



## Maryland NSF Indian Head

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### ***Facility and Location***

Naval Support Facility (NSF) Indian Head occupies a 3,500 acre peninsula in Charles County, 30 miles south of Washington, D.C., in the town of Indian Head, Maryland. The facility conducts research, development, and production of rocket and torpedo propellants and explosives. Research includes energetics, weapons development, strategic systems, detonation science, underwater warheads, chemical processing, high energy propellants, extruded products, cartridge/propellant actuated devices, ordnance test and evaluation, and weapon simulation.

### ***Media Sampled and Findings***

**Drinking Water** — In 2007, six samples reported no detection. Prior to 2007, six of ten samples detected perchlorate from 0.07 to 1.2 ppb.

**Groundwater** — In 2011, 17 of 43 samples detected perchlorate from 0.08 to 69,000 ppb. In 2010, 53 of 61 samples detected perchlorate from 0.09 to 24,000 ppb. In 2009, 15 of 15 samples detected perchlorate from 0.08 to 810 ppb. In 2008, eight of ten samples detected perchlorate from 0.13 to 52,000 ppb. In 2007, four of ten samples detected perchlorate from 0.07 to 1,800 ppb. Prior to 2007, 322 of 524 samples detected perchlorate from 0.22 to 480,000 ppb.

**Sediment** — Prior to 2007, 13 of 47 samples detected perchlorate from 86 to 230 ppb.

**Soil** — In 2011, 11 of 11 samples detected perchlorate from 0.48 to 14,000 ppb. In 2010, one sample detected perchlorate at 7.82 ppb. In 2007, one sample detected perchlorate at 3.1 ppb. Prior to 2007, 123 of 390 detected perchlorate from 8.6 to 480,000 ppb.

**Surface Water** — In 2007, two of two samples detected perchlorate at 0.47 and 190 ppb. Prior to 2007, 16 of 68 samples detected perchlorate from 1.6 to 180 ppb.

**Wastewater** — In 2007, six of seven samples detected perchlorate from 0.25 to 190 ppb. Prior to 2007, seven of seven samples detected perchlorate from 0.17 to 9,500 ppb.

### ***Appropriate Actions***

Groundwater samples were above the EPA and DoD Preliminary Remediation Goal of 15 ppb at Building 1018 and the SATTP site. Soil concentrations were below the 55,000 ppb residential and 720,000 ppb industrial soil screening levels recommended by EPA Region III.

To address perchlorate concentrations, NSF Indian Head and the Navy have installed a demonstration treatment technology to remove perchlorate from groundwater. Recurring sampling occurs at numerous buildings and follow-up actions are planned. Drinking water sampling is complete and does not require further action.

At Building 1018, perchlorate was found at 620 ppb in soil in a hydraulic lift pit. Additional investigation is planned to adequately delineate the nature and extent of this contamination. Sampling is planned near this building after demolition.



The SATTP site, which is an operational range, will continue to be managed under the interim Subpart X permit and the Navy Range Sustainability Environmental Program Assessment program.

Site 11, a former landfill created from a wetland, will receive a soil cover, sediment capping, and construction of a living shoreline. The soil cover will prevent infiltration of precipitation into the shallow groundwater, which is commingled with fill and waste. Controls would be used to prevent any use of the shallow groundwater.

At Site 17, perchlorate is non-detect in groundwater. A soil removal action was completed in 2006 and groundwater treatments are scheduled to address other contaminants in the future.

Upgradient sampling is scheduled at the Site 21 landfill where perchlorate was previously identified. Sampling will be done under Comprehensive Environmental Response, Compensation and Liability Act to identify and characterize a potential source area.

At Site 42, perchlorate is non-detect in groundwater. A Remedial Action that included an engineered landfill cap was completed in 2006. Shallow groundwater will be monitored appropriately and controls to prevent its use are in place.

At Site 67, in addition to the pilot testing, a Remedial Investigation will be conducted in the future once planning and budgeting is complete.