solutions, Inc

Levi Cheff  
PO Box 16988  
Missoula, MT 59808  
406-239-2810  
406-721-3151 fax  
levifiresolutions@yahoo.com

**Dispatch:** Missoula, MT

**Steep-slope Boom-Mounted Mulcher, Type 3**

**Specifications:** 2007 Kobelco ED150, 94 hp, 6-way dozer blade, 28 ft boom, 35,720 lbs operating weight, enclosed cab, FOPS/OPS, screens

**Attachments:** bucket with thumb; 480SX vertical shaft mulching head with rotating shroud, lights

**Transport:** 35 T lowboy and tractor

### Bear Mountain Cutters Inc.

Doug Korevaar  
PO Box 38  
Leavenworth, WA 98826  
or PO Box 354  
Bay Center, WA 98527  
503-812-5454 c  
dkorevaar7@msn.com

**Dispatch:** Wenatchee, WA

**Rubber Tire Excavator Boom-Mounted Mulcher, Type 2**

**Specifications:** Rubber tire mounted Samsung 210 excavator, enclosed cab, 45 ft boom reach

**Attachments:** blade, forestry guards, lights, rotating disc, vertical shaft mulching head with thumb

**Transport:** 30, 50, and 60 T lowboy trailers

**Note:** Rubber tire mounted allows travel on paved roads (see photo).
### Rick Oliver Contracting

Rick Oliver  
PO Box 892  
Plains, MT 59859  
406-826-4430  
406-544-7571  
406-531-0035

**Dispatch:** Missoula, MT  
**Strip Mulcher**

**Specifications:** 2008 Fecon FTX 140 hp, steel tracks; forestry package, enclosed cab  
**Attachments:** 7 ft horizontal shaft, mulching head with push bar  
**Transport:** Truck and trailer

### Tough Go Logging, Inc.

James J. Stupack  
Jennie M. Stupack  
695 Lore Lake Rd.  
Kalispell, MT 59901  
406-257-7141  
406-253-2227 James  
406-253-1944 Jennie  
406-257-0204 fax  
toughgoturf@centurytel.net

**Dispatch:** Missoula, MT  
**Boom-Mounted Mulcher (2), Type 2**

**Specifications:** 2006 and 2007 Hitachi ZX200 LC-5 tracked excavator, 150 hp, 30 ft boom, enclosed cab with forestry guards.  
**Attachments:** 6 ft horizontal shaft mulching head, 90% wrist rotation, lights
SOFTTRACK SKIDGINES AND SKIDDERS

Soft Track machines are used in the woods for both their speed and slope stability capabilities. Their “soft track” carrier design combines the traction and power of conventional rigid steel tracks with the speed of rubber tracked and tired machines.

These carriers are now only manufactured by one company in British Columbia, Canada. Due to their unique capabilities, several wildfire contractors in the Northwest maintain them primarily for fire suppression. They may not be found in other parts of the country.

TYPES

The most common type of soft track machine on fires is rigged as a skidgine, pump with live reel and fixed tank. Less common are soft track skidders, which can be found having attachments of a winch/arch combination, fixed grapple, or swing boom grapple.

LIMITATIONS

Soft tracks are built to handle 60% adverse and favorable slopes, where site conditions allow. Their side-slope capability is similar to a Type 2 dozer (35-40%). The high speed steel tracks have low-ground pressure, but are not designed for use on pavement.

The cabs may not be fully enclosed, but are designed with FOPS and ROPS. Older models (manufactured before August 1996) may meet OSHA operator protection requirements even though they lack cab doors. Newer models (after 1996) must have fully enclosed cabs that include doors.

ATTACHMENTS

Some soft track skidgines have water cannons, allowing the operator to control the water direction from within the machine cab. Soft track skidgines come with tanks sized from 300-1500 gallons.

TASKS

As Skidgines, they are capable of moving water over rough terrain faster and with greater stability than any other skidgine type. They are best used as a quick patrol machine; but, share the same capabilities as other skidgines. The light duty blade can be used to scratch in fire line, push over small to medium sized hazard trees, and push slash, logs and brush.

They are also excellent for towing or assisting stuck vehicles, using wire rope and climbing capability. Their climbing ability makes them a good choice for delivering materials or retrieving gear, as support to crews in rough terrain.
### Jon Greenup Logging

Jon P. Greenup  
60071 Hanna Arbuckle Rd  
Heppner, OR 97836  
503-793-9414  
541-969-6885  
503-630-2595 fax  
greenupent@rconnects.com

**Dispatch:** Pendleton, OR  
**Specifications:** 1978 FMC soft-track skidgine, 2-way blade  
**Attachments:** 1500 gallon tank, pump, reel, lights  
**Transport:** Trucks and trailers

### Upper Valley Contracting

James Kruckeberg  
11716 N. 55 E.  
Idaho Falls, ID 83401  
208-390-9506  
208-313-2058  
208-523-9506 fax  
upper_valley_contracting@hotmail.com

**Dispatch:** Idaho Falls, ID  
**Specifications:** KMC Model 2100 soft-track skidgine, 200 HP, 6-way blade, FOPS/ROPS/OPS, cab with doors and screens  
**Attachments:** 1300 Gal water tank, 18 HP pump, power hose reel, foam mixing unit, hoses, fittings.  
**Transport:** Company 3-axle tilt bed trailer
EQUIPMENT PROFILES - SOFT TRACKS (cont.)

Soft Track Attack

Larry Covey
540 Elk Haven Rd
Troy, MT 59935
(406) 295-5770
(406) 295-5771 Fax
softtrackattack@hotmail.com
softtrackattack.com

Dispatch: Libby, MT
Soft Track Skidgine (6), Type 1

Specifications: 1977 FMC CA-210 soft-track skidgine, 210 hp, FOPS/ROPS,
fire curtains, enclosed cab

Attachments: 1500 gal tank, pump, 2 hose reels, blade, lights, remote control water cannon

Transport: Lowboys

Skidgine task force chasing spot fires, off road, off trail, MT 2003
**SUPER-SKIDGINES / FORWARDERS**

Log Forwarders are the most recently developed ground based log moving machines. They are designed to self-load and unload with an attached light duty boom, and carry their load like a truck. Forwarders do not skid (drag) their load. The load is carried, minimizing site impacts. They come in 4/6/8 wheel configurations and are sized from 8-20 Ton hauling capacity.

The machines where designed to run fast (12-15 mph, unloaded). They run on rubber tires, allowing them to work off paved roads. Be mindful of road load limits. To maximize flotation and traction the tires usually come equipped with chains or steel track bands. When ordering, dispatch will need to know if the forwarder must have chains and/or track bands.

The normal design load length for forwarders is for logs or trees less than 25 ft long. Recently, operators and manufacturers have modified forwarders to carry slash and brush. One Montana operator (CET Technologies Inc) has equipped his to load and off-load steel trash bins for hauling chips.

Log Forwarders are popular where the forest products industry uses Cut-To-Length logging (CTL), forwarders are matched with harvesters to perform stand thinning. This includes most of western areas of US Forest Service Region 1 and 6.

Super-Skidgines are Log Forwarders with detachable, baffled tanks placed between the log bunks. They are the largest ground based off-road water hauler available (1000-3000 gal). They are the only mechanized machinery with a history of refilling from aerial bucket drops. They have been used on fires in Montana since 2000.

**TYPES**

Both Regions 1 and 6 type Super-skidgines as Type 1 Skidgines, based on horsepower and water handling capacity. Note agency fire specifications for certified tank design and attachment inspection.

**LIMITATIONS**

Due to the high center of gravity, they are the most limited off-road machine based upon side slope (<12%). Due to the long and wide wheel bases, they are very stable up and downhill (maximum favorable slope 40%, and adverse 30%). They are articulated and the operator’s seat or cab rotates; so, the machine is capable of going forward and backward without having
to turn around if the operator’s vision is unobstructed by the tank or on a steep slope.

The larger, 6-8 wheel forwarder/Super-skidgines require 12-14 ft trail width for passage, and lowboy transport to fires. Due to high speed road gears they can move quickly to a fire once off-loaded (unlike slower tracked machines) and can serve large areas far from water sources.

ATTACHMENTS

Most forwarder/super-skidgines come with a boom and log grapple for self loading logs and assisting with tank attachment/detachment. They usually have a light-duty blade for stability. The boom also can feature a water cannon or harvester saw head.

Most forwarders have light packages to allow full nighttime operations. Most log forwarder operators regularly work at night during the short winter days.

The tanks on super-skidgines come equipped with live reel(s), foam units and are self-drafting. Some tanks are built low and afford the operator a more stable machine, clearer view and a large platform for hauling and retrieving fireline materials. Other tanks are built up and have hoppers on top for aerial bucket refilling of the forwarder tank (previously called Proteus).

TASKS

Super-skidgines are primarily used for delivering a large water supply to remote areas beyond the reach of engines and tenders. They are used to transfer water from roadside tenders to gravity and pressurized hose systems, porta-tanks and act as trailside water tenders for more agile smaller skidgines (RT, soft track) and pumpercats.

They are popular for mop-up, as the log grapple can be used to help re-position logs and pull apart brush piles for crews. Water cannon equipped, it can knock down flareups and fire in tree tops. The light duty blade is used as a safety brake and can also roll logs, dig out hotspots and push over small hazard trees.

Without a tank log forwarders can haul logs, tops and brush quickly over the ground with minimal site impacts. Its boom does not require any manual or other machine assistance to load or unload.
SAFETY

These are large machines and when used around crews both the crew and the operator and dozer boss must be mindful of accident potential; especially pushed over trees or rolling rocks from traveling on ridges above crews.

Depending on the site these machines are best kept to prepared road, trails and firelines. If dozers are available they can reduce trail side slope to <12% and clear rocks and high stumps to allow faster super-skidgine/forwarder travel.

*Roll-off bins for hauling slash and chips. CET Technologies Inc, Florence, MT*
## EQUIPMENT PROFILES - FORWARDERS AND SUPER-SKIDGINES

### Mote Lumber

**Doug Mote**  
PO Box 6938  
Helena, MT 59604  
406-439-1632  
406-458-5949 fax  
dogon@intch.com

**Dispatch:** Helena, MT  
Forwarder, 13 Ton

**Specifications:** 2007 Ponsse Wisent forwarder, 174 hp, 13 Ton, 6-wheel drive, FOPS/ROPS, ISO compliant safety cabin, crane reach 33 ft, top speed 17 mph

**Attachments:** available bucking saw attachment for grapple, lights, steel track bands and chains

**Note:** Hauling a load of tops and slash

### Equipment Technology

**Bill Jones**  
PO Box 326  
Lolo, MT 59847  
(406) 360 6007 c  
(406) 273 2302  
(406) 273-3333 fax  
billjonesz@yahoo.com

**Dispatch:** Missoula, MT  
20 Ton Forwarder / Super-Skidgine, Type 1

**Specifications:** TD81 CICERON 20 T, 8-wheel Log Forwarder, 250 hp, enclosed cab

**Attachments:** 6-way Dozer; monitor and foam; 3000 gal tank helicopter-refillable; auxiliary pump, live reels, and separate trash pump that fills the tank in 13 minutes, lights, track bands
<table>
<thead>
<tr>
<th>TBC Timber, Inc</th>
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<tbody>
<tr>
<td>Paul Tisher</td>
<td>Paul Brown</td>
</tr>
<tr>
<td>PO Box 1490</td>
<td>Libby, MT 59923-1490</td>
</tr>
<tr>
<td>406-293-7536</td>
<td>406-293-7596 fax</td>
</tr>
</tbody>
</table>

**Dispatch:** Libby, MT

**Super-Skidgine, Type 1**

**Specifications:** TimberJack 1010, 6-wheel forwarder, 115 hp, 11 T capacity, 24 ft boom, enclosed cab

**Attachments:** 2500 gal low profile tank, 300 ft live hose reel, end dump, 5” hydrant hookup, boom-mounted water cannon, lights

<table>
<thead>
<tr>
<th>Woodland Restoration, Inc</th>
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<tbody>
<tr>
<td>Matt Arno</td>
<td>Nathan Arno</td>
</tr>
<tr>
<td>PO Box 956</td>
<td>Potomac, MT 59823</td>
</tr>
<tr>
<td>406-544-1842</td>
<td>406-244-5858</td>
</tr>
<tr>
<td><a href="mailto:matt@woodlandrestoration.net">matt@woodlandrestoration.net</a></td>
<td><a href="http://www.woodlandrestoration.net">www.woodlandrestoration.net</a></td>
</tr>
</tbody>
</table>

**Dispatch:** Missoula, MT

**Forwarder**

**Specifications:** Timberjack 1210B, 8-wheel, 15 T capacity, 24 ft boom with log grapple, enclosed cab, FOPS/ROPS

**Attachments:** steel track bands, lights
Equipment innovations for fire and fuels work are not hard to find. Adoption of these new tools may be slow; but, new equipment trials regularly occur in the Northwest USA and in western Canada.

Noteworthy Canadian applications of large-scale sprinkler systems required heavy equipment to setup 6” line and pumps along firelines. Installation of these water delivery systems has effectively protected structures and national park facilities. They have been used for indirect lines and supported burnout operations.
MISCELLANEOUS EQUIPMENT

This chapter contains machines that do not fit well into an existing agency dispatch category. All have been used on incidents or vegetation treatment projects on public lands. Due to their recent development or unique application for forest operations, these machines are not commonly found or widely distributed.

- John Deere self-loading Slashbundler
- skidsteer wheeled skidgine, remote control
- rubber tracked in-woods chipper, remote control
- 6-wheel harvester mounted self-loading in-woods chipper
- ex-military converted skidgine/cargo and crew hauler/evacuation vehicle
- ex-military converted skidgine/cargo hauler
- off-road articulated truck water tender
- steep-slope walking excavator (spider hoe)
- skyline yarding equipment (excaliner, yoder, yarder, tong tosser)

As with all machines, contact the owners and operators for more detailed capability, limitation, cost and production information.
## JOHN DEERE FORESTRY

**Tim West, Equipment Application Consultant**  
Bonners Ferry, ID  
208-255-8637  
309-749-2489 fax  
WestTimothyM@JohnDeere.com

**Slashbundler**

**Specifications:** John Deere 1490D 8-wheel forwarder with slash bundler and 33 ft boom grapple for self-loading.  
**Transport:** 25’ deck lowboy  
**Note:** Popular in Northern Europe working with Cut-to-Length (CTL) harvesting operations. Designed to collect logging slash trailside in the woods or collected on landings. Produces slash bundles (approx 1000 ft per bundle). Bundles are left in woods to dry, stacked at landings or trucked to boilers at co-gen heat/electric generation.  
**Fuels Projects:** Demonstrated on special projects throughout the West; 3 operating commercially  
**Use:** Full-tree utilization, Eliminates in-the-woods burning of slash piles, Eliminates in-woods chipping; Can be used in soft or hard wood stands; Storm damage cleanup; weed-free slash log bundles for site rehab and soil stabilization and woody debris. Allows for long term biomass storage beyond the storage life of wood chips or ground “hog fuel” waste.

## HORIZON DEVELOPMENT, INC

**Steve Bieker**  
PO Box 296,  
Clackamas OR 97015  
503-519-0513  
503-761-0689  
stevebieker@yahoo.com

**Remote Control Wheeled Skidgine R1, Type 2**

**Specifications:** Bobcat A300 Rubber Tire Skidsteer Loader/Skidgine, 81 hp, 7992 lbs, enclosed cab  
**Attachments:** 400 gal detachable tank, water monitor, foam, log grapple, loading forks, bucket, 5 ft horizontal axle mulching head, lights  
**Uses:** Fire camp and helispot dust abatement, equipment cleaning, weed wash, remote water source, back burn foam pre-treatment, mop up operation, rehab.  
**Note:** Offers manual or wireless remote control up to 1500 ft
### Wildfire Safe, LLC

Chris Walter  
Kyle Walter  
PO Box 236  
509-670-3816  
509-630-7738  
Manson, WA 98831  
wildfiresafe@gmail.com  
www.bewildfiresafe.com

<table>
<thead>
<tr>
<th>Dispatch: Wenatchee, WA</th>
<th>Rubber Tracked In-woods Chipper, Remote Control</th>
</tr>
</thead>
</table>

**Specifications:** 2008 Bandit 255XP-HD in-woods disc chipper, 200 hp, rubber tracked CAT 305 carriage, controlled by remote (up to 100 ft).

**Attachments:** 240 degree rotating discharge chute, winch

**Note:** 3 mph travel speed, handles 15 in logs, 100 ft maximum discharge distance. Can be matched with mechanized loader for safe loading.

---

### Woodland Restoration, Inc

Matt Arno  
Nathan Arno  
PO Box 956  
Potomac, MT 59823  
406-544-1842  
406-244-5858  
matt@woodlandrestoration.net  
www.woodlandrestoration.net

<table>
<thead>
<tr>
<th>Dispatch: Missoula, MT</th>
<th>Harvester mounted In-woods Chipper</th>
</tr>
</thead>
</table>

**Specifications:** Bandit 250XP chipper mounted on 6-wheel Timberjack 1270 harvester carrier with 30 ft boom (215hp, 40,000 lb).

**Attachments:** Lights, FOPS/ROPS/OPS, log / tree grapple

**Transport:** lowboy

**Notes:** 12 in capacity, all functions controlled by operator in the cab. Self-feeding, Slash can be tree length.

**Use:** Popular in WUI areas and active in Southwestern Montana
### Obadiah’s Wildfire Fighters

**Woody Chain**  
249 Silver Drive  
Troy, MT 59935  
800-968-8604  
406-295-9490 fax  
woody@wildfirefighters.com  
www.wildfirefighters.com

**Dispatch:** Missoula, MT  
Atypical Soft-Track Skidgine / Cargo & Crew Hauler / Emergency Evacuation Vehicle

**Specifications:** Ex-military aircraft aluminum, non-armored personnel carrier M548; head and tail lights, halogen scene lights mounted 360 Deg for night operations; Cab seats 4, fully enclosed and heated. Rear enclosed cargo area adaptable for evacuation seating or placement of stretcher for emergency medical evacuation where other transport options are not available.  
**Attachments:** 20 Ton front mounted winch; 1000 gal (twin 500 gal mixing chambers), hose reels, Roof mounted water cannon, Two 5 hp mixing pumps, slurry application pump, Two 200 ft live reels, foam system, broadcast seeder, Terra Torch (100 gal).  
**Transport:** Company lowboy  
**Note:** Suitable for paved road travel (max 45 mph), amphibious (3.6 mph). Maximum slope 60%, 40% side slope. Operator is owner/builder with at least 5 years firefighting experience.

### Artillery Concepts LLC

**Marty Schmoker**  
12220 Sromberg Canyon  
Leavenworth, WA 98826  
509-548-6445  
509-860-7224  
509-548-7611 fax  
artillery@crcwnet.com

**Dispatch:** Wenatchee, WA  
Atypical Soft Track Skidgine / Cargo Hauler (2)

**Specifications:** Ex-military aircraft aluminum, armored personnel carrier M113-A2; lights, Rear enclosed cargo area. Roof mounted water monitor. Steel tracks with rubber pads. Includes all components of type 6 engine. Internal 400 gal water tank.  
**Attachments:** live reel, pump  
**Transport:** Company 4-axle flatbed trailer  
**Note:** Suitable for paved road travel (max 45 mph). Maximum slope 60%, 40% side slope.
Enhanced Forest Management Inc.

Dyrk Krueger
380 Joseph Drive
Corvallis, MT 59828
406-961-8324 h
406-369-4466 c (Dyrk)
406-369-0432 c (Erin)
406-961-8325 fax
efminc@msn.com

Dispatch: Missoula, MT
Walking Excavator (Spyder Hoe), Type 3

Specifications: Schaeff HS40 D 4-legged walking excavator, 26 ft extendable boom
Attachments: 24 in wide bucket, hydraulic thumb, winch (for anchoring)
Transport: tilt deck or lowboy trailer
Note: Designed for unlimited slope applications using winch for anchoring machine. Capable of going where no other forestry machine can reach.

Excaliner / Excavator

Specifications: 1997 Hyundai 210 LC-3, 142 hp, tracked swing excavator, forestry guarding enclosed cab, 30 ft boom
Attachments: excaliner package with 2 drums (skyline, mainline), motorized carriage, boom-mounted fairlead blocks, bucket with thumb
Note: Multi-function tracked swing machine, off-road travel capability, 800 ft yarding distance, for steep, broken ground, does not require machine guylines. With bucket attached, can build its own trail.
### Tiger Trucking Inc

**Dispatch:** Wenatchee, WA  
**Off-road Water Tender**

**Specifications:** 6-wheel drive (rear swinging bogie tandem wheels) rubber tires, articulated chassis off-road truck, enclosed cab, light duty stability blade  
**Attachments:** 3500 gal water tank, pumps, live reel, top mount remote control monitor, full drafting capability, Class A & B foam, dust abatement water bars (side and rear), backup video camera.  
**Transport:** lowboys under contract to transport  
**Note:** 30 mph max speed

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### Jon Greenup Logging

**Dispatch:** Pendleton, OR  
**Skyline Yarder (Yoder) (2), Track-Mounted**

**Specifications:** 1998 CAT 330B track loader mounted swing skyline yarder with extended 45ft boom (2)  
**Attachments:** 1100 ft capacity drums (skyline and mainline), 2 boom-mounted fairlead blocks, motorized carriage, log grapple remains mounted on boom  
**Note:** 1000 ft yarding distance suitable for steep and broken terrain, does not require machine guylines. With log grapple attached, it can double as a log loader or do shovel logging.
### EQUIPMENT PROFILES - MISCELLANEOUS (cont.)

**Miller Timber Services, Inc**

Dan Mace  
PO Box 638  
Philomath, OR 97370  
541-929-2840  
541-740-4338  
541-929-4489 fax  
dan@millertimber.com  
www.millertimber.com

**Dispatch:** Eugene, OR  
**Skyline Yarder, Tractor-Mounted**

**Specifications:** Koller K300-T Skyline Yarder, Rubber Tire tractor-mounted, 24 ft tower, 2 drums (skyline, mainline)

**Attachments:** Koller locking carriage

**Note:** 1200 ft external yarding distance, suitable for steep and broken terrain. Comes with 3-man crew. With tractor mount it can go off road on prepared trails.

