



BC **Forest Safety** Council

A REVIEW OF THE ECONOMIC BURDEN ENCUMBER-  
ING BRITISH COLUMBIA'S FOREST SECTOR CAUSED  
BY ITS UNACCEPTABLE SAFETY PERFORMANCE

# the cost of unsafe

SEPTEMBER 2006

## ACKNOWLEDGEMENTS

This discussion paper is based on work begun more than a year ago by staff of the BC Forest Safety Council and WorkSafeBC. The intent was to improve forest sector safety information — a need identified by the BC Forest Safety Task Force<sup>1</sup> in Recommendations 12 and 13 of its report.<sup>2</sup>

Work on the discussion paper was led initially by the Council's SAFE Companies director, Krista Bax, with WorkSafeBC staff support from Brian Van Snellenberg, Stan Warwa, Rob Sturrock and Jordie Jacobs. Our sincere thanks to them all. We see this overall effort continuing with input from the BC Coroner's service, the provincial Ministry of Forests and many forestry-related organizations.

The shared objective was and is to assure better information in the future to gauge the sector's safety performance and to improve decision-making on safety.

While many contributed to this paper, its assumptions and projections are solely the Council's responsibility and should not be construed as positions or opinions of our individual members or any other agencies, including WorkSafeBC.

## PREFACE: SHOWING THAT SAFETY PAYS

In January, 2006, the Council moved to accelerate development of our SAFE Companies program, an initiative to review, certify and annually verify the adequacy of requisite safety programs in all forestry companies and operations, large and small.

With the full endorsement of industry and government, our objective is to certify the more than 4,000 companies now operating in the sector by the end of 2008 — a massive undertaking requiring significant effort and investment by industry that has raised some concerns about effectiveness and cost.

On effectiveness, the Council believes that forestry safety programs must be constantly challenged and that we must demonstrate that our efforts will result in a safer, healthier industry. This has worked for other sectors with programs similar to SAFE Companies, and it reflects the experience of current safety leaders in our industry.

The cost issue is usually raised as a question: "Given current financial pressures on the forest industry, should we move forward this fast and this completely now?" Our answer is an unequivocal "Yes!" Extensive efforts to implement SAFE Companies and related initiatives are investments that will pay important dividends and assure the industry's future. They will lead to recognition

of the BC forest sector for the quality of our products, our innovations, our well-trained and productive workforce and our superior safety performance.

This discussion paper quantifies some of the key financial benefits. It reviews actual industry experience and identifies significant and unnecessary costs that could have been avoided with a better safety record.

We show that the phrase, "Safe companies are successful companies" is more than a slogan. Rather, it is a promise to companies that make on-the-job safety an integral and overriding priority of their day-to-day operations.



Tanner Elton, CEO  
BC Forest Safety Council

*Unsafe is Unacceptable*

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## INTRODUCTION: SAFETY AND COMPETITIVENESS

It is generally accepted that the rate of fatalities and serious injuries in B.C.'s forest sector is unacceptably high, and has been for a long time. This negatively impacts our industry. It damages our reputation, makes it difficult to attract and retain skilled employees and adversely affects company and employee morale.

As well, it undercuts our competitiveness as an industry.

Work-related injuries burden us with major direct and indirect costs. The primary direct costs are workers' compensation premiums. For 2003-05, employers in the harvesting sector alone averaged \$72 million annually in workers' compensation premiums.<sup>3</sup>

All BC forestry companies have paid steadily rising premiums recently. For the five years ending 2005, average annual increases amounted to 10 per cent, with jumps as high as 20 per cent in some forestry categories referred to as classification units (CUs). Our assessments are now the highest in the province, and among the highest of all industrial sectors anywhere. This year, they levelled off; and we must see that they start to come down.

Compared to our closest Canadian neighbour, the contrast is startling. Alberta forest companies have experienced much lower (and decreasing) rates.<sup>4</sup> Forest harvesting employers there paid a 2005 premium rate of \$4.64 per \$100 assessable payroll, while their B.C. counterparts paid more than twice as much for similar operations. It is true that the two jurisdictions calculate assessments differently and that harvest conditions and terrain may be dissimilar; but it is noteworthy that the largest forestry companies in Alberta are based in B.C. with significant operations here.

The inescapable fact is that B.C.'s safety performance generally compares unfavourably with jurisdictions with which we compete.

### *We Must Do Better*

Anyone visiting a harvesting operation is reminded that forestry is inherently dangerous, with high levels of risk and potential injury. Few industries face the full range of conditions considered "normal" in our industry —inclement weather, steep slopes, rough resource roads, continually transient worksites, manual labour alongside heavy machinery and a myriad of other potentially dangerous circumstances.

