# The Intended Consequences of Wildlife Allocations in British Columbia

British Columbia Wildlife Federation
BC's First Conservationists: 38,000 Strong

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Wildlife Allocations have become extremely complex and confusing over the past 30 years making it a difficult issue to understand. The intent of this document is to give the reader a brief overview of the history and impact of allocations and regulations on resident hunters and the British Columbia (BC) economy.

## *Resident Hunters in BC*

The resident hunter population in BC declined precipitously by over 50% from its peak of 174,000 in 1981 to a low of 84,000 in 2004 (Zeman, 2006, p.1). During the same period guided non-resident hunters increased by more than 55% from ~3100 to 5000. Among other factors changes in allocations, regulations and in some areas dwindling wildlife populations have had a severe negative impact on resident hunters. The decline of resident hunting and the impact on the conservation movement is nothing for BC to be proud of, and should be considered extreme as compared to other jurisdictions. For example, between from 1980-2001 hunting license holders in the United States declined by only 9% (Responsive Management, p.9, 2004); in BC resident hunter license holders declined by 25% from 1981-1985 alone (Zeman, p.18, 2006). Since 2004 resident hunter numbers have increased 12% to ~95,000 likely due to access to the CORE program, social awareness, liberalization of regulations, and a shift of focus to recruitment and retention of hunters.

## *Allocation Changes 1981-2005*

From 1981-2005 allocations were seemingly ad hoc, quota and regulation related decisions were not consistent, clear or transparent. The old policy was not followed, agreements were often made behind closed doors and changes to quota were made through the environmental appeal process. It is important to understand that when outfitter quota is increased corresponding quota and opportunity is typically taken away from resident hunters. Guide-outfitters had and continue to have the ability to appeal quota decisions through the Environmental Appeal Board; resident hunters did not and do not have the same mechanism to have allocation-related decisions evaluated by an independent body.

Generally, when regulatory changes resulted in reduced annual allowable harvest rates resident hunter allocation was cut drastically and there was little to no long-term effect to guide-outfitter quota. In fact, in several cases outfitter quota actually increased over the long-term while resident hunter allocation remained at a low level, sometimes less than 50% of historic levels. There are several examples such as moose hunting in the Kootenay region where outfitters went from 4% of the allocated harvest in 1991 to over 25% by 2003. In 2005 outfitter clients numbers were higher than ever, whereas resident hunters had declined by 81% as compared to the period prior to 1991. Following are the changes for what are currently allocated hunts between 1981 and 2005:

| Changes in Hunters and Days Allocated Species 1981 VS 2005 | | | |
|---|---|---|---|
| Resident Hunters | Resident Hunter Days | Non-resident Hunters | Non-resident Hunter Days |
| -11899 | -64664 | -261 | -9593 |
| -30% | -24% | -8% | -36% |

The change in resident hunter numbers and days represents a minimum economic loss of $4,015,111 to the economy and $323,330 in species license revenue annually (2010 dollars) See Appendix 1. The impact on resident hunter opportunity, participation, recruitment and retention is significant. Outfitter revenue is based on the number of hunts (hunters), not the number of days. The small decline in non-resident hunters and large decline in days indicates better success rates and shorter hunts which maximizes turnover and profit margins.

The decline in resident hunter numbers and days for un-allocated species is also significant and is due in part to changing allocations, regulations and wildlife populations. There is often a relationship between allocated and un-allocated species for resident hunters as multiple opportunities for different species generates demand. For example, when there is a significant shift which results in reduced opportunities for an allocated species such as

moose, fewer resident hunters will participate in hunts for other species such as deer in the same area. For bears, deer, elk and un-allocated moose the changes were:

| Changes in Resident Hunters and Days Un-Allocated Species 1987-2005 | | | | | |
|---|---|---|---|---|---|
| Species | Mule Deer | White-tailed Deer | Black Bear | Elk | Moose Region 7B |
| Hunters | -18467 | 3667 | -2120 | *645 | -3057 |
| Days | -144802 | 4184 | -6984 | *8413 | -8174 |

