

## **Connecting nitrogen deposition and ecosystem services**

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There are tremendous human health and well-being consequences of nitrogen release to the atmosphere, land and water. The effects on human health are related to the fundamental ecosystem services providing clean air and water for human consumption. Among the highest available damage cost estimates are those associated with respiratory and cardiac issues arising from breathing ozone and particulates formed through the release of NO<sub>x</sub> and NH<sub>x</sub>. Nitrate in drinking water continues to be a widespread issue in the US, posing a number of human health risks. Nearly two million Americans live in homes with water supply nitrate concentrations at or above the human consumption maximum contaminant level, and the number of nitrate violations in community drinking water systems continues to increase, doubling between 1998 and 2008. The issue of nitrate in drinking water is largely driven by agricultural inputs and atmospheric deposition is a small component.