

Public Action Team Implementation Proposal

Action Team: <b>Science/Research</b>	Population Management <b>A.4</b>
<input type="checkbox"/> Draft <input checked="" type="checkbox"/> Submitted	Deer Trustee Report Page 24

This document shows the original Deer Trustee Report recommendation that the Public Action Team considered when developing proposals for implementing the recommendation in Wisconsin. The Public Action Team's implementation proposal is presented then followed by additional background information.

**I. ORIGINAL DEER TRUSTEE REPORT RECOMMENDATION**

**A.4 Develop a set of metrics to monitor progress towards the DMU goal of increasing, stabilizing, or decreasing population density. The Deer 2000 and Beyond Report and the 2009 DMU Public Stakeholder Advisory Panel Report ([www.widmu.org](http://www.widmu.org)) called for development of various metrics to be used in the population goal setting process. Metrics should reflect the basic considerations that dictate cultural carrying capacity (the number of deer that coexist compatibly with humans) such as deer density, hunter success, deer-vehicle collisions, agricultural damage, forest regeneration problems, CWD incidence, and concerns for biodiversity. SAK or accounting style procedures could be used to calculate a simple index of population density for monitoring trends that indicate if the population is increasing, stable or decreasing. This expression should be easier to grasp than a questionable number that is portrayed as an accurate estimate of population size. A change in population status might be defined as a change of 10% or more in the index value over a defined time period (3-5 years). Similarly, indices could be developed for the other metrics. Buck or total harvest density could be used to monitor hunter success as well as changes in population size. We understand that data sets exist for deer-vehicle collisions and agricultural damage, but that there are problems of reporting (collisions) and participation (damage). Development of a forest regeneration metric should be facilitated through the Division of Forestry whose Foresters work with 9,000 landowners each year. Results of forest certification audits on MFL lands that relate to the impacts of deer herbivory on regeneration and biodiversity could also be used. Occurrence, distribution and infection rates of CWD would be meaningful metrics for this disease. Keyser et al. (2005) described population density-physical parameter relationships that can be used to monitor physical condition trends. Development of reliable indices will require collaboration with other entities and will take time to test and validate, but should prove invaluable in diverting attention from population estimates and demonstrating the need for deer population management actions to hunters and others. Consistency across this set of metrics and in their interpretation is sorely needed to justify the herd control policies of WDNR over the past two decades and into the future.**

**II. PUBLIC ACTION TEAM PROPOSAL FOR IMPLEMENTING THE ABOVE RECOMMENDATION**

Below is the Public Action Team implementation proposal along with their rationale and supporting evidence, potential implementation obstacles and consideration of the proposal's potential impact on the overall deer management in Wisconsin.

1. Action Team Implementation Proposal:

- Retain and expand in-person registration for all deer hunting seasons, which currently provides a large number of metrics. We recommend retaining in-person deer registration in the strongest possible terms.
- Explore additional metrics collection and involve the public when feasible
- Evaluate each metric on the basis of:
  - Goal – begin with the end in mind
  - Functional relationship (sensitivity)
  - Cost/benefit analysis – is it worth your time and money?
    - Needs to inform management decisions
    - Involve citizens as much as feasible



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- ADVERTISE THE DAYLIGHTS OUT OF IT - Critical to identify and communicate specific questions that each metric will address
- Delegate the details of the metrics to the scientists and citizen advisory research board
- Additional population indices that can be used in integrated population models
- Metrics categories may include:
  - Deer population trends and influences
  - Deer Health Metrics
    - Fat reserves
    - Reproduction (% pregnant, litter size)
    - Body weight
    - Body size
    - Antler dimensions (especially of yearlings)
      - # points
      - Antler beam diameter
  - Metrics Related to Deer Impacts on Natural Resources
    - Number of seedling presence for each species of interest
    - Seedling height
    - The proportion of total stems browsed.
    - Abundance and/or presence/absence of herbaceous plants that are highly palatable to deer
  - Metrics Related to Deer Impacts on Society
    - Crop damage
      - Depredation claims
      - Perceptions of farmers
    - Deer-vehicle collision numbers (although data on this is problematic)
    - Tree-nursery damage
      - Depredation claims
      - Perceptions of nursery operators
    - Human-dimensions surveys, asking general public about:
      - Perceptions of deer abundance
      - Experiences with deer-vehicle collisions, damage to plantings
      - Desired population trend
  - Metrics Related to Deer Hunters
    - Deer seen per hour hunted
    - Hunter success rates
    - Perception of deer population trend
      - Desired deer population trend

### 2. Supporting data, references, rationale and other information behind it.

- Specific to in-person registration - Committee rigorously interviewed the scientists and on that basis we have absolute strength of conviction that they know what they are talking about.



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- The DNR needs to capitalize on the opportunity for public engagement that in-person registration provides
- Collecting additional metrics will help refine harvest management
- Given the strong tradition of in-person registration, compliance is likely extremely high; going away from this system will alter compliance rate
- When developing new metrics, it is important to retain current monitoring so costs/benefits can be evaluated
- Will help move hunters from harvesters to managers
- This will increase citizen involvement in data gathering and application
- This will increase public trust in deer population monitoring

### 3. Consider and describe potential implementation obstacles or drawbacks.

This will increase costs

### 4. Overall, how will this proposal simplify or complicate deer hunting, management, or research in Wisconsin.

- May increase responsibility of hunters
- May require additional staff/resources