

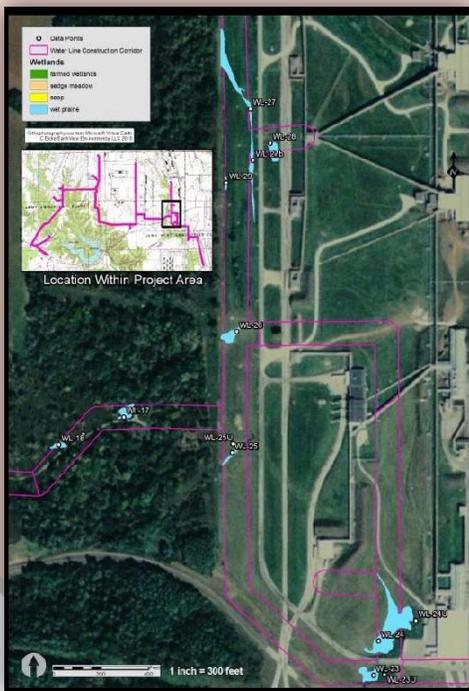
Wetland Delineation, Mitigation and Permitting Services

Iowa Army Ammunition Plant, U.S. Army - Des Moines County American Ordnance, Inc.

Middletown, Iowa
2006 - Present

Since 2006, EarthView Environmental, Inc. (EVE), has completed several projects for the Iowa Army Ammunitions Plant including Wetland delineation, Threatened/Endangered habitat survey and assistance with geoarchaeological surveys.

In 2006-2007 EVE completed wetland delineations along the a proposed Perimeter Fence Alignment at the Iowa Army Ammunition Plant at Middletown in Des Moines County, Iowa. We investigated fifteen ravine crossings along the south perimeter fence which is approximately 45,000 feet long. In addition, EVE worked with the Office of the State Archeologist to complete several geoarchaeological investigations in 2008-2009.



In 2010, we were once again contracted by American Ordnance, LLC (AO) to complete wetland delineations and preliminary threatened/ endangered species (T/E) surveys for two projects. The first was for the replacement of approximately 57,000 linear feet of buried water line. The second was for wetland impacts associated with the planned installation of a 40 MM test range on a 123 acres site.

EVE delineated wetlands, stream impacts and suitable habitats for Threatened and Endangered species. Field analysis was completed using the routine onsite determination method defined in the *U.S. Army Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (USACOE, 2008). All areas were walked, photographed, and delineation data points were recorded in all areas with wetland characteristics. Data point and wetland boundary locations were documented to GIS using a 2005 Trimble Geo XH GPS unit with post-processing.

For the unavoidable impacts, EVE coordinated on behalf of the client with the Army Corps of Engineers, the Iowa DNR and the US Fish and Wildlife Services. EVE worked with AO to develop appropriated mitigation for the wetland, stream and habitat impacts. Under a tight schedule, mitigation plans were completed and permits were obtained in a timely manner to meet the client's deadlines.

In addition to the continuing work with AO on wetland mitigation monitoring reports, EVE has contract with them on several other projects.

Client References:

At Army Ammunitions Plant

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