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**Intermountain Forest Technology Corp**

Kevin W. Smith  
PO Box 10  
Clancy, MT 59634  
406-933-8000  
406-949-0001 c  
406-933-8000 fax  
smith@3riversdbs.net

**Dispatch:** Helena, MT  
**Track Loader, Tong Tosser**

**Specifications:** 1997 CAT 320BL Track Swing Loader, enclosed cab, 28 ft boom

**Attachments:** Log grapple, 2 high-speed drums / slack kicker (off-road jammer tong tosser)

**Note:** Allows for logging short (~200 ft), steep slopes below machine access trails or roads with cable and logging tongs. Requires ground crew for attachment and detachment of logs.
REFERENCES

1 Western Forestry Leadership Coalition, The True Cost of Wildfire in the Western US, April 13, 2009

2 Wildland Fire Operations Research Group, FP Innovations, Forest Engineering Research Institute of Canada (http://fire.feric.ca)


4 Herger-Feinstein Quincy Library Group, 2009, projects conducted under sections 104-106 Healthy Forest Restoration Act (http://www.qlg.org)


6 Finney, M., PhD, Fire Ecologist, USFS-Intermountain Fire Sciences Lab, Missoula, MT


8 Rummer, R.B., PhD, Forest Operations Researcher, Southern Research Station, USFS, 2009


10 NWCG Fireline Handbook 3, National Wildfire Coordinating Group, PMS 410-1, NFES 0065, March 2004


12 Thompson, R., Use of Mulchers for Fire Line Construction, presentation, Wildfire Operations Research Centre, FERIC Western Division, Canada, March 15, 2005

13 Rummer, R.B., PhD, Forest Operations Researcher, Southern Research Station, USFS, 2009

14 Low-Tech Works Too. Natural Resources Canada (http://canadaforests.nrcan.gc.ca/articletopic/33), 2008


General Information

Wildland Fire Research Operations Group
http://fire.feric.ca

USFS Technology Development Center
http://www.fs.fed.us/t-d/programs/fire
SECTION 3: CONTRACTING PERSPECTIVES

This document is not for instruction on regulations and details of becoming a contractor. If readers are interested in the requirements and steps to becoming a contractor, information is available online under regional coordinating groups and from the nearest natural resource management agency office.

A couple of helpful websites:

Northern Rockies Coordinating Group
http://www.fs.fed.us/r1/fire/nrcg/agree-contract/index.html

Northwest Interagency Coordination Center
http://www.nwccweb.us/index.asp

Planning and training for use of mechanized equipment on incidents is often problematic. This book does not pretend to resolve obstacles and challenges that contractors and agencies face in becoming effective fire and fuels program partners. Mutual awareness of common issues for heavy equipment contractors may improve communication and benefit agencies seeking contractor assistance.

Issues arise during every phase of building the working partnership, i.e. pre-season contracts, inspections, ordering, dispatch, transport, staging, suppression strategies and tactics, equipment boss shortages and training. With an eye toward prevention, the following short list in no particular order acknowledges a few common refrains.

- Inconsistent and incomplete equipment classifications
- Insurmountable computer literacy and access demands for contracting
- Dispatch malfunctions
- Unrealistic expectations of machine/operator by equipment boss
- Unfamiliar with machine/operator capabilities
- No formal agency training for personnel featuring heavy equipment other than dozers
- Unrealistic training for fire operations personnel (no field/night-time training)
- Understanding differences between types of equipment and available attachments
- Not taking advantage of night and early morning as operating hours
- Lack of comparative economic analysis of mechanized equipment use vs. other resources
- Differences between agency suppression goals and objectives
- Aging and retirement of agency personnel with heavy equipment experience
- Insufficient study of actual and comparative equipment site impacts
- Redundant, unnecessary and untimely inspections
- Equipment operator exclusion from fire planning
- Loss of valuable operational hours due to set briefing schedules
- Lack of logistics planning for equipment traffic needs
- Insufficient safety training for personnel working around heavy equipment
- Allow contractors to train for positions in the Incident Command System
- No agency follow-up or formal post-season debriefing or wrap-up meeting with equipment contractors and interagency fire staff to discuss “Lessons Learned”
- Lack of past incident performance ratings in Dispatching
CONTRACTOR DIRECTORY

The 87 contractors listed in this document (of the more than 215 contacted) represent those who offer diversified forestry services. They are caretakers of our renewable forest resources and survivors of the endangered North American forest industry. Largely unrecognized for their skills and contributions, citizens, property owners, and taxpayers alike all suffer from the loss of this essential woods-savvy workforce. Although a small sample of the industry, we can wisely choose to apply their experience and equipment to help prevent and minimize catastrophic wildfires.

As in unhealthy forests, the old adage of not missing it until it’s gone applies also to our forest industry. Readers are encouraged to contact the contractors listed in this book, and use their services for pre-incident fuels projects and for fire suppression incidents.

Entries to the directory were invited based on 332 available records of existing contracts with government agencies for fire suppression (i.e. Emergency Equipment Rental Agreements), referrals, and using common business research methods to find contractors providing hazardous forest fuels reduction services. Each contractor has verifiable fire-related experience, although their details were too extensive for inclusion in this edition. All entries are voluntary, and derived from information sent in by each contractor, or shown on agency EERAs. Reasonable effort was made to assure the information submitted is correct; but, details from each contractor should be verified directly, including the condition of their equipment listed. No judgment or endorsements regarding the quality of each contractor’s services are assumed by inclusion in this directory.

Contractors in the directory are based in Montana, Idaho, Oregon, or Washington. They are listed by area agency acquisition zone for convenience, and by company name. Their listing demonstrates the wide variety and broad distribution of mechanized equipment types available to public land managers and incident commanders.
## Equipment Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Idaho</th>
<th>Montana</th>
<th>Oregon</th>
<th>Washington</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dozer/Track Skidder/Pumprcat (160 machines)</td>
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<tr>
<td>Grader/Front-end Loader (15 machines)</td>
<td></td>
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<tr>
<td>Grader</td>
<td>-</td>
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<tr>
<td>Excavator/Log Loader (66 machines)</td>
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<td>Excavator</td>
<td>-</td>
<td>23</td>
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<td>Log Loader</td>
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<td>Excavator/Log Loader</td>
<td>5</td>
<td>11</td>
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<tr>
<td>Excavator/Loader/Tong Toss</td>
<td>-</td>
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<tr>
<td>Walking Excavator</td>
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<tr>
<td>Felling/Mulcher/Chipper (86 machines)</td>
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<tr>
<td>Excavator (Boom) Mulcher</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Feller Buncher/Mulcher</td>
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<td>-</td>
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<td>2</td>
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<tr>
<td>Feller Buncher</td>
<td>6</td>
<td>24</td>
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<td>Excavator/Harvester</td>
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<td>Harvester</td>
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<tr>
<td>Strip Mulcher</td>
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<td>3</td>
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<td>In-Woods Chipper</td>
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<tr>
<td>Skyline [Yoder, Yarder, Excaliner] (3 machines)</td>
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<tr>
<td>Processor/Bundleer</td>
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<td>Processor</td>
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<td>Slash Bundle</td>
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<td>Skidsteer (21 machines)</td>
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<tr>
<td>Loader</td>
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<td>4</td>
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<td>Mulcher</td>
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<td>Skidgine</td>
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<tr>
<td>Forwarder/Super-Skidgine/Off-road Tender (19 machines)</td>
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<td>4</td>
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<tr>
<td>Off-road Tender</td>
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<tr>
<td>Skiddier/Skidgine (88 machines)</td>
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<tr>
<td>Skidder, Wheel</td>
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<td>Skidgine, Wheel</td>
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<td>Skidgine, Soft Track</td>
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<td>4</td>
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<td>Emergency Evac / Skidgine, Track</td>
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<td>State Total</td>
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EQUIPMENT TOTAL = 418
## CONTRACTOR DIRECTORY

### IDAHO (8)

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Location</th>
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<tbody>
<tr>
<td>Allen’s Water Tender Service Inc</td>
<td>Buhl</td>
</tr>
<tr>
<td>C Richard Nordstrom</td>
<td>Kingston</td>
</tr>
<tr>
<td>Danielson Logging Inc</td>
<td>St. Maries</td>
</tr>
<tr>
<td>Darold Stanton Logging Inc</td>
<td>Orofino</td>
</tr>
<tr>
<td>John Deere/Tim West</td>
<td>Bonners Ferry</td>
</tr>
<tr>
<td>Quick Response Fire &amp; EnvironmentAL LLC</td>
<td>Kooskia</td>
</tr>
<tr>
<td>Tim Fuller Logging</td>
<td>Grangeville</td>
</tr>
<tr>
<td>Upper Valley Contracting</td>
<td>Idaho Falls</td>
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### MONTANA (51)

<table>
<thead>
<tr>
<th>Company Name</th>
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<tbody>
<tr>
<td>AC Logging</td>
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<tr>
<td>ALM LLC</td>
<td>Columbia Falls</td>
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<tr>
<td>Blackfoot Forestry</td>
<td>Missoula</td>
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<tr>
<td>Blackfoot Reforestation</td>
<td>Missoula</td>
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<tr>
<td>Bush Fire Inc</td>
<td>Belgrade</td>
</tr>
<tr>
<td>Cat Tracks Inc</td>
<td>Stevensville</td>
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<tr>
<td>C E T Technologies Inc</td>
<td>Florence</td>
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<tr>
<td>D &amp; L Logging</td>
<td>Kalispell</td>
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<tr>
<td>Dave Hoback</td>
<td>Arlee</td>
</tr>
<tr>
<td>D’Avis Logging</td>
<td>Helena</td>
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<tr>
<td>Dennison Logging Inc</td>
<td>Kalispell</td>
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<tr>
<td>Doble Enterprises Inc</td>
<td>Rexford</td>
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<tr>
<td>Drake Logging Inc</td>
<td>Columbia Falls</td>
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<tr>
<td>DS Jr Trucking Inc</td>
<td>Drummond</td>
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<tr>
<td>Enhanced Forest Management Inc</td>
<td>Corvallis</td>
</tr>
<tr>
<td>Equipment Technology</td>
<td>Lolo</td>
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<tr>
<td>Fire Solutions Inc</td>
<td>Missoula</td>
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<tr>
<td>Flanagan Quality Contracting</td>
<td>Missoula</td>
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<tr>
<td>Flathead Timber</td>
<td>Kalispell</td>
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<tr>
<td>Get’er Done Wiest LLC</td>
<td>Brady</td>
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<tr>
<td>Glacier Line Logging Inc</td>
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<tr>
<td>Grizzly Logging</td>
<td>Kalispell</td>
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<tr>
<td>Hall Wood Processing</td>
<td>Potomac</td>
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<tr>
<td>Hardley Able Logging</td>
<td>Deer Lodge</td>
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<tr>
<td>Intermountain Forest Technology Corp</td>
<td>Clancy</td>
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<tr>
<td>James A Slack Inc</td>
<td>Kalispell</td>
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<tr>
<td>J &amp; M Logging Inc</td>
<td>Ovando</td>
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<tr>
<td>Kelly Logging Inc</td>
<td>Missoula</td>
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<tr>
<td>Low Impact Forestry Inc</td>
<td>Polson</td>
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<tr>
<td>LTL Forestry</td>
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<tr>
<td>McFarland Logging</td>
<td>Clinton</td>
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<tr>
<td>Milner Brothers Logging Inc</td>
<td>Thompson Falls</td>
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<td>Mote Lumber</td>
<td>Helena</td>
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<tr>
<td>Obadiah’s Wildfire Fighters</td>
<td>Troy</td>
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<tr>
<td>Quartz Logging Inc</td>
<td>Superior</td>
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<tr>
<td>Rick Oliver Contracting</td>
<td>Plains</td>
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<tr>
<td>Riding High Excavation Inc</td>
<td>Eureka</td>
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<tr>
<td>Roper Logging</td>
<td>Hall</td>
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<tr>
<td>Scott’s Fire Service Inc</td>
<td>Dillon</td>
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<tr>
<td>Soft Track Attack</td>
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<tr>
<td>Spencer Logging</td>
<td>Libby</td>
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<tr>
<td>Stoken Logging Inc</td>
<td>Eureka</td>
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### MONTANA (cont.)

<table>
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<th>Company Name</th>
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<tbody>
<tr>
<td>St Onge Logging Inc</td>
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<td>Sun Mountain Logging</td>
<td>Deer Lodge</td>
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<tr>
<td>T &amp; N Enterprises</td>
<td>Swan Valley</td>
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<tr>
<td>TBC Timber Inc</td>
<td>Libby</td>
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<tr>
<td>Ten Lakes Forestry &amp; Excavation Inc</td>
<td>Eureka</td>
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<tr>
<td>Timberlake Landworks &amp; Excavation</td>
<td>Lakeside</td>
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<tr>
<td>Tough Go Logging Inc</td>
<td>Kalispell</td>
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<tr>
<td>Western Reclamation LLC</td>
<td>Superior</td>
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<tr>
<td>Woodland Restoration Inc</td>
<td>Potomac</td>
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### OREGON (18)

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<tr>
<td>ACW, Inc</td>
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<tr>
<td>Cascade Brush Clearing</td>
<td>Bend</td>
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<tr>
<td>Gary R Wright Contracting Inc</td>
<td>Union</td>
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<tr>
<td>Horizon Development Inc</td>
<td>Clackamas</td>
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<tr>
<td>Mike Hutton</td>
<td>Baker City</td>
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<tr>
<td>Integrated Resource Management</td>
<td>Philomath</td>
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<tr>
<td>James E Woodward Inc</td>
<td>Mitchell</td>
</tr>
<tr>
<td>Jeff &amp; Billi Wessel</td>
<td>Bly</td>
</tr>
<tr>
<td>John F Richmond</td>
<td>Bly</td>
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<tr>
<td>Jon Greenup Logging</td>
<td>Heppner</td>
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<tr>
<td>Mark Rector</td>
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<td>Miller Timber Services Inc</td>
<td>Philomath</td>
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<tr>
<td>NW Eco Mulching &amp; Mowing</td>
<td>Bend</td>
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<tr>
<td>O’Rorke Logging</td>
<td>John Day</td>
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<tr>
<td>Siskiyou Logging, dba Inland Timber Company</td>
<td>Cave Junction</td>
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<tr>
<td>Swaggart Enterprises Inc</td>
<td>Ritter</td>
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<td>Tom Davis Livestock Inc</td>
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<td>Warren Partridge Contracting Inc</td>
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### WASHINGTON (10)

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<td>Bear Mountain Cutters Inc</td>
<td>Leavenworth</td>
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<td>Havillah Logging Inc</td>
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<td>Havillah Lumber/Smith Timber</td>
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<tr>
<td>Incline Contracting</td>
<td>Monroe</td>
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<td>Lite Logging</td>
<td>Leavenworth</td>
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<tr>
<td>Northern Columbia Reforestation LLC</td>
<td>Colville</td>
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<td>Tiger Trucking Inc</td>
<td>Colville</td>
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<td>Wildfire Safe LLC</td>
<td>Manson</td>
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</table>
## Allen’s Water Tender Service, Inc.

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone Numbers</th>
<th>Email</th>
<th>Equipment</th>
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<tbody>
<tr>
<td>John Allen</td>
<td>208-863-9579, 208-860-1953, 208-653-2345</td>
<td><a href="mailto:firefoam2003@yahoo.com">firefoam2003@yahoo.com</a></td>
<td>MULCHER, STRIP, WHEEL, FARM TRACTOR</td>
</tr>
<tr>
<td>Yvonne Allen</td>
<td></td>
<td></td>
<td>New Holland bi-directional TV 145 farm tractor, enclosed cab</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Attachments: 8 ft horizontal shaft, mulching head with tree push bar, 15 ft rotary chopper, 185 gal water tank, pump, 150 ft hard line</td>
</tr>
</tbody>
</table>

**Dispatch:** Shoshone, ID

**Business Detail:** EERA in R4, IDIQ fuels reduction contracts: SO Sierra, ID, WY and BLM

**Transport:** 35T lowboy, 20T tilt-bed

**Fires:** Many in-state and out-of-state; inquire for details

**References:** Kole Berrichoia, BLM, 208-384-3406; Ray Aker, USFS, 559-855-5355 EXT 3312

---

**EXCAVATOR / MULCHER (2) Type 3**

CAT 320 CL, 138 hp Excavator, 18 ft boom, enclosed cab

**Attachments:** 5 ft mulching head, bucket, thumb

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**DOZER / MULCHER, STRIP Type 2**

CAT D5M high track dozer, enclosed cab, sweep guards

**Attachments:** 8 ft mulching head, tree push bar, auxiliary motor, 6-way blade, brush rake, rippers, 500 gal, pump, 150 ft hard line

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**DOZER / TRACK SKIDDER R 1 Type 1 / R 6 Type 2**

1964 CAT D6M, open cab, sweep guards, FOPS

**Attachments:** 6-way blade, brush rake, logging winch
### Danielson Logging, Inc.

<table>
<thead>
<tr>
<th>Dispatch</th>
<th>St. Maries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Detail</td>
<td>State of ID contract</td>
</tr>
<tr>
<td>Transport</td>
<td>2 lowboys: 50T 18 ft, 40T 16 ft</td>
</tr>
</tbody>
</table>

**Fires/Fuels Reduction:**

- Projects: Hayden Lake Park HQ, C0A Tribe Stewardship IPNF, 1988-2008, ID

**References:**

- John Pollard, Fire Manager, St. Joe Forest, 245-4551; Kevin McKale, Pottatch, 245-4146

#### DOZER / TRACK SKIDDER (4) Type 2

- 2007/ 06/04/1998 CAT 527 track skidder, FOPS/ROPS/OPS, enclosed cab, sweep guards, 6-way blade
- **Attachments:** swing grapple, lights

#### FORWARDER / SUPER-SKIDGINE Type 1

- 2004 Timberpro 820, 8-wheel forwarder with enclosed cab, FOPS/OPS, 24 ft boom
- **Attachments:** field detachable 1500 gal certified tank, pump, live reel, lights, log grapple, dust water bar

#### FELLER BUNCHER, STEEP SLOPE (5) Type 1

- **Attachments:** 24” diameter, high-speed disc (hot saw) cutting head, lights

#### EXCAVATOR / LOG LOADER (5) Type 3

- 2004 CAT 320, 30 ft boom, FOPS, enclosed cab
- 2005 CAT 330, 30 ft boom, FOPS, enclosed cab
- 2003 Linkbelt 225, 30 ft boom, FOPS, enclosed cab
- 1995/1998 Komatsu PC200, 30 ft boom, FOPS, enclosed cab
- **Attachments:** log grapples, bucket and thumb, lights

#### HARVESTER, STEEP SLOPE (3) Type 1

- 2006 CAT tracked harvester, self-leveling closed cab, FOPS/OPS, 26 ft boom (2)
- 1999 Timberjack 1270 tracked harvester, self-leveling closed cab, FOPS/OPS, 24 ft boom
- **Attachments:** 28” diameter harvester head with 360 degree rotation
### Danielson Logging, Inc. (cont.)

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Attachments</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOZER (2) Type 3</td>
<td>1991 Case 850D and 1998 CAT dozers, FOPS/ROPS, 6-way blades</td>
<td>lights</td>
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</table>

### Darold Stanton Logging, Inc.

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Attachments</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROCESSOR (2)</td>
<td>2007 CAT 320C and 2008 CAT 320 tracked swing machine boom processors, enclosed cabs, FOPS/OPS, 30 ft boom</td>
<td>30” diameter dangle head processor, lights</td>
</tr>
</tbody>
</table>

---

**Darold Stanton Logging, Inc.**

- **Darold, Marcie, Cody Stanton**
- **P.O. Box 2564**
- **Orofino, ID 83544**
- **208-476-7576**
- **208-476-4571**
- **208-827-0530 c**
- **208-476-0765 fax**
- **stantons@cebridge.net**

**Dispatch:** Grangeville, ID

**Business Detail:** EERA, Best Value

**Transport:** 50T lowboy

**Fires:** Burnt Flats, Milepost 59, Harper’s Bend, Heaven's Gate, Blackerby, Chimney Complex, Church Canyon, multiple other fires for Clearwater-Potlatch Timber Protective Association (C-PTPA), Clearwater National Forest, Nez Perce National Forest, Idaho Department of Lands, Orofino and Kamiah

**References:** Howard Weeks; Nez Perce National Forest: Deborah Wesselius, USFS, Missoula, MT; ID Department of Lands: Bob McKnight

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Attachments</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOZER / TRACK SKIDDER / PUMPER CAT Type 2</td>
<td>CAT TDC 2, Pumper Cat, sweep guards, FOPS/ROPS, partial screened cab, angle blade</td>
<td>450 gal water tank, winch, lights</td>
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<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Attachments</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKIDDER, WHEEL Type 2</td>
<td>1988 CAT 518 Skidder, light-duty blade, screened cab, forestry sweeps, FOPS/ROPS</td>
<td>grapple, winch, lights</td>
</tr>
</tbody>
</table>
### John Deere / Tim West

<table>
<thead>
<tr>
<th>Name</th>
<th>Contact Information</th>
<th>Business Detail</th>
<th>Transport</th>
<th>Note</th>
<th>Reference</th>
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</thead>
<tbody>
<tr>
<td>Tim West</td>
<td>Bonners Ferry, ID</td>
<td>private and agency</td>
<td>25 ft deck lowboy</td>
<td>Popular in Northern Europe working with Cut-to-Length (CTL) harvesting operations. Designed to collect CTL generated slash. Produces slash bundles (approx 1000 ft per bundle). Bundles are left in woods to dry, stacked at landings or trucked to boilers at co-gen heat/electric generation.</td>
<td>Marvin Nelson, Cornell, MI</td>
</tr>
<tr>
<td></td>
<td>208-255-8637</td>
<td>contracts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>309-749-2489 fax</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td><a href="mailto:WestTimothyM@JohnDeere.com">WestTimothyM@JohnDeere.com</a></td>
<td></td>
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</tr>
</tbody>
</table>

**IN-WOODS SLASH BUNDLER**  
**Miscellaneous equipment**

John Deere 1410D, 8-wheel forwarder with slash bundler and 33 ft boom grapple for self-loading. Machine weight 54,000 lb

Use: Full-tree utilization; reduces hazardous fuels; eliminates in-the-woods burning of slash piles; eliminates in-the-woods chipping; can be used in soft or hard wood stands; storm damage cleanup; weed-free slash log bundles for site rehab and soil stabilization and woody debris

### Nordstrom, C. Richard

<table>
<thead>
<tr>
<th>Name</th>
<th>Contact Information</th>
<th>Business Detail</th>
<th>Transport</th>
<th>Fires</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>208-661-9524 c</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Jay Nordstrom, foreman / operator</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>404 Klette Road</td>
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<tr>
<td></td>
<td>Kingston, ID 83839</td>
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<td></td>
<td>208-755-0345 c</td>
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<tr>
<td></td>
<td>208-682-2660 fax</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="mailto:nordstrom@imbris.net">nordstrom@imbris.net</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>nordstromfuelsreduction.com</td>
<td></td>
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</tr>
</tbody>
</table>

**EXCAVATOR / MULCHER (2)**  
**R 1 Type 1 / R 6 Type 2**

2003 CAT 322CL Excavator-mounted Boom Mulcher, 168 hp, 40T, enclosed cab, FOPS/OPS, 35 ft boom

1998 CAT 322BL Excavator-mounted Boom Mulcher, 161 hp, 40T, enclosed cab, FOPS/OPS, 35 ft boom

**Attachments:** 150 hp auxiliary engine powered vertical shaft, 270 degree rotation mulching disc, hydraulic thumb, lights
### Quick Response Fire and Environmental, LLC

