

# **NORTH SLAVE MÉTIS ALLIANCE**

**PO Box 2301 Yellowknife, NT X1A 2P7**



August 28 2013

John McCullum  
Executive Director  
Wek'èezhì Renewable Resources Board  
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Dear Mr McCullum,

## **RE: ENR management proposal for limited resident harvest of bull caribou from the Bluenose-East herd**

The North Slave Métis Alliance (“NSMA”) received a request on August 6, 2013 from the Wek'èezhì Renewable Resources Board (“WRRB”) inviting the NSMA to provide comments on the Department of Environment and Natural Resources (“ENR”), Government of the Northwest Territories, management proposal for limited resident harvest of bull caribou from the Bluenose-East (“BNE”) caribou herd in Zones R/BC/01 and S/BC/03.

NSMA members have a strong *prima facie* claim as a Métis community that holds Aboriginal rights protected by section 35(1) of the Constitution Act, 1982<sup>1</sup> in the area north and east of Great Slave Lake, Northwest Territories. The WRRB, while undertaking its regulatory mandate, has provided the NSMA with an opportunity to voice its concerns respecting the management proposal.

The NSMA is keenly interested in the management of the BNE herd since changes to the harvesting patterns of these caribou may greatly impact out member's ability to exercise their Aboriginal harvesting rights. With that said, the NSMA has carefully considered the management proposal for the reinstatement of resident harvesting of the BNE herd.

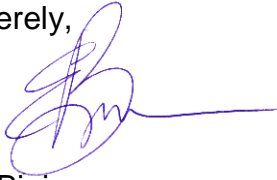
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<sup>1</sup> Enge v. Mandeville et al, 2013 NWTSC 33.

The NSMA is of the opinion that any judgment upon the management of the BNE herd should be postponed until there is engagement and consultation with our members. In addition, the NSMA would need to analyze the results from the 2013 ENR population photo survey.

The NSMA is cognizant of the harvesting needs by NWT resident hunters. Nevertheless, the NSMA cannot support the reinstatement of resident hunting until the North Slave Métis people are fully engaged as partners in the co-management of the Bluenose-East caribou herd.

Sincerely,



Eric Binion

Regulatory Analyst

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Attachments:

1. NSMA review of the management proposal. Dated June 28, 2013.
2. ENR response to NSMA concerns. Consultation on the Bluenose-East Caribou Management Proposal. Dated August 16, 2013.



North Slave Métis Alliance Review of the

Management Proposal

Limited resident harvest of bull caribou from the Bluenose-East Herd  
dated June 28, 2013

(the Bluenose-East Management Proposal)

Submitted: June 28, 2013

## **NSMA Executive summary**

The North Slave Métis Alliance (NSMA) has reviewed the Bluenose-East Management Proposal and finds that there are a number of unanswered questions. NSMA requires further clarification from the Department of Environment and Natural Resources (ENR) and NSMA needs time to review that information with its members in order to provide meaningful comments.

NSMA requests a meeting with ENR for further feedback and consultation prior to August 2013

Below is a list of NSMA's concerns with and clarifications needed regarding Bluenose-East Management Proposal:

1. Need for clarification regarding resident qualifications and eligibility;
2. Lack of certainty on current herd population numbers;
3. Need to ensure herd population surveys inform management decisions;
4. Lack of mortality data for adult Bluenose-East caribou;
5. Further information needed regarding a Bull-only harvest;
6. Harvest enforcement concerns;
7. Need for defined management goals;
8. Need for NSMA to be involved in co-management.

## **Introduction**

The North Slave Métis Alliance (NSMA) has reviewed the proposed re-establishment of a limited, bull-only resident harvest of the Bluenose-East (BNE) caribou herd. In this consultation, ENR has suggested that re-opening of the caribou hunt to non-Aboriginal hunters is necessary to meet the goal of maximizing the benefit of caribou for all NWT residents. This re-establishment is possible due to recent increases in the BNE population following former drastic declines. Additionally, in this consultation, ENR stresses that the re-establishment will not affect Aboriginal rights, as they are already unrestricted, and that all the new harvest levels will be determined through careful and precautionary science-based management regime. Following a review of the document, NSMA has several concerns related to the ongoing health and long-term benefit of the BNE herd to all NWT residents.

