

## 2013 DTR Action Team

**Meeting Report Form**

IMPORTANT: The Team's work is IN PROGRESS. This is simply a report to reflect the Team's activities on this particular meeting day. The Team's proposals may change before end of the process in July 2013.

Use this form to capture the Team's activities and proposed implementation action items. (Note: The format of this form is intentionally very basic to simplify completion at the end of the meeting. Will be transferred to another format before publishing on the DTR website for public viewing.)

1. **Meeting Date:** April 6, 2013

2. **Action Team Name:** Science & Research Action Team

3. **Data reviewed, presentations viewed or any experts heard from today:**

- 10 action team members from the public
- Karl Martin; Bureau of Science Services – Camera/Predator Monitoring
- Jordan Petchenik; Bureau of Science Services – Human Dimensions
- 3 other representatives/liaisons from DNR

4. **Main topics discussed by Team today:**

- Set the agenda for the next 5 meetings:
  - People (April 6<sup>th</sup>)
  - Predator Studies and Management (April 27<sup>th</sup>)
  - DNR Research and Technical Publications (April 27<sup>th</sup>)
  - Population Management (May 18<sup>th</sup>)
  - Harvest Data, Herd Health and Productivity (June 29<sup>th</sup>)
  - Chronic Wasting Disease (June 29<sup>th</sup>)
- Karl Martin; Bureau of Science Services – Camera/Predator Monitoring
- Jordan Petchenik; Bureau of Science Services – Human Dimensions
  - Five Deer Management Challenges in WI: A Human Dimensions Perspective (PowerPoint)
    - Private landowners & access to their land
    - Barriers to hunter/landowner support of CWD management
    - DNR credibility & confidence in population estimate
    - Hunter recruitment & retention
    - Can we keep deer hunting fun?

5. **Additional questions or information requests made by the Team today:**

- Cross-functional concerns
  - How to coordinate issues that cross DTR action teams?
- DNR surveys on deer impacts on vegetation?

## 2013 DTR Action Team

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**6. Implementation Action Items proposed or discussed by the Team today:**

- People Section (Item #4)
  - This approach, talking to farmers, hunters, tribes, etc. should be used in all the management decisions (all the action items)
  - It's a preamble to the other action items
  - Unanimous agreement on People Section (Item #4)

**7. Any general comments or considerations (if any) Team would like noted:**

- Deer hunter drop-out study
- Longitudinal study of hunter expectations
- Evaluation of trade-offs between seeing more deer and harvesting more deer
- How much more public land and Managed Forest Law land would we need to increase hunter satisfaction?
- Better ways of using public lands and Managed Forest Law in a manner that reduces hunter conflict and increases satisfaction

**8. Next Meeting Date is: April 27, 2013**

- Future meeting dates:
  - May 18
  - June 8 (midterm progress)
  - June 29
  - July 20 (final report)

# Science & Research Action Team

April 27, 2013 Progress Report

## Today's Activities/Discussions:

- The team worked through two categories of recommendations from the DTR:
  - Predator Studies and Management and,
  - DNR Research and Technical Publications

# Science & Research Action Team

April 6, 2013 Progress Report

## Additional Action Team questions/information requests:

- GIS specialist information concerning collaboration across agencies

## Implementation Action Items proposed or discussed by the Action Team :

- **Predator Studies and Management Section:**
  - **#1: Continue research on impacts of predation - Proposal:**
    - Continue to support high-quality research on predators, including geospatial studies,
    - Communicate research methods and findings with neighboring states,
    - Provide alternative funding and support for predator studies, especially wolves,
    - Evaluate and report on new research methodologies that are applicable, and
    - Communicate the research with the public

# Science & Research Action Team

April 6, 2013 Progress Report

## Implementation Action Items proposed or discussed by the Action Team :

- **Predator Studies and Management Section:**
  - **#2: Involve public with field-based research projects – Proposal:**
    - Continue with public field-based research projects on predators, including wolves, and include the involvement with all segments of the public, including non-hunters.
    - Involve the public, including non-hunters, in new research efforts, such as the trail camera study.
    - DNR needs to include adequate monitoring, training, and oversight of the public effort – example, “training the trainers”.

# Science & Research Action Team

April 6, 2013 Progress Report

## Implementation Action Items proposed or discussed by the Action Team :

- **DNR Research & Technical Publications:**
  - **#1: Establish research steering committee – Proposal:**
    - Endorse recently established steering committee.
    - Support the creation of a subcommittee within the deer committee to address research, and include representatives from the universities, agricultural and forestry stakeholders, federal agencies, with geographic representation from across the state.