*Days difficult to distinguish between LEH and GOS hunts

## *Economic loss 2007-2012*

Following is an analysis of forecasted resident utilization using the *2010 Allocation Calculator (Utilization)* (BC Ministry of Natural Resource Operations, 2010). The administration of current allocation is not consistent with policy and as a result lost resident opportunity is under-represented. Due to restrictive regulations and a lack of LEH authorizations, resident hunter opportunity and economic contribution has been severely impaired. Resident daily expenditure, adjusted for inflation, is based on Reid's report *The Value of British Columbia Resident Hunting* (2004). Daily expenditures do not include major capital purchases such as: quads, snowmobiles, jetboats, 4x4s, trailers, horses, planes or recreational properties that are often bought in part or wholly for hunting. Typically, these are significant expenses. Not including HST and resident hunter licenses purchased the total predicted loss is:

| Resident Hunter Utilization Loss For Allocated Species: 2007-2012 | | | |
|---|---|---|---|
| Resident Hunters | Resident Hunter Days | Daily Expenditures Lost | Species License Revenues Lost |
| -34,106 | -245,121 | -$20,210,795 | -$1,274,698 |

See Appendix 2 for an in depth analysis

## *The Implications*

Losing half of the hunters creates a significant risk to conservation efforts and rural economies in British Columbia. Reid estimated resident hunting in BC had a gross annual economic value of $115 Million (p.1) in 2003. The precipitous decline of resident hunters in BC has essentially reduced the economic potential of resident hunting in BC by half.

### Impact on Conservation Activities and the Economy

The loss of resident hunters in BC has a significant impact on the BCWF's ability to recruit new members. Several affiliated clubs and resident hunters are active members in stewardship activities across the province. Many clubs lead projects that bring in multiple stakeholders, create goodwill and have enormous benefit to lakes, streams, mountains and the fish and wildlife that they support. There is also significant economic spin-off. For example, the members of the Oceola Fish and Game Club in Lake Country, BC have been the stewards of the kokanee population in Wood Lake. This fishery has gone from 800 fish returning annually in the late 1980s to close to 12,000. It is the most popular kokanee fishery in Canada (Frazer et al, 2011), bringing in an estimated $285,000-$400,000 annually to the local economy. The club has ongoing stewardship projects in Middle Vernon and Winfield Creek as well as managing and restoring a habitat preserve which contains public walking trails and educational signage. The club completes several stewardship projects which are valued at $250,000-$400,000 annually. This club is good for the economy, conservationists and the public, and these benefits come at little to no cost to the Province. This opportunity would not occur without resident hunters and this is only one club!

## *The Intended Consequences?*

The Allocation Policy was negotiated between 2003-2006 with government officials, the Guide-Outfitters Association of BC, the BC Trappers Association and the BC Wildlife Federation. For guide-outfitters the current *Wildlife Allocation Policy* is likely the best

allocation policy in North America. Conversely, for resident hunters, it is one of the worst. Generally speaking the minimum allocations for guide-outfitters in BC is better than the maximum in other jurisdictions. Following is a general outline of non-resident (guide-outfitter) allocations in other jurisdictions:

| **Outline of Non-resident Allocation Other Jurisdictions** | | |
|---|---|---|
| **Jurisdiction** | **Share** | **Guide-outfitter Required** |
| British Columbia | Maximum 30-40%<br>Minimum 10-20%<br>Several unallocated hunts | Yes<br>Outfitter or resident host for unallocated hunts |
| Saskatchewan | 4% (moose)<br>*14% (white-tailed deer)<br>0% mule deer | Yes<br>*Not for Canadian residents |
| Arizona | 10% Maximum (legislated) | No |
| Colorado | 20% Maximum (legislated) | No |
| Idaho | ~10% | No |
| Montana | 10% (legislated) | No |
| Nevada | 10% sheep (legislated)<br>5% other species (legislated) | No |
| New Mexico | Currently 22%<br>Possible legislated max 10% in the future | No |
| Oregon | 5% most species | No |
| Utah | 10% (legislated) | No |
| Washington | ~5% | No |
| Wyoming | 25% sheep (legislated)<br>20% other species | Outfitter max 12% of allocation |
| Alberta | Non-resident alien (from outside Canada)<br>Typically 2-7% (species dependent)<br>Max 10% | Yes |

After the policy was signed off in 2007, GOABC and its members have continuously tried to have the policy ignored, marginalized, changed and eliminated several times via special reports and mechanisms to which resident hunters do not have access. Until 2011 all of the attempts and tools available, such as the Environmental Appeal Board, have failed. The current policy has been upheld at several levels.

In 2011, through heavy political lobbying, GOABC influenced government to contract a review that considered the implications of the implementation of the *Wildlife Allocation*

*Policy* on guide-outfitters. The terms of reference for the review were extremely limited and resulted in a heavily-biased report. The report made no attempt to evaluate or represent resident hunters' economic contribution, needs or value in British Columbia. Nor did the review consider the impact of allocations and regulations on resident hunters or small business owners.

