



# REPORT ON POTENTIAL SOLUTIONS TO WILDLIFE ISSUES ON BEECH MOUNTAIN

*A REPORT TO THE BEECH MOUNTAIN TOWN COUNCIL*

May 13, 2014



# Potential Solutions to Wildlife Issues on Beech Mountain

## Introduction

Beech Mountain is special because of its natural environment. We are distinguished as a Town situated in the middle of mountain wilderness. Many of our residents and visitors were drawn here by these very characteristics. But a consequence of being located in the wilderness is abundance of wild animals in our municipal limits.

Though no formal poll has been taken, informal experience seems to imply that there is a fairly even division among our residents regarding whether our animal population has reached a critical level. How many animals are too many? The answer is largely subjective. In investigating our situation, state wildlife personnel have stated that Beech Mountain is in no danger of exceeding its biological carrying capacity. Yet we may have already crossed our social carrying capacity—the point at which the social impacts of the interaction between people and animals have become great enough that there is a need for change.

Regardless whether one feels the number of animals on Beech Mountain is excessive, it is hard to debate that there are significant negative consequences that come from excessive interaction between the animals and humans. Bears, raccoons, possums, and ravens all take their toll on Beech Mountain's garbage containers and often leave unsightly trash strewn across our landscape. Furthermore, bears also often destroy costly wooden garbage bins required by the Town, seemingly to defy our attempts to control the situation.

Besides garbage problems, there are other problems that can be attributed to interaction between human activity and the animal population. Deer destroy landscaping. All animals can cause injury and property damage in vehicle collisions. Thankfully, no one has yet been injured due to direct attacks from bears—although reports from other locales teach us that this is not only

possible, but likely in areas where their behavior has been modified by becoming dependent on human garbage for food.

This report has been generated in response to a directive from the Beech Mountain Town Council to provide them with all available options in dealing with animal problems in the Town. It is comprised of:

- ***A list of alternative measures that address the issue from the “human side” of the equation. These measures take the perspective that the problem can be addressed by actions that humans take to change our behavior (i.e. addressing garbage flow).***
- ***A list of alternative measures that address the issue from the “animal side” of the equation. These measures often deal with direct actions to reduce the size of the animal population***

It is hoped that this information will result in the further exploration of these ideas and a potential solution that will be acceptable to all of the Town's citizens and stakeholders.



## “Human-Side” Solutions



### 1. Do Away with Curbside Garbage Collection

This may be one of the most drastic measures, but potentially also one of the effective. It would necessitate various measures taken to offset the impact upon the public of the discontinuance of a service that they have come to appreciate. Such measures could include things like improving the Recycling Center and making it more convenient/ efficient, or creating several neighborhood collection centers at locations convenient to more households. Because the purpose of this report is to determining ways to address issues caused by human-wildlife interaction, these offsetting measures are largely beyond its scope. If the Town Council determines that doing away with curbside garbage collection is a necessary or viable solution, potential offsetting measures will be studied in more detail.

#### POSITIVES:

- May be the single most effective way of addressing problems with bears and raccoons- remove their food source and there will be no reason for such an abundance of them in the area.
- Greatly reduces or eliminates the litter problem on Beech Mountain
- Curbside collection in an area like Beech Mountain is costly. There would be fiscal benefits to the Town.
- Also addresses concerns about the appearance of ugly wooden garbage bins

#### NEGATIVES:

- Removes a service that is very beneficial to many residents. Many people like their curbside pickup and feel it is an important benefit and a tangible thing that they receive in return for their tax dollars.
- May effect employment. May cut out several jobs.
- Many elderly people may not be able to carry their own trash to recycling centers, no matter how convenient we make them.
- While this may reduce Bear and Raccoon populations, it does nothing to affect Deer population.



## ***2. Do Away with Curbside Garbage Collection for Rental Occupancies***

This possibility would involve identifying all the rental occupancies as listed on Occupancy Tax rolls and no longer doing curbside pickup at those locations. Rental occupancies, by their nature, generally produce more trash than residences. They also generally occur at intervals such as weekends and holidays, after which trash is deposited in the garbage bin and it sits there until the next collection, which may be up to a week away. During this time there is often no one occupying the house and monitoring garbage problems. Because of these factors, rental occupancies are typically those hardest hit by animals invading trash bins.