People in our sector are aware of the risks, and sometimes accept high injury rates as part of doing business. Yes, this is an inherently dangerous industry, but it's wrong to consider fatalities and serious injuries as inevitable.

Actually, we don't need to go elsewhere to find solid safety records. B.C. statistics for 1994-2003 show that 10 per cent of forestry companies — in every part of the sector and in all regions — had no serious injuries or fatalities. We also have many individuals whose busy working lives here were free of any injury, even in the industry's most difficult and dangerous occupations.

### ***Superior Safety Performance Is Profitable***

A senior executive from one of our largest companies made this observation:

*"If I were asked to assess an operation, and I had to do so on the basis of only one indicator, I would look at their safety performance. If they are doing well with safety, with all their programs in place and functioning, then it is highly likely that they are being successful in all of the other key areas that we use to measure success. If they are not performing well on safety, then chances are they are in trouble in other areas as well."*<sup>5</sup>

The message is clear, safe companies are successful companies.

Excellence in safety is no different from and contributes to excellence in any business area, from quality assurance to productivity to marketing. With effective safety programs, employers can realize significant benefits because safe work environments are consistently more profitable workplaces.

What's more, safe and healthy employees positively impact all operations. They are more productive and generally more proud of their work, compared to employees in unsafe work environments. A good safety record also reassures customers and enhances credibility in the marketplace and in the community.

The really good news is that safety is within our control — unlike interest rates, exchange rates, trade restrictions and commodity prices.

*Methodology: Looking Forward by Looking Back*

To gauge the future prospects of savings from safety, this paper looks at what better safety would have meant in the past. Put another way, we ask, “What is the true ‘cost of unsafe’, and how much would the industry have saved had it performed better?”

The period reviewed: To assess those industry-wide costs and savings, we initially considered data for 1994-2003 (including compensation premiums, penalties for poor safety records and how claims experience drove up WorkSafeBC rates). This information was used to determine various hypothetical improved safety performances that would have yielded savings. Recent changes to assessment rate calculations led us to consider the 2003-05 period separately.

Employers in direct harvesting paid \$687 million in compensation premiums during the initial 10-year period and approximately \$216 million in the following three years. In both periods, they also incurred other significant costs related to fatalities, serious injuries, medical incidents and lost time.

We could have done better: Looking at experience in other jurisdictions and assessing B.C.’s best forest safety performers, the Council then decided that it would be realistic to assume that our safety record could be improved by at least 50 per cent. We then estimated the savings that would have resulted if industry injury and fatality rates were to be halved.<sup>6</sup>

## AREAS OF PROBABLE SAVINGS

*The next three sections consider where savings could have been realized.*

1. Direct savings in the form of lower industry compensation costs resulting from fewer unsafe incidents.
2. Indirect savings from reductions in the less-obvious “cost of unsafe,” including expensive down time, loss of productivity and more.
3. Benefits to individual companies earning better experience ratings than their direct competitors.

### 1. Reducing the Direct Cost of Unsafe

Our direct safety costs take the form of the assessments levied by WorkSafeBC under an experience rating system. Essentially, those with more injuries and fatalities must pay a higher base premium rate because of higher compensation claim costs for injuries and fatalities. If injury and fatality rates fall, less compensation is required; and assessments fall in tandem.

We looked at how basic premiums paid during 2003-05 under the current system would have been affected by various levels of reduction in claim costs. They ranged from a conservative 10-per-cent reduction to the complete elimination of all claims. The mid-point — the Council’s ambitious-but-realistic assumption of a 50-per-cent reduction — would result in net savings of \$108 million over the three years.

#### REDUCTIONS IN PREMIUMS 2003 - 2005

	For 3 years	Annual/Ave
10% Reduction of all claims costs	\$21,600,000	\$7,200,000
25% Reduction of all claims costs	\$54,000,000	\$18,000,000
50% Reduction of all claims costs	\$108,000,000	\$36,000,000
Elimination of LTD	\$68,700,000	\$22,900,000
Elimination of Fatalities	\$22,800,000	\$7,600,000
Eliminate fatalities & LTD	\$91,500,000	\$30,500,000

The exercise can be applied to types of claims as well as dollar amounts. Halving injury rates over the three-year-period would have meant 1,600 fewer short-term disability claims, 485 fewer long-term disability claims and over 2,000 fewer health-care-only claims. We did not estimate reduced fatalities because extrapolating cost data for this claims category is very difficult.<sup>7</sup>