## **NSMA's Concerns**

Without a current annual harvest number for August 2013, it's difficult for NSMA to determine the amount, duration, and location of the proposed resident harvest. However, there are several notable areas of concern related to re-establishing the resident harvest. The following concerns recognize the high degree of uncertainty and the extent of what remains unknown in future herd productivity and assume a minimal harvest would be chosen to avoid impacts should fecundity and calf survival decrease.

### **1. Need for clarification regarding resident qualifications and eligibility**

It is assumed that the resident harvest will not be open to non-residents (less than 2 years in NWT) or non-resident alien harvesters. This would mean that outfitters could not hunt the caribou with non-residents or non-resident aliens. NSMA requires clarification regarding the long-term eligibility plans.

### **2. Lack of certainty on current population numbers**

According to the 2013 consultation report, the most recent population data comes from the 2010 survey which estimated there to be 122,000<sup>1</sup> Bluenose-East Caribou - a 100% increase from the 66,000 in 2006. However, this estimate was originally quoted in 2010 by Minister Miltenberger,<sup>2</sup> and again in 2011 by ENR in a report<sup>3</sup> as 98,000. There are also convoluted population estimates related to the addition of uncounted populations of caribou, particularly bulls.<sup>4</sup> These BNE population estimates and sex ratios require clarification due to the discrepancies mentioned above, this information is critical in order to make informed management decisions about the herd. Furthermore, it's been noted in the BNE simulations that "adaptive adjustment of harvest levels with more recent information about productivity

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<sup>1</sup> ENR. May 24, 2013. Consultation on the Bluenose-East Caribou Management Action - Resident Harvesting. Government of the Northwest Territories, Environment and Natural Resources. Pg. 2.

<sup>2</sup> ENR. November 3, 2010. Survey Results for Bluenose-East Caribou Herd Released. Government of the Northwest Territories, Environment and Natural Resources. Retrieved from: <http://news.exec.gov.nt.ca/survey-results-for-bluenose-east-caribou-herd-released/>.

<sup>3</sup> ENR. August, 2011. Caribou Forever - Our Heritage, Our Responsibility. Government of the Northwest Territories, Environment and Natural Resources. Pg. 7.

<sup>4</sup> Boulanger, John. March 13, 2013. Exploration of harvest strategies for Bluenose East caribou herd using post-calving based estimates of herd size. Integrated Ecological Research. Pg. 4.

is essential".<sup>5</sup> The NSMA would like to know what methods ENR is planning to use to determine these parameters, and how frequently herd productivity be surveyed in order to make adaptive adjustments that identify and avoid herd decreases.

### **3. Need to ensure population surveys inform management decisions**

Regarding planned ENR surveys for population data, it is our understanding that the June 2013 population survey will not be ready in time to set allowable harvest rates for the upcoming harvesting season beginning August 2013 (estimated completion, November 2013). As the population has fluctuated so dramatically since the 1990s, it is possible that significant changes have occurred since the 2010 survey estimate of 122,000 BNE caribou. This could have important management implications for determining harvest levels. Related to this, the discrepancy in the 2010 report population estimate, listed multiple times at 98,000<sup>6,7</sup>, would have a drastic effect on harvest decisions. NSMA believes there is a critical need for current data, and that this data is imperative to make informed management decisions.

### **4. Lack of mortality data for adult Bluenose-East caribou**

As emphasized by ENR, a key responsibility for sound caribou management is "[e]nsuring appropriate information is available for management decisions"<sup>8</sup>. Additionally, as noted in the same report, "Management will be guided by the Precautionary Principle, in which information gaps or uncertainty will not delay the implementation of actions necessary for the recovery of caribou herds".<sup>9</sup> Regarding the data used in simulation modeling, NSMA is unclear about whether an overall population growth rate for BNE caribou been determined from field studies, or whether the adult mortality rate is still based on the Bathurst caribou as in the harvest simulation.<sup>10</sup> NSMA requires clarification on these points.

