

ANKENY LANDFILL/TREATMENT LAGOON COMPLEX

(Ankeny, Iowa)

GENERAL DESCRIPTION

The Ankeny Landfill/Treatment Lagoon Complex is located five miles north of Des Moines, Iowa. The complex covers approximately 37 acres in the North 1/2 of the Southeast 1/4 of Section 27, T80N, R24W, Polk County, Iowa. The site is owned by the city of Ankeny. The site was entered on the Registry in November 1989.

The Ankeny Landfill Complex was built in 1941 by the Department of Defense (DOD) as a disposal site for waste from the Des Moines Ordnance Plant. In 1947 John Deere and Company purchased the property from DOD. The complex was used by the John Deere Company until the property was deeded to the city of Ankeny in 1965. The complex continued to receive waste from John Deere along with domestic and small business waste from the city of Ankeny. The landfill was closed by the city in 1971.

SITE CLASSIFICATION

The site was re-classified "d" in accordance with 455B.427.3 in 2010

TYPE AND QUANTITY OF HAZARDOUS WASTE

- **The primary type of hazardous waste: Metals**

Data from a site investigation was performed in July 1987 showed surface water and sediments in adjacent streams contaminated with high concentrations of chromium and lead, and low concentrations of volatile organic and semi-volatile organic compounds. Groundwater samples showed high concentrations of metals including arsenic (62 ug/l and selenium at 28 ug/l), and chromium, lead, and copper as high as 1,200 ug/l, 2,300 ug/l, and 1,900 ug/l, respectively.

HEALTH AND ENVIRONMENTAL IMPACTS

- **Primary public health and environmental concern is to Groundwater.**

The site is located within two miles of the city of Ankeny, which receives some of its drinking water from a well that is located 1.7 miles northeast of the site. The nearest residential well is located 1/2 mile west of the landfill. The Des Moines Water Works obtains part of its raw water from an intake located approximately five miles south of the site. The landfill is bordered on the southwest by an upper tributary of Saylor Creek, which passes through the Margo Frankel Woods State Park two miles south of the complex and discharges into the Des Moines River approximately 4.7 miles downstream from the site.

SUMMARY OF ASSESSMENT, MONITORING OR REMEDIAL ACTIONS

The EPA is the lead agency for the site. The initial site investigation was performed in July 1987. On March 4, 1991, the city of Ankeny imposed a moratorium on all development on approximately 200 acres of a proposed industrial park development (including the registry site). The moratorium will remain in effect until the completion of remedial action or until EPA determines the development of the area presents no public health threat.

The U.S. Army Corps of Engineers, Omaha District, conducted a PA/SI in 1998 on the former Des Moines Ordnance Plant on behalf of the Department of Defense. Remedial action for the John Deere Des Moines Works is being conducted under EPA Region VII/ RCRA authority and oversight.

The EPA conducted an Extended Site Investigation (ESI) at the landfill site in the summer of 2003.

2005: The Environmental Protection Agency Region 7 with the assistance of the IDNR completed two rounds of soil and sediment sampling during the summer and fall of 2005. Results indicate significant and widespread metal contamination specifically lead, chromium, and copper. The EPA is currently writing an order, which will require John Deere, the City of Ankeny, and the Army Corps of Engineers to assess/remediate the site.

