

POLICY

Tick Protection

Policy Executive:Operations Services Deputy Director

Policy Owner:.....Fish and Wildlife Deputy Director

Policy type: Interim Administrative Operational Order Safety Program

Policy number:.....2-30-1-02

Intranet resource page: [Tick protection: Minnesota DNR \(state.mn.us\)](https://state.mn.us)

POLICY STATEMENT

The tick protection policy has been developed to protect personnel, students, interns, and volunteers, from the hazards associated with being bitten by an infected tick. The policy defines roles and responsibilities and requires accountability by all DNR staff, students, interns, and volunteers. The policy also outlines qualifying and required forms of tick protection, describes purchasing procedures for permethrin-treated clothing, and provides hyperlinks to training and additional resources.

Prior to this policy, DNR implemented a tick protection plan that provided staff guidance. DNR has determined that due to the nature of our outdoor work activities, a tick protection policy is needed to ensure staff understand they are responsible and accountable to follow the policy and protect themselves from tick bites.

REASON FOR POLICY

Ticks carry and can transmit tick-borne diseases, including Lyme disease, anaplasmosis, babesiosis, ehrlichiosis, and Powassan Virus Disease, when a person is bitten by an infected tick. Therefore, all personnel working outside in tick habitat during "snow-free" periods shall abide by the following tick protection policy.

REQUIREMENTS

TICK PROTECTION

All personnel working outside in tick habitat during active tick periods shall use at least two forms of tick protection. This applies to all DNR employees, students, interns, and volunteers. Supervisors also recognize that office and shop staff are exposed to cross-contamination of ticks brought in by coworkers, in fleet/pool vehicles and in other circumstances. The supervisor should approve the purchase of permethrin-treated clothing for those who could be exposed in these situations as well.

1. **Permethrin-treated clothing.** Note that permethrin-treated clothing is the most effective form of tick protection. Shirt and pants or shorts must be a fully permethrin-treated garment and worn together (e.g., only spraying permethrin on boots is not a qualifying form of protection nor is wearing only permethrin-treated pants). Self-spray products or commercially treated clothing are acceptable. Always follow manufacturer's instructions for handling and use.
2. **Completely sealed clothing outfit.** Sealed clothing includes full length pants, socks, and long-sleeve collared shirts or coveralls. The intent is to reduce tick exposure to skin.
 - a. Full length pants must be sealed by use of tick gaiters or tucked into socks/boots.
 - b. Long-sleeve collared shirts must be tucked into pants. Wrists are recommended to be sealed with tape, rubber bands, Velcro, or other sealing method.
 - c. In addition to completely sealed clothing, long-sleeve collared shirts or loose-fitting clothing/netting designed to keep insects off inner clothing are considered a qualifying form of tick protection.
 - d. Hats and gaiters are recommended.
3. **Repellants** including (DEET, Picaridin, and IR3535[®]) must be applied to all exposed skin below the neckline. Repellants may be applied directly to clothing for additional protection. Note that certain repellants (DEET) are not recommended for application to flame resistant firefighting clothing. Always follow manufacturer's instructions for handling and use.
4. **Alternatives** as approved by supervisor, safety officer, and/or referenced on the DNR Intranet 'Tick Awareness' website: [Tick protection: Minnesota DNR \(state.mn.us\)](https://www.dnr.state.mn.us/tickprotection/)

Light-colored clothing is a smart enhancement to the clothing options to allow ticks to be seen; however, light colored, pants, short or long sleeve shirts, socks and/or shorts are **not** acceptable as a qualifying form of PPE.

WILDLAND FIREFIGHTING ACTIVITIES

DNR does not allow firefighters to apply DEET mosquito repellent to their Nomex firefighting clothing. DEET reduces the flame resistance of Nomex clothing when applied directly to the clothing.