### **5. Further information needed regarding a bull-only harvest**

There was a statement made several times in the consultation report that Aboriginal hunters primarily hunt cows.<sup>11</sup> The re-establishment plan of bull-only resident harvest is based on this concept. Given the simulation data referenced by the consultation report,<sup>12</sup> a conservative upcoming harvest of 300 bulls

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<sup>5</sup> Boulanger, John. March 13, 2013. Exploration of harvest strategies for Bluenose East caribou herd using post-calving based estimates of herd size. Integrated Ecological Research. Pg. 16.

<sup>6</sup> ENR. November 3, 2010. Survey Results for Bluenose-East Caribou Herd Released. Government of the Northwest Territories, Environment and Natural Resources. Retrieved from: <http://news.exec.gov.nt.ca/survey-results-for-bluenose-east-caribou-herd-released/>.

<sup>7</sup> ENR. August, 2011. Caribou Forever - Our Heritage, Our Responsibility. Government of the Northwest Territories, Environment and Natural Resources. Pg. 7.

<sup>8</sup> ENR. August, 2011. Caribou Forever - Our Heritage, Our Responsibility. Government of the Northwest Territories, Environment and Natural Resources. Minister's Message.

<sup>9</sup> ENR. August, 2011. Caribou Forever - Our Heritage, Our Responsibility. Government of the Northwest Territories, Environment and Natural Resources. Pg. 4.

<sup>10</sup> Boulanger, John. March 13, 2013. Exploration of harvest strategies for Bluenose East caribou herd using post-calving based estimates of herd size. Integrated Ecological Research. Pg. 3.

<sup>11</sup> ENR. May 24, 2013. Consultation on the Bluenose-East Caribou Management Action - Resident Harvesting. Government of the Northwest Territories, Environment and Natural Resources. Pg. 1, 3, 4

<sup>12</sup> Boulanger, John. March 13, 2013. Exploration of harvest strategies for Bluenose East caribou herd using post-calving based estimates of herd size. Integrated Ecological Research. Pg. 8-16.

(equating to 3000 caribou total) would seem to be the absolute maximum allowed in order to meet the ENR goal of stabilizing herd numbers for the long term. NSMA requires additional information regarding:

- (a) whether this is a maximum agreed upon by ENR and whether a lower number has been considered to ensure adherence to the precautionary principle in the case of unforeseen impacts such as weather events or reduced food availability;
- (b) whether ENR has considered potential negative impacts to herd genetics that would result from the annual loss of the largest bull males as trophy/ sport hunter targets; and
- (c) the feasibility and desirability of other methods, such as an age-class based tag system which could ensure segments of the population remained.

## **6. Harvest enforcement concerns**

NSMA has concerns regarding the logistics of enforcing the restricted BNE harvest and requires further information on how ENR plans to implement the road-check enforcement system as well as information regarding any additional enforcement, education and/or incentive programs that will be put in place. NSMA is also keen to hear details of ENR's capacity to meaningfully enforce the harvest.

## **7. Need for defined management goals**

NSMA requires further information on how ENR will measure the successful implementation of this harvest. It seems that a carrying capacity number or defined population goal on which to base harvest rates for the BNE herd has yet to be determined. Boulanger noted in the modeling simulation that changes in population size due to harvest would not be detectable for at least 6 years. This information is paramount to meeting ENR's strategic goal of "maintain[ing] numbers of each caribou herd within their natural range of variation"<sup>13</sup> and NSMA is concerned that ENR plans to wait 6 years before revisiting the harvest levels it is setting. NSMA requires further information regarding ENR's planned methods for setting future harvest levels to ensure population sustainability.

## **8. NSMA needs to be involved in co-management**

NSMA is encouraged to see a plan that includes public education on caribou conservation and harvest as emphasized by the ENR in the past, engaging residents with a perspective that includes Aboriginal involvement and traditional knowledge would encourage wise resource use. However, NSMA is concerned that its section 35(1) Aboriginal rights-bearing members are not being adequately consulted regarding the on-going management of the BNE herd.

