

## FEASIBILITY STATEMENTS FOR MOOSE GOALS AND OBJECTIVES

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It is probable that any large increase in permits, implementation of antlerless-only permits, or opening of additional areas to hunting may be met with some opposition even though there is no attempt to decrease the number of moose. This applies to all areas and is mentioned here so that it need not be repeated for every group of WMDs. Experience in Maine and New Hampshire (All of New Hampshire, including heavily developed southern parts, is opened to a limited harvest.) suggests that any significant opposition is usually short lived, at least for limited permit seasons. This may not be the case when the intent is to decrease moose numbers or when less restricted seasons are recommended.

For many of the WMDs the objective is to maintain the population at 55-65% of K. This objective is theoretically feasible, and is a reasonable population objective where we want to provide recreational opportunity (viewing and hunting) over the long term and keep browsing on trees at an acceptable level. However, at this time we have no certain way of determining when the population is at 60% K. While it will be fairly easy to detect when a population is clearly well above target or well below target, it is not possible to fine tune populations that are near target at this time.

For Wildlife Management Districts 1 and 2

**Goal: Maximize hunting opportunity while maintaining the availability of mature bulls.**

**Population Objective: By 2010, manage the moose population at 55-65% of carrying capacity (K) while maintaining 17% mature bulls. This objective will require the population to be increased, from current levels.**

Desirability: Meeting this goal is expected to increase viewing and hunting opportunity. Little opposition to increasing the population in this area of the state is anticipated.

Feasibility: There is no apparent reason why the moose population could not be increased in this area of the state.

Capability of the Habitat: By definition, browse is adequate to support the target population. However, moose are already impacting aquatic vegetation in parts (and likely all) of this area. While we have not seen an impact on the condition of moose, the impact on other species has not been investigated.

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Possible consequences: Increasing the population in WMD 2 will make it more difficult to reduce the number of road accidents in adjacent areas of WMDs 3 and 6, especially on route 11.

### For Wildlife Management Districts 4 and 5

**Goal: Maximize hunting and viewing opportunity while maintaining the availability of mature bulls.**

**Population Objective: By 2010, manage the moose population at 55-65% of carrying capacity (K) with 17% mature bulls. This objective is expected to require that the population be stabilized or increase slightly overall.**

Desirability: Meeting this goal is expected to increase hunting opportunity in the long term but may require a reduction in hunting opportunity for several years while the population grows.

Feasibility: There is no apparent reason why the moose population could not be increased slightly in this area of the state. However, hunter-sighting rates have been fairly stable which suggests that populations are not increasing under the current harvest regime. Therefore, it may not be possible to increase the moose population in this area without further limiting the harvest of cows.

Capability of the Habitat: By definition, browse is adequate to support the target population. However, moose are already impacting aquatic vegetation in parts (and likely all) of this area. While we have not seen an impact on the condition of moose, the impact on other species has not been investigated.

Possible consequences: None anticipated.

### For Wildlife Management Districts 3 and 6

**Goal: Balance the public's concern about moose/vehicle collisions with the public's desire to hunt moose.**

**Population Objective: By 2005, reduce the current (2000) moose population by one-third with 17% mature bulls.**

Desirability: Reducing the population in WMDs 3 and 6 will help meet the desires of those concerned about traffic safety although it may not reduce accidents as much as many would like. There will likely be some opposition to reducing the number of moose here. However, strong opposition does not appear likely, as there has been

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little reaction to the large increase in permit numbers and the introduction of antlerless permits.

Feasibility: It should be feasible to achieve this population objective. However, immigration from slightly increased or stable populations in adjacent WMDs, as well as New Brunswick (where we have no control over population size), may make it difficult to reduce or stabilize accident numbers on the edges of this area.

Capability of the Habitat: The habitat is capable of maintaining the objective population.

Possible consequences: None other than social consequences are anticipated.

### For Wildlife Management District 11

**Goal**: Balance the public's concern about moose/vehicle collisions with the public's desire to hunt moose.

**Population Objective**: By 2005, reduce the current (2000) moose population by one-third while maintaining the sex ratio at 60 males:100 females<sup>1</sup>.

Desirability: Any attempt to reduce populations is likely to be unpopular with some people. On the other hand, reducing the population will address the desires of those concerned about traffic safety.

