

# PROPOSAL FOR FEDERAL WILDLAND FIRE TICK-BITE PREVENTION PROGRAM

## Overview

*Federal wildland firefighters are lacking tick-bite prevention education and control resources. This is a group of employees across many federal agencies (US Forest Service, US Fish & Wildlife Service, National Park Service, Bureau of Land Management, Bureau of Indian Affairs & FEMA) that are routinely deployed nationwide and sometimes worldwide in response to wildfire suppression activities and other natural disaster areas. Federal wildland firefighters including "militia personnel" (non-primary wildland firefighting positions within the federal government), who, like military personnel, routinely work in and/or are assigned to incidents across the country or the world with increased exposure to variable tick habitats. These employees are at increased risk of tick bites and the many pathogens they may transmit. Many tick-borne diseases and conditions can result in serious, debilitating, or chronic illness and even death.*

Tick bite prevention education and control resources are not standardized across agencies nor regions of the US that employ wildland fighters. Many regions and agencies that employ federal wildland firefighters currently receive no education nor prevention resources regarding ticks and tick-borne diseases within their base units nor in the regions to which they are routinely assigned for fire suppression activities or other disaster relief efforts.

## The Objective

*To prevent tick-bites and tick-borne disease illness and conditions in all Federal wildland firefighters, including militia personnel.*

- Need #1: Standardized tick and tick-borne disease/condition education and prevention across all agencies and across all regions of the US.
- Need #2: Tick-bite prevention controls.
- Need #3: Standardized tick-bite protocols.

## The Solution

*To develop a standardized "Federal Firefighters: Tick-Bite Prevention TactTicks Program"*

- Recommendation #1: Development of a standardized tick and tick-borne diseases education/prevention module to be made part of the annual federal wildland firefighter's refresher training, required by all red-carded employees. This training module should include all medically important tick species, human pathogens and tick-borne diseases/conditions known to occur within the US, as well as relevant global risks. This training should emphasize tick checks for end of shift at home units as well as off-unit assignments (fire camp situations). This

education/training should include proper removal of ticks. This education module should be developed with input from a tick-borne disease patient or patient advocate. This training module should be reviewed annually and updated as new information is discovered.

- Recommendation #2: Inclusion of tick warnings/status updates to be provided by incident management teams during daily incident/safety briefings at fire/natural disaster management incidents.
- Recommendation #3: Posting of tick warning/tick check signs at base camps (medical, dining, sleeping areas) for fire/natural disaster incidents.
- Recommendation #3: Establish a program for issuing permethrin treated Nomex uniforms for all federal wildland firefighters and militia personnel on an annual/ bi-annual basis. Provide tick approved skin repellants at all duty stations and fire base camp supply/medical facilities. Supply each federal wildland firefighter and militia personnel a tick removal kit as part of their gear issuance (alcohol cleanser, stainless steel fine nosed tweezers, and a collection vial to be able to save specimen for testing).
  - Recommendation #4: Develop standardized reporting for all known or suspected tick-bites or for tick habitat exposure, when tick-borne illness occurs in the absence of a noticeable tick bite. Employees should be offered a resource for tick-testing if a specimen was recovered and saved. Employees must also be provided references to both published standards of care for tick-borne disease treatment guidelines to make an informed decision regarding treatment choices, including prophylactic treatment.

## Expected Results

*Reduction of tick-borne disease illness/conditions in Federal wildland firefighters.*

Establishment of a standardized “Federal Firefighters: Tick-Bite Prevention TactTicks Program” would increase awareness and education regarding ticks and tick-borne diseases/conditions, as well as provide tick-bite control resources to a high-risk population of federal workers. This education, control, and reporting will decrease incidence of illness among federal wildland firefighters, and militia personnel.

## Program Benefits

- Result #1: Standardized education/awareness will aid in prevention of tick-bites among federal wildland firefighters.
- Result #2: Standardized education/awareness will aid in early recognition of tick-borne diseases, allowing for early treatment and better treatment outcomes.
- Result #3: Control resources (Permethrin treated uniforms, skin repellents, tick removal kits) will increase prevention of tick-bites among federal wildland firefighters routinely working in high-risk tick habitats.
- Result #4: Prompt and proper removal of ticks will decrease risk of tick-borne illness among federal wildland firefighters.
- Result #5: Standardized reporting will aid in surveillance of tick-bites and tick-borne disease among federal wildland firefighters.

## Financial Benefits

- Result #1: Reduction of tick-bites will result in less lost wages for federal wildland firefighters due to acute tick-borne disease.
- Result #2: Reduction of tick-bites will result in less loss of careers of highly trained federal wildland firefighters due to chronic or debilitating tick-borne illnesses/conditions.

## Conclusion

*I am a former federally employed wildlife biologist and wildland firefighter (militia personnel). I was not provided any tick or tick-borne illness/condition education, training, nor control resources throughout my entire career. My career ended due to severe and chronic tick-borne illness. Diagnosis of tick-borne disease was delayed due to lack of awareness and education. Federal employees working in the field of natural resource management, particularly wildland firefighters, are at increased risk of exposure to tick bites and tick-borne diseases/conditions and would benefit greatly from a standardized "Federal Firefighters: Tick-Bite Prevention TactTicks Program."*

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