PROCEDURES

PURCHASING PERSONAL PROTECTIVE EQUIPMENT (PPE)

Costs associated with permethrin treated clothing, permethrin treatments of personally purchased clothes, repellants and tick removal devices are considered personal protective equipment (PPE) and shall be funded by the applicable division. See [Tick Protection](#) webpage for more information on obtaining permethrin treated clothing.

Clarification: The purchase of personal clothing items with department funding including footwear other than uniforms and logo wear is inappropriate unless specifically pre-identified and preapproved by the division or department as specialized equipment that will be provided to the employee for certain work or as PPE necessary for work assignments. The supervisor determines which of their employees are affected by tick exposure and approves the employee's preference for prevention methods.

Options for providing employees access to permethrin-treated clothing:

Option 1 – DNR uniform items and logo wear sent for bulk treatment to Insect Shield:

- Bulk treatment of DNR uniforms or logo wear can be submitted at any time and is an economical and effective way to provide permethrin-treated PPE. Managers and supervisors may use appropriate division funds to pay for shipment and treatment of approved uniform items and approved logo wear for permethrin treatment.
- Any article of clothing including DNR logo hats, polo shirts, coveralls, jackets, vests, gloves, shorts, etc. will be treated at state expense (if they meet the acceptable fabric standards for treatment). The volume/number of items treated should be agreed upon with and will require the approval of the employee's direct supervisor. This option tends to be the least expensive.

Option 2 - DNR Purchasing of non-uniform, non- logo wear pretreated PPE clothing:

- Employees may request that their division purchase pre-treated PPE, Flame Resistant, and Hi Viz clothing, etc. clothing for them. Managers and supervisors may use appropriate division funds to purchase permethrin treated personal protective clothing (i.e., Nomex, chainsaw pants) as PPE. The employee's request for any pretreated clothing purchase must be preapproved by the direct supervisor even if purchased on a DNR purchasing card or purchase order (PO). This is an acceptable option though it tends to be the most expensive.
- On a biennial basis, the articles of clothing that can be purchased as work PPE include two long sleeve collared shirts, two pair of full-length pants, two coveralls, and up to three pairs of socks. These shirts, socks and pants should be appropriate for the task and public contact by the employee. The supervisor may approve a supplemental purchase if the clothing is rendered unusable. The supervisor may also approve additional pieces of clothing based on need. The supervisor's review is expected to include the review of the appropriateness of the clothing for the work conditions and its appropriateness for any public contact associated with the work.

Option 3 – Employee personally purchased pretreated PPE clothing:

- Employees, with their supervisors' advance approval, may purchase and be reimbursed for pretreated PPE clothing. Divisions may reimburse up to \$100 annually per employee for these personal purchases.

Option 4 – Employee personally purchased clothing sent for bulk treatment by Insect Shield:

- Employees may send personally purchased clothing for bulk treatment under DNR contract by Insect Shield with supervisor approval. The treatment is for long sleeve collared shirts, long pants, and socks for a total of up to seven (7) items. Submission of personal clothing for treatment is an option every two years.
- If necessary, a supervisor may approve additional treatment to replace clothing torn or rendered unusable on the job. The cost for normal untreated, personally purchased clothing is not reimbursable. Personally purchased hats are currently not approved for the bulk treatment process.

Option 5 - Wildfire Clothing PPE:

- Wildfire clothing issued through the Division of Forestry's wildfire cache system is not intended to be constrained by these guidelines.

- Nomex clothing purchased for prescribed fire operations will be considered DNR-issued PPE and fall under the guidance identified above. It is not intended to prevent staff from having access to non-fire protective clothing.
- Firefighters have the option of Nomex trousers treated with permethrin (an insecticide), without destroying the clothing's flame resistance.