<table>
<thead>
<tr>
<th>Darren Pickering</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.O. Box 160</td>
</tr>
<tr>
<td>Kooskia, ID 83539</td>
</tr>
<tr>
<td>208-926-4573</td>
</tr>
<tr>
<td>208-935-5302</td>
</tr>
<tr>
<td>208-926-4573 fax</td>
</tr>
<tr>
<td><a href="mailto:pick76@earthlink.net">pick76@earthlink.net</a></td>
</tr>
</tbody>
</table>

**Dispatch:** Grangeville, ID  
**Business Detail:** EERA, Best Value  
**Transport:** 25T lowboy with 30 ft tilt deck


**SKIDGINE, WHEEL Type 1**

CAT 518 Rubber Tire Skidder, screened cab, forestry sweep guards, FOPS/ROPS, light-duty blade

**Attachments:** 500 gal tank, pump, live reel, hoses, lights, tire chains

---

### Tim Fuller Logging

<table>
<thead>
<tr>
<th>Tim Fuller</th>
</tr>
</thead>
<tbody>
<tr>
<td>30207 Rosenkrantz Rd</td>
</tr>
<tr>
<td>Lewiston, ID 83501</td>
</tr>
<tr>
<td>208-746-5073</td>
</tr>
<tr>
<td>208-659-8664 c</td>
</tr>
<tr>
<td>208-299-6333 c</td>
</tr>
</tbody>
</table>

**Dispatch:** Grangeville, ID  
**Business Detail:** EERA  
**Transport:** Company provided, 50T 28 ft deck, 30T 24 ft deck lowboys

**Fires:** 2005-2007 ID – Chimney Complex, Rattlesnake, Blackberry Complex  
**References:** Rob Pinzer, IDL-Craigmont, ID; Dave Crozer, USFS-Nezperce NF

**FELLER BUNCHER, STEEP SLOPE Type 1**

2000 Timbco, self-leveling enclosed cab, FOPS, 24 ft boom

**Attachments:** 22 in hot saw with 40 degree rotation, ice grousers, lights

---

**DOZER / TRACK SKIDDER (2) Type 2**

1996 CAT D5H, enclosed cab, FOPS/ROPS, sweeps, 6-way blade  
**Attachments:** grapple, lights

1972 CAT D6C, partial screened cab, FOPS/ROPS, sweeps, angle blade  
**Attachments:** skid-winch (60 ft cable), lights

---

**PROCESSOR / STROKE BOOM DELIMBER**

1999 CAT 320 Excavator tracked carrier, 86,000 lbs, enclosed cab, screens, FOPS

**Attachments:** 32 in max diameter, 50 ft reach, Pierce stroke boom delimers, lights

---

**SKIDDER, WHEEL Type 1**

1994 CAT 518C Rubber Tire Skidder, full-screened cab, FOPS/ROPS, sweeps, light-duty blade

**Attachments:** grapple, 100 ft skid winch, lights
### Upper Valley Contracting

<table>
<thead>
<tr>
<th>James Kruckeberg</th>
</tr>
</thead>
<tbody>
<tr>
<td>11716 N 55 E</td>
</tr>
<tr>
<td>Idaho Falls, ID 83401</td>
</tr>
<tr>
<td>208-390-9506</td>
</tr>
<tr>
<td>208-313-2058</td>
</tr>
<tr>
<td>208-523-9506 fax</td>
</tr>
<tr>
<td><a href="mailto:upper_valley_contracting@hotmail.com">upper_valley_contracting@hotmail.com</a></td>
</tr>
</tbody>
</table>

**Dispatch:** Idaho Falls, ID  
**Business Detail:** EERA  
**Transport:** company 3-axle tilt bed  
**Fires:** 2008, ID, Niebar and Meadow Creek

---

#### SKIDGINE, SOFT TRACK Type 1

KMC Model 2100 Soft Track Skidgine, 200 hp, FOPS/ROPS/OPS, sweeps  
**Attachments:** 1300 gal water tank, 18 hp pump, power hose reel, foam mixing unit, hoses, fittings, 6-way blade, lights
## AC Logging

<table>
<thead>
<tr>
<th>Alan Conover</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 Riverside Dr</td>
</tr>
<tr>
<td>Dillon, MT 59725</td>
</tr>
<tr>
<td>406-925-1392</td>
</tr>
<tr>
<td>406-683-4570</td>
</tr>
<tr>
<td><a href="mailto:Aclogging1@hotmail.com">Aclogging1@hotmail.com</a></td>
</tr>
</tbody>
</table>

**Dispatch:** Dillon, MT  
**Business Detail:** EERA  
**Transport:** 40T detachable or 35T beavertail lowboys  
**Fires:** Mussingbrod, Sheep Creek, Hidden Lake, Winslow, Craig II, 2005 Mississippi State Fire Plan, Shoshoe, Shultz Saddle, Sand Basin, Clark Canyon, Derby, Jungle, Maur Mountain, McKnight, Meriweather, Patten-gail, and Rat Creek

<table>
<thead>
<tr>
<th><strong>SKIDDER / SKIDGINE, WHEEL</strong> Type 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995 Timberjack Rubber Tire Skidder, 174 hp, enclosed cab, screens, sweep guards</td>
</tr>
<tr>
<td><strong>Attachments:</strong> quick attach 430 gal certified tank, live reels, pump, tire chains, lights, dual action grapple</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>FELLER BUNCHER, STEEP SLOPE</strong> Type 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1989 Timberjack 2520 Tracked Feller Buncher, enclosed self-leveling cab, 24 ft boom</td>
</tr>
<tr>
<td><strong>Attachments:</strong> 20” high speed disc saw, lights</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>DOZER / TRACK SKIDDER</strong> Type 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991 D5H Dozer, 6-way blade, enclosed cab, forestry guards (screens, sweeps)</td>
</tr>
<tr>
<td><strong>Attachments:</strong> winch, lights, fixed grapple</td>
</tr>
</tbody>
</table>
**ALM, LLC**

<table>
<thead>
<tr>
<th>DOZER / TRACK SKIDDER  Type 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006 John Deere 650J, XLT (extra long track), 100-199 hp, 6-way blade, enclosed cab, screens, sweeps</td>
</tr>
<tr>
<td><strong>Attachments:</strong> swing boom grapple, attachable brush blade, lights</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>EXCAVATOR  Type 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006 John Deere 135-C, 25,000 lbs, 81-110 hp, 10 ft stability blade, 27 ft boom, full forestry guard</td>
</tr>
<tr>
<td><strong>Attachments:</strong> quick attach bucket and thumb, rotating power grapple, hydraulic rock breaker</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXCAVATOR  Type 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007 John Deere 135C, 25,000 lb, 81-110 hp, 10-ft blade, 27 ft boom</td>
</tr>
<tr>
<td><strong>Attachments:</strong> quick attach bucket and thumb, rotating clamshell grapple, BT hydraulic rock breaker</td>
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</tbody>
</table>

**Blackfoot Forestry**

<table>
<thead>
<tr>
<th>SKIDDER / SKIDGINE, WHEEL  Type 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>648 John Deer Rubber Tire Skidder, enclosed cab, screens and sweep, light-duty blade</td>
</tr>
<tr>
<td><strong>Attachments:</strong> 340 gal detachable tank, pump, live reel, tire chains, swing grapple, lights</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dispatch: Missoula, MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Detail: EERA</td>
</tr>
<tr>
<td>Transport: lowboy</td>
</tr>
<tr>
<td>Fires: 2000 Wedge, fuels reduction</td>
</tr>
<tr>
<td>References: Paul Wachholz, Wachholz &amp; Company (406-751-4300) Kalispell, MT; Lanny McDonald, Bear Mountain (403-585-9009) Lakeside, MT; Orlee Erickson, Erickson &amp; Son (406-892-2410) Columbia Falls, MT</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dispatch: Missoula, MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Detail: EERA</td>
</tr>
<tr>
<td>Transport: lowboy</td>
</tr>
<tr>
<td>Fires: 2000-2007 MT</td>
</tr>
<tr>
<td>References: Scot Kuehn, Tricon Forestry</td>
</tr>
</tbody>
</table>
# Blackfoot Reforestation

<table>
<thead>
<tr>
<th>Art Wear</th>
<th>Dispatch: Missoula, MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sam Smith</td>
<td>Business Detail: EERA</td>
</tr>
<tr>
<td>11960 Buffalo Speedway</td>
<td>Transport: Type 1 and Type 2 low-boys; 30T 3-axle, 25T</td>
</tr>
<tr>
<td>406-542-7480 c (Art)</td>
<td>References: Ninemile RD, Laura Ward; Lolo Hot Shots, Steve Karkanen, Helena Hot Shots, Fred Thompson, John Waverick Missoula RD</td>
</tr>
<tr>
<td>406-240-9508 c (Sam)</td>
<td></td>
</tr>
<tr>
<td>406-542-7480 fax</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:teewear@msn.com">teewear@msn.com</a></td>
<td></td>
</tr>
<tr>
<td><a href="mailto:samjulie@q.com">samjulie@q.com</a></td>
<td></td>
</tr>
</tbody>
</table>

## EXCAVATOR (3) Type 1

- 2006 / 2007 Kobelco ED 190, 25 ft boom reach
- 2000 Hundai LCM 130, 25 ft boom reach

**Attachments:** 11 ft 6-way dozer blade, bucket with thumb, lights, ROPS/OPS

## GRADER

- 1992 John Deere 772BH

**Attachments:** 14 ft lowboard, ripper, front blade, tire chains

## DOZER / TRACK SKIDDER Type 3

- 1997 Dresser TD8H, 84 hp, ROPS, partial screened cab

**Attachments:** 6-way blade, winch (1/2" 100 ft)
**Bush Fire, Inc.**

<table>
<thead>
<tr>
<th>Dispatch:</th>
<th>Bozeman, MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Detail:</td>
<td>EERA</td>
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<tr>
<td>Transport:</td>
<td>60T 22 ft deck lowboy; 60T 26 ft deck lowboy</td>
</tr>
<tr>
<td>Fires:</td>
<td>1978-2006 MT – Derby, Maud-low-Toston, Canyon</td>
</tr>
<tr>
<td>References:</td>
<td>Kevin Erickson, USFS, Missoula; Bill Phifer, USFS, Bozeman</td>
</tr>
</tbody>
</table>

**DOZER Type 2**

- 1997 John Deere 750C Dozer, enclosed cab, 6-way blade
- **Attachments:** ripper tooth, lights

**SKIDSTEER / MULCHER Type 3**

- 2007 Bobcat Skidsteer S330, 85 hp, enclosed cab, tires with track bands, forestry safety package
- **Attachments:** 5 ft horizontal axle mulcher head, pushbar, bucket with thumb, lights

**EXCAVATOR / MULCHER (2) Type 3**

- 2003 CAT 325CL, 204 hp, enclosed cab with forestry guards, 27 ft boom
  - **Attachments:** 7 ft horizontal shaft FECON mulcher head, bucket wit thumb, brush grapple
  - 1996 CAT 315L, 110 hp, enclosed cab, 24 ft boom
  - **Attachments:** boom-mounted 6 ft horizontal shaft “Bullhog” forestry mulcher head, bucket with thumb
**Cat Tracks, Inc.**

Robert Lewis  
190 Pine Hollow Rd  
Stevensville, MT 59870  
406-777-1464  
406-239-8275  
406-777-1464 fax  
cattracksinc@gmail.com

**Dispatch:** Missoula, MT  
**Business Detail:** EERA  
**Transport:** dump truck with 40,000 lb tilt trailer  
**Fires:** 2000 Blodget and Bitterroot Complexes, Hamilton, MT; 2001 Walton Creek; 2003 Big Creek, Black Frog  
**References:** Karen Smith, Nez Pierce NF, ID, USFS; Greg Ransier, Bitterroot NF, MT, USFS

**EXCAVATOR**

2004 Caterpillar 312CL Tracked Excavator, enclosed cab, FOPS, 25 ft boom  
**Attachments:** bucket with thumb, 8 ft dozer blade, full woods guarding
## CET Technologies Inc

<table>
<thead>
<tr>
<th>CET Technologies Inc</th>
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</thead>
</table>
| **Ckye Thomas**  
| P.O. Box 27  
| 5943 Cunningham Ct  
| Florence, MT 59833  
| 406-531-1326  
| 406-239-2238  
| ckyethomas@hotmail.com |

| **Dispatch:** Hamilton, MT |
| **Business Detail:** EERA |
| **Fires/Fuels Reduction:** 2000-2009  
| MT/OR - Bitterroot NF, Livingston, Missoula, Burns (OR); 2004-2009 Fuels reduction in MT/WA/UT/CO |

| **References:** Dana Anderson, USFS, Gallatin NF; Diana Yager, Georgia Pacific Covington, LA. |

| **FELLER BUNCHER / HARVESTER / FORWARDER / SUPER-SKIDGINE**  
| **Type 1** |
| 1999 Timbco 820C  8-wheel Forwarder, enclosed cab, 24 ft boom |
| **Attachments:** bin hook, attachable 4000 gal tank, pump, hose reel, 22” hot saw head, 27” harvester/processor head, roll-off chip/slash bin and log bunks |

| **FORWARDER / SUPER-SKIDGINE**  
| **Type 1** |
| 2001 820 E  8-wheel Forwarder, enclosed cab, 24 ft boom |
| **Attachments:** attachable 3000 gal water tank, log grapple, log bunks |

| **SKIDSTEER / LOADER** |
| 2008 CAT 272, 93 hp rubber-tired with steel track bands, enclosed cab |
| **Attachments:** brush grapple, 2.5 yd bucket, road grader, lights |
### D & L Logging

<table>
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<tr>
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<tbody>
<tr>
<td>Business Detail: Best Value</td>
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<tr>
<td>Transport: 2000 Freightliner with lowboy, 35T</td>
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</tbody>
</table>

**SKIDDER / SKIDGINE, WHEEL**  Type 1

- 518 CAT Rubber Tire Skidder, enclosed cab, screens, sweep guards, light-duty blade
- **Attachments:** brush rake, grapple, 560 gal detachable water tank, pump, 150 ft hose reel plus 400 ft hoses, tire chains, lights

### Dave Hoback

<table>
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<tr>
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<tbody>
<tr>
<td>Business Detail: Best Value</td>
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<tr>
<td>Transport: Provided by contractor</td>
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</tbody>
</table>

**SKIDGINE, WHEEL**  R1 Type 1 / R6 Type 3

- Cat 518 Rubber Tire Skidder, 130 hp, light-duty blade, enclosed cab, ROPS
- **Attachments:** 415 gal removable water tank, high pressure pump, water monitor, live reel, foam, brush rake, winch with arch, tire chains

### D’Avis Logging

<table>
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<tbody>
<tr>
<td>Business Detail: MT-DNRC, Helena</td>
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<tr>
<td>Transport: contractor provided</td>
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</table>

**HARVESTER**  Type I

- 1998 Timberjack 1270B, 6-wheel harvester, 204 hp, 35,000 lbs, 33 ft boom reach, FOPS/OPS, enclosed safety cab
- **Attachments:** 26° harvester/processing head, steel track bands and chains, lights, radio
- **Note:** top speed 15.5 mph
Montana

Dennison Logging, Inc.

<table>
<thead>
<tr>
<th>Greg Dennison</th>
<th>Dispatch: Kalispell, MT</th>
<th>Fires: 1999-2008 MT/CA – Yolla-Bolla (CA), Red Eagle (MT), Brush Creek, Moose, Gergan Creek</th>
</tr>
</thead>
<tbody>
<tr>
<td>62 Sunrise Dr</td>
<td>Business Detail: EERA</td>
<td>References: Kevin Erickson, USFS-Fire, Missoula, MT; Les Thomas, MT-DNRC, Polson, MT</td>
</tr>
<tr>
<td>Kalispell, MT 59901</td>
<td>Transport: 24 ft tilt bed trailer</td>
<td></td>
</tr>
<tr>
<td>406-756-6412</td>
<td>Operators: qualified dozer boss, engine boss</td>
<td></td>
</tr>
<tr>
<td>406-253-5092</td>
<td></td>
<td></td>
</tr>
<tr>
<td>406-756-6413 fax</td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="mailto:denlog@clickmontana.net">denlog@clickmontana.net</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>dennisonlogging.com</td>
<td></td>
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</tbody>
</table>

SKIDDER / SKIDGINE, WHEEL Type 1

1995 CAT 518 C Skidgine, light-duty blade, screened cab, sweep guards, ROPS

Attachments: detachable 685 gal tank, pump, hose reel, foam unit, lights, brush rake, arch with winch (100 ft 5/8" cable)

DOZER / TRACK SKIDDER Type 3

1989 John Deer 650, 6-way blade, screened cab, sweeps, logging guards

Attachments: brush rake, lights, arch with winch, 100 ft 5/8" cable

SKIDSTEER / LOADER

2007 John Deer 320 Rubber Tire, enclosed cab, FOPS

Attachments: light, brush grapple, bucket, forks
### Doble Enterprises, Inc.

**Kirk Doble**  
Box 118  
Rexford, MT 59930  
406-882-4029  
406-261-4028 c  
kirkdoble@yahoo.com

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Attachments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOZER / TRACK SKIDDER</strong> Type 2</td>
<td>1988 John Deere 850B long track Dozer, angle blade, screened cab, woods guarding, sweeps</td>
<td>100 ft 5/8” skidding winch with arch, rock guards, lights</td>
</tr>
<tr>
<td><strong>FELLER BUNCHER, STEEP SLOPE</strong> Type 1</td>
<td>2000 Timbco 445D Tracked Feller Buncher, FOPS/OPS, enclosed self-leveling cab, 24 ft boom</td>
<td>22” high speed disc hot saw head, lights</td>
</tr>
<tr>
<td><strong>EXCAVATOR</strong></td>
<td>1997 John Deere 590D Tracked Excavator, FOPS, enclosed cab, woods guarding, 30 ft boom</td>
<td>bucket with thumb, log grapple, lights</td>
</tr>
<tr>
<td><strong>SKIDDER, WHEEL (2)</strong> Type 1</td>
<td>1999 John Deere 648G Rubber Tire Skidder, enclosed screened cab, light-duty blade, sweeps</td>
<td>swing boom grapple, winch, lights, tire chains</td>
</tr>
<tr>
<td></td>
<td>1995 Cat 518C Rubber Tire Skidder, enclosed screened cab, light-duty blade, sweeps</td>
<td>swing boom grapple, lights, tire chains</td>
</tr>
</tbody>
</table>

**Dispatch:** Libby, MT  
**Business Detail:** EERA  
**Transport:** 35T lowboy, 25T tilt bed trailer  
**Fires:** Northwest MT, 1988-2007 -Dry Fork, Squaw Creek, 336, Stone Young Complex, Elk Mountain, Dickey Lake, Camp 32, Jocko Lake  
**References:** Ed Ferruzzi, USFS, Kootenai NF, Murphy Lake Rd; Ken Farmer, USFS, Kootenai NF, Canoe Gulch
<table>
<thead>
<tr>
<th>Drake Logging, Inc.</th>
<th><strong>Dispatch:</strong> Columbia Falls, MT</th>
<th><strong>Fires:</strong> 20 yrs MT / CO fuels reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business Detail:</strong> EERA</td>
<td><strong>References:</strong> Ralph Gildaman, USFS, Kootenai NF; Tony Willets, USFS, Flathead NF</td>
<td></td>
</tr>
<tr>
<td><strong>Transport:</strong> needed</td>
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</tbody>
</table>

**FELLER BUNCHER, STEEP SLOPE   Type 1**

- 2001 Timbco 445D, 24 ft boom, self-leveling, OPS, enclosed cab
- **Attachments:** 22” hot saw or 28” bar saw, lights

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**SKIDDER, WHEEL     R1 Type 1 / R6 Type 3**

- 1989 CAT Skidder, Model 518, screens with sweep guards
- **Attachments:** grapple, winch with 100 ft 5/8” cable, chains

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**SKIDDER, WHEEL     R1 Type 1 / R6 Type 3**

- 2008 John Deere Skidder 648H, light-duty blade, OPS, enclosed cab, sweep guards
- **Attachments:** grapple, pressurized water system for extinguishing small fires (50 gal factory water tank), lights, tire chains

---

**DOZER / TRACK SKIDDER   Type 2**

- 1976 Cat D6C Dozer, partial screened cab, sweeps
- **Attachments:** hydraulic tilt blade, log grapple
DS Jr. Trucking, Inc.