### **POSITIVES:**

- Greatly reduces food supply that entices bears, raccoons, etc. to the area
- Greatly reduces the litter problem on Beech Mountain
- Also addresses concerns about the appearance of ugly wooden garbage bins

### **NEGATIVES:**

- Removes a service that is very beneficial to many residents. Many people like their curbside pickup and feel it is an important benefit and a tangible thing that they receive in return for their tax dollars.
- May provide a disincentive to registering for occupancy tax. May disincentive renting of property.
- Disproportionately affects some property owners and businesses.
- While this may reduce Bear and Raccoon populations, it does nothing to affect Deer population.

## ***3. Do Away with Wooden Garbage Bin Enclosures***

This possibility require all curbside pickup users to bring their garbage to the roadside on the morning of pickup. It is suggested based upon the premise that the wooden garbage bin enclosures give users a false sense of safety.

### **POSITIVES:**

- If it was made to work effectively, it would reduce food supply for Bears and Raccoons
- Addresses concerns about the appearance of ugly wooden garbage bins
- It would become common sense not to attempt to leave trash out for an extended time period.

### **NEGATIVES:**

- Would likely be very difficult in practice. Many people would probably miss their garbage collection.
- Some animals may even try to access the trash during the day. In the unprotected cans, serious litter would occur.
- Some people may set their garbage by the road the night prior anyway, and serious litter problems would occur.
- Animals may become conditioned to invade trash in the daytime, when even more interaction problems could occur.
- While this may reduce Bear and Raccoon populations, it does nothing to affect Deer population.



#### ***4. Keep Wooden Garbage Bin Containers, but make it unlawful to have garbage in them between the hours of 5:00 pm and 5:00 am***

This possibility would likewise make it unlawful for garbage to be left out overnight, but it would keep the wooden enclosures for protection during the day. This method would likely necessitate a change in daily scheduling for collection personnel.

##### POSITIVES:

- Could greatly reduce food supply that entices bears, raccoons, etc. to the area
- Could greatly reduce the litter problem on Beech Mountain
- Relatively easy to determine when violations have occurred. If garbage is in a bin after the stated hours, it would be a violation.
- Relatively small impact to residents

##### NEGATIVES:

- Could be difficult in practice. Many people would probably miss their garbage collection.
- Some people's schedules would not allow them to wait until after 5:00 to put trash in bin.
- Does not do anything about ugly garbage bins
- While this may reduce Bear and Raccoon populations, it does nothing to affect Deer population.
- Animals may become conditioned to invade trash in the daytime, when even more interaction problems could occur.

#### ***5. Aggressive Education Campaign Regarding Feeding of Animals to include possible Prohibition***

Besides unintentionally feeding wild animals with our garbage, the Town also has many people who purposely feed animals directly. This possibility could include prohibiting the feeding of all animals or just prohibiting the feeding of deer (and still allowing certain types of bird feeders). (Feeding of bear is already technically illegal). It could also include hybrid measures such as requiring bird feeders to be brought in at night, or only allowing certain types of bird feeders that do not scatter food beneath them.

##### POSITIVES:

- No impact to Town services provided (but would impact many residents who enjoy feeding animals)
- It may reduce food supply to both Bears and Deer

##### NEGATIVES:

- Would likely be very difficult to enforce. May be another law that is largely ignored.
- At this point we are uncertain of our legal authority to enact such an ordinance.
- Many residents who enjoy feeding wildlife would be unhappy. Many residents feed birds, which are not a problem. It is difficult to discern which type of animals a person is intending to feed.
- Bear feeding ordinance in place currently has largely proved ineffective.



## ***6. Aggressive Education Campaign that Encourages the use of Deer Resistant Plants***

### **POSITIVES:**

- Low/ No impacts upon the public
- If implemented, it could reduce property damage caused by deer eating landscaping

### **NEGATIVES:**

- No “teeth”. It would simply involve recommendations
- Even if implemented, the resultant decrease in food supply to deer would be marginal
- While this may marginally affect Deer population, it does nothing to affect Bear or Raccoon population.

## ***7. Require Better Protection of Dumpsters and Garbage Collection Areas (Including Town Recycling Center)***

The Town Recycling Center is probably the single largest contributor to the food source for Bears and Raccoons on Beech Mountain. It and several other large dumpsters account for a disproportionate amount of the garbage available to animals. This possibility could include requiring such measures as electric fence affixed to wooden dumpster enclosures, requiring only certain types of dumpsters that are animal resistant, etc. It could even include enclosing the Town Recycling Center into a roofed, walled building that users would drive-thru.