As you are no doubt aware, on June 20, 2013 the Supreme Court of the Northwest Territories ("NWT") confirmed that NSMA members hold section 35(1) Aboriginal rights and exercise them in an area north of Great Slave Lake, NWT. In *Enge v. Mandeville et al*, 2013 NWTSC 33, the court declared that NSMA members are a Métis community that hold section 35 Aboriginal rights over their traditional territory. The court also found that the Government of the Northwest Territories ("GNWT") had an obligation to consult and accommodate NSMA. The Bluenose-East caribou herd is vitally important to our members.

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<sup>13</sup> ENR. August, 2011. Caribou Forever - Our Heritage, Our Responsibility. Government of the Northwest Territories, Environment and Natural Resources. Pg. 16.

NSMA is keenly interested in the management of this herd since changes in the harvesting patterns of these caribou may greatly impact our members' ability to exercise their Aboriginal rights.

With the above in mind, NSMA requires information about how the Bluenose-East Management Proposal integrates with the Advisory Committee for the Cooperation on Wildlife Management (the ACCWM) since, as ENR notes, the ACCWM is currently developing a management plan for three caribou herds, including the BNE herd. NSMA requests that ENR immediately provide this information to NSMA.

## **Conclusion**

NSMA's concerns about the Bluenose-East Management Proposal are primarily thus: 1. the lack of certainty in ENR baseline data and 2. Management goals. NSMA emphasizes the importance of having reliable and up to date data on population and adult mortality rates. This information is critical to setting specific annual harvest numbers and measurable management goals, which should ensure the population of the BNE herd is sustainable for the long-term benefit of all NWT residents. That being said, the NSMA is of the view that if the population and gender data is not sufficiently collected or up to date in time for the August 2013 season, the BNE harvest should be postponed until August 2014. The NSMA makes this recommendation with the idea in mind that it's better - for all Aboriginal and non-Aboriginal caribou harvesters in the NWT - to be "safe than sorry".

With these questions and comments considered, NSMA requests a meeting with ENR for further feedback and consultation prior to August 2013.



Mr. Bill Enge  
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North Slave Métis Alliance  
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AUG 16 2013

Fax: 669-7442

Dear Mr. Enge:

**Consultation on the Bluenose-East Caribou Management Proposal**

Thank you for your submission on the Bluenose-East Management Proposal received on June 28, 2013. We appreciate the time your organization has taken to respond to this proposal.

With respect to the additional information you requested in your submission, I provide the following for your clarification:

1. **Need for clarification regarding resident qualifications and eligibility.** The proposal is only concerned with re-establishing a limited resident harvest of barren-ground caribou in the range of the Bluenose-East herd. Eligibility for NWT residents would not change; eligible hunters must be resident in the NWT for at least 2 years before being able to qualify for resident hunting privileges. The proposal has no provisions for outfitter hunting or any hunting by non-residents or non-resident aliens.
2. **Lack of certainty on current population numbers.** Barren-ground caribou population estimates can be estimated using calving or post-calving ground surveys. Traditionally, population estimates for the Bluenose-East herd are derived from post-calving surveys. The estimates of 99,000 and 122,000 caribou in the Bluenose-East herd are both derived from the same post-calving survey in July 2010. This survey depends on caribou aggregating in tight groups that can be photographed and counted. Adequate numbers of radio-collars are needed to find the caribou groups. In the 2010 post-calving survey, the survey crew found 44 of 47 collared caribou, photographed 40 groups of caribou and counted approximately 92,000 caribou on the photos. This is considered the "minimum count" for the survey.

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There are a number of different methods to estimate total population size from this information. One way, the Lincoln-Petersen estimator, uses a formula that assumes that collared caribou not found (in this case 3 of 47) are more or less representative of the part of the herd that was missed. That formula produced an estimate of approximately 99,000 caribou. A more recent method of estimating herd size from post-calving surveys, referred to as the Rivest estimator, is more statistically complex but evaluation by Alaskan biologists and a statistician contracted by Environment and Natural resources (ENR) suggests it does a more accurate job of estimating caribou that were missed during a survey. This formula produced an estimate of ~122,000 caribou.