Dispatch: Dillon / Bozeman, MT

Business Detail: Blanket Purchase Agreement (BPA) East Side Acquisition

Transport: 4 lowboys, Type 1

Fires: MT - Derby, Big Creek, Nine Mile, Mussigbrod, Rat Creek, Patten-gail, Snow-Talon, Sand Basin, Clark Canyon, Bear Gulch

References: Obie O’Brien, Helena

NF - USFS

EXCAVATOR  Type 2

2007 Kobelco ED190 Bladerunner; 44,000 lbs, 115 hp

Attachments: 6-way 10 ft blade, bucket with thumb, lights, full brush guarding, climate control cab

SKIDDER, WHEEL  Type 1

2000 John Deere 648G, 172 hp, 9 ft blade, FOPS/ROPS, brush guarded, back-up alarm, independent fire suppression system

Attachments: winch, grapple, chains, lights

LOG LOADER, TRUCK-MOUNTED

Prentice 410 front loading log loader with 1980 Kenworth

DOZER / TRACK SKIDDER  Type 2

1994 D5H CAT Dozer, 130 hp, 6-way blade, full brush guarding, FOPS/ROPS, climate control cab

Attachments: swinging boom grapple, lights

SKIDDER / SKIDGINE, WHEEL  Type 1

2008 John Deere 648H, 9 ft blade, full brush guarding, FOPS/ROPS, climate control cab, back-up alarm, independent fire suppression system

Attachments: quick attack 405 gal water tank attaches with hitch setup for skidder/skidgines conversion within ½ hour, grapple, winch, chains, lights
| **Enhanced Forest Management, Inc.** | **Woodland Restoration, Inc.** | **Dispatch:** Missoula, MT, Lolo NF Contracting  
**Business Detail:** EERA  
**Fires:** 2000-2007 MT – Rumbo, private fuel reduction project  
**References:** Gena Rheinschmidt, Bitterroot; Pat McKinnon, Bitterroot; Paul Moore, MT-DNRC, Hamilton |
|---|---|---|
| Dyk Krueger  
380 Joseph Drive  
Corvallis, MT 59828  
406-961-8324 h  
406-389-1166 c (Dyik)  
406-369-0432 c (Erin)  
406-961-8325 fax  
efminc@extension.montana.edu | Matt Arno  
Nathan Arno  
P.O. Box 956  
Potomac, MT 59823  
406-544-1842  
406-244-5858  
www.woodlandrestoration.net |  |
| **EXCAVATOR, WALKING**  
**Type 3**  
1992 Schaeff HS45 53 hp, 15,000 lbs walking excavator, 26 ft boom  
**Attachments:** 24" wide bucket, hydraulic thumb |
| **EXCAVATOR**  
**Type 2**  
1997 Hyundai 210 LC-3, 142 hp, 55,000 lbs, 32 ft boom, enclosed forestry cab  
**Attachments:** bucket, thumb, forestry guard package - cab and undercarriage, lights |
| **IN-WOODS CHIPPER**  
1995 Timberjack Bandit 1270 rubber tire carrier, 165 hp, 25 ft log grapple boom, enclosed cab  
**Attachments:** Bandit 250 XP chipper, 12" diam capacity |
| **FELLER BUNCHER, STEEP SLOPE**  
**Type 1**  
1996 Timbco 445B, 260 hp, 24 ft boom, enclosed self-leveling cab  
**Attachments:** 22" hotsaw felling head, lights |
| **SKIDDER, WHEEL**  
**Type 1**  
1988 Timberjack 380B, 138 hp, grapple and winch  
**Attachments:** arch grapple, winch, tire chains, lights |
HARVESTER      Type 2
1270 Timberjack Rubber Tire Harvester, 165 hp, 30 ft boom, enclosed cab, FOPS/ROPS
Attachments:  dangle head harvester, barsaw with 25" max capacity, lights, track bands and chains

Equipment Technology

Bill Jones  
P.O. Box 326  
Lolo, MT 59847  
406-273-2302  
406-360-6007  
406-273-3333 fax  
billjonesz@yahoo.com

Dispatch:  Missoula, MT  
Business Detail:  EERA  
Transport:  2 lowboys, 50T, 28 ft deck; 60T 9-axle  
Operators:  Bill Jones  
References:  Tim Murphy, NRCG, MT-DNRC; Kevin Erickson, R1 Fire, USFS, Missoula

SUPER-SKIDGINE    Type 1
TD81 Ciceron Forwarder, 8-wheel, 20T, 250 hp, rubber tire boogies with steel track bands, log grapple, 27 ft boom reach, enclosed cab
Attachments:  water cannon on boom, 3000 gal tank with aerial refilling hooper top, lights, pump, live reel, hoses

DOZER / TRACK SKIDDER    Type 1
1976 CAT D7E, angle blade, screened cab, ROPS
Attachments:  logging winch, lights

FELLER BUNCHER, STEEP SLOPE    Type 1
2004 Timberjack, 265 hp, 28 ft boom, FOPS/OPS, enclosed cab
Attachments:  hotsaw head, 22" capacity
## Equipment Technology (cont.)

<table>
<thead>
<tr>
<th>Model Type</th>
<th>Model</th>
<th>Year</th>
<th>Description</th>
<th>Attachments</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORWARDER / SUPER-SKIDGINE</td>
<td>1998 Timberjack 1010</td>
<td>6-wheel, 11T carrying capacity, 27 ft boom, rubber tires with track bands, enclosed cab</td>
<td>1700 gal detachable tank, log bunks, pump, live reel, hoses, boom mounted water cannon, foam, lights</td>
<td></td>
</tr>
<tr>
<td>DOZER / TRACK SKIDDER Type 2</td>
<td>2008 CAT 527</td>
<td>166 hp, swing grapple, FOPS/ROPS/OPS, enclosed cab, sweeps</td>
<td>6-way blade, lights</td>
<td></td>
</tr>
<tr>
<td>DOZER Type 1</td>
<td>1978 CAT D7G</td>
<td>u-blade, cab screens</td>
<td>rippers, lights</td>
<td></td>
</tr>
<tr>
<td>SKIDSTEER / MULCHER</td>
<td>2002 ASV Rubber Tire Carrier Mounted Mulcher</td>
<td>90 hp, enclosed cab</td>
<td>6 ft horizontal shaft mulching head</td>
<td></td>
</tr>
</tbody>
</table>
Flanagan Quality Contracting

Dale Flanagan
8940 Sharptail Lane
Missoula, MT 59808
406-239-2810
406-721-3151 fax
dale.flanagan@Yahoo.com

Dispatch: Missoula, MT
Business Detail: EERA
Transport: lowboy; double drop lowboy, support vehicle
Fires: 2000-2007 MT / ID, Fish Creek Complex, Rombo, Bitterroot, numerous private industry and agency fuels reduction projects.
References: John Waverick, Lolo NF-Missoula RD; Kevin Erickson, R1 Fire, Missoula, USFS; Joe Larsen, Stimpson Lumber, Trout Creek, MT

DOZER / TRACK SKIDDER Type 2
2000 John Deere 650H Dozer, sweep guards, FOPS/ROPS and screened-in cab
Attachments: brush rake, winch, 6-way blade, lights

HARVESTER, STEEP SLOPE
2003 Timberjack 608L Tracked Harvester, self-leveling enclosed cab, 30 ft boom, FOPS/OPS
Attachments: 26" diam. harvester/dangle head, lights

FORWARDER / SUPER-SKIDGINE
2001 Timberjack 1010B 6-wheel forwarder, enclosed cab, 24 ft boom, log bunks, tires/tracks/chains
Attachments: 1500 gal certified detachable tank, pump, live reel, hoses, lights

Fire Solutions, Inc.

Levi Cheff
P.O. Box 16988
Missoula, MT 59808
406-239-2810
406-721-3151 fax
levifiresolutions@yahoo.com

Dispatch: Missoula, MT
Business Detail: EERA
Transport: 35T lowboy and tractor
References: Dave Marsh, MT DNRC; Jeffrey Sholty, Sholty Contracting; Norm Jones, Norm Jones Contracting, Ellingson, Northwest Management, Inc., Helena office, MT

EXCAVATOR / MULCHER
2007 Kobelco ED150, 28 ft boom, 35,720 lb, 6-way blade
Attachments: processing head, grapple bucket with thumb, vertical shaft disc mulching head with rotating shroud

SKIDSTEER / MULCHER
2008 Bobcat 5330
Attachments: Bobcat 72" carbide-tipped mulching head

MONTANA
Flathead Timber

Tim Smart
Box 663
Kalispell, MT 59903
406-862-8805
406-253-7704 c

Dispatch: Kalispell, MT
Business Detail: Best Value
Transport: company provided
Fires: MT 2000-2007 Mussigbrod,
Moose, Buscuit, Wedge, Canyon,
Derby, Brush Creek, Big Creek, 2008
CA Lime Complex
References: Greg Poncin, MT-
DNRC, Kalispell; Pete Seigmound,
MT-DNRC, Kalispell, 406-751-2266

SKIDGINE, WHEEL  R1 Type 1 / R6 Type 3

1994 Clark F66 Rubber Tire Skidder, 120-140 hp, partial screened cab, sweeps,
light-duty blade
Attachments: 670 gal tank, pump, live reel, pin-on brush blade, tire chains

Get’er Done Wiest, LLC

Gary Wiest
Sharon Greer (admin)
561 Wiest Rd
Brady, MT 59416
406-753-2393
406-450-1968 c (Gary)
406-450-6905 c (Sharon)
406-753-2395 fax
wiest@3riversdbs.net
www.geterdoneboys.com

Dispatch: Great Falls, MT
Business Detail: EERA
Transport: 3 semi’s, 6 trailers
Fires: MT 2007 Ahorn, Fool Creek
References: Scott Kuehn, Tricon
Lumber, MT

MULCHER, STRIP, TRACK (2)

(2) 2008 Gyro-track (GT 25XP, 260 hp; GT 13XP, 140 hp), nylon / steel track,
horizontal shaft, fixed tooth mulching head with tree push bar, enclosed cab
Attachments: lights, winches

SKIDSTEER / MULCHER

2006 ASV RC100 Positrak Skid-Steer, 99.5 hp, rubber tracks, carrier mounted, 6
ft Felon horizontal shaft mulching head with tree push bar, enclosed cab
Attachments: lights, winch, 6 ft brush grapple, brush rake
Glacier Line Logging, Inc.

Pat Hanley
75 Brook Dr
Kalispell, MT 59901-3305
406-752-7753
406-253-2898 c
406-752-7029 fax

**Dispatch:** Missoula, MT
**Business Detail:** EERA
**Transport:** 20T 3-axle lowboy
**Fires:** 1988-2008 MT - Teakettle, Skyland, Brush Creek, Red Bench, Stone Young Complex, Elk Ridge
**References:** Tony Willets, Flathead NF, MT-DNRC, Kalispell

**EXCAVATOR**  
**Type 3**
1999 Hitachi, Model FX 135USR5 tracked Excavator, 25,000 lbs, 81-110 hp, enclosed cab, FOPS, 20 ft boom
**Attachments:** bucket with thumb, lights

**EXCAVATOR / LOG LOADER**  
**Type 1**
1993 Komatsu 300 tracked Excavator, long reach, 50,000 lbs, 156+ hp, enclosed cab, 65 ft boom
**Attachments:** bucket with thumb, log grapple, lights

**EXCAVATOR / FELLER BUNCHER, STEEP SLOPE (2)**  
**Type 1**
**Attachments:** 30” bar saw, 18” shear, excavator bucket, winch, lights

**DOZER / TRACK SKIDDER (2)**  
**Type 3**
1989 / 1994 John Deere 650G, 6-way blade, partial screened cab
**Attachments:** lights, winch (50 ft 9/16” cable)
**Grizzly Logging**

Harold Glazier
Michele Glazier
100 Sherman Rd
Kalispell, MT 59901
406-756-7973
406-261-0437 c (Harold)
406-261-3250 c
406-253-2675 c (Jim Vetrone)
griz_logn_gravel@centurytel.net

**Dispatch:** Missoula, MT

**Business Detail:** EERA

**Transport:** two 30T lowboys

**Fires:** 1994-2008 MT -Lost Trail, Little Wolf, Moose Fire, Wedge Canyon, Crazy Horse, Brush Creek, Crane Mountain, Deep Draw

**References:** George Zoffman, Strike Team Leader

---

**DOZER / TRACK SKIDDER  Type 3**

1990 John Deere 650G Dozer, 6-way blade, partially screened cab, FOPS, sweep, guards

**Attachments:** grapple, brush rake, lights

---

**SKIDDER, WHEEL  Type 1**

1993 John Deere 648E Rubber Tire Skidder, light-duty blade, enclosed cab, forestry sweeps guarding

**Attachments:** grapple, brush rake, tire chains, lights

---

**DOZER  Type 2**

1975 CAT D6C, 4-way blade, partially screen cab, FOPS/ROPS, forestry sweeps

**Attachments:** _____ ft skidding winch, lights

---

**EXCAVATOR  Type 3**

1995 CAT 315L tracked swing machine, 25,000 lbs, 25 ft boom, enclosed cab, FOPS/OPS, woods protection package

**Attachments:** 24” + 42” buckets with thumb, 5 ft brush rake with thumb, 8 ft landscaping bucket, lights

---

**FELLER BUNCHER, STEEP SLOPE  Type 1**

1991 Timbco T435 Feller Buncher, enclosed self-leveling cab, 24 ft boom

**Attachments:** 38” bar saw, lights

---

**SKIDDER, WHEEL  Type 1**

1978 John Deere 640 Rubber Tire Skidder, light-duty blade, partial screen cab, forestry sweeps

**Attachments:** skidding winch, brush rake, lights
### Grizzly Logging (cont.)

<table>
<thead>
<tr>
<th>LOG LOADER</th>
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</thead>
<tbody>
<tr>
<td>1970 CAT 966C rubber tire log loader</td>
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</tbody>
</table>

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### Hall Wood Processing

<table>
<thead>
<tr>
<th>Hall Wood Processing</th>
<th>Dispatch: Missoula, MT</th>
<th>Business Detail: EERA, Best Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doug Hall</td>
<td></td>
<td>Boles Meadows, Mineral, Bearmouth, Battle Mountain WY, Jocko Lakes, Big Hole, Bitterroot Complex, Ovando,, Dirty Ike, Packer Gulch</td>
</tr>
<tr>
<td>1625 Swanson Lane</td>
<td></td>
<td>References: John Hanson, MT-DN-RC, Missoula: Howie Kent, MT-DNRC, Clearwater; Alan Christman, USFS, Kalispell.</td>
</tr>
<tr>
<td>Potomac, MT 59823</td>
<td></td>
<td></td>
</tr>
<tr>
<td>406-244-5213</td>
<td></td>
<td></td>
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<tr>
<td>406-240-5546 c</td>
<td></td>
<td></td>
</tr>
<tr>
<td>406 244 5213 fax</td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="mailto:ptm3677@blackfoot.net">ptm3677@blackfoot.net</a></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2008 Timbco/Valmet 445EXL, 300 hp, 24 ft boom, self-leveling enclosed cab, FOPS/ROPS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Attachments: 22” high speed disc saw, lights</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>FELLER BUNCHER, STEEP SLOPE</th>
<th>Type 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008 Timbco/Valmet 445EXL, 300 hp, 24 ft boom, self-leveling enclosed cab, FOPS/ROPS</td>
<td></td>
</tr>
</tbody>
</table>

|   | Attachments: 22” high speed disc saw, lights |

<table>
<thead>
<tr>
<th>DOZER / TRACK SKIDDER</th>
<th>Type 2 and 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993 John Deere 550G, 80 hp (pictured), partial screened cab, FOPS/ROPS, Type 3</td>
<td></td>
</tr>
</tbody>
</table>

|   | Attachments: 6-way blade, winch |

|   | 1996 CAT D5H, 130 hp, enclosed cab, FOPS/ROPS, Type 2 |
|   | Attachments: 6-way blade, swing boom grapple |

|   | 1989 John Deere 650G, 90 hp, partial screened cab, FOPS/ROPS, Type 3 |
|   | Attachments: 6-way blade, winch |

<table>
<thead>
<tr>
<th>SKIDDER / SKIDGINE, WHEEL</th>
<th>Type 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007 John Deere 648G Grapple Skidder, enclosed cab, sweeps</td>
<td></td>
</tr>
</tbody>
</table>

| 1992 John Deere 648E Grapple Skidder, enclosed cab, sweeps |

| Attachments: 411 gal detachable tanks, pump and live reel, can be mounted or removed in under 10 minutes, grapples remain on skidders so they can be converted back to skidding; foam unit, lights, tire chains |

<table>
<thead>
<tr>
<th>EXCAVATOR</th>
<th>Type 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Deere 110, enclosed cab, FOPS, 25 ft boom</td>
<td></td>
</tr>
</tbody>
</table>

| Attachments: bucket with thumb, 8 ft front blade, guarding (brush & rock) |

---

**Dispatch:** Missoula, MT

**Business Detail:** EERA, Best Value

**Transport:** 3 lowboys, 35T and 50T (2)

**Operators:** DOZB qualified

**Fires:** 2000-2007 Lower Fawn Creek,
# Hardley Able Logging

<table>
<thead>
<tr>
<th>Details</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>James Evans</strong>&lt;br&gt;918 4th Street&lt;br&gt;Deer Lodge, MT 59722&lt;br&gt;406-491-2056&lt;br&gt;406-846-1508&lt;br&gt;<a href="mailto:jimevans1957@hotmail.com">jimevans1957@hotmail.com</a></td>
<td><strong>Dispatch:</strong> Billings, MT&lt;br&gt;<strong>Business Detail:</strong> EERA&lt;br&gt;<strong>Transport:</strong> 35T lowboy</td>
</tr>
<tr>
<td><strong>Fires:</strong> 2000-2007 MT / ID - Ahorn, Pattengail, Mauselbroad; fuel reduction projects through the MT DNRC.</td>
<td><strong>References:</strong> Lisa Rakich, Beaverhead-Deerlodge NF, Dillon</td>
</tr>
</tbody>
</table>

## SKIDDER, WHEEL  Type 1

1993 Timberjack 450C Rubber Tire Skidder, 136-187 hp, enclosed cab with forestry sweep guards, light-duty blade<br>
**Attachments:** 150 ft skidding winch with arch, grapple, chains, lights

## FELLER BUNCHER, STEEP SLOPE  Type 1

2001 Timberjack 2618, 24 ft boom swing, tracked, enclosed self-leveling cab<br>
**Attachments:** 24” hot saw head, lights

## SKIDSTEER / BRUSH RAKE

2007 CAT 287B, rubber track, ROPS, enclosed cab<br>
**Attachments:** brush rake, 8 ft 6-way blade, lights
<table>
<thead>
<tr>
<th>Intermountain Forest Technology Corp.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kevin W. Smith</strong></td>
</tr>
<tr>
<td>P.O. Box 10</td>
</tr>
<tr>
<td>Clancy, MT 59634</td>
</tr>
<tr>
<td>406-933-8000</td>
</tr>
<tr>
<td>406-949-0001 c</td>
</tr>
<tr>
<td>406-933-8000 fax</td>
</tr>
<tr>
<td><a href="mailto:smith@3riversdbs.net">smith@3riversdbs.net</a></td>
</tr>
<tr>
<td><strong>Dispatch:</strong> Helena, MT</td>
</tr>
<tr>
<td><strong>Business Detail:</strong> Current EERA 2009</td>
</tr>
<tr>
<td>Helena NF</td>
</tr>
<tr>
<td><strong>Transport:</strong> 45T lowboy</td>
</tr>
<tr>
<td><strong>Fires:</strong> 2000-2008 MT / ID – Clear Creek, Derby, Ahorn, Cascade, Bear Gulch</td>
</tr>
<tr>
<td><strong>References:</strong> Stephen O’Brien, USFS, Helena; Russ Owen, USFS; Craig Daughtery, SW IMT</td>
</tr>
</tbody>
</table>

### SKIDDER, WHEEL   Type 1
1996 CAT 525 Rubber Tire Skidder, fixed grapple, 10 ft wide, enclosed cab
Attachments: blade with brush rake, 100 ft winch, tire chains, lights

### PROCESSOR / STROKE BOOM DELIMBER, STEEP SLOPE
1994 Timberline 3530, track carrier, self-leveling cab
Attachments: 32” diam. capacity

### DOZER / TRACK SKIDDER   Type 2
2000 CAT 527 Dozer, 6-way blade, screened cab, forestry guards
Attachments: swing grapple, lights

### HARVESTER, STEEP SLOPE   Type 1
1999 Timbco 425D Harvester, 260 hp, ROPS, enclosed self-leveling cab, 28 ft boom
Attachments: 28” harvester bar saw head

### FELLER BUNCHER, STEEP SLOPE   Type 1
2000 Timbco 445D track swing machine, enclosed self-leveling cab, 24 ft boom
Attachments: 22” high speed disc (hot) saw, lights

### LOG LOADER / TONG TOSSEER
1997 CAT 320BL track loader, 28 ft boom, enclosed cab
Attachments: 2 winches, tong tosser, package slack kicker, log grapple
### James A. Slack, Inc.

<table>
<thead>
<tr>
<th>Jamie Slack</th>
<th>Dispatch: Missoula, MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rob Miller</td>
<td>Business Detail: EERA</td>
</tr>
<tr>
<td>2970 Hwy 2 E</td>
<td>Transport: 65,000 lb payload goose-neck lowboy</td>
</tr>
<tr>
<td>Kalispell, MT 59901</td>
<td>Fires: Chipmunk, Wedge Canyon, Robert, Blackfoot Complex, Fox Mountain, Sun Dog, Skyland, Brush Creek; since 2000 MT – Bald Hill, Barnum, Moose, Ear, Werner Peak, Robert, Doris, Blackfoot Lake, Doe, Ball, Crazy Horse, Fish Creek Complex. OR - Sour Biscuit 2</td>
</tr>
<tr>
<td>406-752-2959</td>
<td></td>
</tr>
<tr>
<td>406-261-3282 c (Jamie)</td>
<td></td>
</tr>
<tr>
<td>406-261-5150 c (Rob)</td>
<td></td>
</tr>
<tr>
<td>406-752-3769 fax</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:jamies@tcpkal.com">jamies@tcpkal.com</a> (Jamie)</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:rdmiller69@bresnan.net">rdmiller69@bresnan.net</a> (Rob)</td>
<td></td>
</tr>
</tbody>
</table>

### FELLER BUNCHER, STEEP SLOPE (2)

- **2004 Timbco 445D, 260 hp, self-leveling enclosed cab, 24 ft boom**
- **2001 Timberjack 2628 enclosed self-leveling cab, 24 ft boom**

**Attachments:** high speed disc hot saws, lights

### GRADER

- **1969 CAT 14E Grader, enclosed cab**

**Attachments:** rippers, front blade, 14 ft mow board

### DOZER / TRACK SKIDDER (2) Type 2

- **1965 CAT D6C, angle blade, partial screen cab, sweeps, FOPS/ROPS**

**Attachments:** 80 ft winch with arch, lights

- **1979 CAT D6D, angle blade, partial screened cab, FOPS/ROPS**

**Attachments:** grapple, lights

### EXCAVATOR / HARVESTER / LOG LOADER (2)

- **2000 CAT 320B tracked swing forest machine, enclosed cab, FOPS**

**Attachments:** bucket with thumb, 22” harvester head

- **2003 CAT 320C tracked swing forest machine, enclosed cab, FOPS**

**Attachments:** log grapple

---

**Missoula, MT**

**EERA**

**65,000 lb payload goose-neck lowboy**

**Chipmunk, Wedge Canyon, Robert, Blackfoot Complex, Fox Mountain, Sun Dog, Skyland, Brush Creek; since 2000 MT – Bald Hill, Barnum, Moose, Ear, Werner Peak, Robert, Doris, Blackfoot Lake, Doe, Ball, Crazy Horse, Fish Creek Complex. OR - Sour Biscuit 2**
### James A. Slack, Inc. (cont.)