# Science & Research Action Team

April 6, 2013 Progress Report

## Implementation Action Items proposed or discussed by the Action Team :

- **DNR Research & Technical Publications:**
  - **#2:Human dimensions research development – Proposals (*in draft form*):**
    - Endorse the recommendation, and suggested the need for specific areas of human dimensions research:
      - Monitoring of deer hunter retention and recruitment
      - Evaluation of trade-offs between seeing more deer and harvesting more deer
      - Human dimensions of baiting and feeding.
      - How much more public land and MFL land would we need to increase hunter satisfaction.
      - Better ways of using public lands and MFL land in a manner that reduces hunter conflict and increase hunter satisfaction.

***Will table this proposal until next meeting***

# Science & Research Action Team

April 6, 2013 Progress Report

## Implementation Action Items proposed or discussed by the Action Team :

- **DNR Research & Technical Publications:**
  - **#5: Develop long-term research plan – Proposal:**
    - Endorsed this recommendation and recommended to include language from this recommendation with #1 (establish a research steering committee)
    - Recommended 10-year goal commitment, 5-year major assessment, and annual review
  - **#6: Cooperative efforts with other agencies – Proposal (*draft*):**
    - Endorsed this recommendation, but requested more information on current GIS collaboration currently and proposed projects.  
***Will table this recommendation until further information is provided.***
  - **#7: Research projects of an applied nature – Proposal:**
    - Endorsed this recommendation
  - **#8: Project results should be extended to public – Proposal:**
    - Endorsed this recommendation

# Science & Research Action Team

May 18, 2013 Progress Report

## Today's Activities/Discussions:

- **Finalized proposal language for:**
  - **H.1, H.2, H.5, H.7, H.8, C.1, C.2, C.5, A.1, A.2, and A.5**
- **Presentation by Dr. Robert Rolley on deer population estimation in Wisconsin (see presentation)**
  - Estimates are made annually to assist in management decisions and in the deer quota setting process.
  - Sex-Age-Kill Procedure:
    - Used since 1960s
    - Procedure: Estimate of bucks, estimate of doe population, and estimate of fawn population
    - Uses mandatory registration to calculate the total buck harvest data
    - Deer populations are not uniformly distributed within DMUs

# Science & Research Action Team

May 18, 2013 Progress Report

## Additional Action Team questions/information requests:

N/A

## Implementation Action Items proposed or discussed by the Action Team :

- **H.1. Establish Research Steering Committee**
  - The team endorsed the language and the members are in agreement on the recommendation.
- **H.5. Develop long-term research plan**
  - The team recommended new language in the implementation proposal, to switch depredation funding from license and application fees to general purpose revenues and use depredation license fees for research.
  - The team endorsed the updated implementation proposal.

# Science & Research Action Team

May 18, 2013 Progress Report

## Implementation Action Items proposed or discussed by the Action Team :

- **H.7. Research projects of an applied nature**
  - The team endorsed the language and the members are in agreement on the recommendation.
  
- **H.8. Project results should be extended to the public**
  - The team recommended new language to the proposal, and added the implementation action to work with the DNR Bureau of Communications to develop a robust outreach/education/marketing plan to push information to all stakeholders and endorsed the implementation proposal.

# Science & Research Action Team

May 18, 2013 Progress Report

## Implementation Action Items proposed or discussed by the Action Team :

- **C.1. Continue to conduct research on the impacts of predators on the deer herd.**
  - The team recommended new language within the implementation proposal to include continuing high-quality research on predators including geospatial studies and sustainable harvest of predators.
  - The team recommended the evaluation and validation of new research methodologies, including the expanded use of rigorous, scientific, citizen monitoring by different groups (e.g., hunters, loggers, mail carriers, private/corporate).
  - The team endorsed the recommended implementation proposal.

# Science & Research Action Team

May 18, 2013 Progress Report

## Implementation Action Items proposed or discussed by the Action Team :

- **C.2. Involve the public as much as practical with field-based research projects.**
  - The team endorsed the language and the members are in agreement on the recommendation.
- **C.5. Geospatial studies of predators, especially for wolves.**
  - The team endorsed the implementation proposal, to include the implementation language in C.1.