### **POSITIVES:**

- Greatly reduces food supply that entices bears, raccoons, etc. to the area. Would address areas with known, repetitive Bear problems.
- Greatly reduces the litter problem on Beech Mountain
- Could provide an opportunity to address concerns about the siting and location of the Town Recycling Center

### **NEGATIVES:**

- May be costly to both the Town and businesses.
- Electric fences may have (obvious) unwanted side effects.
- The Town garbage collection trucks are not equipped to handle many of the different types of dumpsters that are more animal resistant.
- While this may reduce Bear and Raccoon populations, it does nothing to affect Deer population.



## ***8. Require the use of Repellant Garbage Bags***

### POSITIVES:

- Low cost, no significant impacts to public services or restriction of personal prerogatives.

### NEGATIVES:

- The bags only advertise that they work for Raccoons, not Bears.
- Town tests indicate they don't even work for Raccoons.
- While this may reduce Bear and Raccoon populations, it does nothing to affect Deer population.

## ***9. Require that people purchase garbage bin enclosures that are truly bear resistant***

Several companies advertise that they construct "bear proof" garbage bin enclosures (For an example, see [www.bearicuda.com](http://www.bearicuda.com)). Most of these are made of metal and completely enclose the trash. Several municipalities in western states have mandated their use.

### POSITIVES:

- Could greatly reduce food supply that entices bears, raccoons, etc. to the area
- Could greatly reduce the litter problem on Beech Mountain
- Also addresses concerns about the appearance of ugly wooden garbage bins. (But some people may find the metal bins even uglier! We don't know how they would look after a long time).

### NEGATIVES:

- Very expensive to homeowners. These enclosures are typically \$800- \$1,000 each.
- It is unknown how easy these would be for collection personnel. Concerns about collection during snow.
- Even these containers may not be effective if not used correctly (i.e. overfilled)
- People who recently spent money on wooden enclosures would be angry.
- While this may reduce Bear and Raccoon populations, it does nothing to affect Deer population.



## ***10. Require the Use of Bear-Proof Garbage Cans***

Several companies advertise that they construct “bear proof” garbage cans. See <http://www.dawginc.com/standard-bear-proof-containers.html> for an example

### **POSITIVES:**

- Low cost. Comparable expense to regular garbage cans.
- Could greatly reduce food supply that entices bears, raccoons, etc. to the area
- Could greatly reduce the litter problem on Beech Mountain

### **NEGATIVES:**

- It is unknown how easy these would be for collection personnel.
- Not effective if not used correctly (i.e. overfilled)
- While this may reduce Bear and Raccoon populations, it does nothing to affect Deer population.

## ***11. Aggressive Education Campaign Encouraging use of Recycling Center instead of Curbside Pickup***

This would involve educating people about the benefits of the Town recycling center. It would also necessitate many potential methods of improving the recycling center noted in Possibility #7 above, as well as other methods of incentivizing or making it more practical to use the center than curbside pickup, such as ensuring it would be open 24 hrs. It also could include measures of disincentivizing curbside pickup, such as increased fees for those that elect to remain in the curbside pickup program.

### **POSITIVES:**

- Could greatly reduce food supply that entices bears, raccoons, etc. to the area
- Could greatly reduce the litter problem on Beech Mountain
- Would encourage recycling and would be better for the environment

### **NEGATIVES:**

- No “teeth”- merely recommendations
- May be expensive to upgrade recycling center or otherwise incentivize its use
- Town would have to maintain all infrastructure and expense of curbside pickup
- While this may reduce Bear and Raccoon populations, it does nothing to affect Deer population.





## ***12. Review/ Study Garbage Collection Procedures and Possibly Alter Them***

This would involve studying our collection procedures to determine how they could operate in ways that are more efficient- thereby lessening the availability of garbage to animals. For example, such review could determine that it is possible to collect certain highly vulnerable areas more than once a week, leading to a shorter duration of garbage being left in bins. This could also involve shifts in collection times, or other potential changes.

### **POSITIVES:**

- Could reduce food supply that entices bears, raccoons, etc. to the area
- Could reduce the litter problem on Beech Mountain

### **NEGATIVES:**

- It is uncertain whether any measures are feasible that would actually decrease food availability to animals.
- Would not affect deer population, only bears and raccoons.