TABLE MATRIX OF OPTIONS FOR PROVIDING EMPLOYEES ACCESS TO PERMETHRIN TREATED CLOTHING:

Options	DNR Process for Bulk Treatment by Insect Shield	Pretreated from Manufacturer
DNR Uniform and Logo Wear & Wildfire Clothing PPE	Any article of clothing including DNR logo hats, polo shirts, coveralls, jackets, vests, gloves, shorts etc. will be treated at state expense (if they meet the acceptable fabric standards for treatment). Clothing can be submitted for treatment anytime. Supervisor approves amount and replacement needs.	N/A
DNR Purchase of Pretreated PPE Clothing (non-uniform, non- logo wear)	N/A	Supervisor preapproves division funding to purchase (P-card or PO) pretreated clothing of 2 long sleeve collared shirts, 2 coveralls, 2 long pants, and 3 pairs of socks on a biennial basis. The supervisor may approve a supplemental purchase if the clothing is rendered unusable or based on the length of the employee's work assignment.
Employee Purchase of Pretreated PPE Clothing	N/A	With supervisor preapproval, an employee can personally purchase and be reimbursed for pretreated clothing of 2 long sleeve collared shirts, 2 coveralls, 2 long pants, and 3 pairs of socks. The DNR will reimburse up to \$100 annually since there is no department oversight on cost or quantity. Replacement of items on a two-year wear cycle is approved. Clothing rendered unusable can be approved by the supervisor at any time.
Employee Personally Purchased	Personal clothing purchased and paid for by employee at their own expense can be submitted for bulk treatment anytime for	N/A

Options	DNR Process for Bulk Treatment by Insect Shield	Pretreated from Manufacturer
Clothing sent for Bulk Treatment to Insect Shield:	long-sleeved collared shirts, long pants, and socks for a total of up to 7 items. Submission is an option every two years. Supervisor approves the amount and replacement needs.	

TICK CHECK EXPECTATIONS

When field work is concluded in tick habitat, the following tick checks shall be completed:

- Prior to entering a vehicle, all personnel are encouraged to conduct a thorough inspection of exterior clothing, including all flaps, pockets, cuffs, and small places a tick could be housed, and remove ticks.
- Employees will check themselves for ticks often, continuously, and throughout the day to prevent a tick bite.
- Upon return to the office or report to work location, all personnel must conduct a full-body tick check.
- Each report-to-work location shall have a designated tick check station equipped with a full-length mirror, hand mirror, and adequate lighting.
- Other recommended precautionary measures should be taken to clean clothing and work surfaces, e.g., use a lint roller to remove ticks from a vehicle (ticks may have been carried in from the field) and use of high heat during drying of clothing.
- Employees will limit the potential to cross-contaminate areas by conducting continuous self-checks and reviewing chairs, seats, vehicles, etc. to ensure ticks have not been transferred.

TICK REMOVAL

Embedded ticks shall be removed promptly. MN Department of Health recommends:

- Using a tick removal tool or tweezers.
- Removing ticks carefully and as close to the skin as possible by pulling upward with steady, even pressure, never squeezing an embedded tick.
- Practicing hygiene and using antiseptic at the bite location after a tick is removed.

TICK REPORTING

All tick bites, attached ticks, and symptoms of tick bites shall be reported to your supervisor within 24 hours. Early treatment is essential to recovery. According to the Center for Disease Control, the minimum time interval is not known, but the disease agent can be transmitted within the first 24 hours of tick attachment. Tick bite reporting shall not be used as a punitive action against affected employees. Minnesota DNR strives to protect employees rather than penalize.

- Report tick bite to your supervisor.
- Supervisor completes a First Report of Injury within 24 hours.
- Seek medical attention if you exhibit signs and symptoms of a tick-borne illness (e.g., headache, fever, aches, etc.).

These measures are intended to reduce the number of tick bites and tickborne illnesses affecting DNR employees. They are not intended to eliminate ticks from crawling on your clothing or skin or having a tick bite or attachment (lasting a short period of time) that can easily be removed.

RESPONSIBILITIES

DNR Commissioner, Deputy Commissioner and Assistant Commissioners are responsible for department-wide endorsement and promotion of the DNR tick protection policy.