**SKIDDER / SKIDGINE, WHEEL (2) Type 1**

- 2005 John Deere 648GIII Rubber Tire Skidder, enclosed cab
  Attachment: basket, grapple, winch, detachable 670 gal water tank
- 1994 CAT 518C Rubber Tire Skidder, enclosed cab
  Attachment: basket, grapple, winch, detachable 670 gal water tank

**EXCAVATOR / LOG LOADER (2) Type 1**

- 2000 CAT 320B Tracked Excavator, enclosed cab, 30 ft reach
  Attachment: forest machine bucket, Log Max processor, thumb
- 2003 CAT 320C Tracked Excavator, enclosed cab, 30 ft reach
  Attachment: forest machine, log loader

---

### J & M Logging, Inc.

Jonathan Sheets  
P.O. Box 411  
Drummond, MT 59832  
406-544-0795 c / fax  
jmlogging@blackfoot.net

- **Dispatch:** Helena, MT  
  **Business Detail:** EERA  
  **Transport:** double drop lowboy provided  
  **Fires:** 2000-2008 MT - Snow Talon, Keep Kool, Telegraph, Sand Basin, Derby, Jocko Lakes, Fool Creek Rehab, Skyline Rehab.  
  **References:** Obie O’Brien, USFS, Helena, MT; Adam Mendonca, USFS, Ruidoso, NM

**HARVESTER, STEEP SLOPE  Type 1**

- 1998 2618 Timberjack Feller Buncher, FOPS, enclosed self-leveling cab  
  **Attachments:** 762 harvester head, lights

**DOZER / TRACK SKIDDER  Type 3**

- 1976 International / Dresser TD8E dozer, partially screened cab, forest sweep guards  
  **Attachments:** 6-way blade, skidding winch with arch, lights
Kelly Logging, Inc.

| Jerry P. Kelly | Dispatch: Missoula, MT |
| P.O. Box 16067 | Business Detail: USFS timber sale contractor |
| Missoula, MT 59808 | Transport: company lowboys |
| 406-240-2292 | References: USFS-Helena NF, Rick Henningson, USFS-Butte, Bob Johns, Brian King |
| 406-251-3317 fax | |
| Kellytrees@aol.com | |

**FELLER BUNCHER, STEEP SLOPE (3) Type 1**

- 2006 Timberjack 608L (2) Feller Buncher
- 2008 John Deere 759G Feller Buncher

**Note:** 28 ft reach booms, self-leveling enclosed cabs, FOPS/ROPS

**Attachments:** 20” Koehring 180 deg rotation hot saws

**LOG LOADER (4) Type 2**

- 2006 CAT 320 Track Log Loaders, enclosed cab, 30 ft boom reach

**Attachments:** log grapple with live heel

**DOZER (3) Type 1 and 2**

- 1975 CAT D6, FOPS/ROPS, screens, sweeps (2)
- 1974 CAT D8H, FOPS/ROPS, sweeps

**Attachments:** angle blade, rippers, lights

**GRADER (4)**

- CAT 140G

**DOZER / TRACK SKIDDER / PUMPERCAT (2) Type 2**

- 2002/2004 CAT 527 tracked skidder (2), enclosed cabs

**Attachments:** 6-way blade, swing grapple, FOPS/ROPS/OPS, attachable 308 gal water tanks, pumps, live reels

**SKIDDER / SKIDGINE, WHEEL (2) Type 1**

- CAT 535 Rubber Tire Skidder, enclosed cab, sweeps

**Attachments:** attachable 308 gal water tanks, live reels, pump

- 518 CAT, Rubber Tire Skidder, enclosed cab, sweeps

**Attachments:** tire chains, enclosed cab, lights, 308 gal tank, pump, reel
### Kelly Logging, Inc. (cont.)

**DOZER / TRACK SKIDDER (2)  Type 2 and 3**

1988 CAT D5 Tracked Skidder, partial screened cab, FOPS/ROPS, sweeps  
*Attachments*: 6-way blade, fixed grapple  
1975 CAT D6, FOPS/ROPS, screens, sweeps  
*Attachments*: angle blade, winch with 100 ft 5/8 in cable

### Low Impact Forestry, Inc.

<table>
<thead>
<tr>
<th>Jim L. Nethercott</th>
<th>Dispatch: Missoula, MT</th>
<th>Fires: MT - Bald Hill, Brush, Moose, Sundog; 15 yrs fire and fuels work in MT / ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>45489 River Breaks Rd</td>
<td>Business Detail: EERA</td>
<td>References: Duane Plant, SKC Tribal Forestry Manager, Ronan, MT, 406-676-3755; Tony Willett, Flathead NF, USFS</td>
</tr>
<tr>
<td>Polson, MT 59860</td>
<td>Transport: 30T lowboy, 12T tilt bed</td>
<td></td>
</tr>
<tr>
<td>406-883-5049</td>
<td></td>
<td></td>
</tr>
<tr>
<td>406-261-2293 c</td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="mailto:lowimpactforestry@yahoo.com">lowimpactforestry@yahoo.com</a></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DOZER / TRACK SKIDDER  Type 3**

1974 John Deere 450C, 6-way blade, partial screen cab, FOPS/ROPS, sweeps  
*Attachments*: brush blade, 125 ft winch and arch, lights

**SKIDDER, WHEEL  Type 1**

1995 Timberjack 450C Rubber Tire Skidder, forestry safety enclosed cab, sweeps, light-duty blade  
*Attachments*: deck blade, swing grapple, 200 ft winch and arch, lights, tire chains

**SKIDSTEER / LOADER**

2002 John Deere 280, partial screen cab, rubber tire track bands  
*Attachments*: Loader, bucket, 9 ft Xtnd-a-hoe, lights
<table>
<thead>
<tr>
<th>Company</th>
<th>Dispatch</th>
<th>Business Detail</th>
<th>Transport</th>
<th>Fires</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTL Enterprises, LLC</td>
<td>Missoula, MT</td>
<td>EERA; Montana Jumpstart Fuels Reduction Forest Stewardship</td>
<td>4 lowboy/truck combos</td>
<td>2000-2007, MT: Brush Creek, Skyland, Chippy Creek, Crazy Horse</td>
<td>Josh Harvey - St. Maries TFLD, Brent Kallander - Kalispell DNRC Dozer Boss, Cameron Goins Libby USFS – IC, Manny Mendoza - Tally Lake District IC, Keigh Smiley - USFS - Rehab/restoration boss</td>
</tr>
</tbody>
</table>

**EXCAVATOR / LOG LOADER Type 2**

2001 CAT 318 B LN Tracked Excavator, 25 ft boom, enclosed and screened cab

*Attachments:* Winch - 200 FT of line, cut-off saw attached to bucket

*Note:* winch with boom-mounted block (can log out SMZ’s), bucket saw, 20” diameter felling capacity

**SKIDDER, WHEEL Type 1**

1995 CAT 525 Rubber Tired Skidder, sweep guard, enclosed cab

*Attachments:* grapple with winch, light-duty blade, tire chains

**DOZER / TRACK SKIDDER (4) Type 2**

1998 D6H Dozer, enclosed cab, FOPS/ROPS

*Attachments:* grapple

1990 CAT 525 Dozer, enclosed cab, FOPS/ROPS
1980 CAT D5 Dozer, partial screened cab, FOPS/ROPS
1979 CAT 518 Dozer, partial screened cab, FOPS/ROPS

*Attachments:* angle blades, lights, skidding cable winches with arches
<table>
<thead>
<tr>
<th>Company</th>
<th>Contact Details</th>
<th>Equipment Details</th>
<th>Dispatch</th>
<th>Business Detail</th>
<th>Transport</th>
<th>Fires</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>McFarland Logging</td>
<td>Gene McFarland 29 Arlene Drive Clinton, MT 59825 406-531-1868 c 406-531-9240 m 406-825-4466 406-825-3553 fax <a href="mailto:ljmcfarland@peoplepc.com">ljmcfarland@peoplepc.com</a></td>
<td><strong>DOZER / TRACK SKIDDER</strong> Type 1 2005 CAT 527 track skidder, 6-way blade, FOPS/ROPS, enclosed cab Attachments: swing grapple, lights</td>
<td></td>
<td></td>
<td>30T lowboy trailer</td>
<td>MT 1993-2003 Gold Creek, Beavertail Hill, I 90, Ryan Creek</td>
<td>Plum Creek Timber, Missoula, MT; Scott Kuehn, Tri-con, St. Regis, MT; Jeff Rupicaluis, USFS-Lolo NF, Missoula, MT</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>SKIDDER, WHEEL</strong> 1995 John Deere 648E Rubber Tire skidder, enclosed cab, forestry sweeps, light duty blade Attachments: fixed grapple, pin-on brush rake, lights, tire chains</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Fires:** MT 1993-2003 Gold Creek, Beavertail Hill, I 90, Ryan Creek

**References:** Plum Creek Timber, Missoula, MT; Scott Kuehn, Tri-con, St. Regis, MT; Jeff Rupicaluis, USFS-Lolo NF, Missoula, MT
Milner Brothers Logging, Inc.

Patrick Milner
Larry Milner
P.O. Box 1253
Thompson Falls, MT 59873
406-827-4276
406-396-1446 c
406-827-3846
406-242-0020 c
sandsmilner@blackfoot.net
ltm1@blackfoot.net

Dispatch: Missoula, MT
Business Detail: EERA, Best Value
Transport: 23T flatbed
Fires: 2000 -2008 MT - Thompson Falls, Strawberry Mountain, Clinton, Cherry Creek, Thompson Falls, Prospect Creek, Superior, Garceau I and II, Polson, Chippy Creek, Marion, Arnold Rd Plains, Wood Chuck, Lolo, Ashley Lake, Ronan, Marion, Deep Draw, Elmo

References: Joe Hughes, Resource Manager, USFS, Superior, MT; Ron Swainey, BIA, Ronan, MT

SKIDGINE, WHEEL (2)
Attachments: 235 gal tank, pump, hose reel, 75 ft winch, tire chains, lights

SKIDDER, WHEEL
1985 John Deere 540B Rubber Tire Skidder, partial screened cab, FOPS/ROPS, sweep guards, light-duty blade
Attachments: 100 ft winch with arch, tire chains

DOZER / TRACK SKIDDER Type 3
1981 Case 850B, partial screen cab, sweeps, FOPS/ROPS
Attachments: 75 ft winch, skidding arch, 6-way blade, lights

Mote Lumber

Doug Mote
P.O. Box 6938
Helena, MT 59604
406-439-1632
406-458-5949 fax
doug@motelumber.com

Dispatch: Helena, MT
Business Detail: MT DNRC for initial attack; private landowner contracts
Transport: 3-axle tilt deck
Fires: MT - Snow Talon 2003, Meriwether 2007, private ground fuels reduction
References: 2008 MT Logger of the Year, D.J. Bakken, MT-DNRC Central Land Office, Helena, MT

FORWARDER
2007 Ponsse Wisent, 174 hp, 13T capacity, 6-wheel drive rubber tire with tracks and chains, FOPS/ROPS, enclosed safety cabin, 33 ft crane reach, light-duty blade
Attachments: log grapple, available saw attachment for grapple, lights, log bunks
Note: top speed 17 mph
Obadiah’s Wildfire Fighters

Woody Chain
249 Silver Dr
Troy, MT 59935
800-968-8604
406-295-9490 fax
woody@wildfirefighters.com
www.wildfirefighters.com

- Dispatch: Missoula, MT
- Business Detail: Best Value
- Transport: 20T lowboy, 20T equipment trailer
- Fires: 2000-2008 MT, OR, CO, ID, CA, Australia

SKIDGINE / CARGO HAULER / CREW HAULER / EMERGENCY EVACUATION VEHICLE, SOFT TRACK Soft Track, Type 2

Soft track non-armored personnel carrier (M548), cab seats 4, rear enclosed cargo area, twin 500 gal mixing tanks (water, retardant, hydroseed), rubber road pads on tracks

- Attachments: lights, woods cab guards, two 5 hp mixing pumps, 5 hp slurry application pump, two 200 ft live reels, foam system, roof water cannon, 20T PTO winch, 100 gal Terra Torch, broadcast seeder
- Note: steep slope capable, amphibious, 45 mph top speed

SKIDGINE, SOFT TRACK Type 1

1978 FMC 220 Soft Track Carrier, 220 hp, partial screened cab, FOPS, light-duty blade, woods cab guards

- Attachments: 1620 gal tank, pump, remote water cannon; 2 - 300 ft live reels, pin-on brush rack, lights, foam, 100 gal Terra Torch, broadcast seeder
- Note: steep-slope capable (max 60%) with light ground pressure

Quartz Logging, Inc.

Kevin Donally
322 William Lloyd Ln
Superior, MT 59872
406-822-4889
406-822-2336 c
406-822-4889 fax
donallys@blackfoot.net

- Dispatch: Missoula, MT
- Business Detail: EERA
- Transport: lowboy
- Fires: Fish Creek 2003, Jocko Lakes 2007

FELLER BUNCHER, STEEP SLOPE Type 1

2001 Timbco T445D, enclosed self-leveling cab, FOPS/OPS, 24 ft boom, fire suppression system

- Attachments: 22” high speed disc hot saw head, lights
### Montana

#### Rick Oliver Contracting

<table>
<thead>
<tr>
<th>Contact</th>
<th>Address</th>
<th>Contact Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rick Oliver</td>
<td>Plains, MT 59859</td>
<td>406-826-4430</td>
</tr>
<tr>
<td></td>
<td></td>
<td>406-544-7571</td>
</tr>
<tr>
<td></td>
<td></td>
<td>406-531-0035</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="mailto:rolivercont@hotmail.com">rolivercont@hotmail.com</a></td>
</tr>
</tbody>
</table>

**Dispatch:** Missoula, MT  
**Business Detail:** Fuels reduction contracts for Sanders and Missoula Counties, Townsend, MT, Black Hills, SD.  
**References:** Calvin Minemyer FMO, Dave Olsen, Division Supervisor, Everett Young, IC3. All from MT DNRC Plains Unit (406-826-3851)

#### Riding High Excavation, Inc.

<table>
<thead>
<tr>
<th>Contact</th>
<th>Address</th>
<th>Contact Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tim Ryan</td>
<td>Eureka, MT 59917</td>
<td>406-250-1941</td>
</tr>
<tr>
<td></td>
<td></td>
<td>406-889-3240 ofc / fax</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="mailto:ridinghigh@montanasky.net">ridinghigh@montanasky.net</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="http://www.ridinghighinc.com">www.ridinghighinc.com</a></td>
</tr>
</tbody>
</table>

**Dispatch:** Libby, MT  
**Business Detail:** EERA  
**Transport:** 2 lowboys – 50T, 25T  
**Fires:** 1988-2008 MT - Brush Creek, Basin Creek, Elk Mountain  
**References:** John Shotzberger, (406-293-2711), DNRC, Libby District; Judy Fosse, Kalispell NF, Libby

#### MULCHER, STRIP, TRACK

- **2008 Fecon FTX 140 Tracked Carrier**, 140 hp, steel tracks, forestry package, enclosed cab  
  **Attachments:** 7 ft horizontal shaft mulcher with push bar, lights

#### EXCAVATOR (2) Type 2

- **2007 John Deere 270D Tracked Excavator**, enclosed cab, forest guard package, 26 ft boom  
- **2005 Hitachi 120 Tracked Excavator**, enclosed cab, forest guard package, 24 ft boom  
  **Attachments:** bucket thumb, rippers, 5 ft wide muck bucket

#### DOZER (2) Type 2

- **2007 John Deere 850J Dozer**, 6-way blade, forest guard package, enclosed cab, FOPS/ROPS, sweeps  
  **Attachments:** pin-on brush rake, broadcast, rippers  
- **1995 Allis FD14E Dozer**, tilt blade, partial cab screen, FOPS/ROPS  
  **Attachments:** brush rake, rippers

#### GRADER Type 1

- **2002 Volvo 736 Motor Grader**, 6-wheel drive  
  **Attachments:** 14 ft mow board blade
# Roper Logging

**Robert Roper**  
Box 27  
Hall, MT 59837  
406-544-6080 (Robert)  
406-531-5875 (Jenn)  
406-288-3212 fax  
roperhorsejr@netscape.net

<table>
<thead>
<tr>
<th>Dispatch: Missoula / Dillon, MT</th>
<th>Fires: MT 2003-2007 Snow-Talon, Moose, Derby, Big Timber, Chippy Creek, Merriweather</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Detail: Best Value, EERA</td>
<td>References: D.J. Bakken, MT-DNRC, Helena</td>
</tr>
<tr>
<td>Transport: Contractor provided 50T removable gooseneck or short, single drop lowboy 35T</td>
<td></td>
</tr>
</tbody>
</table>

## SKIDDER / SKIDGINE, WHEEL (2) Type 1

- **1996 CAT 525 Skidgine Rubber Tire Skidder, FOPS/ROPS, enclosed cab, sweeps, light duty blade**
  - **Attachments:** 410 gal water tank, quick attach tank, lights, full guarding, tire chains, grapple
- **1989 Clark 667 Skidgine Rubber Tire Skidder, screened cab, FOPS/ROPS**
  - **Attachments:** 405 gal water tank, quick attach tank, lights, full guarding dozer blade, tire chains, grapple

## DOZER / TRACK SKIDDER (2) Type 2

- **1974 CAT D6C, 10,000 lbs, 142 hp, angle blade, partial screened cab, ROPS, sweeps**
  - **Attachments:** fixed grapple, lights
- **1966 CAT D6C 77A, 135 hp, partial screened cab, ROPS, sweeps**
  - **Attachments:** 100 ft bulline winch with arch, lights
Scott’s Fire Service, Inc.
Parke & Pam Scott
181 Clark’s Lookout Rd
Dillon, MT 59725
406-683-4877
406-925-1909 c
406-925-0228 c
406-683-4877 fax
scottsfireservice@bmt.net

Dispatch: Dillon, MT
Business Detail: USFS Best Value, EERA
Transport: available
Fires: 2007 MT - Mcknight, Meriwether
References: Roy Barkley, USFS, Helena NF; Lisa Rackaich, Jonathan Kline, USFS, Beaver-Deer Lodge NF; Mark Williams, USDA, Dubois, ID

SKIDGINE, WHEEL
1981 CAT 528, Rubber Tired Skidder, enclosed cab, sweep guards, light-duty blade
Attachments: 730 gal tank, pump, hose reel, front spray bars, lights

DOZER, TRAIL Type 3
1998 SWECO 480 Trail Dozer, 4 ft 6-way dozer blade, 80 hp, 9000 lb, partial screened cab
Attachments: 3 shank ripper, winch, lights

Soft Track Attack
Larry Covey
540 Elk Haven Rd
Troy, MT 59935
406-295-5770
406-295-5771 fax
softtrackattack@hotmail.com
softtrackattack.com

Dispatch: Libby, MT
Business Detail: EERA, R1 Best Value, CAL-FIRE, WA DNR; worked for USFS, BIA, BLM, DNR. Admin dispatch from Libby MT, but resources stationed in Columbia Falls, Missoula, Bonners Ferry, Grangeville, ID
Transport: lowboys

SUPER-SKIDGINE, WHEEL Type 1
Timberjack 560 Rubber Tire Skidder, enclosed cab, sweep guards
Attachments: 1270 gal water tank, foam, remote water monitor, pump, tire chains, lights

SKIDGINE, SOFT TRACK (6) Type 1
(6) 1977 FMC CA-210, 210 hp, soft track carrier, enclosed cab, light-duty blade, drafting capabilities, FOPS/ROPS, sweep guards
Attachments: remote control water cannon, pump, 1500 gal water tank, hose reels, night lighting
Note: up to 60% slope operability
### Spencer Logging

| Kurt Spencer |
| 628 Florence Rd |
| Libby, MT 59923-9368 |
| 406-293-9154 |
| 406-291-0702 c |
| 406-293-9154 fax |
| ckspencer@windjammercable.net |
| http://bigfoot-firefighting.tripod.com |

**Dispatch:** Libby, MT  
**Business Detail:** Best Value, EERA  
**Transport:** contractor provided 35T lowboy, 20T tilt bed  
**Fires:** 1988-2008 MT / CA / TX / CO / NM / OR - CA 2008 Lime Complex, MT 2003-2007 Brush Creek, Wedge Canyon  
**References:** Heath Morton, 706-657-4211; Tony Conte, USFS, Trout Creek RD; Jim Harrington, USFS, Phillipsburg RD

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#### SUPER-SKIDGINE, WHEEL Type 1

1992 Franklin 170 4-wheel Forwarder, enclosed cab, sweeps, light-duty blade  
**Attachments:** 2500 gal tank, water monitor, 300 ft hardline live reel, foam, 360 degree lights, 1500 ft hose, tire chains

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#### DOZER / TRACK SKIDDER

1982 John Deere 550 Dozer, 8 ft 6-way blade, partial screen cab, forestry sweeps, FOPS/ROPS  
**Attachments:** 80 ft winch, lights

---

### STOKEN LOGGING, INC.

| Pat Stoken and Mike Stoken |
| P.O. Box 771 |
| Eureka, MT 59917 |
| 406-297-2470 ofc |
| 406-297-2347 h |
| 406-270-7494 c (Mike) |
| 406-253-4112 c (Pat) |
| 406-297-2469 fax |
| Stokenlogging@Montanasky.Com |

**Dispatch:** Libby, MT  
**Business Detail:** EERA  
**Transport:** 2 60T lowboys, 20T tilt trailer  
**Fires:** 1979-2007 MT - Cayuse Complex, Chippy Creek, Dry Fork  
**References:** Jim Pucket, USFS, Eureka; Ralph Gilderman, USFS, Murphy Lake; Brian Manning, MT-DNRC, Stillwater Station, MT

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#### DOZER / TRACK SKIDDER

1979 CAT D6, partial screen cab, ROPS, forestry sweeps, angle blade  
**Attachments:** grapple, lights

---

#### SUPER-SKIDGINE

1998 John Deere 1010B, 6-wheel, 22 ft boom reach, enclosed cab with screens, FOPS, sweeps  
**Attachments:** 2000 gal certified tank, pump, 250 ft live reel, track bands, chains, water cannon, 200 ft hose, lights
## Section 3: Contractor Directory

### Montana

**Grader**

- **2001 CAT 14E, 140 hp, articulated, enclosed cab**
- **Attachments:** ripper, 14 ft mow blade, lights

**Feller Buncher, Steep Slope (2)**

- **Attachments:** 24” high speed disc hot saw, lights

**Loader, Front End**

- **1980 CAT Wheel Loader 930, rubber tire, ROPS, enclosed cab**
- **Attachments:** 1.3 yd bucket, lights

**Skidder, Wheel (3)**

- **2002 / 2004 CAT 525B Rubber Tire Skidder**
  - **Attachments:** grapple, lights, chains
- **1980 CAT 518, partial screen cab**
  - **Attachments:** 100 ft winch with arch

**Log Loader (2)**

- **2002 CAT 312C + 2004 CAT 320B, off-road swing machines, 30 ft reach**
  - **Attachments:** log grapple, lights

**Harvester, Steep Slope (3)**

- **2002 Timbco 425, enclosed self-leveling cab, 30 ft boom reach**
- **2005 Timbco 425 Exl, enclosed self-leveling cab, 30 ft boom reach**
- **2006 CAT 320C Excavator, 30 ft boom reach**
  - **Attachments:** 20” + 24” dangle head harvester/processer, lights

**Dozer / Track Skidder (2)**

- **2003 CAT 527, 6-way blade and 2004 CAT 527 High Track, enclosed cab, FOPS/ROPS/OPS, sweeps, 6-way blade**
  - **Attachments:** swing grapples, lights
St. Onge Logging, Inc.