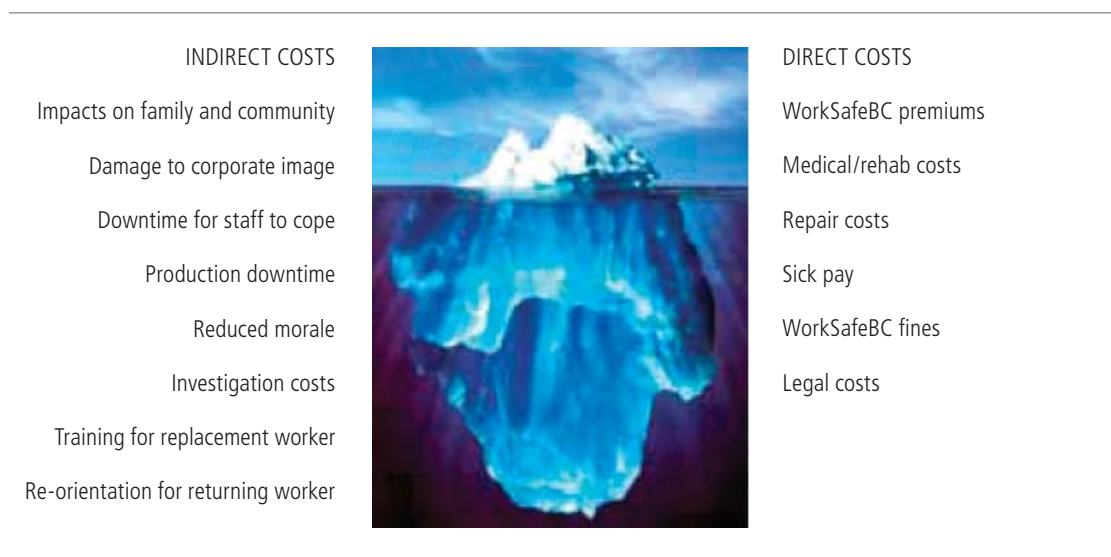


## 2. Reducing the *Indirect* Cost of Unsafe

Borne by employers and employees, the indirect costs of workplace injuries and fatalities are those that the compensation system does not cover. Besides overall loss of productivity, they include:

- Injured employees' time lost from work and their families' economic losses
- Time spent by co-workers or supervisors who stop to assist the injured employee
- Inefficiencies due to crew break-ups and need to hire and train replacement workers
- Repairing or replacing damaged tools and equipment, and the cost of down-time
- Spoilage and/or pollution clean-up from incidents involving fire, water, chemicals, explosives or other destructive forces
- Failure to fill orders or meet deadlines, and unexpected overheads incurred because of work disruptions
- Additional management and administrative requirements, and time needed for the joint occupational health and safety committee to investigate and report on the injury

Taken together, indirect and direct costs put a heavy load on the industry and its work force. But a key point is that indirect costs loom largest; direct costs are only the proverbial tip of the iceberg, as the next chart illustrates.



In the forest industry, the indirect costs can easily run up to five times greater than the more obvious direct costs of WorkSafeBC premiums.<sup>8</sup> In 2003-05, our average claim cost was approximately \$34,000. But the table below shows the entire iceberg, the combination of direct and indirect costs for a single injury.

*Calculation of Total Incident Costs 2003*

Indirect/Direct Cost Ratios	Direct Costs (average claim)	Indirect Costs	Total Incident Costs
3:1	\$34,000	\$102,000	\$136,000
4:1	\$34,000	\$136,000	\$170,000
5:1	\$34,000	\$170,000	\$205,000

What does this mean in the context of the Council's assumption of a 50-per-cent claims reduction for the industry? Even with the lowest cost ratio of 3:1 and actual 2003-05 claims experience, we project the significant savings summarized in the next table.

*All Claims 2003 - 2005*

	For 3 years	Yearly Average
Direct Costs	\$108,000,000	\$36,000,000
Indirect Costs	\$324,000,000	\$108,000,000
<b>Total Cost Reduction</b>	<b>\$432,000,000</b>	<b>\$144,000,000</b>

**CONCLUSION:** If in the three years from 2003 to 2005, the forest sector had achieved a reduction in their direct and indirect costs of approximately 50%, a rate that is currently being achieved in Alberta, there would have been direct savings in reduced premiums of more than \$100 million along with savings of indirect costs of over \$300 million. More important would be the positive outcomes in human terms: fewer injuries and fatalities, with their devastating impacts on families and co-workers.