Feasibility: It should be feasible to achieve this population objective, post season. However, high productivity from the relatively high proportion of cows and immigration from slightly increased or stable populations in WMDs 18 and 19, as well as New Brunswick (where we have no control over population size), may make it difficult to maintain lower populations in summer especially on the eastern and southern edge (Route 6) of this area.

Capability of the Habitat: The habitat is capable of maintaining this population.

Possible consequences: None other than social consequences are anticipated.

### For Wildlife Management Districts 7,8,10, 12, and 13

**Goal**: Balance concerns over moose/vehicle collisions with the desire to provide excellent hunting and viewing opportunity.

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<sup>1</sup> The public working group did not feel that it was important to maintain a high proportion of mature (trophy) bulls in the population in this WMD, but wanted to ensure that there were sufficient bulls to breed all cows early in the breeding season.

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**Population Objective:** By 2010, manage the moose population at 55-65% of carrying capacity (K) with 17 % mature bulls.

The public working group agreed that safety should be addressed through strategies that focus on increasing safety along transportation corridors, with emphasis on sites where accidents have historically occurred.

Although population estimates suggest that this would require a large increase in population in all of these WMDs it is more likely that the population would be increased only slightly. As noted in the assessment, the population estimates are felt to be too low for western Maine. WMD 10 is in the SE zone which overall appears to be under 60% of K. However the NW corner of this zone has had high moose populations for a long time and the initial population estimates are from a census from other areas of this zone.

Desirability: Meeting the goal would maximize hunting opportunity and would maintain viewing opportunity over the long term. The exact effect on viewing in the short term would depend on whether the population would be stabilized or increased.

Meeting this objective is expected to maintain accident rates at the current level or increase the level unless effective techniques other than population reduction can be found.

Feasibility: The population can be manipulated to meet the objective, but more work will be needed in all of these WMDs to determine if the population should be stabilized or increased.

Capability of the Habitat: By definition, browse is adequate to support the target population. Impacts on aquatic vegetation have not been investigated in this area but some observations suggest moose are having an impact.

So far there is no really effective and satisfactory means of keeping moose off the highways. Fencing can be useful on limited access highways but is generally not useful where there are many access points for vehicles. Many techniques have been tried to deter moose from roads but none have proven effective, at least over the long term. Improved visibility, warnings, and reduced speed limits can help the prudent driver who heeds them. Although these techniques can be increased, it may not be possible to substantially reduce the number of accidents without reducing moose numbers near roads. Because moose may travel several miles to reach roadside salt licks, and because roadside moose are the most visible, it will be difficult if not impossible to reduce road accidents significantly without also reducing moose numbers and, therefore, viewing and hunting opportunity.

Possible consequences: In the case where the population is increased in WMD 12 or 13, it would make it much more difficult to maintain low populations in WMDs 15,

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16 and 17, especially during the spring and summer when young moose are likely to move from densely populated areas to more sparsely populated areas.

For Wildlife Management Districts 9 and 14

**Goal:** Maximize hunting and viewing opportunity while maintaining the availability of mature bulls.

**Population Objective:** By 2010, manage the moose population at 55-65% of K with 17% mature bulls.

Desirability: While the goal will be considered desirable by almost everyone, many of the potential means of achieving it may not. Maintaining the population at 55-65% K is likely to result in a lower target population as habitat conditions change in this area. Reducing the population (should it be required) will not be readily accepted by many. Hunters are expected to oppose closing some areas to prevent hunter/viewer conflicts, because to be effective they would have to be areas with many moose and easy access.

Feasibility: The goal and objective are theoretically feasible. However, at this time we have no certain way of determining when the population is at 60% K. Because these WMDs show the most indication of being near target, it will be difficult if not impossible to determine if the population should be increased, decreased or stabilized.

Despite a conservative cow harvest, the population in this area shows no signs of increase based on hunter sighting rates. Sightings have been extremely variable in recent years. These suggest no trends, and public opinion on population changes seems to be quite variable. The lack of evidence for recent increases in moose numbers suggests that it may not be possible to increase the population.

There is strong local opposition to increasing permits in this area, so increasing the harvest may be difficult if we determine that the population is above target.

