

SERDP PROJECT OF THE YEAR ENVIRONMENTAL RESTORATION

DEVELOPMENT OF TOXICITY DATA FOR MUNITION COMPOUNDS TO SUPPORT TOXICITY REFERENCE VALUE DERIVATIONS FOR WILDLIFE

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DoD serves as a steward of extensive land holdings, many of which are used for activities such as training (e.g., firing ranges), munitions manufacturing, and demilitarization operations. Because of their large size, relative habitat value, and the occurrence of munitions compounds in soil, sediment, and surface water at these installations, it is important that DoD address issues associated with wildlife exposure to these substances.

To support technically sound risk assessments, research conducted by Dr. Mark Johnson and his team provides new information on the impacts of the most prevalent munitions compounds and constituents on wildlife. Wildlife laboratory models were developed and exposures to various munitions compounds were assessed in a controlled regime and investigated for adverse effects. From these data, safe thresholds for exposure were determined for RDX, TNT, DNT, and aminodinitoluenes for birds, mammals, reptiles, and amphibians.

Results from this project will be used to determine the safety of wildlife exposure to munitions compounds at DoD sites. This information will help risk managers make informed decisions when balancing the potential for adverse effects from exposure with habitat alterations associated with cleanup operations. Data provided by this project also limits the requirement for costly site-specific risk assessments.

For more specific information about this project, stop by Poster #186.