### 3. Benefits for Individual Companies

WorkSafeBC's existing experience rating system already rewards positive safety efforts and deters unsafe performance of employers. Just as auto insurance premiums vary with individual driving records, the experience rating reflects a company's safety record. Over time, good performances mean base rate discounts as high as 50 per cent. Conversely, companies with poor safety records can ultimately expect surcharges of 100 per cent.

This system allows companies of all sizes to realize significant direct savings on WorkSafeBC premiums by lowering their injury and claims rates. Those direct savings are only the beginning, given the positive compounding effects when a company also avoids much higher indirect costs.

#### *Example 1 – Large Stump-to-Dump Contractors*

Company A operates in the Integrated Forest Management classification unit with a WorkSafeBC base rate of \$9.35. An exceptional safety performance over five years gives the company an experience rating of -45 or a net rate of \$5.14. With \$2 million in assessable payroll, Company A's annual premium is \$102,800.

Company B operates in the same classification unit, but with a steadily-deteriorating safety record over five years. It has an experience rating of +80 and a net rate of \$16.83. This means this company would pay \$336,000 in WorkSafeBC premiums on a payroll equal to Company A's.

The difference of \$233,800 per year is significant and would normally affect the relative competitive positions of these two similar companies. Besides this financial advantage, Company A is also likely to be a better-run operation with a more experienced, stable workforce.

#### *Stump-to-Dump Employer Experience Rating Based on Varying Safety Records*

	2005 Base Rate	Experience Rating	Adjusted Net Rate	Accessible Payroll	WorkSafeBC Premiums
Company A	\$9.35	- 45	\$5.14	\$2 million	\$102,800
Company B	\$9.35	+ 80	\$16.83	\$2 million	\$336,600
		Variation in premiums			\$233,800

### *Example 2 – Smaller Manual Tree Falling Companies*

Company C operates within the Manual Tree Falling classification unit where the base premium rate is \$10.52. With an effective health and safety program, the company has an experience rating of -35 and a net rate of \$6.84. Its yearly WorkSafeBC premium is \$34,200 on \$500,000 of assessable payroll.

Its direct competitor, Company D, has one of the classification unit's poorest safety records. This leads to an experience rating of +90 and a premium of \$99,950 on an annual assessable payroll of \$500,000.

The variation between two companies in the same classification unit with similar payrolls and notably different safety performances results in a disparity of \$65,750 a year in premiums.

Again, the safer company has a decided competitive advantage — \$65,750 in premium savings and lower indirect safety costs.

#### *Manual Tree Faller Employer Experience Rating Based on Varying Safety Records*

	2005 Base Rate	Experience Rating	Adjusted Net Rate	Accessible Payroll	WorkSafeBC Premiums
Company C	\$10.52	- 35	\$6.84	\$500,000	\$34,200
Company D	\$10.52	+ 90	\$19.99	\$500,000	\$99,950
			Variation in premiums		\$65,750

## COSTS AND CURES

Historically, everyone in the B.C. forest industry has paid an exorbitant price for poor safety performance.

For workers, injuries reduce, at least temporarily, the ability to earn a living and support their families. Worst of all are fatal injuries that devastate loved ones and even entire communities. For co-workers and supervisors, the emotional toll and impact of a work-related incident to one of their co-workers can be significant. Work time may also be lost while caring for the injured, production interrupted, and crew dynamics and efficiency adversely affected to break in replacement workers. Down time may also be necessary to repair or replace equipment.

For companies, incidents resulting from poor safety performance are financially burdensome as described here previously. As well, they can harm corporate reputations and lower morale among workers.

Doing nothing about our unacceptable levels of serious injuries and fatalities reduces the industry's competitiveness and threatens its long-term viability.

We all — government, employers, contractors and workers — have a serious stake in eradicating “the cost of unsafe”. We must work together to:

- Change the safety culture in BC forest sector.
- Clearly define roles, responsibilities and accountabilities from the board room to the logging camp.
- Implement sector-wide standards for safe work practices, worker training and effective supervision.

These are imperatives. If they are not achieved, the “cost of unsafe” continues to drain the B.C. forest industry to everyone's detriment.

Quite simply, we have no alternative to raising safety standards across the board and at every operational level. Our long-term survival in competitive world markets depends on ensuring effective and consistent health and safety management.

## ENDNOTES

- <sup>1</sup> A REPORT AND ACTION PLAN TO ELIMINATE DEATHS AND SERIOUS INJURIES IN BRITISH COLUMBIA'S FORESTS, Final Report of the Forest Safety Task Force --January 19, 2004. Recommendations 12 and 13.
- <sup>2</sup> Recommendation #12 - Enhance Information Dissemination: The Task Force supports the recommendation of the IWA Task Force on BC Coastal Logging Occupational Health and Safety that "when a fatality occurs in the forest industry, public awareness be heightened by putting forward relevant, meaningful, constructive and considerate information to the media in a timely manner."