# Science & Research Action Team

May 18, 2013 Progress Report

## Implementation Action Items proposed or discussed by the Action Team :

- **H.2. Human Dimensions Research Development**
  - The team endorsed the implementation proposal and added new language regarding:
    - The need for developing metrics for human dimensions using long-term monitoring, and offered possible research areas to explore in the future.
    - The team noted obstacles of not doing rigorous human dimensions research in favor of less expensive methods and limitation of having adequate staffing and funding, and lack of long-term perspective by policy makers.

# Science & Research Action Team

May 18, 2013 Progress Report

## Implementation Action Items proposed or discussed by the Action Team :

- **A.1. Limit the use of SAK/accounting style models to monitoring deer population size and trends at the state and regional levels.**
  - The team recommended:
    - Reject the recommendation as written, given that estimating at the state and regional level does not help manage the herd.
    - Use SAK at the level that is appropriate for management (DMU level) and scientific inference.
    - Target efforts towards DMUs with less certainty/more controversy in population estimates
    - Find a way to rigorously examine and incorporate local knowledge into deer estimation.
    - Keep collecting registration and harvest age-data during the firearm deer season.

# Science & Research Action Team

May 18, 2013 Progress Report

## Implementation Action Items proposed or discussed by the Action Team :

- **A.1. Limit the use of SAK/accounting style models to monitoring deer population size and trends at the state and regional levels.**
  - Rationale/Discussion:
    - The team opposed using SAK solely at the regional/state level, because a state estimate has no management purpose.
    - Suggested to focus the use of SAK in specific areas of need and expand research to improve estimation procedures.
    - Large errors at the DMU level create distrust, which provides the rationale for moving to the state and regional levels. However, even with better estimates, the question remains if stakeholders will still trust and support the estimates.
    - The recommendation comes out of the misperception of the interpretation of uncertainty in SAK estimates. Noted that alternative methods are not better or less expensive.

# Science & Research Action Team

May 18, 2013 Progress Report

## Implementation Action Items proposed or discussed by the Action Team :

- **A.1. Limit the use of SAK/accounting style models to monitoring deer population size and trends at the state and regional levels.**
  - Rationale/Discussion:
    - Suggested to de-emphasize the communication of the SAK numbers.
    - Concern that mortality rates exceed growth rates and that research and management are not considering the additional factors of baiting, hunter selectivity, predation, land ownership and habitat quality.
    - Large political influence on deer management. Concern that if you get rid of SAK then there is concern that political forces will be stronger on setting limits.

# Science & Research Action Team

May 18, 2013 Progress Report

## Implementation Action Items proposed or discussed by the Action Team :

- **A.1. Limit the use of SAK/accounting style models to monitoring deer population size and trends at the state and regional levels.**
  - Rationale/Discussion:
    - Get better precision at larger units but further decouple local experiences from population estimates. Need to work on the precision of the estimates.
    - New statistical methods to quantify local data into the broader population estimates.

# Science & Research Action Team

May 18, 2013 Progress Report

## Implementation Action Items proposed or discussed by the Action Team :

- **A.2. Do away with population goals and population estimates at the DMU level.**
  - The team recommended:
    - The team rejects the recommendation, see rationale and discussion for A.1.
    - Encourage developing additional metrics for monitoring deer populations and impacts when evaluating unit goals at the time of 3-year unit reviews.
    - Include valid local input as an additional factor to consider in goal setting.

# Science & Research Action Team

May 18, 2013 Progress Report

## Implementation Action Items proposed or discussed by the Action Team :

- **A.5. Reduce the number of DMUs and combine the Farmland regions**
  - The team endorses the recommendation.
  - Implementation recommendations included:
    - Reduce the number of DMUs, incorporating public input and similar deer habitat and populations.
    - Maintain recognizable DMU boundaries.
    - Reduce DMUs by aggregating current DMUs to maintain continuity with historical data.
    - Enter negotiated management experiments and research studies in DMUs identified as having particularly contentious population estimates.

# Science & Research Action Team

May 18, 2013 Progress Report

## Implementation Action Items proposed or discussed by the Action Team :

- **E.1. Involving the public in data collection produces many benefits.** - Team supported the recommendation.
  - Implementation recommendation:
    - Ensure public involvement is centered on rigorous and standardized methods.
    - Use pilot studies to develop and test public-based data collection methods.
    - Evaluate how other states are using citizen science.
    - Ensure methods are user-friendly while maintaining a high level of competence of volunteers.
    - Partner with local conservation and other outdoor clubs to solicit and organize volunteers.