Dispatch: Kalispell, MT  
Business Detail: EERA  
Transport: 50T lowboy  
Fires: MT 2000-2007 Moose Creek, Blackfoot, Chippy Creek, Bald Hills, Wedge, Roberts, Brush Creek, Stryker Ridge, North Lost, Sunday Creek, Scout Lake, Huckleberry Mountain, Gardenwall, Jete Mountain, Crazyhorse, Tear Drop, Red Owl, Challenge Creek, Ahorn, Sun Dog

References: Pete Sigmund, MT-DNRC, Kalispell, MT; Tony Willetts, USFS, Flathead

SKIDDER, WHEEL (5) Type 1

1978 + 1983 CAT 518 Rubber Tire Skidder, partial screen cab, FOPS, sweep guards, light-duty blade  
Attachments: 100 ft winch with arch, lights, tire chains  

2002 + 2004 John Deere 648G3 Rubber Tire Skidder, FOPS/ROPS/OPS, enclosed cab, light-duty blade, sweep guards  
Attachments: grapple, lights, tire chains  

2007 John Deere 648H Rubber Tire Skidder, FOPS/ROPS/OPS, enclosed cab, light-duty blade, sweep guards  
Attachments: grapple, lights, tire chains

EXCAVATOR

1995 CAT 325L tracked swing machine, 156 hp, 50,000 lbs, ROPS, enclosed cab, guards  
Attachments: lights, bucket with thumb

EXCAVATOR / LOG LOADER (2)

2005 John Deere 2054 track swing machine, enclosed cab, 37 ft boom, high clearance 4 ft  
Attachments: log grapple, live reel, lights

Montana

Kevin St. Onge, Bob St. Onge
P.O. Box 2075
Kalispell, MT 59903-2075
406-257-3088
406-261-8456 Kevin
406-261-2038 Bob
406-257-0018 fax
stongelogging@centurytel.net
### St. Onge Logging, Inc. (cont.)

#### DOZER / TRACKED SKIDDER (3) Type 2

<table>
<thead>
<tr>
<th>Year</th>
<th>Model</th>
<th>Description</th>
<th>Attachments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>CAT D6C Dozer, partial screen cab, FOPS/ROPS, forestry sweep guards, angle blade</td>
<td>100 ft winch with arch, lights</td>
<td></td>
</tr>
<tr>
<td>1973-77</td>
<td>CAT D6C Dozer, partial screen cab, FOPS/ROPS, sweeps, angle blade</td>
<td>grapple, lights</td>
<td></td>
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<tr>
<td>1974</td>
<td>CAT D6C Dozer, partial screen cab, FOPS/ROPS, forestry sweep guards, angle blade</td>
<td>100 ft winch with arch, lights</td>
<td></td>
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<tr>
<td>1973-77</td>
<td>CAT D6C Dozer, partial screen cab, FOPS/ROPS, sweeps, angle blade</td>
<td>grapple, lights</td>
<td></td>
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</table>

#### SHOP LOG LOADER (2)

<table>
<thead>
<tr>
<th>Year</th>
<th>Model</th>
<th>Description</th>
<th>Attachments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>John Deere 2054 track swing machine, enclosed cab, 37 ft boom, high clearance 4 ft.</td>
<td>log grapple, liver reel, lights</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>Shovel Log Loader</td>
<td></td>
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</tr>
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</table>

#### FELLER BUNCHER, STEEP SLOPE (3)

<table>
<thead>
<tr>
<th>Year</th>
<th>Model</th>
<th>Description</th>
<th>Attachments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>Timco 445 Tracked Feller Buncher</td>
<td>enclosed self-leveling cab, 24 ft boom</td>
<td>all have 22” hot saws</td>
</tr>
<tr>
<td>2000</td>
<td>Prentice 622B</td>
<td>enclosed self-leveling cab, 24 ft boom</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>John Deere 759G Tracked Feller Buncher</td>
<td>enclosed self-leveling cab, 24 ft boom</td>
<td></td>
</tr>
</tbody>
</table>
Montana

### Sun Mountain Logging

**Rex Anderson**  
P.O. Box 389  
Deer Lodge, MT 59722  
406-560-0382  
406-846-3799  
406-846-3714 fax  
majesticmtnlogging@hotmail.com  
www.sunmtnlumber.com

**Dispatch**: Dillon, MT  
**Fires**: 1976 – present MT  
**Business Detail**: USFS, BIA, BLM, Montana DNRC  
**References**: Obie O’Brien, USFS, Helena, MT  
**Transport**: contractor provided low-boys

#### SKIDDER / SUPER-SKIDGINE, WHEEL  Type I

- 2003 CAT 535B Rubber Tire Skidder, 200 hp, 37,300 lbs, light-duty blade, enclosed cab, sweep guards, FOPS/ROPS/OPS  
- **Attachments**: 1100 gal capacity, 2 detachable water tanks, 2 pumps, 2 hose reels, hoses

#### DOZER  Type I

- 1997 CAT D7R, 240 hp, 57,000 lbs, enclosed cab, ROPS, sweeps  
- **Attachments**: 12 ft U-blade, rippers, lights

### T & N Enterprises

**Tony M. Hulett**  
P.O. Box 965  
Swan Valley, MT 59826  
406-754-2959  
406-210-3003  
wanemah@blackfoot.net

**Dispatch**: Kalispell, MT  
**Fires**: 1980s-2008 Brushy Creek, Bald Hill, Jocko Lakes, Lindbergh Lake, Challenge Creek, Sunset, Meadow Lake fires (partial list)  
**Business Detail**: EERA, Federal and State contracts  
**References**: Bruce Timpano, Pyramid Mountain Lumber, 406-677-2710, Tony Willits, Flathead NF, 406-253-1507, Dan Roberson, Swan River State Forest, 406-754-2301  
**Transport**: truck and trailer, 35T, 22 ft deck

#### EXCAVATOR  Type 2

- 2001 200LC John Deere, 111-155 HP, 25 ft boom, FOPS, enclosed cab  
- **Attachments**: bucket with thumb, lights

#### SKIDSTEER / MULCHER, STRIP

- 2009 Caterpillar 299C-ACHF Rubber Track Loader, enclosed cab, screens  
- **Attachments**: 6-way blade, bucket, 6 ft horizontal carbide tooth mulcher with push bar
<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Model Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUPER-SKIDGINE Type 1</td>
<td>Super Skidgine, Type I, TimberJack 1010 6-wheel Forwarder, enclosed cab, 25 ft boom</td>
</tr>
<tr>
<td>Attachments:</td>
<td>2500 gal tank, pump, 300 ft live hose reel, end dump, 5 ft hydrant hookup, live nozzle on boom, lights</td>
</tr>
<tr>
<td>FELLER BUNCHER, STEEP SLOPE (3) Type 1</td>
<td>2003 + (2) 2000 Timbco T445D Tracked Feller Bunchers, self-leveling enclosed cabs, 24 ft booms</td>
</tr>
<tr>
<td>Attachments:</td>
<td>22&quot; high speed disc saws, lights</td>
</tr>
<tr>
<td>SKIDGINE, WHEEL (2) Type 2</td>
<td>1998 John Deere 648G Rubber Tire Skidgines (2), enclosed cab, FOPS/ROPS, sweeps</td>
</tr>
<tr>
<td>Attachments:</td>
<td>300 gal tank, 300 ft live hose reel, draft capable, pump, lights, tire chains</td>
</tr>
<tr>
<td>DOZER / TRACK SKIDDER (2) Type 2</td>
<td>1998 + 2002 CAT 527 Track Skidders, 166 hp, enclosed cabs, FOPS/ROPS/OPS</td>
</tr>
<tr>
<td>Attachments:</td>
<td>swing grapples, lights</td>
</tr>
<tr>
<td>EXCAVATOR / LOG LOADER/TONG TOSSER, STEEP SLOPE</td>
<td>1995 Timbco T445BB Tracked swing carrier, enclosed self-leveling cab, FOPS, 22 ft boom</td>
</tr>
<tr>
<td>Attachments:</td>
<td>log grapple, tong throwing cable drum, slack kicker + tongs</td>
</tr>
<tr>
<td>Note:</td>
<td>200 ft reach for logging steep slopes and broken ground</td>
</tr>
<tr>
<td>EXCAVATOR, STEEP SLOPE</td>
<td>1991 Timbco T430 tracked swing carrier, self-leveling enclosed cab, FOPS, forestry guards</td>
</tr>
<tr>
<td>Attachments:</td>
<td>bucket with thumb, lights</td>
</tr>
<tr>
<td><strong>Montana</strong></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>TBC Timber, Inc. (cont.)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>SKIDDER, WHEEL (4) Type 1</strong></td>
<td></td>
</tr>
<tr>
<td>1998 John Deere 648G, grapple, enclosed cab, FOPS/ROPS, sweeps</td>
<td></td>
</tr>
<tr>
<td>2002 John Deere 648G, grapple, winch, enclosed cab, FOPS/ROPS, sweeps</td>
<td></td>
</tr>
<tr>
<td>2004 CAT 535C, grapple, winch, enclosed cab, FOPS/ROPS, sweeps</td>
<td></td>
</tr>
<tr>
<td>2006 CAT 535C, grapple, enclosed cab, FOPS/ROPS, sweeps</td>
<td></td>
</tr>
<tr>
<td><strong>Attachments:</strong> light-duty blade, lights</td>
<td></td>
</tr>
<tr>
<td><strong>Ten Lakes Forestry and Excavation, Inc.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Wayne Finch</strong></td>
<td>Dispatch: Libby, MT</td>
</tr>
<tr>
<td>P.O. Box 1074</td>
<td>Business Detail: EERA</td>
</tr>
<tr>
<td>Eureka, MT 59917</td>
<td></td>
</tr>
<tr>
<td>406-297-3114</td>
<td></td>
</tr>
<tr>
<td>406-297-7541 fax</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:tenlakesforestry@hotmail.com">tenlakesforestry@hotmail.com</a></td>
<td></td>
</tr>
<tr>
<td><strong>EXCAVATOR / PROCESSOR</strong></td>
<td>Fires: 1988-2005 MT - Dry 3 Mile, Camp Creek, Pink-Stone, Camp 32, Fish Creek</td>
</tr>
<tr>
<td>1999 CAT 312BL tracked swing machine, 88 hp, forestry guarded enclosed cab, screens, 25 ft boom</td>
<td>References: Ron Hvisdak, retired FMO Rexford Ranger, Kootenai NF, Eureka, MT; Ed Farruzzi, USFS, Kootenai NF, Murphy Lake; Mike Justice, MT-DNRC, Libby, MT</td>
</tr>
<tr>
<td><strong>Attachments:</strong> bucket with thumb, 18” log processing dangle head, lights</td>
<td></td>
</tr>
<tr>
<td><strong>DOZER / TRACK SKIDDER</strong></td>
<td></td>
</tr>
<tr>
<td>1998 CAT 527 Tracked Skidder, FOPS/ROPS/OPS, enclosed cab, forestry sweep guards, screens</td>
<td></td>
</tr>
<tr>
<td><strong>Attachments:</strong> 6-way blade, swing boom grapple, 30 ft pad, lights</td>
<td></td>
</tr>
<tr>
<td><strong>EXCAVATOR Type 3</strong></td>
<td></td>
</tr>
<tr>
<td>1998 Kobelco Sk150LC Tracked Excavator, 100 hp, forestry guarded enclosed cab, 28 ft boom</td>
<td></td>
</tr>
<tr>
<td><strong>Attachments:</strong> bucket with thumb, brush rake, lights</td>
<td></td>
</tr>
<tr>
<td><strong>SKIDDER, WHEEL</strong></td>
<td></td>
</tr>
<tr>
<td>1997 Timberjack 460D, FOPS/ROPS/OPS, enclosed cab, forestry sweep guards, light-duty blade</td>
<td></td>
</tr>
<tr>
<td><strong>Attachments:</strong> swing grapple, tire chains, lights</td>
<td></td>
</tr>
</tbody>
</table>
Timberlake Landworks and Excavation

Mike Wilson
Caleb Bonny
P.O. Box 645
Lakeside, MT 59922
406-844-3965
406-249-1604 c (Mike)
406-471-8170 c (Caleb)
406-844-3965 fax
mike@timberlakelandworks.com

Dispatch: Missoula, MT
Business Detail: EERA
Transport: 32T lowboy, 12T lowboy
Operators: All operators have current BMP/SMZ training

EXCAVATOR / LOG LOADER (2) R1 Type 2 / R6 Type 3
2007 John Deere 160C LC Tracked Excavator, enclosed cab, forestry guards, 28 ft boom
Attachments: bucket and thumb, log grapple

SKIDSTEER / MULCHER
2008 Bobcat T320 rubber track skid-steer loader, 93 hp, 10,000 lbs, enclosed cab, 6-way dozer blade
Attachments: 5 ft horizon shaft drum mulcher with carbide tip teeth, brush rake / grapple, bucket

SKIDDER, WHEEL R1 Type 1 / R6 Type 3
1995 CAT 518C Rubber Tire Skidder, enclosed cab, forestry sweeps, screen guard, FOPS, light-duty blade
Attachments: 2-way grapple, 100 ft 5/8” cable winch, tire chains, lights

EXCAVATOR / LOG LOADER R1 Type 4 / R6 Type 3
2007 John Deere 75C, 6-way dozer blade, enclosed cab, forestry guards, 28 ft boom
Attachments: bucket with thumb, log grapple

EXCAVATOR / FELLING SHEAR Type 3
2007 CAT 314C LCR Tracked Excavator, enclosed cab, forestry guards, 28 ft boom, 6-way blade
Attachments: bucket and thumb, tree shear

Fires: 2007 Brush Creek Fire Montana
References: Kevin Grodi, Oscola NF, FL; Michael Dunn, Grangeville Air Center, ID
### Contractor Directory

**Tough Go Logging, Inc.**

<table>
<thead>
<tr>
<th>James J. Stupack</th>
<th>Jennie M. Stupack</th>
</tr>
</thead>
<tbody>
<tr>
<td>695 Lore Lake Rd</td>
<td>695 Lore Lake Rd</td>
</tr>
<tr>
<td>Kalispell, MT 59901</td>
<td>Kalispell, MT 59901</td>
</tr>
<tr>
<td>406-257-7141</td>
<td>406-257-7141</td>
</tr>
<tr>
<td>406-253-2227 James</td>
<td>406-253-2227 James</td>
</tr>
<tr>
<td>406-253-1944 Jennie</td>
<td>406-253-1944 Jennie</td>
</tr>
<tr>
<td>406-257-0204 fax</td>
<td>406-257-0204 fax</td>
</tr>
<tr>
<td><a href="mailto:toughgoturf@centurytel.net">toughgoturf@centurytel.net</a></td>
<td><a href="mailto:toughgoturf@centurytel.net">toughgoturf@centurytel.net</a></td>
</tr>
</tbody>
</table>

**Dispatch:** Missoula, MT  
**Business Detail:** EEERA  
**Transport:** company provided

**Fires:** 2000-2008 MT - Dahl Lake, Werner Peak, Moose, Fox Creek, Wedge, Blackfoot Complex, Ahorn, Derby, Crazy Horse, Brush Creek, Deep Draw

**Fuels Reduction:** Blankenship Fuels Stewardship Flathead NF, Hungry Horse-West Glacier Fuels Stewardship, Blankenship Fuels Stewardship, Pierce Fuels Stewardship, Holland Fuels Stewardship

**References:** USFS - Wally Bennett, James Barnett, Mike Shira; DNRC - Bill Glaspey, Pete Siegmund, Dave Jones, Dave Ring

### Equipment Details

**FELLER BUNCHER, STEEP SLOPE (2)**

- **2002 Timbco 445E Tracked Feller Buncher (Type 1),** 300 hp, self-leveling enclosed cab, 24 ft reach  
  **Attachments:** 22" high speed disc hot saw, lights

- **1990 Timbco 430 Tracked Feller Buncher (Type 2),** 174 hp, self-leveling enclosed cab, 24 ft reach  
  **Attachments:** 28" bar saw

**EXCAVATOR Type 2**

- **1996 Hitachi 200 LC-3 Tracked Excavator,** 150 hp, enclosed cab, 18 ft reach  
  **Attachments:** 42" bucket, progressive thumb, lights

**SKIDGINE, WHEEL (2) R1 Type 1 / R6 Type 3**

- **1984 CAT 518C Wheel Skidder,** light-duty blade, screened cab, FOPS/ROPS  
  **Attachments:** 1170 gal tank, pump, hose reel, lights

- **1978 CAT 518C Wheel Skidder,** light-duty blade, screened cab, FOPS/ROPS  
  **Attachments:** 500 gal tank, pump, hose reel, chains, lights

**SKIDDER, WHEEL (4) R1 Type 1, R6 Type 3**

- **1984 CAT 518C,** swing grapple, light-duty blade, screened cab  
  1996 John Deere 648, grapple, light-duty blade, enclosed cab  
  1998 John Deere 648 II, grapple, light-duty blade, enclosed cab  
  2000 John Deere 648 III, grapple, winch, light-duty blade, enclosed cab  
  **Attachments:** tire chains, lights, forestry sweeps and screens

**EXCAVATOR / MULCHER (2) Type 2**

- **2006 Hitachi ZX200 LC-5,** 150 hp, woods cab guarded, 26 ft reach  
  **Attachments:** 5 ft horizontal shaft chipper head

- **2007 Hitachi ZX200 LC-5,** 150 hp, woods cab guarded, 26 ft reach, 90 degree wrist  
  **Attachments:** 5 ft horizontal shaft mulching head, 90 degree wrist, debris hooks
Tough Go Logging, Inc.  (cont.)

**PROCESSOR (3)**

1996 Kobelco 200 Mark IV, 150 hp, woods guarded, Denharco 3000 stroke delimber, 24 ft boom

2004 CAT 320CFM, 150 hp, woods guarded, Log Max 7000 dangle head harvester, 20 ft boom

2007 CAT 320CFM, 150 hp, woods guarded, Log Max 7000XT dangle head harvester

**DOZER / TRACK SKIDDER (3)  Type 2 and 3**

1971 Allis-Chalmers HD-16B (R1 Type 1, R6 Type 2), angle tilt dozer, rippers

1979 CAT D6D (Type 2), angle tilt dozer, winch and arch, brush rake

2002 John Deere 450J (Type 3), 6-way blade, rippers, enclosed cab

Attachments: lights

---

**Western Reclamation, LLC**

Ken Verley  
Willie Peck (Manager)  
506 Quartz Loop  
Superior, MT 59872  
406-822-4544  
406-239-8074 c (Ken)  
406-822-2536 c (Willie)  
406-822-4546 fax  
kdv@blackfoot.net

Dispatch: Missoula, MT  
Business Detail: EERA, stewardship and hazardous fuels reduction projects  
Transport: 3 lowboys (2-30T, 1-20T)  
Fuels Reduction: MT - Frenchtown Face, Second Rabbit with Mayo, Cherry Fuels, Knox Brooks, Game Range

References: Rod Blessing, USFS, Lolo NF, Missoula, MT; Angelo Velarous, Tricon Timber, St. Regis, MT; Shawn Thomas, MT-DNRC, Plains, MT; Dave Olson

**SKIDGINE , WHEEL  R1 Type 1 / R6 Type 2**

2003 Timberjack 460 Rubber Tire Skidder, enclosed cab, FOPS/ROPS, sweep guards

Attachments: 250 gal, pump, live reel, tire chains, lights

**EXCAVATOR (3)  Type 3**

1996 CAT 312BL Tracked Excavator, enclosed cab, 26 ft boom

1998 CAT 312B Tracked Excavator, enclosed cab, 26 ft boom

Attachments: clamshell bucket, lights

1998 CAT 320, enclosed cab, 33 ft reach

Attachments: bucket with thumb, lights
### Western Reclamation, LLC (cont.)

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Description</th>
<th>Attachments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOZER / PUMPERCAT Type 2</strong></td>
<td>1998 CAT D5M Dozer, 110 hp, 30,000 lb, 6-way blade, enclosed cab, FOPS/ROPS</td>
<td>250 gal water tank, pump, hose reel</td>
</tr>
<tr>
<td><strong>DOZER Type 1</strong></td>
<td>1980 CAT D8H, partial screen cab, forestry sweeps</td>
<td>angle blade, rippers</td>
</tr>
<tr>
<td><strong>GRADER (2)</strong></td>
<td>1989 CAT 14G, enclosed cab</td>
<td>16 ft mow board, rippers, lights</td>
</tr>
<tr>
<td></td>
<td>1975 Champion 120</td>
<td>14 ft mow board, scarifier, lights</td>
</tr>
<tr>
<td><strong>LOG LOADER</strong></td>
<td>1990 CAT 320 Tracked Loader, enclosed cab, FOPS, forestry guards, 35 ft boom</td>
<td>log grapple, lights</td>
</tr>
<tr>
<td><strong>FELLER BUNCHER, STEEP SLOPE Type 1</strong></td>
<td>2008 Timbco 445EXL, 24 ft boom, enclosed self-leveling cab, FOPS</td>
<td>22” high speed disc saw, lights</td>
</tr>
</tbody>
</table>
## Woodland Restoration, Inc.