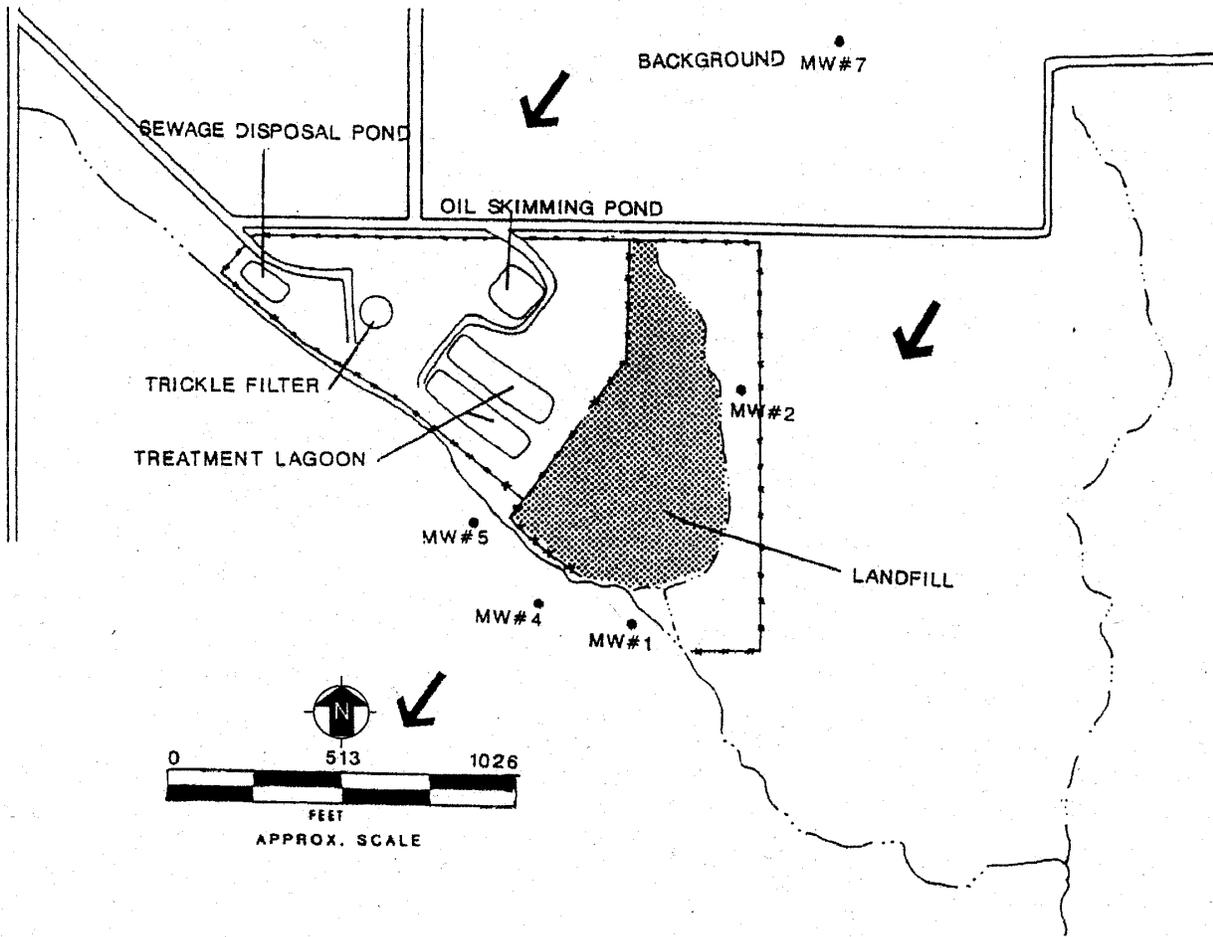
2006: In March of 2006 EPA issued an Administrative Order on Consent ("Order") to implement a removal action at the Landfill and Lagoon Complex. This action is being taken pursuant to the authorities set forth in Sections 104, 106(a), 107 and 122 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. ~ 9604, 9606(a), 9607, and 9622. EPA is offering the parties an opportunity to negotiate this Order to come to a mutually acceptable agreement that will provide for the removal response activities necessary to address the threats posed by contamination in and around the Landfill and Lagoon Complex. EPA is providing an opportunity to the City of Ankeny, John Deere, and the U.S. Army Corps of Engineers, as the responsible parties for the Landfill and Lagoon Complex, to negotiate the Order that will require the performance of removal activities.

2007: The EPA continues to negotiate with John Deere, the City of Ankeny and the U.S. Army to finalize the Administrative Order on Consent with no progress made in 2007. All assessment and remedial activities are on hold until the order is finalized.

2008: EPA completed negotiations with John Deere, the City of Ankeny and the U.S. Army to finalize the Administrative Order on Consent. The environmental site assessment will be completed in the spring of 2009 with the remedial actions to follow during the summer of 2009.