# Science & Research Action Team

May 18, 2013 Progress Report

## Implementation Action Items proposed or discussed by the Action Team :

- **E.1. Involving the public in data collection produces many benefits.** - Team supported the recommendation.
- Rationale:
  - These steps will increase citizen buy-in.
  - Research projects have been very successful in getting citizens involved.
  - Increased buy-in will make hunters happier, thus reducing conflict with the agency.
  - Increasing credibility of research projects and obtaining better buy-in from hunters, get better buy-in on the results of projects, and could increase desire by the public to fund future studies.

## Science & Research Action Team

May 18, 2013 Progress Report

### **Implementation Action Items proposed or discussed by the Action Team :**

- **G.4. ...The special significance of deer to the Ojibwe people and other factors also must be considered in management of Wisconsin's white-tailed deer resources. This will include strict adherence to all agreements with GLIFWC, the tribes serving as "co-managers" where appropriate.**
  - The team supports the recommendation, as the Voight decision mandates the requirement; however it does not specify 'co-management'.
  - The team recommends the DNR to continue to consult with GLIFWC staff on deer management.

# Science & Research Action Team

June 8, 2013 Progress Report

## Today's Activities/Discussions:

- **Reflections on Mid-Process Report Out:**
  - **Proposals are workable with other teams**
  - **SAK issue/controversy discussion:**
    - What is the alternative to counting deer?
    - How do we identify a carrying capacity without knowing the deer population? If the recommendation is to move towards grow/maintain/decrease, what is the basis?
    - Need greater connection between field biologists and the public, with a paradigm shift towards developing and using metrics and identifying how/where SAK is useful.
    - Miscommunication between the SAK estimates versus parcel-level perceptions of deer populations.

# Science & Research Action Team

June 8, 2013 Progress Report

## Today's Activities/Discussions:

- **Reflections on Mid-Process Report Out:**
  - **SAK issue/controversy discussion continued...**
    - Group discussed the need to consolidate DMU's, de-emphasize use of SAK, manage to grow/maintain/decrease, while developing metrics.
  - **The group agreed to modify proposal language for A.1. to emphasize the need to consider the recommendation with modifications. *Modification underway by team members and will bring back to the full group in the future for feedback.***

# Science & Research Action Team

June 29th, 2013 Progress Report

## Today's Activities/Discussions: Overall Summary

- **A.1.** Finalized rationale language.
- **D.8.** Endorsed DTR recommendation and finalized implementation recommendations.
- **D.9.** Endorsed DTR recommendation (see D.8. and H.2. for language and rationale)
- **E.2.** Endorsed DTR recommendation and see A.4. for language and rationale.
- **D.2.** Endorses proposal by the Herd Health/CWD Team.
- **A.3.** Not endorsed; see language and rationale for A.2.
- **A.4.** Endorsed recommendation and finalized implementation recommendations.
- **A.5.** Addressed current proposal – tabled until next session given the group is not in agreement on current language.

# Science & Research Action Team

June 29th, 2013 Progress Report

## Today's Activities/Discussions:

- **Presentations given by Research Scientists, WI DNR**
  - Dr. Dan Storm: “What are metrics?” & “Proposal to study nutritional condition and reproduction in deer.”
    - New study can assist with understanding long-term herd health and driving factors of nutritional condition and reproduction.
  - Dr. Dustin Bronson: “Metrics for assessing deer impacts on forest resources.”
    - Example measures: browse level (categorical), stem browse index, plant species indicators (palatable and unpalatable species), plant measures (e.g., plant height), and use of exclosures.
    - Metrics used by other states: harvest data most often used, few states use forest/habitat metrics.
    - Statewide forest monitoring conducted and deer enclosure study in PA, and integrated insights into their deer management programs. E-27

# Science & Research Action Team

June 29th, 2013 Progress Report

## Implementation Action Items proposed or discussed by the Action Team :

### A.1. Limit the use of SAK/accounting style models monitoring deer population size and trends at the state and regional levels.

- **Team finalized language and added:**
  - Keep collecting registration and harvest age-data during firearm deer season.
  - Augment population estimates with data derived from metrics.

# Science & Research Action Team

June 29th, 2013 Progress Report

## **A.1. Limit the use of SAK/accounting style models monitoring deer population size and trends at the state and regional levels.**

- Emphasize in the rationale that research is needed that will specifically improve SAK and address potential problems (e.g., opening day weather, hunter selection, baiting, overall herd mortality and predation, and other factors).
- Research suggests that SAK is accurate when its assumptions are met (stable-stationary age structure). But special consideration should be given when populations are not stable.