<table>
<thead>
<tr>
<th>Name</th>
<th>Contact Information</th>
<th>Dispatch</th>
<th>Business Detail</th>
<th>Fires</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matt Arno</td>
<td>Matt Arno, Nathan Arno, Potomac, MT 59823</td>
<td>Missoula, MT</td>
<td>signed up under EERA for Enhanced Forest Management</td>
<td>Novak 2007, Black Mountain 2003</td>
</tr>
<tr>
<td></td>
<td>406-544-1842, 406-244-5858, <a href="mailto:matt@woodlandrestoration.net">matt@woodlandrestoration.net</a>, <a href="http://www.woodlandrestoration.net">www.woodlandrestoration.net</a></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### IN-WOODS CHIPPER

Bandit 250xp mounted on Timberjack 1270 carrier, 12" capacity; chipper is fully automated with all functions controlled by operator in the cab; self feeding, only requires operator in cab

### FORWARDER

Timberjack 1210B, 8-wheel, 15T capacity, enclosed cab, light-duty blade

**Attachments:** 24 ft boom, lights

### HARVESTER

Timberjack 1270 cut-to-length, 25 Inch capacity on the stump; fells, processes trees at the stump and drives on slash

### FORWARDER

Valmet 840, 8-wheel, 13T capacity, enclosed cab, light-duty blade

**Attachments:** 24 ft boom, lights
<table>
<thead>
<tr>
<th>Company: ACW, Inc.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Andy Root</td>
<td>524 Hwy 20 N Hines, OR 97738</td>
</tr>
<tr>
<td></td>
<td>541-589-0107 541-573-3615</td>
</tr>
<tr>
<td></td>
<td>541-573-3419 fax <a href="mailto:shelleyj@acwinc.net">shelleyj@acwinc.net</a></td>
</tr>
<tr>
<td><strong>Dispatch:</strong></td>
<td>John Day, OR</td>
</tr>
<tr>
<td><strong>Business Detail:</strong></td>
<td>EERA, federal and private contracts</td>
</tr>
<tr>
<td><strong>Transport:</strong></td>
<td>contractor provided, 50T lowboy, 50T beavertail</td>
</tr>
<tr>
<td><strong>Fires:</strong></td>
<td>Egley Complex, Juniper Reservoir, Spear Spring, Silvies River, Steens, Maxwell, Irish Springs, Bells Creek, Coleman</td>
</tr>
</tbody>
</table>

**DOZER** (2) Type 2

- 2003 John Deere 850C, 180 hp, enclosed cab
- 2001 John Deere 750C, enclosed cab

**Attachments:**
- 6-way blade, 3 shank ripper, lights

**EXCAVATOR** (2) Type 3

- 1999 John Deere Tracked Excavator, enclosed cab, 30 ft boom
- 1996 John Deere 690E Tracked Excavator, enclosed cab, 30 ft boom

**Attachments:**
- bucket with thumb

**SKIDDER, WHEEL**

- CAT 518 Rubber Tire Skidder, enclosed cab, FOPS/ROPS, light-duty blade

**Attachments:**
- grapples, tire chains, lights

**GRADER** Type 3

- 1987 John Deere 670B Motor Grader, enclosed cab

**Attachments:**
- tilt angle blade, rippers
## Cascade Brush Clearing

| Dispatch: | Prineville, OR |
| Business Detail: | BLM 4-yr IDIQ, USFS-EERA, BIA, CAL FIRE, DNR |
| Transport: | Peterbilt hooklift lowboy 35T with flatbed |
| Fires: | 2008 Fires: Red King, Rattle, OR; Panther, CA. |
| References: | David Reed, BLM (541-683-2237); Michael Cuttler, USFS (41-783-4001); LA County Fire Dept Capt. Drew Smith (818-952-6469), Mowawk Rural Fire Dept; Chief Dennis Shew (541-933-2907). |

### SKIDSTEER / MULCHER Type 3

2006 Rayco 100L steel track Skidsteer loader, 110 hp, enclosed cab with screens

**Attachments:**
- 6-way dozer blade, grapple, mowing head, 5 ft carbide teeth horizontal shaft mulching head with tree pushbar, winch with arch, 20 gal foam unit, lights

### MULCHER, STRIP

2009 Fecon FTX 148 Steel Track Dozer, 142 hp, 18,000 lbs, enclosed cab, FOPS/ROPS/OPS, screens

**Attachments:**
- 7 ft wide horizontal shaft carbide teeth mulching head, powered by auxiliary motor, lights, backup camera
### Gary R. Wright Contracting, Inc.

<table>
<thead>
<tr>
<th>Address</th>
<th>Dispatch:</th>
<th>Business Detail:</th>
<th>Transport:</th>
<th>Reference:</th>
</tr>
</thead>
<tbody>
<tr>
<td>66982 Miller Lane</td>
<td>LaGrande, OR</td>
<td>EERA</td>
<td>company trucks and trailers</td>
<td>Woody Wright WWNF, Jamie Knight ODF; Rick Wagner ODF, Mitch Williams ODF.</td>
</tr>
<tr>
<td>Union, OR 97883</td>
<td>541-962-5789 c (Gary)</td>
<td>541-562-5097</td>
<td>541-562-5097 fax</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="mailto:grwrightinc@eoni.com">grwrightinc@eoni.com</a></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Equipment Listings

**EXCAVATOR / FELLER BUNCHER, STEEP SLOPE Type 1**

- 1997 Timbco T445-C, Tracked Feller Buncher, self-leveling enclosed cab, FOPS/OPS, 24 ft reach
- **Attachments**: 28” bar saw, 38” digging bucket, lights

**SKIDDER, WHEEL Type 2**

- 2005 Prentice 490/950 Rubber Tire Skidder, enclosed cab, FOPS/ROPS, sweep guards, light-duty blade
- **Attachments**: grapples, tire chains, lights

**DOZER / TRACK SKIDDER Type 3**

- 1986 CAT D4H Dozer, screen cab, screens, FOPS/ROPS, sweep guards
- **Attachments**: 6-way blade, fixed grapple, ligh

**HARVESTER, STEEP SLOPE Type 1**

- 1994 Timbco T425-C Tracked Processor, self-leveling enclosed cab, FOPS/OPS, 24 ft boom
- **Attachments**: 24” diameter bar saw, felling/processing dangle head, lights

**EXCAVATOR / MULCHER Type 2**

- 2007 Daewoo S175-Z Tracked Excavator, enclosed cab, FOPS/ROPS/OPS, 30 ft reach
- **Attachments**: 4 ft vertical shaft mulching head, hydraulic thumb and 2 buckets

**Dispatch**: LaGrande, OR

**Fires**: 2007 Monument Complex, Potter Creek; 2006 Fly Fire, Twin Lakes Complex; 2005 Spring Creek, School Fires

**References**: Woody Wright WWNF, Jamie Knight ODF; Rick Wagner ODF, Mitch Williams ODF.
OREGON

HORIZON DEVELOPMENT, INC.

Steve Bieker
P.O. Box 296
Clackamas, OR 97015
503-519-0513
503-761-0689
stevebieker@yahoo.com

**Dispatch:** Umatilla, OR  
**Business Detail:** EERA  
**Fires:** 2002-2009 OR/CA/WA - Battle Creek Complex, Columbia Complex, Tripod Complex

**References:** Jeff Tanasse, Gifford Pinchot NF, Vancouver, WA; Peggy Patton, Umatilla NF

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**SKIDSTEER /SKIDGINE, WHEEL , REMOTE CONTROL (1) R 1 Type 2**  
**SKIDSTEER /SKIDGINE, WHEEL (5)**

- 2005-2008 Bobcat A300 Rubber Tire Skidsteer Skidgines, 70-81 hp, 7992 lbs, enclosed cab
- **Attachments:** 400 gal detachable tank, water monitor, foam, log grapples, loading forks, bucket, 5 ft horizontal axle mulching head
- **Note:** wireless remote control up to 1500 ft on the 2008 unit

---

Mike Hutton

Mike Hutton  
Justin Hutton  
44487 Duby Road  
Baker City, OR 97814  
541-519-2626  
541-519-6125  
541-523-5952 fax  
justinhutton@msn.com

**Dispatch:** LaGrande, OR  
**Business Detail:** EERA  
**Transport:** trucks and 35T lowboy  
**Fires:** 1996 – 2008: Summit, Maggie Creek, Jackies Butte, Wolf Creek, Morgan Mountain, Cavanah, Mosier Creek, Bowl, Biscuit, Sheldon Ridge, Cottonwood, Winter, Meadow, Fish Creek Complex, Boles Meadow, Monument Complex, Elk Creek, Sumpter Valley, Egley Complex, Summit Springs, Bellow Creek, Panther, Tipton, Bulger Flat.

**References:** John Miller, VA Dpt. Forestry; Carl Beganson, BLM-WY; Mike Farbed, Apache Vol. Fire District, AZ; ID Dpt. Lands; Michael Simmons, Deschutes NF; OR Dpt. Forestry; BLM, AK Fire Service.

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**SKIDDER, WHEEL R 1 Type 1 / R 6 Type 3**

John Deere 648 Rubber Tire Skidder, enclosed cab, FOPS/ROPS, sweep guards, light-duty blade

**Attachment:** grapple, lights, tire chains

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**DOZER / TRACK SKIDDER Type 3**

1993 John Deere 650 Dozer, 105 hp, partial screened cab, FOPS, sweep guards

**Attachment:** brush blade, winch with arch
<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HARVESTER</td>
<td>1991 Hitachi Tracked Excavator, enclosed cab, FOPS, 25 ft boom</td>
</tr>
<tr>
<td>Attachment:</td>
<td>Keto 150 processing head (21” max. diam.)</td>
</tr>
<tr>
<td></td>
<td>R 1 Type 1</td>
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<tr>
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<td>2002 Neuson MHT steel track swing to tree harvester, enclosed cab, FOPS/OPS</td>
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<tr>
<td>Attachment:</td>
<td>26” max. diameter harvester processor (dangle) head, lights</td>
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<tr>
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<tr>
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<td>1995 John Deere 590, Track Mounted Excavator</td>
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<tr>
<td>Attachment:</td>
<td>22” Roto saw</td>
</tr>
<tr>
<td></td>
<td>Type 1</td>
</tr>
<tr>
<td></td>
<td>1999 Daewoo 170 Track Excavator, 24 ft boom</td>
</tr>
<tr>
<td>Attachment:</td>
<td>20” diameter felling processing head, bar saw, lights</td>
</tr>
</tbody>
</table>

OREGON
### Integrated Resource Management

<table>
<thead>
<tr>
<th>Marc Barnes</th>
<th>Dispatch: Philomath, OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.O. Box 547</td>
<td>Business Detail: USFS Deschutes</td>
</tr>
<tr>
<td>Philomath, OR 97370</td>
<td>NF – Head Stewardship Project</td>
</tr>
<tr>
<td>541-929-3408</td>
<td>Transport: truck and trailer</td>
</tr>
<tr>
<td>775-535-4364 fax</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:marc@irmforestry.com">marc@irmforestry.com</a></td>
<td>SKIDSTEER / FELLING SHEAR / MULCHER / SKIDDER (4)</td>
</tr>
<tr>
<td><a href="http://www.irmforestry.com">www.irmforestry.com</a></td>
<td>2006 Takeuchi TL150 Rubber Track Skidsteer Loader</td>
</tr>
<tr>
<td></td>
<td>Attachments: 5 ft horizontal shaft brush cutter, 14” tree shear, grapple/rake, skidding grapple, log skidding winch, 8” wood chipper</td>
</tr>
</tbody>
</table>
James E. Woodward, Inc.

James E. Woodward  
16089 Hwy 26  
Mitchell, OR 97750  
541-462-3200  
541-462-3400 fax  
woodward4321@hotmail.com

| Dispatch: | Prineville, OR |
| Business Detail: | EERA |
| Transport: | 3 lowboys (40T, 2-50T) |
| Fires: | 1995-2007 Wildland fires in CA, OR, WA |

### EXCAVATOR  Type 3

- 1994 CAT 312L, enclosed cab, FOPS, screens, 30 ft boom reach
- **Attachments:** bucket and thumb, brush rake with thumb, lights

### SKIDGINE, WHEEL

- 1984 CAT 518G Rubber Tire Skidder, partial screened cab, FOPS/ROPS, sweeps, light-duty blade
- **Attachments:** 1000 gal water tank, 250 ft hose on live reel, lights

### DOZER / TRACK SKIDDER  Type 2

- 1971 International TB15B, forestry sweeper guard package, cab FOPS/ROPS
- **Attachments:** 1 ¼" 75 ft cable logging winch, tilt blade, lights.

### SKIDGINE, SOFT TRACK  (2)  Type 1

- FMC Soft Track Skidgine, 200-210 fwhp, partial screened cab, FOPS/ROPS, sweeps, light-duty blade
- **Attachments:** 1200 gal certified tank, 300 ft hose on live reel, pump, lights
## OREGON

### Jeff Wessel  dba Jeff and Billi Wessel

<table>
<thead>
<tr>
<th>Contact</th>
<th>Number</th>
<th>Email</th>
<th>Dispatch</th>
<th>Business Detail</th>
<th>Transport</th>
<th>Fire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jeff Wessel</td>
<td>541-891-2551</td>
<td><a href="mailto:wesselbly@gmail.com">wesselbly@gmail.com</a></td>
<td>Lakeview, OR</td>
<td>EERA</td>
<td>lowboy</td>
<td>30+ yrs</td>
</tr>
<tr>
<td></td>
<td>541-353-2259</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P.O. Box 162</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bly, OR 97622</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DOZER  Type 2**

- John Deere 855, sweeps, enclosed cab
- Attachments: 10 ft 6-way blade, lights, back up alarm

### John F. Richmond Contracting, Inc.

<table>
<thead>
<tr>
<th>Contact</th>
<th>Number</th>
<th>Dispatch</th>
<th>Business Detail</th>
<th>Transport</th>
<th>Fires</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Richmond</td>
<td>541-891-0745</td>
<td>Lakeview, OR</td>
<td>EERA, road building, reforestation, river restoration, logging, fire rehab, site prep</td>
<td>1998 KW transport with 50 Ton detachable lowbed</td>
<td>1968-2008</td>
</tr>
<tr>
<td>P.O. Box 27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bly, OR 97622</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EXCAVATOR  (2) Type 3**

- CAT EL200B Tracked Excavator, enclosed cab, 35 ft boom
- Attachments: buckets with thumbs, log grapple, lights
- 2001 CAT 315L Tracked Excavator, enclosed cab
- Attachments: Bucket with thumb, lights

**DOZER  Type 2**

- CAT D6C, forestry sweeps, FOPS/ROPS, partially screened cab
- Attachments: angle blade, rippers
<table>
<thead>
<tr>
<th><strong>DOZER</strong>  Type 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAT D6C, forestry sweeps, FOPS/ROPS, partially screened cab</td>
</tr>
<tr>
<td><strong>Attachments:</strong> angle blade, rippers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>DOZER</strong>  Type 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAT D7G, forestry sweeps, FOPS/ROPS, partial screened cab</td>
</tr>
<tr>
<td><strong>Attachments:</strong> “U” blade, rippers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>LOADER, FRONT END</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAT 950 B, Rubber Tire Front End Loader</td>
</tr>
<tr>
<td><strong>Attachments:</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>GRADER</strong>  (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAT Road Grader, enclosed cab</td>
</tr>
<tr>
<td>John Deere Road Grader, enclosed cab</td>
</tr>
<tr>
<td><strong>Attachments:</strong> 14 ft mowboards and rippers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SKIDSTEER / LOADER, TRACK</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>CAT 257B Rubber Track Skidsteer, enclosed cab</td>
</tr>
<tr>
<td><strong>Attachments:</strong> brush bucket, angle blade, lights</td>
</tr>
<tr>
<td>Jon Greenup Logging</td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td>Jon P. Greenup</td>
</tr>
<tr>
<td>(Owner/Operator)</td>
</tr>
<tr>
<td>60071 Hanna Arbuckle Rd</td>
</tr>
<tr>
<td>Heppner, OR 97836</td>
</tr>
<tr>
<td>503-793-9414</td>
</tr>
<tr>
<td>541-969-6855</td>
</tr>
<tr>
<td>503-630-2595 fax</td>
</tr>
<tr>
<td><a href="mailto:greenupent@rconnects.com">greenupent@rconnects.com</a></td>
</tr>
</tbody>
</table>

### Dispatch:
Pendleton, OR

### Business Detail:
EERA

### Transport:
Trucks and trailers, 50T lowboy

### Fires:

### References:
Scott McDonald and Gary Dillavou, Umatilla NF

---

**SKIDGINE, SOFT TRACK**

1978 FMC Soft Track Skidgine, partial screened cab, FOPS/ROPS, sweeps, light-duty blade

**Attachments:** 1500 gal tank, pump, reel, blade, lights

---

**FORWARDER**

1996 Rottne 6-wheel Forwarder, 17T capacity, 26 ft boom, enclosed cab, light-duty blade

**Attachments:** log bunks, log grapple, lights

---

**EXCAVATOR / HARVESTER  R 1 Type 2 / R 6 Type 3**

2005 CAT 320C Excavator, 165 hp, enclosed cab, ROPS/OPS, 32 ft boom

**Attachments:** harvester dangle head processor, 36” and 24” buckets with thumbs

---

**SKYLINE YARDER / YODER  (2)**

1998 CAT 330B Track Loader set up as a Skyline Yarder with motorized carriage (Yoder): 2 drums 1200 ft 5/8” skyline and 1200 ft 5/8” mainline (both swedged)

**Attachments:** 2 drums (1100 ft)

1998 CAT 330B Tracked Loader set up as a Skyline Yarder (Yoder), motorized carriage, 2 pullmaster drums, ACME 10 carriages

**Attachments:** 2 Pullmaster drums (1200 ft skyline, 1200 ft mainline), motorized carriage, boom-mounted fair lead blocks

**Note:** 1000 ft external yarding distance
Mark Rector

Mark Rector
P.O. Box 336
Powers, OR 97466
541-439-4901
541-439-3591

Dispatch: Medford, OR
Business Detail: EERA
Transport: lowboy available

DOZER / TRACK SKIDDER / PUMPER-CAT   Type 1

CAT D7 Dozer, 175 hp, partial screened cab, FOPS/ROPS, angle blade

Attachments: 1500 gal water tank with live reel, foam unit, winch

Note: Tank is self-supporting, attach and detachable on the line.

Fires: 2000-2008 OR and CA

References: Rich "Mac" MacDonald, Powers RD, Siskiyou NF; Robin Wills, Fire Ecologist, Oakland, CA; Rick Rader, Fire Operations Supervisor, Winemuca, NV (775-964-1042).
# Miller Timber Services, Inc.

**Dispatch:** Eugene, OR  
**References:** Heidi Cleveland

**Business Detail:** EERA, Best Value

**Transport:** Company owned/operated  
lowboy, 50 Ton transport.

**Fires:** 1994-2008 OR and WA, Noisy  
2008

## HARVESTER

2005 Ponsse Ergo 6-wheel Harvester, 250 hp crane, 32 ft reach  
**Attachments:** harvester head (Ponsse H73)T for tree diameters up to 27.5"

## SKIDDER, WHEEL  R 1 Type 1 / R 6 Type 2

1997 Timberjack 460 Rubber Tire Skidder, enclosed cab, FOPS/ROPS/OPS, sweep guards  
**Attachments:** swing boom grapple, lights

## DOZER / TRACK SKIDDER  Type 2

2004 CAT 517, 130 hp, 6-way blade, FOPS/ROPS/OPS, sweeps  
**Attachments:** lights, swing grapple

## FORWARDER / SUPER-SKIDGINE

2005 18T 8-wheel Ponsse Buffalo King Forwarder, 250 hp, weight 40,786 lbs, crane with 31 ft reach  
**Attachments:** steel track bands, 2,000 gal detachable water tank

## EXCAVATOR (2)  R 1 Type 1 / R 6 Type 2

2001 John Deere 230LC, enclosed cab, FOPS, 34 ft reach  
**Attachments:** clamshell rake

2000 Hitachi 330, enclosed cab, FOPS, 30 ft reach  
**Attachments:** bucket and thumb
### Miller Timber Services, Inc. (cont.)

**DOZER / TRACK SKIDDER  Type 2**

John Deere 850B Dozer, straight blade, partial screened cab, FOPS/ROPS

**Attachments:** lights, arch winch

**SKYLINE YARDER**

Rubber Tire Tractor Mounted Koller; k300T tower yarder
24 ft tower, 2 drums, 1200 ft external yarder distance

**Attachments:** Kollar locking carriage

**Note:** comes with 3-person crew

### NW Eco Mulching & Mowing

<table>
<thead>
<tr>
<th>Michael Sellers</th>
<th>Dispatch: Bend, OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>19520 Rudi Rd</td>
<td><strong>Business Detail:</strong> EERA, Oregon</td>
</tr>
<tr>
<td>Bend, OR 97701</td>
<td>Dept. Forestry</td>
</tr>
<tr>
<td>541-480-3663</td>
<td><strong>Transport:</strong> 10T gooseneck trailer</td>
</tr>
<tr>
<td><a href="mailto:info@nwecomulching.com">info@nwecomulching.com</a></td>
<td><strong>Fires:</strong> 2008 OR</td>
</tr>
</tbody>
</table>

**SKIDSTEER / MULCHER**

2007 Takeuchi Rubber Track Loader, 100 hp, 14,500 lbs, cab canopy

**Attachments:** 5 ft horizontal shaft carbide teeth mulcher, push bar, winch
### O'Rorke Logging

<table>
<thead>
<tr>
<th>Contractor Name</th>
<th>Address</th>
<th>Contact Information</th>
<th>Equipment Details</th>
</tr>
</thead>
</table>
| Charlie O'Rorke | P.O. Box 670, John Day, OR 97845 | 541-820-4335, 541-820-4530 fax | **Dispatch:** John Day, OR  
**Business Detail:** EERA, Oregon Dept. Forestry  
**Note:** only available for OR  
**Fire:** 25+ years, OR |
| **SKIDDER, WHEEL Type 2** | John Deere 648E Rubber Tire Skidder, enclosed cab, FOPS/ROPS, sweep guards, light-duty blade | Attachments: grapple, lights package |
| **FELLER BUNCHER, STEEP SLOPE Type 1** | Timbco 435 Feller Buncher, enclosed self-leveling cab, FOPS | Attachments: 22" hot saw head, lights package |
| **DOZER (2) Type 2** | CAT D5H Dozer, 6-way blade, partially screened cab  
CAT D6C Dozer, angle blade, partially screened cab | Attachments: lights package |
<table>
<thead>
<tr>
<th>SISKIYOU LOGGING dba INLAND TIMBER COMPANY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jim Dougherty</td>
</tr>
<tr>
<td>Shane Dougherty</td>
</tr>
<tr>
<td>P.O. Box 95</td>
</tr>
<tr>
<td>Cave Junction, OR 97523-0095</td>
</tr>
<tr>
<td>541-592-4982 c</td>
</tr>
<tr>
<td>541-415-0242 c</td>
</tr>
<tr>
<td>541-659-2613 c</td>
</tr>
<tr>
<td><a href="mailto:inlandtimbercompany@frontiernet.net">inlandtimbercompany@frontiernet.net</a></td>
</tr>
<tr>
<td>Dispatch: Medford, OR</td>
</tr>
<tr>
<td>Business Detail: EERA, hazard trees on State and Federal fires</td>
</tr>
<tr>
<td>Transport: 50T lowboy (2)</td>
</tr>
<tr>
<td>References: Joe King, USFS, Siskiyou; Walt Freeman, Walt Freeman Forestry, Cave Junction, OR; Ed Floate, Greyback Forestry, Selman, OR</td>
</tr>
</tbody>
</table>

| EXCAVATOR, RUBBER TRACK Type 3           |
| 2005 Kubota Excavator, 42 hp, forestry screen, cab canopy, 15 ft reach |
| Attachments: angle blade, bucket with thumb, lights |

| LOG LOADER (2) Type 1                    |
| 1997 Komatsu PC200LC6L Track Log Loader, enclosed cabs, screened, FOPS, 30 ft booms |
| Attachments: log grapple with live heel, lights |

| DOZER / TRACK SKIDDER                    |
| 1987 John Deere 550 Track Dozer, partial screened cab, 6-way blade, FOPS/ROPS, sweeps |
| Attachments: angle blade, brush rake, lights, 100 ft winch |

| DOZER / TRACK SKIDDER Type 3             |
| 1988 CAT D4H Dozer, enclosed cab, sweep guards, 6-way blade |
| Attachments: 100 ft winch, grapple, brush rake, lights |

| SKIDDER, WHEEL                           |
| 1988 CAT 508 Rubber Tire Skidder, screened cab, FOPS/ROPS, sweep guards |
| Attachments: 100 ft winch, fixed grapple, lights |
### Swaggart Enterprises, Inc.