Division and Regional Directors are responsible for endorsement, communication, and promotion of the department's tick protection policy within their respective divisions and regions and will:

- Implement the tick policy when and where needed.
- Provide support for training and PPE needs identified as part of this program.
- Hold managers and supervisors accountable for implementing the policy in a timely and responsible manner.

Regional Managers are responsible for endorsement, communication, implementation, and promotion of the tick policy within their respective regions and will:

- Provide support for purchasing PPE.
- Ensure policy and procedural compliance, as well as training requirements are met within their respective regions and disciplines.

Safety and Risk Manager is responsible to carry out the following tasks:

- Administer an agency-wide tick protection policy.
- Provide oversight, guidance, and communications to divisions about policy implementation, including training and procedure development.

Supervisors are required to review and comply with the tick policy and:

- Support the implementation of the tick protection program where appropriate.
- Provide and document appropriate training to employees working in tick habitat.
- Provide purchasing assistance for PPE.
- Oversee compliance by employees with the procedures and requirements within their work site.
- Identify staff exposed to ticks.
- Perform periodic inspections to ensure staff are wearing the appropriate PPE.

Site Coordinators will be responsible to:

- Ensure the site has the appropriate tick check stations and supplies.
- Engage with safety administrators in their efforts to provide guidance and oversight to the program.

Safety Administrator will assist the safety and risk manager develop, implement, update when new information becomes available, and monitor the tick protection policy for and its effectiveness and uniformity within the department and:

- Provide information and guidance to staff as needed.
- Provide training materials and support training efforts.
- Consult with supervisors to continually research and identify new kinds of PPE and tick protection processes to ensure staff safety.
- Audit the tick policy for effectiveness based on workers' compensation incidents and reports of injuries.

DNR employees, students, interns, and volunteers will follow the tick protection policy, wear the appropriate forms of tick protection, and take required training.

CONTACTS

Subject	Contact	Phone	Email
Tick Protection	Joni Akerson	651.259.5739	Joni.akerson@state.mn.us
Tick Protection	Trevor McMartin	507.233.1249	Trevor.mcmartin@state.mn.us
Tick Protection	Luke Peluso	218.328.8964	Luke.peluso@state.mn.us

DEFINITIONS

DEET: N, N-Diethyl-3-methylbenzamide is a colorless oily liquid insect and tick repellent.

IR3535®: ethyl butylacetylaminopropionate is one of the most common active ingredients in insect repellents. It is a colorless and almost odorless oil and is intended to be applied to the skin.

Permethrin: is a stable (synthetic) form of an insecticidal compound produced by the chrysanthemum flower; commonly used to treat lice (Nix 1% shampoo) and scabies infections (5% cream); biodegrades quickly in contact with soil and water; odorless and will not stain clothing.

Picaridin: is an insect repellent. It has broad efficacy against various insects and is almost colorless and odorless.

REFERENCE ITEMS

RELATED AUTHORITIES

[Centers for Disease Control and Prevention](#)

[MN Department of Health](#)

[United States Forest Service, Missoula Technology Development Center recommendation for Firefighter's use of repellent](#)

RELATED POLICIES AND PROCEDURES

[2022 Tick Talk](#)

[2019 Tick Guide](#)

FORMS/INSTRUCTIONS

APPENDICES

Posters to Download (scroll to lower third of the [website](#))

Safety Data Sheets

- [Cutter Backwoods Repellent](#)
- [DEET](#)
- [Insect Shield Repellent Apparel](#)
- [Tick Protection Clothing Options](#)
- [Using Permethrin Clothing Treatments Effectively](#)

FREQUENTLY ASKED QUESTIONS

View the website at [Tick Protection: Minnesota DNR \(state.mn.us\)](#)

HISTORY

For use by Policy Framework Administrator

Supersedes: **New policy created**

Maintenance: 06/30/2026 – Four Year Review

Amended: MM/DD/YYYY Describe

APPROVAL

/s/ GREG KRUSE
Deputy Director, Operations Services Division

8 June 2022
Date