## Science & Research Action Team

June 29th, 2013 Progress Report

### **A.1. Limit the use of SAK/accounting style models monitoring deer population size and trends at the state and regional levels.**

- When management prescriptions are made, considerations need to be made for professional judgment and additional metrics.
- An emphasis on communication and education regarding deer population estimation (including the SAK) and deer population dynamics. **Especially a clear interpretation of precision and accuracy of the SAK.**

## Science & Research Action Team

June 29th, 2013 Progress Report

### **D.8. WDNR should work closely (through the local biologist) with the Conservation Congress in developing goals and strategies at the county level.**

- Team endorses this recommendation; however, as deer management is at DMU-level that should be how the congress gathers input.
- Special effort is needed to ensure all members of the public are adequately represented.
- Reliable study design is needed to properly gather input.

## Science & Research Action Team

June 29th, 2013 Progress Report

### **D.8. WDNR should work closely (through the local biologist) with the Conservation Congress in developing goals and strategies at the county level.**

- Rationale:
  - Involving the conservation congress will allow us to leverage resources and better represent the public and gather more representative input.
  - This will allow the DNR to react more quickly to problem areas.
  - Greater public support when the public is included.
  - This would allow the public to view it as a DNR-driven process and more of a cooperative process.

## Science & Research Action Team

June 29th, 2013 Progress Report

**D.9. We feel the use of human dimensions research to anticipate, rather than reacting to issues as they arise would be very effective.**

- Team endorses this proposal, subject to implementation recommendations and rationale outline in D.8. and H.2.

## Science & Research Action Team

June 29th, 2013 Progress Report

**E.2.** Each field biologist should be required to organize and conduct at least one field necropsy study each year, conducted along with cooperators and volunteers during late winter.

- The spirit of this recommendation is met by conducting assessments of condition and reproduction of a car-killed deer.
- We propose that this recommendation become a metric to monitor deer herd health, and thus rolled into A.4.

## Science & Research Action Team

June 29th, 2013 Progress Report

**D.2.** There is a clear need for a new sampling protocol for CWD in Wisconsin, one that gives a true picture of the progress of the disease; but more importantly, one designed to detect spread.

- The Science and Research Team endorses the proposal as presented by the Herd Health/CWD Team.

# Science & Research Action Team

June 29th, 2013 Progress Report

**A.4.** Develop a set of metrics to monitor progress towards the DMU goal of increasing, stabilizing, or decreasing population density.

- Team endorses the recommendation.
- Proposal:
  - We recommend retaining in-person deer registration in the strongest possible terms. Explore additional metrics collection.
  - 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.
  - **ADVERTISE THE DAYLIGHTS OUT OF IT** - Critical to identify and communicate specific questions that each metric will address.

## Science & Research Action Team

### June 29th, 2013 Progress Report

**A.4.** Develop a set of metrics to monitor progress towards the DMU goal of increasing, stabilizing, or decreasing population density.

- Proposal:
  - Team recommends delegating the details regarding specific metric to the scientists and citizen advisory research board.
  - Finding additional population indices that can be used in integrated population models.
  - Involve citizens as much as feasible.
  - Metrics categories may include:
    - Deer health metrics
    - Deer population trends and influences
    - Deer impacts on plant and other animal communities
    - Costs and benefits of deer to society
    - Perceptions and desires of deer hunters

## Science & Research Action Team

June 29th, 2013 Progress Report

**A.4.** Develop a set of metrics to monitor progress towards the DMU goal of increasing, stabilizing, or decreasing population density.

- Rationale:
  - Specific to in-person registration throughout the entire gun-deer registration - committee rigorously interviewed the scientists and on that basis we have strength of conviction.
  - This will increase citizen involvement in data gathering and application and public trust in the DNR population estimates.
  - When developing new metrics it is important to maintain current monitoring so you can assess cost-benefits of new metrics.

## Science & Research Action Team

June 29th, 2013 Progress Report

**A.4.** Develop a set of metrics to monitor progress towards the DMU goal of increasing, stabilizing, or decreasing population density.

- Rationale:
  - Will help move hunters from harvesters to managers.
  - 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.
- Obstacles & Simplify/Complicate Hunting:
  - This recommendation will increase costs.
  - May increase responsibility of hunters and may require additional staff.