## ***13. Strategic Fencing to Control Animal Corridors***

This would involve strategically locating fencing such that it would disrupt general animal travel routes into the area. It could also include fencing around certain neighborhood areas, or even around the perimeter of the town. It could also simply involve blocking common access routes to dangerous roads, or to food sources such as the recycling center.

### **POSITIVES:**

- Could be a non-lethal way of controlling animal populations.
- May be the only way to effectively gain control of herd size by preventing ingress of new animals

### **NEGATIVES:**

- The cost of fencing the entire town would likely be prohibitive
- Fencing only portions or areas would likely be ineffective
- Fence would need to be maintained
- Some animals would get through or over the fence anyway



## “Animal-Side” Solutions



### 1. Lethal Methods

This may be one of the most drastic measures, but potentially also one of the effective. There are many different ways of employing lethal methods, including removing restrictions against the use of hunting weapons (which would effectively allow urban hunting under state regulations), creating a more narrow window in which hunting would be allowed, hiring professional hunters, cooperating with out-of town hunters to funnel animals to their properties, etc. Exhaustively listing and debating the merits of these various options are beyond the scope of this report. However, if the Council feels that lethal options are a necessary or viable solution, more research will be applied.

#### POSITIVES:

- The only way of directly reducing the wild animal population.
- Deer meat may potentially be donated to good causes. (However, USDA regulations may prohibit this-further research necessary)

#### NEGATIVES:

- Severe opposition from many concerned citizens and stakeholders regarding the humanity of such measures. May risk polarizing the community.
- Concerns over the use of weapons in a residential environment
- Use of professional hunters could lessen safety concerns, but would be expensive
- Hunting would have to be limited to areas where property owners allowed it.
- Other animals may simply take the place of those removed – especially if nothing is done about the food source.
- Would have to be regularly repeated

## ***2. Sterilization/ Immunocontraception***

Several methods of sterilization of deer have been attempted with various levels of effectiveness. Sterilization is the recommended approach by the Humane Society and several other entities.

### **POSITIVES:**

- Possibly a method of reducing animal populations without using lethal methods

### **NEGATIVES:**

- Costly, especially surgical spaying and/or neutering
- Largely unproven effectiveness
- Most contraceptives for deer are in testing phases and do not yet have required Federal and State approvals. (But approvals may be coming soon).
- Contraceptive drugs would have to be regularly repeated

## ***3. Tranquilize – Capture - Transport***

This would involve capturing and moving animals to other locations.

### **POSITIVES:**

- Possibly a method of reducing animal populations without using lethal methods

### **NEGATIVES:**

- Is likely illegal. More research is needed to confirm.
- Animals may simply come back
- Would be very expensive
- Where would the animals be taken? Where would they be accepted?
- Other animals may simply take the place of those removed – especially if nothing is done about the food source.
- Would have to be regularly repeated

## ***4. Non-lethal Projectiles***

This involves shooting objects like rubber bullets, beanbags, or other no-lethal projectiles at the animals to change their behavior.

### **POSITIVES:**

- Possibly a method of altering animal behavior without using lethal methods

### **NEGATIVES:**

- Has already been tested by BMPD and does not appear to work
- Scares animals temporarily, but does not get them to leave permanently
- May get animals to stay away from a particular area, but won't make them leave the whole community.
- Has to be regularly repeated



## ***5. Noises/ Sirens/ Sounds***

This would involve scaring the animals away from problem areas with noises.

### **POSITIVES:**

- Possibly a method of altering animal behavior without using lethal methods

### **NEGATIVES:**

- Has already been tested by BMPD and does not appear to work
- Scares animals temporarily, but does not get them to leave permanently
- May get animals to stay away from a particular area, but won't make them leave the whole community.
- Has to be regularly repeated
- Would disturb residents

## ***6. Introduce Natural Predators***

This would involve introducing natural predators of deer like wolves or coyotes to the mountain.

### **POSITIVES:**

- Possibly a method of reducing animal populations without using lethal methods
- Could have other benefits to the ecosystem, and help it reach its natural, balanced equilibrium.

### **NEGATIVES:**

- Is likely illegal or would require NC Wildlife approval. More research is needed to confirm.
- Predators may cause more problems than the deer. Deer may ruin your landscaping, but wolves could kill you.
- Would not affect the Bear population