There is a general feeling that viewing opportunity has declined in this area, although viewing by tourists has not been measured. Decreasing the number of moose would decrease viewing opportunity if no other action were taken. However, directing people to good moose watching areas and/or providing better access and better visibility by vegetation management or viewing structures could improve viewing opportunity, despite stable or lower numbers of moose. Because most of this area is on private land, these measures would require the cooperation of landowners.

Capability of the Habitat: By definition, browse is adequate to support the target population.

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This area has consistently (although not significantly) produced the smallest yearlings, has the highest estimated density and, in WMD 9, the greatest browsing pressure. All indications are that this area has the highest moose densities relative to carrying capacity. These are the WMDs where we are most likely going to need to reduce or stabilize the number of moose to meet the objective population.

Possible consequences: None other than social consequences are anticipated.

For Wildlife Management Districts 15, 16 and 17

**Goal: Reduce moose/vehicle collisions.**

**Population Objective: By 2005, reduce the moose population by one-third.**

Desirability: Reducing the population will undoubtedly be undesirable to some people. Others will appreciate increased hunting opportunity and reduced accidents.

Feasibility: It will be possible to reduce the population post season but there will be immigration from zones with higher populations to the north. It may be necessary to take steps to put hunters in areas where moose are more of a problem to be as effective in meeting the goal of collision reduction as the objective of population reduction. Currently, the only means of assessing population trends is through accident reports. This can be improved if hunting is opened by using hunter sightings and (perhaps) hunter success, or by using moose sightings by deer hunters.

Capability of the Habitat: The habitat can support a reduced population of moose.

Possible consequences: None other than social consequences are anticipated.

For Wildlife Management Districts 18, 19, 28, and 29

**Goal: Balance the concerns over moose/vehicle collisions with the desire to provide excellent hunting and viewing opportunity.**

**Population Objective: By 2010, manage the moose population at 55-65% of carrying capacity (K) with 17% mature bulls. To meet this objective the population would be increased in all of these WMDs.**

Desirability: Increasing the population will increase hunting and viewing opportunity. However, it will also increase the risk of collisions. This could be mitigated to some extent by improved warnings but as noted above there is no completely effective means of reducing accidents.

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Feasibility: The objective is feasible. However, meeting the population objective will not meet the concern for accidents. As mentioned previously, improved warnings will help, but no completely effective means is available.

Capability of the Habitat: By definition, the habitat can support the objective population.

Possible consequences: In addition to increasing the number of accidents within these WMDs, increasing populations in WMDs 18, 19 and 28 is expected to increase movement of moose into WMDs 11, 17, 26 and 27 where the objective is to reduce moose numbers to reduce collisions.

### For Wildlife Management Districts 20-27

**Goal: Reduce moose/vehicle collisions.**

**Population Objective: Reduce the moose population to the extent necessary to minimize the danger to motorists.**

Desirability: Reducing the moose population to very low levels will be objectionable to many. Many people will object to additional big game hunting outside of the traditional deer hunting months, believing that they cannot pursue their preferred outdoor activities without competition, crowding, or fear they may associate with moose hunting. This is obviously a concern in all areas of the state but is expected to be especially acute in this heavily populated area if additional big game hunting is opened outside of the deer season.

Feasibility: It will be possible to reduce the number of moose in this zone, but to what extent is not known. Many parts of this area will not be open to hunting either due to firearm discharge laws or posted land. Hunting success is expected to be relatively low due to low moose numbers and lack of an extensive network of logging roads. Low success and lack of road hunting opportunity may reduce hunters' interest in actively pursuing moose in these WMDs especially if the population is reduced greatly. It may be necessary to have either a long season, or a season in conjunction with the deer season, to achieve a high enough kill to impact accidents.

Most of this area is bounded by WMDs where the goal is to reduce the population. This will make reductions in much of this area easier, because immigration will be reduced. The exception is in WMD 27 and part of 26, because moose populations are to be increased in adjacent areas, immigration will increase.

Because the number of accidents in this area is largely due to high traffic volume rather than high moose densities, moose population reduction may not result in as much reduction in accidents as many would desire.

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Capability of the Habitat: The habitat is adequate to support a very small number of moose.

Possible consequences: None other than social consequences are anticipated.