<table>
<thead>
<tr>
<th>Cecil Swaggart</th>
</tr>
</thead>
<tbody>
<tr>
<td>53818 Bone Point Lane</td>
</tr>
<tr>
<td>Ritter, OR 97856</td>
</tr>
<tr>
<td>541-421-3861</td>
</tr>
<tr>
<td>541-969-9256 c</td>
</tr>
<tr>
<td>541-289-1641</td>
</tr>
<tr>
<td>541-421-3815 fax</td>
</tr>
<tr>
<td>541-289-1642 fax</td>
</tr>
<tr>
<td><a href="mailto:swaggartent@earthlink.net">swaggartent@earthlink.net</a></td>
</tr>
<tr>
<td><a href="mailto:chawkins@wsslive.com">chawkins@wsslive.com</a> (Chuck Hawkins, Forester)</td>
</tr>
<tr>
<td><a href="http://www.swaggartenterprises.com">www.swaggartenterprises.com</a></td>
</tr>
</tbody>
</table>

**Dispatch:** Hermiston, OR  
**Business Detail:** BLM fuels contractor, Hazardous Fuels Reduction contracts, Forest and range restoration  
**Transport:** contractor supplied trucks and lowboys (60T / 65T)

**FELLER BUNCHER / MULCHER, STEEP SLOPE (2) Type 1**

1998-99 Timbco feller-bunchers, 260 hp, 65,000 lbs, self-leveling cab, FOPS/ROPS/OPS, 24 ft boom

**Attachments:** 22” hotsaw cutting head, vertical-shaft mulching heads, lights

**MULCHER, STRIP, WHEEL**

2001 Hydro-Ax 741E 4-wheel Strip Mulcher

**Attachments:** 5 ft horizontal-shaft mulching head, winch, lights

**EXCAVATOR / MULCHER**

2001 Kobelco 200 Excavator, enclosed cab, screens, guards, 32 ft reach

**Attachments:** bucket & thumb, rotating brush grapple, horizontal-shaft mulching head.

**DOZER Type 1**

1982 CAT D7G, FOPS/ROPS with straight blade, partial screened cab

**Attachments:** pin-on brush rake, parallelogram 3-tooth ripper, lights

**Fires:** 30 yrs OR  
**References:** Mitch Mund, OR Forest, John Day, OR; Marilyn Johnson, USFS, Umatilla, Pendleton, OR; Shawn Peterson, BLM, Cedar City, UT
### Tom Davis Livestock Inc.

<table>
<thead>
<tr>
<th>Paul Davis</th>
<th>Dispatch: John Day, OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>46008 Alvord Ranch Ln</td>
<td>Business Detail: EERA</td>
</tr>
<tr>
<td>Princeton, OR 97721</td>
<td>Transport: contractor supplied</td>
</tr>
<tr>
<td>541-495-2240</td>
<td>Fires: B&amp;B Complex, Shake Table complex, Tripod Complex, Grandad Complex, Egley Complex</td>
</tr>
<tr>
<td>541-589-2123 c</td>
<td></td>
</tr>
<tr>
<td>208-475-6023 fax</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:alvordranch@gmail.com">alvordranch@gmail.com</a></td>
<td></td>
</tr>
</tbody>
</table>

### Dispatch: John Day, OR

### Business Detail: EERA

### Transport: contractor supplied

### Fires: B&B Complex, Shake Table complex, Tripod Complex, Grandad Complex, Egley Complex

<table>
<thead>
<tr>
<th>SKIDGINE, WHEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clark 668 Rubber Tire Skidgine, enclosed cab, forest sweep guards, light-duty blade</td>
</tr>
</tbody>
</table>

### Attachments: 840 gal tank, pump, remote controlled monitor, rear water bar, hose reel, lights

---

### Warren Partridge Contracting

<table>
<thead>
<tr>
<th>Warren or Laurey Partridge</th>
<th>Dispatch: Klamath Falls and Lakeview, OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.O. Box 329</td>
<td>Business Detail: EERA, Best Value</td>
</tr>
<tr>
<td>Bly, OR 97622</td>
<td>Transport: custom trucks and lowboys, 2008 60T or 50T Hyster lowboy. Trucks are apportioned in OR/CA/NV/UT</td>
</tr>
<tr>
<td>541-891-8622</td>
<td>Fires: 1983-2008, CA, OR, Scarface, Robinson Spring, Winter Rim, Toolbox, rehab, many smaller assignments</td>
</tr>
<tr>
<td>530-667-5242</td>
<td>References: CDF, Danny Benson and Darrin Yazzie ODF Klamath Falls, OR, Bruce Nichols and Dan Lee USFS Bly OR, Bob Gibbs and Nina Hardin USFS Lakeview, OR</td>
</tr>
<tr>
<td>541-353-2202 fax</td>
<td><a href="mailto:hotroddlogger@aol.com">hotroddlogger@aol.com</a></td>
</tr>
</tbody>
</table>

### Dispatch: Klamath Falls and Lakeview, OR

### Business Detail: EERA, Best Value

### Transport: custom trucks and lowboys, 2008 60T or 50T Hyster lowboy. Trucks are apportioned in OR/CA/NV/UT

### Fires: 1983-2008, CA, OR, Scarface, Robinson Spring, Winter Rim, Toolbox, rehab, many smaller assignments

### References: CDF, Danny Benson and Darrin Yazzie ODF Klamath Falls, OR, Bruce Nichols and Dan Lee USFS Bly OR, Bob Gibbs and Nina Hardin USFS Lakeview, OR

<table>
<thead>
<tr>
<th>SKIDDER, WHEEL (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2) late model CAT 528, ROPS/FOPS, partial screened cab, forest sweeps</td>
</tr>
</tbody>
</table>

### Attachments: grapple, winch, brush blades, lights

<table>
<thead>
<tr>
<th>DOZER / TRACK SKIDDER (5) Type 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975-1980 D6 CAT, ROPS/FOPS</td>
</tr>
</tbody>
</table>

### Attachments: lights, angle blade, log / tree grapple, fire curtains
### Warren Partridge Contracting (cont.)

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Model Years</th>
<th>Attachments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOZER</strong> (7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1992 D5H CAT</td>
<td></td>
<td><strong>Attachments:</strong> angle blade, enclosed fire cab, rippers</td>
</tr>
<tr>
<td>1989 and 1987 D7G CAT</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EXCAVATOR</strong> Type 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995 Hitachi 200 with 40 ft boom</td>
<td></td>
<td><strong>Attachments:</strong> thumb, bucket, lights</td>
</tr>
<tr>
<td><strong>DOZER / TRACK SKIDDER</strong> (3) Type 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1975-1980 D6 CAT, ROPS/FOPS</td>
<td></td>
<td><strong>Attachments:</strong> angle blade, lights, 150 ft 1 inch cable winch with arch, fire curtains</td>
</tr>
</tbody>
</table>

**Note:** All equipment pulled on 3-axle tilt bed trailer behind water tender.
### Artillery Concepts, LLC

Marty Schmoker  
12220 Spromberg Canyon  
Leavenworth, WA 98826  
509-548-6445  
509-860-7224  
509-548-7611 fax  
artillery@crcwnet.com

| Dispatch:  | Wenatchee, WA |
| Business Detail: | EERA |
| Transport:  | 4-axle flatbed |
| Fires:  | WA - Baily Mountain, Deer Point, Deep Harbor, Green Lake, Tripod |
| References:  | All the Washington State Type 2 IC’s, and several Type 1 teams from out of state |

**SKIDGINE, SOFT TRACK (2)**

Ex-military aircraft, aluminum armored personnel carrier M113-A2, rear enclosed cargo area, steel tracks with rubber pads

**Attachments:** live reel, pump, roof-mounted water monitor, lights, includes all components of Type 6 engine, internal 400 gal water tank

**Note:** suitable for paved road travel, max 45 mph; max slope 60%; side slope 40%

### Baker Fire, LLC

Casey Baker  
P.O. Box 1091  
Tum Tum, WA 99034  
509-993-4861  
509-496-8537  
baker_fire@msn.com

| Dispatch:  | Wenatchee, WA |
| Business Detail: | EERA, R-6 Portland, OR, DNR Colville, WA |
| Transport:  | 1989 Kenworth T-800 with lowboy, 80,000 GVW |
| References:  | DNR, Cindy Tonasket; USFS, Elaine Paladino |

**EXCAVATOR Type 3**

1993 Linkbelt 2650C Tracked Excavator, 110 FWHP, enclosed cab, 15 ft boom reach

**Attachments:** bucket with thumb

**DOZER / TRACK SKIDDER Type 2**

1979 International Model TD-8E, cab canopy, angle blade

**Attachments:** 30T winch, lights
## Bear Mountain Cutters, Inc.

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXCAVATOR Type 2</td>
<td>1999 Hitachi EX 200 LC Tracked Excavator, enclosed cab, 30 ft reach</td>
</tr>
<tr>
<td></td>
<td><strong>Attachments:</strong> 24”, 42”, 60” bucket and thumb, woods cab guards and lights</td>
</tr>
<tr>
<td>EXCAVATOR / MULCHER, WHEEL Type 2</td>
<td>Rubber tire mounted Samsung 210 Excavator, enclosed cab, forestry guards, 45 ft boom</td>
</tr>
<tr>
<td></td>
<td><strong>Attachments:</strong> lights, rotating disc, vertical shaft mulching head with thumb</td>
</tr>
<tr>
<td>FELLER BUNCHER (2) Type 2</td>
<td>Kobelco 200 and A 210 Tracked Excavators, enclosed cab, 32 ft reach</td>
</tr>
<tr>
<td></td>
<td><strong>Attachments:</strong> blade, Timbco 33” and 28” Timbco barsaw feller head with buncher arms</td>
</tr>
<tr>
<td>SKIDSTEER / MULCHER, RUBBER TRACK</td>
<td>Takeuchi TL 150 rubber track mounted Strip Mulcher, 97 hp, cab canopy</td>
</tr>
<tr>
<td></td>
<td><strong>Attachments:</strong> 5 ft horizontal shaft mulcher head with pushbar, lights</td>
</tr>
<tr>
<td>FELLER BUNCHER, STEEP SLOPE Type 1</td>
<td>2005 Timbco 445 EXL track Feller Buncher with self-leveling enclosed cab, 25 ft reach</td>
</tr>
<tr>
<td></td>
<td><strong>Attachments:</strong> 28” 360 degree rotation intermittent circular saw head, forestry cab guards, lights, fire suppression system</td>
</tr>
</tbody>
</table>

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**派遣:** Wenatchee, WA  
**业务详情:** EERA  
**运输:** 30T, 50T and 60T lowboys  
**火灾:** 1989-2008, WA - Tyee, Leavenworth, Lake Chelan, Deer Pt., Biscuit, Maple, Tripod, Columbia Complex, Mt Hood
Bear Mountain Cutters, Inc. (cont.)

EXCAVATOR / MULCHER (7) Type 2
1997-2007 Kobelco 210 Tracked Excavators, enclosed cab, 32 ft reach
Attachments: blade, wood cab guards, lights, rotating disc vertical shaft mulching head, with rotating chip shroud and thumb

Havillah Logging, Inc.

Tom Kershner
493 N Siwash Creek Rd
Tonasket, WA 98855
509-486-1941
509-322-1467 c
havlog@nvinet.com

Dispatch: Wenatchee, WA
Business Detail: EERA
Transport: Contractor provided transport; 50T 3-axle lowboy
References: USFS – Okanogan/ Wenatchee, Tonasket RD, Mark Wood

DOZER / TRACK SKIDDER Type 2
1993 D5H Dozer, 130 hp, full brush guarding, FOPS/ROPS
Attachments: 6-way blade, swing grapple, lights

FELLER BUNCHER, STEEP SLOPE
1989 Timberjack 2520 Feller Buncher, 22 ft boom, FOPS/OPS, self-leveling enclosed cab
Attachments: 22” rotosaw, intermittent circular saw, lights

SKIDDER, WHEEL (2) Type 1
2005 John Deere 648G, 155 hp, 9 ft blade, FOPS/ROPS, climate control cab, brush guarded, backup alarm
1990 John Deere 648D, 140 hp
Attachments: winch, swing grapple, lights, tire chains

HARVESTER
2000 Prentice 620, 260 hp, self-leveling cab, tracked Harvester, 30 ft squirt boom, FOPS
Attachments: 27” Log Max 750 harvester head
<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Description</th>
</tr>
</thead>
</table>
| DOZER / TRACK SKIDDER Type 3 | 1995 D-5 C, FWHP-90, cab canopy, sweep guards, 6-way blade with side claws  
**Attachments:** winch, arch |
| EXCAVATOR / LOG LOADER Type 2 | 1988 Hitachi Tracked Excavator / log loader, EX 200-LC, 30 ft boom, enclosed cab  
**Attachments:** 2 digging buckets, log grapple |
| SKIDGINE, WHEEL | 1990 Clark Ranger F-666, 148 FWHP, light-duty blade, partial screened cab, FOPS/ROPS, sweep guards  
**Attachments:** 400 gal tank, live reel, pump, winch (75 ft cable), tire chains |
| SKIDDER, WHEEL R 1 Type 1 | 1988 Clark Ranger F-666 Rubber Tire Skidder, FOPS/ROPS, sweep guards  
**Attachments:** arch winch (75 ft ¾" cable), tire chains |
Incline Contracting

<table>
<thead>
<tr>
<th>Company</th>
<th>Address</th>
<th>Contact Information</th>
<th>Equipment Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Devin Meyer</td>
<td>14010 238 Drive</td>
<td>866-826-5431</td>
<td>EXCAVATOR R 1 Type 2 / R 6 Type 3&lt;br&gt;2003 John Deere 120 Excavator, enclosed cab, forest guard package, FOPS/OPS, 25 ft boom&lt;br&gt;Attachments: 36 in bucket with thumb, lights</td>
</tr>
<tr>
<td></td>
<td>Monroe, WA 98272</td>
<td>206-930-3608</td>
<td>EXCAVATOR / MULCHER&lt;br&gt;1996 Hitachi 120 Excavator, enclosed cab, 25 ft boom reach&lt;br&gt;Attachments: 6 ft horizontal shaft mulching head, lights</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DOZER Type 2&lt;br&gt;2007 John Deere 700J, enclosed cab, FOPS/ROPS/OPS, sweep guards&lt;br&gt;Attachments: 6-way blade, rippers, lights</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DOZER / TRACK SKIDDER Type 2&lt;br&gt;1978 CAT D6D, partially screened cab, FOPS/ROPS, sweep guards&lt;br&gt;Attachments: 6-way blade, 150 ft winch with arch, lights</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>SKIDGINE, SOFT TRACK Type 1 (2)&lt;br&gt;1986 FMC, partially screened cab, FOPS/ROPS, sweep guards, 8 ft light-duty blade&lt;br&gt;Attachments: 1500 gal water tank, pump, hose reel, water cannon&lt;br&gt;1978 FMC soft track skidgine, partially screened cab, FOPS/ROPS, sweep guards, 8 ft light-duty blade&lt;br&gt;Attachments: 1200 gal water tank, pump, hose reel, water cannon, dust control water bar, lights</td>
</tr>
</tbody>
</table>

Dispatch: Wenatchee, WA

Business Detail: EERA

Transport: 50T, 21 ft deck tri-axe lowboy, 2-27T 25 ft deck tri-axe tiltbed
### Lite Logging

<table>
<thead>
<tr>
<th>Grant Gibbs</th>
<th>Dispatch: Wenatchee, WA</th>
</tr>
</thead>
<tbody>
<tr>
<td>11632 Freund Canyon Rd</td>
<td>Business Detail: EERA</td>
</tr>
<tr>
<td>Leavenworth, WA 98826-9523</td>
<td>Fires: 25+ yrs</td>
</tr>
<tr>
<td>509-548-5185</td>
<td>References: James Furlong, USFS-R6 Fire</td>
</tr>
<tr>
<td>509-669-0159 c</td>
<td></td>
</tr>
</tbody>
</table>

**SKIDDER, WHEEL R1 Type 1 / R6 Type 3**

- 1988 Timberjack 240A, 120 hp, screened cab, sweeps, FOPS/ROPS, light-duty blade
- **Attachments:** grapple, winch

**DOZER / TRACK SKIDDER Type 3**

- 1973 TD 7C International Dozer, 100 hp, 6-way blade, sweeps, FOPS
- **Attachments:** winch, lights

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**Incline Contracting (cont.)**

**SKIDGINE, WHEEL**

- 1996 John Deere 648G Rubber Tire Skidgine, 8 ft light-duty blade, fully enclosed cab, screens, sweeps
- **Attachments:** 650 gal water tank, pump, reel, dust control water bar, lights

**SKIDDER, WHEEL R1 Type 1 / R6 Type 3**

- 1988 Timberjack 240A, 120 hp, screened cab, sweeps, FOPS/ROPS, light-duty blade
- **Attachments:** grapple, winch

**DOZER / TRACK SKIDDER Type 3**

- 1973 TD 7C International Dozer, 100 hp, 6-way blade, sweeps, FOPS
- **Attachments:** winch, lights
## Northern Columbia Reforestation, LLC

| Alan McKee  
| 1274 Peterson Swamp Rd  
| Colville, WA 99114  
| 509-936-0949  
| 509-685-9117  
| 509-685-9117 fax  
| alan_n_mouse@hotmail.com |
| **Dispatch:** Colville, WA  
| **Business Detail:** EERA, R-6 water handling equipment  
| **Transport:** transport arranged  
| **Fires:** Dozer has been on numerous small IA type fires with WA DNR; Timbco Feller Buncher worked on Tripod fire  
| **References:** Doug Cox or Jill Jones, NEWA DNR, 509-684-7474 |

### DOZER / TRACK SKIDDER Type 3

*1993 CAT D4H TSK Dozer, swing grapple, enclosed screened cab*  
**Attachments:** lights, rock guards

### FELLER BUNCHER, STEEP SLOPE

*1995 Timbco 415 Feller Buncher, 24 ft boom*  
**Attachments:** 31” bar saw head, convertible to boom-mounted brush rake, lights

### SKIDDER, WHEEL R 1 Type 1/R 6 Type 3

*1994 Timberjack 450C Rubber Tire Skidder, enclosed cab, light-duty blade, forestry sweeps*  
**Attachments:** fixed grapple

### EXCAVATOR / HARVESTER R 6 Type 2

*1993 CAT 320L Steel Track Excavator, 30 ft boom, enclosed cab*  
**Attachments:** 22” harvester head, digging bucket
### Tiger Trucking, Inc.

<table>
<thead>
<tr>
<th>Mickey Mumau</th>
<th>Dispatch: Wenatchee, WA</th>
</tr>
</thead>
<tbody>
<tr>
<td>511 Hwy 20 E</td>
<td>Business Detail: EERA</td>
</tr>
<tr>
<td>Colville, WA 99114</td>
<td>Transport: lowboys under contract to transport</td>
</tr>
<tr>
<td>509-684-5757</td>
<td>Operators: Experienced and Red Card Certified</td>
</tr>
<tr>
<td>509-684-9099</td>
<td>OFF-ROAD WATER TENDER / SUPER-SKIDGNE, WHEEL</td>
</tr>
<tr>
<td>tigertrucking.com</td>
<td></td>
</tr>
</tbody>
</table>

**OFF-ROAD WATER TENDER / SUPER-SKIDGINE, WHEEL**

- 6-wheel drive (rear-swinging bogie tandem wheels) rubber tires, articulated chassis off-road truck, enclosed cab, light duty blade
- **Attachments:** 3500 gal water tank, pumps, live reel, top mount remote control monitor, full drafting capability, Class A & B foam, dust abatement water bars (side and rear), backup video camera
- **Transport:** lowboys under contract to transport
- **Note:** 30 mph max speed

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### Wildfire Safe, LLC

<table>
<thead>
<tr>
<th>Chris Walter</th>
<th>Business Detail: Private landowners, WA DNR, fuels reduction, wildfire mitigation contracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kyle Walter</td>
<td>Projects: Lake Wenatchee, Camas Meadows, Squilchuck State Park</td>
</tr>
<tr>
<td>P.O. Box 236</td>
<td>References: Andrew B. Perleberg, WSU Professor, 509-667-6658; Matt Everline, DNR–WA, 509-856-7055</td>
</tr>
<tr>
<td>Manson, WA 98831</td>
<td></td>
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<tr>
<td>509-670-3816</td>
<td></td>
</tr>
<tr>
<td>509-630-7738</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:wildfiresafe@gmail.com">wildfiresafe@gmail.com</a></td>
<td></td>
</tr>
<tr>
<td><a href="http://www.bewildfiresafe.com">www.bewildfiresafe.com</a></td>
<td></td>
</tr>
</tbody>
</table>

**IN-WOODS CHIPPER, REMOTE CONTROL**

- 2008 Bandit 255XP-HD Disc Chipper, 200 hp, CAT 305 rubber track undercarriage
- **Attachments:** winch, 280 degree rotating discharge
- **Note:** controlled by remote up to 100 ft, chips up to a 15” log

**EXCAVATOR / MULCHER, RUBBER TRACK**

- Bobcat 337 Excavator, 12,000 lb, 46 hp, 20 ft boom reach
- **Attachments:** horizontal shaft mulching thumb with lifting thumb, lights
BOOK REPRODUCTION

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ADDITIONAL INFORMATION

For verification of technical equipment application details, readers may contact the following agency resources:

- Stephen “Obie” A. O’Brien, USFS Inter-Regional Logging Engineer, saobrien@fs.fed.us, 406-439-4757 (cell), 406-495-3798 (office), Helena, MT
- Kevin Erickson, USFS, Region 1, Fire Equipment Specialist, kerickson@fs.fed.us, 406-829-7084, Missoula, MT

General subject and book composition questions may contact:

Valerie Jaffe, owner/manager, Tea Gardens Technology, LLC, val@teagardenstech.com, 406-459-0324, Helena, MT
This second edition of the “Yellow Book” builds upon the first one, written in 2008 for a Montana in-woods training. It is a collaborative project of agency, non-profit and private sectors to create a handy reference, training guidebook and dispatching aid. Included in the three sections of the book are mechanized operation strategies, tactics, machine profiles, and a directory of experienced and agency-contracted equipment operators from Idaho, Montana, Oregon, and Washington.

More than 400 machines available from 87 contractors are pictured and described. Twelve common forestry equipment categories are discussed with profiles and numerous photos: dozers, pumpercats, wheeled and tracked skidders, feller bunchers, harvesters, forwarders, skidgines, super-skidgines, excavators, shovels, and mulchers.

General and specialized forestry workers, alike, will find the contents valuable with seasoned perspectives and useful tips from the field. A must read for the aspiring wildfire and fuels reduction equipment manager interested in safe, efficient use of mechanized task forces.

“Mechanized equipment is the most over-looked, under-utilized, and misunderstood firefighting resource.”

George Custer, Incident Commander National Incident Management Team (NIMO), 2008