Based on a recommendation by the Alberta Research Council, ENR also conducted a calving ground photo survey in 2010 to compare population size estimates using the two techniques. This survey resulted in an estimate of about 114,000 caribou in the survey area but our analysis suggests that this number is likely an underestimate of herd size. Considering the results of the June and July surveys, and the increasing use of the newer Rivest estimator, our evaluation is that ~122,000 caribou is the best estimate for the Bluenose-East herd in 2010. Please note that all these numbers are considered estimates of herd size and that there is always uncertainty around them. A variance (or degree of uncertainty) is usually quoted with the estimate; for the 2010 Bluenose East survey, the population estimate is  $122,000 \pm 16,000$ . The 16,000 is the standard error for the estimate.

Calf productivity in barren-ground caribou herds is generally monitored by estimating the calf:cow ratio in March or April. A calf:cow ratio gives the proportion of the previous year's calves that survived to ~10 months or almost one year relative to the number of adult female caribou. ENR carried out productivity or spring composition surveys for the Bluenose-East herd in 2008, 2009, 2010, 2011, and 2012 (the 2013 survey was not carried out because of poor field conditions). The average calf:cow ratio for these 5 years was 40 calves:100 cows. These ratios are healthy and are consistent with a natural population trend that is stable or increasing.

Calf:cow ratios can vary from one year to the next and a high ratio one year may naturally be followed by a lower one and vice versa. However, sustained low ratios for several years are a cause for concern and would trigger discussions about revising current harvest management actions, as appropriate. This is the link between productivity and adaptive management. An extended period of low productivity was observed in the Bathurst herd between 2000-2006, when March calf:cow ratios were consistently below 20:100. ENR will continue to monitor the calf:cow ratios on the Bluenose East herd on a regular basis so that changes in population trend can be detected and harvest management adapted, as appropriate.

3. **Need to ensure population surveys inform management decisions.** Based on its analysis of optimal survey frequency depending on herd size and trend, ENR recommends that population surveys be conducted every 3 years for herds that are declining and/or are low in numbers. Attention should also be paid to other indicators of herd condition. ENR attempted a post-calving survey of the Bluenose-East herd in 2012 which was unsuccessful because the caribou did not aggregate sufficiently for photos to be taken. Because post-calving surveys attempted for this herd were unsuccessful a number of times in the past, ENR carried out a calving photo-survey for the Bluenose-East herd in June 2013 to obtain an up-to-date population estimate for the herd. Results are expected in late 2013.
4. **Lack of mortality data for adult Bluenose-East caribou.** Estimating adult caribou mortality from radio-collared caribou requires substantial numbers of radio-collared caribou monitored closely over time. For most of the herds GNWT monitors, collar numbers over time have been too low to assess adult caribou survival rates with confidence. There is, however, information from a number of studies from herds with larger numbers of collared caribou (Western Arctic, Porcupine, and George River) that indicates cow survival rates associated with stable herds are on average 83-88%. An assumption of a natural cow survival rate of 88% in the Bluenose-East herd is reasonable given recent calf:cow ratios and population surveys for this herd suggest an increasing trend. As noted in the reports on harvest modeling, the purpose of the harvest modeling is not to predict the herd's future number with certainty. Rather, it is to provide some idea of likely trend under a range of circumstances and harvest levels.
5. **Further information needed regarding a bull-only harvest.**
  - (a) *Whether this is a maximum agreed upon by ENR and whether a lower number has been considered to ensure adherence to the precautionary principle in the case of unforeseen impacts such as weather events or reduced food availability.*

ENR's view is that barren-ground caribou herds have fluctuated naturally over time and likely will continue to fluctuate in numbers. Harvest is best managed according to the herd's status and, in particular, its size and trend and what the herd can tolerate. Harvest modeling on the Bluenose-East herd suggests a harvest of about 3,000 caribou should be compatible with a stable trend under most circumstances. In addition, because bull harvest generally has less impact on the herd's future than cow harvest, a harvest of 300 bulls from this herd will likely have little effect on the herd's trend in the next few years. As new information on the herd's size and productivity becomes available, including information about unforeseen events or a down-turn in the herd's numbers, recommendations on harvest will be re-assessed by GNWT and its co-management partners.

