

Estimated Cost for Mule Deer Control Program

Eagle Creek Wildlife Control would like to offer the Town of Okotoks our services for the control of mule deer in the town limits. We propose three tiers of control programs for the Town's consideration:

1. The **All-In Approach**: This approach involves up to three teams of canines with handlers all working in coordination to stress the deer full-time (35-40 hours per week). All three teams would begin at the same time of the season and continually stress the deer until the deer no longer feel comfortable in town limits and vacate the habitat for the less stressful outlying regions. We believe that this approach would achieve the desired results most rapidly, likely within 1.5 years and possibly within 1 year of sustained pressure. **The cost for this approach would be \$ 150 000.00 plus GST.**
2. The **Intermediate Approach**: This program involves one full-time canine team stressing the deer at approximately 40 hours per week with a secondary team working approximately 15-20 additional hours a week at various times creating the general sense among the deer that there is little predictability in the times of disruption. This program can be expected to require 2 to 2.5 years to achieve maximum results. **The cost for this approach would be \$ 85 000.00 plus GST per annum.**
3. The final program is the **Minimalist Approach**. This approach entails the use of one team undertaking all canine stressing for 35-40 hours per week per year for a minimum of 3 years. It is likely that the desired results will be reached by this time; however, it is important to note that it is possible that some additional time may be required for this approach to achieve maximum benefit. This estimate also includes the addition of an extra technician to assist the permanent team during the 3 to 4 weeks of the rut – a time when deer, primarily bucks, are more aggressive than usual. The additional technician would be in place to address safety concerns during deer engagement at this time. **The cost for this approach is \$ 55 000.00 plus GST.**

After the chosen program has run its course, it will be essential to undertake a maintenance program to re-enforce the stressors that displaced the deer from the zones of exclusion (those areas where a mule deer presence is highly undesirable). The cost for maintenance-only program will have to be determined closer to the implementation date, but **it could be expected to cost between \$10, 000.00 to \$12 000.00 plus GST per annum. This is not a firm estimate.**

Please note that all three approaches would include the use of both scent and sound deterrents where the technician, informed by the Town, believes that such an approach is both safe and more desirable than the use of a canine in certain locations and at certain times of the day or season.

Further note that the program does not include harassment during the time when mule deer fawning is begun and when the fawns are most vulnerable. However, because this program does not entail the active herding of deer and the forced, en masse relocation of groups of deer, the program does not carry the same liability of separating a doe from a fawn in such a manner that will cause the abandonment of a fawn. Nevertheless, for the sake good public perception and in the best interest of the safety and well-being of the deer, we believe that a brief respite during the months of May and June would be prudent. This consideration is open for discussion with all stakeholders.

Citations

- Bardy, M. (2010). British Columbia Urban Ungulate Conflict Analysis. Ministry of the Environment, British Columbia.
- Bouchard, C., Dibernardo, A., Koffi, J., Wood, H., Leighton, P. A., & Lindsay, L. R. (2019). Increased risk of tick-borne diseases with climate and environmental changes. *Canada Communicable Disease Report*, 45(4), 83–89. <https://doi.org/10.14745/ccdr.v45i04a02>
- Found, R., & Boyce, M. S. (2011). Predicting deer–vehicle collisions in an urban area. *Journal of Environmental Management*, 92(10), 2486–2493. <https://doi.org/10.1016/j.jenvman.2011.05.010>
- Laundre, J. W., Hernandez, L., & Ripple, W. J. (2010). The landscape of Fear: Ecological implications of being afraid~!2009-09-09~!2009-11-16~!2010-02-02~! *The Open Ecology Journal*, 3(3), 1–7. <https://doi.org/10.2174/1874213001003030001>
- Lingle, S., Pellis, S., & Wilson F. (2005). Interspecific variation in antipredator behaviour leads to differential vulnerability of mule deer and white-tailed deer fawns early in life. *Journal of Animal Ecology*, 74(6), 1140–1149. <https://doi.org/10.1111/j.1365-2656.2005.01014.x>
- Lynch, E., Northrup, J. M., McKenna, M. F., Anderson, C. R., Angeloni, L., & Wittemyer, G. (2014). Landscape and anthropogenic features influence the use of auditory vigilance by mule deer. *Behavioral Ecology*, 26(1), 75–82. <https://doi.org/10.1093/beheco/aru158>
- Schmidt, K., & Kuijper, D. P. (2015). A “death trap” in the landscape of fear. *Mammal Research*, 60(4), 275–284. <https://doi.org/10.1007/s13364-015-0229-x>
- VerCauteren, K.C., Lavelle, M.J., & Hygnstrom, S. (2006). Fences and deer-damage management: A review of designs and efficacy. *Wildlife Society Bulletin*, 34(1), 191–200. [https://doi.org/10.2193/0091-7648\(2006\)34\[191:fadmar\]2.0.co;2](https://doi.org/10.2193/0091-7648(2006)34[191:fadmar]2.0.co;2)
- Wright, C. A., Adams, I. T., Stent, P., & Ford, A. T. (2020). Comparing survival and movements of non-urban and urban translocated mule deer. *The Journal of Wildlife Management*, 84(8), 1457–1472. <https://doi.org/10.1002/jwmg.21935>