The report speaks to "unintended" consequences to guide-outfitters, but the objectives and results of the policy are very clear. Because of regional averaging, whereby outfitters were given wildlife which does not even exist in their area, significant loss and re-organization of quota was a known issue in 2007 – this was not an unintended consequence. The recession is an external threat which none of us have any control over; as British Columbians we are all plagued by a sluggish economy. Many of the issues that have come up and are dealt with in the new policy are a result of partial decision making in the past. That is not the fault of the resident hunter, nor the small business owners who benefit from resident hunting. Resident hunters should not be expected to continue to sacrifice allocation share and hunting opportunity to prop up poor decisions of the past.

It is un-fair and poor practice to review policy or change it a handful of years after it is signed off. It is poor practice to examine the impacts of policy on guide-outfitters and not look at the impacts on resident hunters or the BC economy. This is particularly true when the policy affords one of the best and most favorable policies in North America for guide-outfitters.

It must therefore be assumed that losing hundreds of thousands of resident hunter opportunities and hunter days, over $100 million dollars in daily expenditures that fuel rural economies, and half of the resident hunter population over the past 30 years, was intended. Decision making to this effect does not benefit wildlife, resident hunters or the BC economy. If it is government's true intent to increase the value of all hunting in British Columbia efforts should be directed towards improved wildlife habitat, creating healthy and vital wildlife populations. Taking opportunity from resident hunters and damaging rural economies to subsidize one industry is not in the best interests of British Columbia.

## References


BC Ministry of Natural Resource Operations. (2010). 2010 Allocation Calculator (Utilization) [PDF]. Victoria, BC: Gerad Hales.

Frazer, K, Askey, P, Russello, M. (2011). *Using Adaptive Genetic Markers to Inform Kokanee Fisheries Management in Wood Lake (O).* Kelowna, BC: University of British Columbia.

Reid, R. (2004). *The Value of British Columbia Resident Hunting 2003*, 1.

Responsive Management. (January, 2004). *Issues Related to Hunting and Fishing Access in the United States: A Literature Review*, 9. Harrisonburg, VA: Responsive Management.

Zeman, J. (April, 2006). *The Precipitous Decline of Resident Hunters in the Okanagan,* 1,9,18. Kelowna, BC.

Appendix 1 Changes in Hunters, Days and Resident Hunter Daily Expenditures and License Fees 1981 vs 2005