Recommendation #13 – Provide Better Information: The Task Force recommends that industry and government agencies collaborate to ensure more timely distribution of information on investigations, deaths and serious injuries in the forest sector (without compromising their legal mandates).

- <sup>3</sup> Based on the average assessment of Rate Group DR over the three year period.

<b>Rate Group DR Assessment Premiums Paid</b>		
	<b>Three Years 2003 - 2005</b>	<b>Average Annual</b>
Rate Group DR Assessments	\$215,640,266	\$71,880,089
Rounded		\$72,000,000

- <sup>4</sup> Comparisons between jurisdictions is always difficult. In terms of comparability, Alberta has a Workers Compensation regime that is reasonably similar to ours and there are many of the same companies working in both provinces. It should be noted, however, that the industry in BC is several times larger than In Alberta, and that the Coastal operations in BC are in more difficult terrain than in Alberta. With these caveats in mind, it is still clear that there is a significant cost differential between the two jurisdictions.
- <sup>5</sup> This was a comment made at one of the Council's Board meetings.
- <sup>6</sup> Projected cost savings outlined in this report are not made on behalf of WorkSafeBC, do not represent any commitment or plan on their

behalf and are not endorsed by that organization. They are hypothetical projections developed by the BC Forest Safety Council, based on agreed upon industry information from 1994-2003.

- 7 The following table sets out the three and one year average savings in both dollars and claims. The following table includes all six scenarios considered.

Scenarios for Reducing Premiums and Number of Injuries -- based on 2003 - 2005 costs											
	Reduction in Premiums		Reduction in Number of Claims								
			Short Term Disability		Long Term Disability		Fatafs		Health Care Only		
	For 3 years	Annual/Ave	For 3 years	Annual/Ave	For 3 years	Annual/Ave	For 3 years	Annual/Ave	For 3 years	Annual/Ave	
1	10% Reduction of all claims costs	\$21,600,000	\$7,200,000	323	108	97	32	5	2	434	145
2	25% Reduction of all claims costs	\$54,000,000	\$18,000,000	808	269	243	81	13	4	1,085	362
3	50% Reduction of all claims costs	\$108,000,000	\$36,000,000	1616	539	485	162	26	9	2,171	724
4	Elimination of LTD	\$68,700,000	\$22,900,000			971	324				
5	Elimination of Fatalities	\$22,800,000	\$7,600,000					52	17		
6	Eliminate fatalities & LTD	\$91,500,000	\$30,500,000			971	324	52	17		

- 8 "Safety Is Good Business" Briefing Paper, 2004 – WorkSafeBC.

## APPENDIX A:

### Canadian Workers' Compensation Systems Rate

#### *Rate Setting Principles*

Three general principles are used in rate setting in Canadian workers' compensation systems:

1. FULL FUNDING – This means that premiums collected annually are generally expected to cover the cost of injuries arising in the year for which the rates are set. The principle is based on the desire of industry to avoid the transfer of costs to future generations of employers.
2. RESPONSIBILITY AND ACCOUNTABILITY – Industries are aggregated into rate groups according to similarity of their claims costs, and monitored on an annual basis. In this way, cross-subsidy of employers with high claim cost performance by those with low claim cost performance is minimized.
3. STATISTICAL RELIABILITY – In order to ensure rates are stable as much as possible from year to year, data used in rate setting must be statistically credible. The number of years of historical data used to determine rates vary between rate groups and depends on a combination of size of assessable payroll and number of claims per year.

### *WorkSafeBC Rate Setting Practices*

WorkSafeBC uses a three-step guide to rate setting:

STEP 1: Classification units are rolled into industry groups.

Berry farms, orchards and vineyards are in one industry group, for example. All forestry-related activities are in another industry group. Then, the historical cost rate for each industry group is calculated, looking at how much employers in each group have collectively cost WorkSafeBC (in terms of the ratio of their claim costs to their payroll). This helps determine which rate group each industry group should reside in. Occasionally, a classification unit is large enough to form its own industry group. Supermarkets, for instance, form both a classification unit and an industry group.

STEP 2: Industry groups into rate groups.

To ensure rates remain stable, industry groups are combined into rate groups. Rate groups are made up of industry groups with similar historical cost rates. They may, however, include employers from dissimilar industries. Veterinary hospitals are in the same rate group as golf courses, for example, since they share similar historical cost rates. Some industry groups are large enough to form rate groups of their own. Restaurants and pubs, for example, form their own industry group and rate group.