*(b) Whether ENR has considered potential negative impacts to herd genetics that would result from the annual loss of the largest bull males as trophy/sport hunter targets.*

Impacts to the herd's genetics might be possible if a large percentage of the herd's prime males are removed from the herd each year for many years. A study of a bighorn sheep population showed that when 40% of the largest rams were removed annually for more than 30 years, there were effects on genetics and there was a slight tendency toward smaller-horned rams. However, the estimated recent harvest of about 2,700 caribou/year from the Bluenose-East herd, most of them cows, would be about 2.2% of the herd. Even if all of this harvest was males, it would be much too low to affect population genetics as a very large proportion of the herd's bulls (over 90%) would remain. In part, ENR monitors the sex ratio of barren-ground caribou herds using periodic fall composition surveys to ensure that the herds have healthy bull:cow ratios. Resident hunters are not necessarily focused on shooting the largest prime bulls; in fact, many hunters prefer young bulls whose condition is less affected by the breeding season.

*(c) The feasibility and desirability of other methods, such as an age-class based tag system which could ensure segments of the population remained.*

These kinds of tag systems have been used in zones or situations (e.g., some moose management zones in Alaska) where harvest levels have sometimes been high enough to reduce bull:cow ratios to low levels. Estimated male harvest of the Bluenose-East herd is well below these levels of intensive management.

6. **Harvest enforcement concerns.** Residents hunting Barren-ground caribou would have a single tag and be required to report their harvest. In recent years, ENR has had an increased monitoring presence in the Bathurst, Bluenose-East, Beverly and Ahiak ranges during the winter hunting season, including check stations and community-based monitors to ensure harvest is reported and to promote respectful harvesting practices like good marksmanship and minimizing meat wastage. Funds for enhanced patrols are part of the budget ENR has to implement strategies described in the 2011-2015 Barren-ground Caribou Management Strategy for the NWT.
7. **Need for defined management goals.** ENR's view is that barren-ground caribou herds have fluctuated naturally over time and will continue to vary in size and that harvest is best managed according to the herd's status (particularly its size and trend). Population surveys of the Bluenose-East herd have been carried every 3-4 years since 2006, and most recently in 2013. Each of these surveys provides a benchmark to assess herd size and trend since the last population estimate; moreover, calf:cow ratios and other indicators provide additional information that can be used to guide management actions. Re-visiting recommended harvest every 3 years is a logical approach.

The harvest modeling was carried out in 3-year time steps (3, 6, and 9 years) to reflect likely survey intervals, and can also be used as a time step to re-assess harvest recommendations.

ENR will also look to the draft management plan for the Cape Bathurst , Bluenose-West and Bluenose-East herds for guidance on recommended harvest depending on herd size and trend. This plan is being developed by the Advisory Committee for the Cooperation on Wildlife Management (ACCWM).

8. **NSMA needs to be involved in co-management.** The GNWT recognizes that the NSMA has established a prima facie claim to hunting rights in the Great Slave Lake area and that the Crown's duty to consult is triggered where these asserted rights may be affected. On that basis, ENR recognizes our duty to consult with the NSMA on wildlife management issues. Although the NSMA indicated during the Supreme Court hearing that the Bluenose-East herd is located outside the NSMA's traditional hunting grounds, ENR understands from NSMA's previous correspondence that this herd is vitally important to the members of the NSMA. In addition, ENR appreciates that the NSMA is keenly interested in the management of the Bluenose-East herd because of concern that any changes to harvesting patterns of this herd could greatly impact the ability of NSMA members to exercise their asserted Aboriginal harvesting rights. For this reason, the input of NSMA members is very important to the management of this herd. As such, we would be happy to meet with NSMA to discuss this proposal further.

With respect to the management plan being developed by the ACCWM, ENR's intent is to make recommendations and management actions on harvest of the Bluenose-East herd consistent with the ACCWM plan. We agree with the draft plan's emphasis on an adaptive approach under which recent information on the herd's status and harvest is reviewed regularly and changes to management are made in a timely manner. We look forward to the plan's completion.

We look forward to meeting with the NSMA about the Bluenose-East resident harvest proposal. Please contact me at your earliest convenience to confirm a suitable date and time for this discussion.

Sincerely,



*for* Lynda Yonge  
Director, Wildlife Division

- c. Mr. Ernie Campbell, DM, ENR