| | | 1981 Resident | | 2005 Resident | | 1981 Non-resident | | 2005 Non-resident | | Change Resident | Change NR | Change Resident Days | Change NR Days | R Daily Expenditure (2010 $) | Resident Daily Expenditure | License Cost | Resident Species License |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Region | Species | Hunters | Days | Hunters | Days | Hunters | Days | Hunters | Days | Hunters | Hunters | | | | | | |
| 1 | Elk | 153 | 800 | 159 | 767 | 0 | 0 | 15 | 66 | 6 | 15 | -33 | 66 | $63.19 | -$2,085 | $25.00 | $150 |
| 1 | Grizzly | 11 | 39 | 2 | 5 | 6 | 48 | 7 | 30 | -9 | 1 | -34 | -18 | $136.85 | -$4,653 | $80.00 | -$720 |
| 3 | Grizzly | 22 | 97 | 4 | 14 | 1 | 13 | 1 | 1 | -18 | 0 | -83 | -12 | $136.85 | -$11,359 | $80.00 | -$1,440 |
| 3 | Moose | 5784 | 36912 | 3906 | 31406 | 32 | 180 | 22 | 94 | -1878 | -10 | -5506 | -86 | $60.46 | -$332,879 | $25.00 | -$46,950 |
| 3 | Goat | 10 | 22 | 49 | 182 | 3 | 51 | 26 | 137 | 39 | 23 | 160 | 86 | $129.80 | $20,767 | $40.00 | $1,560 |
| 3 | Sheep | 124 | 534 | 108 | 675 | 21 | 284 | 10 | 117 | -16 | -11 | 141 | -167 | $121.48 | $17,129 | $60.00 | -$960 |
| 4 | Grizzly | 313 | 2467 | 92 | 764 | 25 | 241 | 33 | 241 | -221 | 8 | -1703 | 0 | $136.85 | -$233,064 | $80.00 | -$17,680 |
| 4 | Moose | 3469 | 27934 | 606 | 3172 | 60 | 544 | 68 | 365 | -2863 | 8 | -24762 | -179 | $60.46 | -$1,497,047 | $25.00 | -$71,575 |
| 4 | Goat | 151 | 661 | 423 | 1921 | 36 | 213 | 100 | 486 | 272 | 64 | 1260 | 273 | $129.80 | $163,542 | $40.00 | $10,880 |
| 4 | Sheep | 348 | 2764 | 269 | 2834 | 32 | 268 | 46 | 366 | -79 | 14 | 70 | 98 | $121.48 | $8,504 | $60.00 | -$4,740 |
| 5 | Grizzly | 38 | 153 | 20 | 106 | 14 | 128 | 12 | 62 | -18 | -2 | -47 | -66 | $136.85 | -$6,432 | $80.00 | -$1,440 |
| 5 | Caribou | 64 | 318 | 79 | 563 | 9 | 81 | 9 | 29 | 15 | 0 | 245 | -52 | $159.17 | $38,997 | $20.00 | $300 |
| 5 | Moose | 10344 | 74770 | 2758 | 18242 | 674 | 3821 | 473 | 2341 | -7586 | -201 | -56528 | -1480 | $60.46 | -$3,417,538 | $25.00 | -$189,650 |
| 5 | Goat | 64 | 199 | 30 | 131 | 16 | 86 | 38 | 181 | -34 | 22 | -68 | 95 | $129.80 | -$8,826 | $40.00 | -$1,360 |
| 6 | Caribou | 272 | 2057 | 282 | 2084 | 187 | 1955 | 178 | 1055 | 10 | -9 | 27 | -900 | $159.17 | $4,298 | $20.00 | $200 |
| 6 | Goat | 505 | 2719 | 299 | 1377 | 240 | 2176 | 236 | 1168 | -206 | -4 | -1342 | -1008 | $129.80 | -$174,186 | $40.00 | -$8,240 |
| 6 | Moose (6S) | 4390 | 31792 | 3156 | 17745 | 273 | 1846 | 371 | 1879 | -1234 | 98 | -14047 | 33 | $60.46 | -$849,246 | $25.00 | -$30,850 |
| 6 | Sheep | 247 | 1992 | 229 | 1646 | 103 | 1008 | 107 | 685 | -18 | 4 | -346 | -323 | $121.48 | -$42,034 | $60.00 | -$1,080 |
| 6 | Grizzly | 263 | 2103 | 139 | 1140 | 221 | 2552 | 87 | 616 | -124 | -134 | -963 | -1936 | $136.85 | -$131,791 | $80.00 | -$9,920 |
| 7A | Grizzly | 261 | 1431 | 303 | 2522 | 110 | 1261 | 74 | 557 | 42 | -36 | 1091 | -704 | $136.85 | $149,308 | $80.00 | $3,360 |
| 7A | Moose | 10984 | 67956 | 12245 | 95130 | 437 | 3113 | 488 | 2860 | 1261 | 51 | 27174 | -253 | $60.46 | $1,642,870 | $25.00 | $31,525 |
| 7b | Grizzly | 279 | 1837 | 210 | 1842 | 270 | 3240 | 47 | 411 | -69 | -223 | 5 | -2829 | $136.85 | $684 | $80.00 | -$5,520 |
| 7b | Sheep | 461 | 3500 | 501 | 3773 | 191 | 1692 | 174 | 1461 | 40 | -17 | 273 | -231 | $121.48 | $33,165 | $60.00 | $2,400 |
| 7b | Goat | 136 | 967 | 152 | 1029 | 149 | 1656 | 196 | 1537 | 16 | 47 | 62 | -119 | $129.80 | $8,047 | $40.00 | $640 |
| 8 | Moose | 1204 | 6938 | 2060 | 17445 | 4 | 36 | 29 | 167 | 856 | 25 | 10507 | 131 | $60.46 | $635,226 | $25.00 | $21,400 |
| 8 | Goat | 31 | 66 | 13 | 48 | 1 | 10 | 2 | 20 | -18 | 1 | -18 | 10 | $129.80 | -$2,336 | $40.00 | -$720 |
| 8 | Sheep | 118 | 503 | 53 | 304 | 6 | 49 | 11 | 27 | -65 | 5 | -199 | -22 | $121.48 | -$24,175 | $60.00 | -$3,900 |
| | Total | 40046 | 271531 | 28147 | 206867 | 3121 | 26552 | 2860 | 16959 | -11899 | -261 | -64664 | -9593 | | -$4,015,111 | | -$324,330 |