STEP 3: Base Rates are calculated for each rate group.

Base rates are calculated at the rate group level. First, the total claim costs for each rate group is calculated, then divided by the group's estimated total assessable payroll to produce a cost rate. Employers in all rate groups also contribute to reserves for enhancement, disaster and administration. This ensures one group is not unfairly burdened with costs. Each rate group is self-sufficient when it comes to costs. That is, all employers in the rate group pay for the cost of workers' injuries and diseases within the rate group.

### *WorkSafeBC Rate Setting Process*

WorkSafeBC rates consist of several components:

**COST RATE** – This is the dollar amount per \$100 of assessable payroll WorkSafeBC must collect to cover the cost of new claims that are directly incurred by the rate group and the future cost of administering those claims. Each cost rate is broken down to identify the cost rate for each short-term disability, long-term disability, survivor benefits, health care and vocational rehab claims.

**CLAIMS ADMINISTRATION** – This is the amount charged to the rate group to cover its share of administering claims. It includes the administration of claims first reported and the administration of re-opening claims. These costs include any goods or processes provided or performed for the primary purpose of assessing the claimant's entitlement

to an award or the amount of the award, overall management of a claim, as well as the function of making payment to, or in respect of, a claimant.

**DATA VARIANCE ADJUSTMENT** – This adjustment accommodates changes in the cost of claims over time, the allocation of Section 39 costs and cost reductions arising from recent legislative changes.

**OTHER ADMINISTRATIVE COSTS** – This is the amount charged to a rate group to cover its share of the cost of administering the workers' compensation system, other than the cost of administering claims.

**PENALTY AND EXPERIENCE RATING ADJUSTMENT** – This figure represents the adjustment to the rate to cover anticipated losses or gains as a result of experience rating adjustments, and assessment and prevention penalties.

**FUNDING POLICY ADJUSTMENT** – This adjustment provides for funding of surpluses (a rate decrease) and deficits (a rate increase), generally over a five-year amortization period. It also reflects the WorkSafeBC's policy of limiting base rate changes from year to year (the normal maximum change is +/- 20 per cent). Finally, it also accommodates any recent emerging claim cost trends which significantly deviate from the normal long-term actuarial assumptions used for rate setting.

Each year, base rates are calculated on a basis consistent with the aforementioned rate setting methodology and, therefore, only reflect the cost experience of the previous three years.

## How does it work for forestry?

There are four different Rate Groups in the forest sector. Rate Groups are made up of industry groups with similar historical cost rates. Classification units (CU) within Rate Groups have varying base rates. The four Rate Groups that make up the forest sector as defined within the B.C. Forest Safety Council's mandate are Rate Group DR, Rate Group CI, Rate Group DW and Rate Group BN.

RATE GROUP DR – Rate Group DR represents the largest component of the forest sector and includes 12 classification units: Cable or Hi-Lead Logging (703003); Dry Land Sort (703004); Ground Skidding, Horse Logging, Log Loading (703006); Integrated Forest Management (703008); Log Booming (703009); Log Processing (703011); Logging Road Construction and Maintenance (703012); Manual Tree Falling (703013); Mechanized Tree Falling (703014); Shake Block Cutting (703015); Marine Log Salvage (703018); Helicopter Logging (732043).

Rate Group DR does not traditionally group similar activities with similar claims costs. Rather, it combines CUs representing various phases of one forest harvest industry.

RATE GROUP CI – Rate Group CI includes three classification units: Chemical Brushing and Weeding or Chemical Tree Thinning or Spacing (703001); Brushing and Weeding or Tree Thinning and Spacing (703002); and Forest Fire Fighting (703005).

RATE GROUP DW – Rate Group DW includes one classification unit: Log Hauling (732044).

RATE GROUP BN – Rate Group BN includes one classification unit: Tree Planting or Cone Picking (703016).

The information presented below for Rate Group DR provides a breakdown of the various costs involved in determining the 2006 actuarial rate.

### Cost rates

Short-term disability.....	\$1.093
Long-term disability .....	\$1.432
Survivor's benefits.....	\$0.373
Health care .....	\$1.008
Vocational rehabilitation .....	\$0.323
Average benefit cost rate .....	\$4.23
Claims administration .....	\$1.29
Data variance adjustment.....	\$0.42
Penalty and ER imbalance adjustment .....	\$0.31
Other administration .....	\$0.99
Total cost rate.....	\$7.24
Amortization adjustment.....	\$2.47
2006 actuarial rate .....	\$9.71

*Why would the Rate Group base rate be different from my classification unit's charged rate?*

Classification units in each Rate Group can have a different rate than the actuarial rate. There are several reasons for this, the main ones being:

The CU may participate in an industry-funded initiative and is contributing to its funding by paying an additional levy.

The CU may participate in an industry-specific incentive program and is contributing to its funding by paying an additional levy.

The CU may represent a federally regulated industry that is exempt from having to contribute to the WorkSafeBC's prevention efforts.

WorkSafeBC recognizes that significant changes in rates can have a major financial impact on employers. Therefore, it limits rate changes to 20 per cent from one year to the next. The actuarial rate for the rate

group may have changed by greater than 20 per cent, but the CU's rate change was limited to 20 per cent.

The CU may have moved between rate groups in the past. To avoid inappropriate cross-subsidization of industries, WorkSafeBC keeps balances for each rate group. When CUs move between rate groups, they take their portion of their previous rate group's balance with them.

WorkSafeBC maintains various reserves to be ready for unforeseeable events. Since in any given year some CUs will experience rate increases and others rate decreases, in keeping with the "20 per cent rule" referenced above not all CUs will contribute to these reserves at the same pace.

Actuarial rates are calculated based on long-term trends using actuarial data and actuarial assumptions. At times, short-term trends provide a compelling reason to vary a CU's rate from the actuarial rate.

## APPENDIX B:

### Financial and Statistical Information on Rate Group DR

The following base information was generated for the Council by WorkSafeBC.

<b>Rate Group DR Assessment Premiums Paid</b>		
	Three Years 2003 - 2005	Average Annual
Rate Group DR Assessments Rounded	\$215,640,266	\$71,880,089 \$72,000,000

<b>Rate Group DR Cost Components</b> from 2007 preliminary rates based on 2003 - 2005 costs		
	Cost Rate	% of total
Short term disability	\$1.079	24.9%
Long term disability	\$1.380	31.9%
Survivor benefits	\$0.458	10.6%
Health Care	\$1.122	25.9%
Vocational Rehab	\$0.292	6.7%
	\$4.331	100.0%

<b>Approximate Annual Share of Premiums</b>		
	Calculated Amt	Rounded
Short term disability	\$17,937,659	\$17,900,000
Long term disability	\$22,941,584	\$22,900,000
Survivor benefits	\$7,613,946	\$7,600,000
Health Care	\$18,652,505	\$18,700,000
Vocational Rehab	\$4,854,306	\$4,900,000
	\$72,000,000	\$72,000,000

<b>Claims Statistics 2001 - 2005</b>		
	Five Years	Average Annual
Short Term Disability	5,386	1,077
Long Term Disability	1,618	324
Fatalities	87	17
Health Care Only	7,235	1,447

<b>Scenarios for Reducing Premiums and Number of Injuries</b>					
	Annual Reduction in Premiums	Annual Reduction in Number of Claims			
		Short Term Disability	Long Term Disability	Fatals	Health Care Only
1 10% Reduction of all claims costs	\$7,200,000	108	32	2	145
2 25% Reduction of all claims costs	\$18,000,000	269	81	4	362
3 50% Reduction of all claims costs	\$36,000,000	539	162	9	724
4 Elimination of LTD	\$22,900,000		324		
5 Elimination of Fatalities	\$7,600,000			17	
6 Eliminate fatalities & LTD	\$30,500,000		324	17	

This information was derived from a broader set of data and the following points need to be kept in mind:

1. The information is for rate group DR, which accounts for 84% of the assessments in Forestry (Subsector 7030 Forestry, and CUs 732044 Log Hauling, 732024 Log Towing and 732043 Helicopter Logging). Helicopter Logging moved to CU 703019 in 2006, however historical information is still found in CU 732043. None of the CUs in subsector 7140 Wood & Paper products is included in rate group DR.
2. The purpose is to indicate the potential reduction in annual WorkSafeBC premiums and number of injuries that would be possible for certain injury reduction scenarios, or to put it a different way, the premiums that need to be paid because of unsafe activity or conditions -- "the cost of unsafe."
3. The assumed base level is the current average annual premiums (2003 to 2005 average) and number and type of claims (2001 to 2005 average).
4. The scenarios considered were:
  1. 10% reduction of all claims costs
  2. 25% reduction of all claims costs
  3. 50% reduction of all claims costs
  4. elimination of all long term disabilities
  5. elimination of all fatalities
  6. elimination of all fatalities and long term disabilities
5. A simplifying assumption used was that if claims costs are reduced 50%, premiums will also be reduced by 50% -- this ignores the rate group balance and the effect of investment return, but it is a reasonable long term assumption.
6. Rate Group DR was set up in 2002, however information for the period 2001 to 2005 is based on the CUs which currently make up the rate group. More detailed summaries are provided for 2003 to 2005, and 2001 to 2005.