Appendix 2 Predicted Lost Resident Hunter Opportunity, Days, Expenditures and Species License Revenue for Allocated Species 2007-2012

| | | Historical (2001-05) | | Under-Utilized | 2007-2012 Under-Utilization | | Daily Expenditures | Species License |
|---|---|---|---|---|---|---|---|---|
| Region | Species | Hunters/kill | Days/kill | Harvest | Hunters | Days | Lost | Revenue Lost |
| 1 | Elk | 1.27 | 7.44 | 96.85 | 123 | 721 | $ 45,532 | $ 3,075 |
| 1 | Grizzly | 1.78 | 7.84 | 19.5 | 35 | 153 | $ 20,922 | $ 2,777 |
| 3 | Grizzly | 1.83 | 8.83 | 22.5 | 41 | 199 | $ 27,189 | $ 3,294 |
| 3 | Moose | 7.87 | 62.61 | 290.05 | 2283 | 18160 | $ 1,097,955 | $ 57,067 |
| 3 | Goat | 4.97 | 23.07 | 138.35 | 688 | 3192 | $ 414,287 | $ 27,504 |
| 3 | Sheep | 8.18 | 51.09 | 11.7 | 96 | 598 | $ 72,615 | $ 5,742 |
| 4 | Grizzly | 2.94 | 27.73 | 1.65 | 5 | 46 | $ 6,262 | $ 388 |
| 4 | Moose | 2.06 | 10.31 | 144.85 | 298 | 1493 | $ 90,291 | $ 7,460 |
| 4 | Goat | 3.51 | 17.69 | 461.65 | 1620 | 8167 | $ 1,060,023 | $ 64,816 |
| 4 | Sheep | 11.44 | 112.59 | 61.2 | 700 | 6891 | $ 837,059 | $ 42,008 |
| 5 | Grizzly | 2.33 | 13.36 | 27.35 | 64 | 365 | $ 50,004 | $ 5,098 |
| 5 | Caribou | 2.05 | 13.94 | 20 | 41 | 279 | $ 44,377 | $ 820 |
| 5 | Moose | 2.64 | 17.13 | 637.5 | 1683 | 10920 | $ 660,246 | $ 42,075 |
| 5 | Goat | 4.01 | 17.66 | 47.5 | 190 | 839 | $ 108,883 | $ 7,619 |
| 6 | Caribou | 3.35 | 25.37 | 15 | 50 | 381 | $ 60,572 | $ 1,005 |
| 6 | Goat | 2.73 | 12.74 | 89.4 | 244 | 1139 | $ 147,836 | $ 9,762 |
| 6 | Moose | 3.06 | 16.26 | 535 | 1637 | 8699 | $ 525,948 | $ 40,928 |
| 6 | Sheep (LEH) | 6.59 | 50.35 | 308.35 | 2032 | 15525 | $ 1,886,028 | $ 121,922 |
| 6 | Sheep (GOS) | 6.59 | 50.35 | 630.05 | 4152 | 31723 | $ 3,853,712 | $ 249,122 |
| 6 | Grizzly | 4.06 | 31.89 | 136.7 | 555 | 4359 | $ 596,579 | $ 44,400 |
| 7A | Grizzly | 6.15 | 48.47 | 45 | 277 | 2181 | $ 298,490 | $ 22,140 |
| 7A | Moose (bull) | 3.7 | 28.33 | 898.35 | 3324 | 25450 | $ 1,538,722 | $ 83,097 |
| 7A | Moose (cow) | 3.7 | 28.33 | 2936.7 | 10866 | 83197 | $ 5,030,073 | $ 271,645 |
| 7b | Grizzly | 4.41 | 37.72 | 70 | 309 | 2640 | $ 361,339 | $ 24,696 |
| 7b | Elk | 4.31 | 32.1 | 176.65 | 761 | 5670 | $ 358,317 | $ 45,682 |
| 7b | Bison | 3.6 | 12.28 | 229.35 | 826 | 2816 | $ 422,463 | $ 57,796 |
| 7b | Goat | 2.72 | 17.35 | 8.9 | 24 | 154 | $ 20,043 | $ 968 |
| 8 | Moose | 9.59 | 76.3 | 115.7 | 1110 | 8828 | $ 533,735 | $ 27,739 |
| 8 | Goat | 4.6 | 18.7 | 3.35 | 15 | 63 | $ 8,131 | $ 616 |
| 8 | Sheep | 4.34 | 20.68 | 13.2 | 57 | 273 | $ 33,161 | $ 3,437 |
| | Total Loss | | | | 34106 | 245121 | $ 20,210,795 | $ 1,274,698 |