## APPENDIX C:

### Composition of Rate Group DR

Statistics and Financial Information 2001 to 2005 -- Forestry, Wood & Paper Products, Rate Group DR

CU	Desc	RG	STD	LTD	FTL	HCO	Pers Yrs	Inj Rate	Payroll	Net Assmt
703016	Tree Planting or Cone Picking	BN	982	39	3	585	7,659	13	\$304,041,440	\$11,462,096
703001	Chem Brushing, Weeding, Tree Thin, Space	CI	48	8		36	297	18	\$12,407,707	\$785,168
703002	Brushing, Weeding, Tree Thin, Space nes	CI	442	60	2	353	2,962	15	\$109,696,211	\$6,898,331
703005	Forest Fire Fighting	CI	72	6	2	61	731	10	\$29,486,162	\$1,802,881
703003	Cable or Hi-Lead Logging	DR	230	61	5	156	1,550	17	\$75,225,837	\$8,791,579
703004	Dry Land Sort	DR	127	25	2	164	1,929	7	\$90,306,567	\$6,784,475
703006	Ground Skidding, Horse Logging, Log Load	DR	351	131	9	414	6,276	6	\$288,143,017	\$20,015,671
703008	Integrated Forest Management	DR	3,120	925	41	4,789	72,564	5	\$3,260,323,597	\$238,737,509
703009	Log Booming	DR	86	14		84	785	12	\$37,814,053	\$2,696,820
703011	Log Processing	DR	53	16	1	72	2,538	2	\$106,698,786	\$6,829,984
703012	Logging Road Construct or Maintenance	DR	138	28	3	188	3,366	5	\$154,773,027	\$10,581,876
703013	Manual Tree Falling and Bucking	DR	861	306	15	926	3,138	31	\$194,189,546	\$22,300,977
703014	Mechanized Tree Falling	DR	82	19	1	142	3,079	3	\$144,061,150	\$9,344,102
703015	Shake Block Cutting	DR	209	60	6	170	924	25	\$37,107,825	\$4,300,530
703018	Marine Log Salvage	DR	1			1	26	4	\$1,349,000	\$132,011
703019	Helicopter Logging	DR				3				
732043	Helicopter Logging (703019)*	DR	115	20	3	106	1,034	12	\$48,111,720	\$4,963,307
732044	Log Hauling	DW	731	190	21	713	14,457	6	\$663,537,849	\$37,768,883
732024	Log Towing	FJ	355	37		171	2,355	16	\$101,834,866	\$9,650,076
<b>Forestry Total</b>			<b>8,003</b>	<b>1,945</b>	<b>114</b>	<b>9,134</b>	<b>125,668</b>	<b>7</b>	<b>\$5,659,108,360</b>	<b>\$403,846,275</b>

## FOREST SAFETY ACCORD

### Our Key Beliefs:

- We believe that all fatalities and injuries are preventable.
- We believe in a culture where the health and safety of all workers is an over-riding priority.
- We believe that excellence in health and safety is important to our long-term success.

### Shared Responsibility:

- We are collectively and individually responsible for the safety of all workers and all worksites.
- Individuals must assume responsibility for their own safety and the safety of co-workers by following all safety rules, procedures and practices; by refusing to perform unsafe work; and by taking collective responsibility for the unsafe conduct of others.
- Tenure holders, licencees and prime contractors must take a leadership role in ensuring worker health and safety and assuring accountability for safety on the worksite.

### Recognition of Safety Performance and Practices:

- The commitment to health and safety is to all workers, not just direct employees. When engaging contractors, sub-contractors and others to provide services, the selection process and administration

of contracts will include recognition and support of good safety performance and practices.

- Employers will recognize and support the safety performance of their employees.
- All owners of forested lands, tenure holders and licencees will give weight to the safety record and current practices of companies in the awarding of contracts and in the determination of fees and levies.

### Commitment to Training and Supervision:

- We understand the importance of workers being fully prepared for the work they do and the provision of competent supervisors who will insist on and enforce safe work practices. All workers on the worksite must be competent and fully trained and certified for the work they are performing.

### Legislation:

- It is understood that the regulatory environment of the Forest Industry can have profound impacts on safety. Accordingly, government ministries and agencies must take into account the importance of health and safety when developing, reviewing and drafting applicable areas of law and regulation.

### Continual Improvement:

- We are committed to the on-going improvement of our practices and support efforts to develop and implement new methods, procedures and technologies that have the potential to improve safety.



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