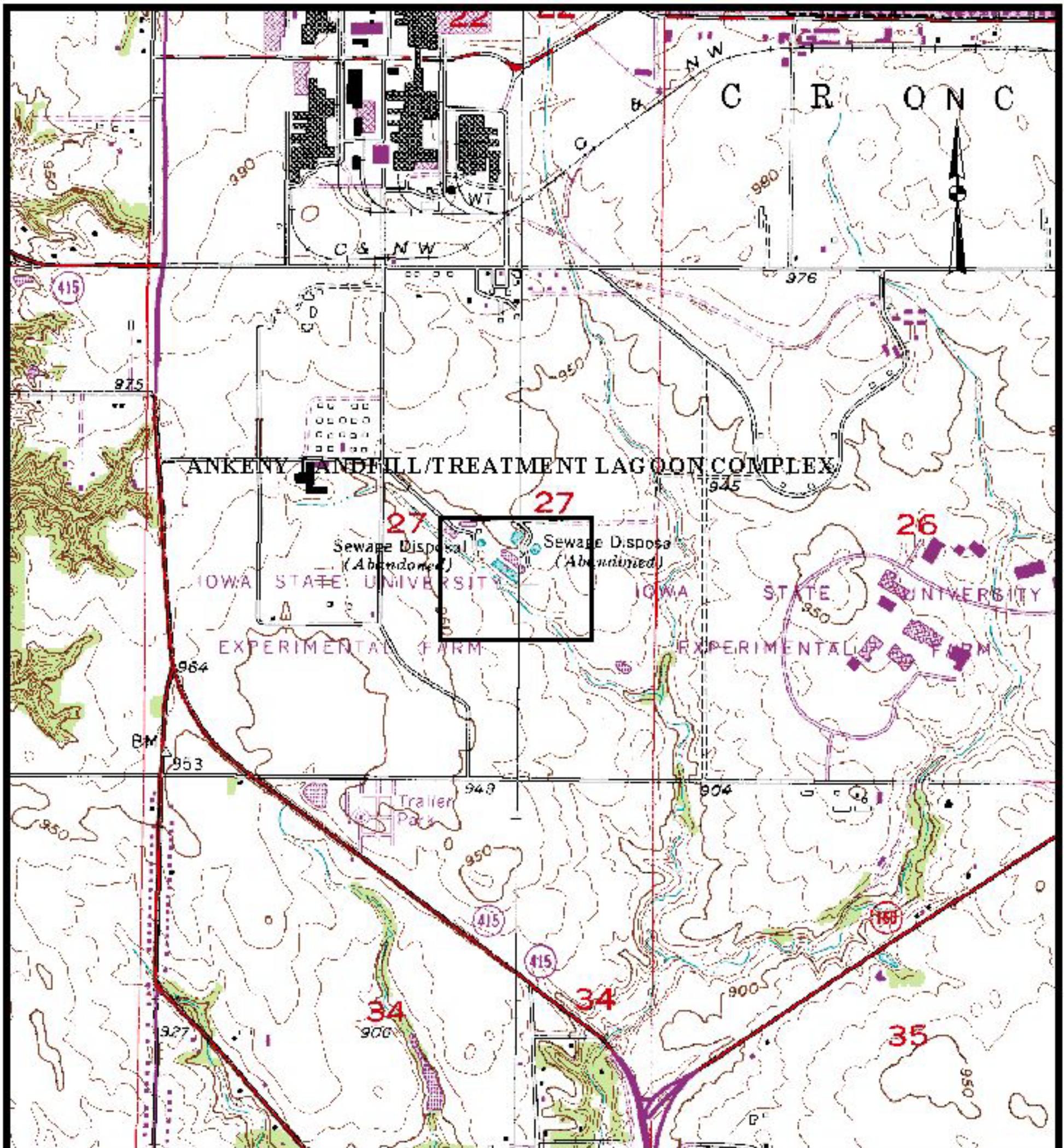
2009: The final landfill cap is in place and ready for EPA and IDNR inspection once the snow melts off the site. All of the contaminated soil in and around the lagoons has been removed from the site. Final site grading and vegetative covering is complete converting the former landfill and lagoon site into a city park.

2010: All environmental activities are complete and EPA has approved the site closure and long term operation and maintenance (O&M) plan for the landfill cap. The O&M plan includes maintenance to the cap such as controlling surface erosion and mowing along with semiannual monitoring of the shallow and deep groundwater aquifers. Groundwater monitoring is done for a period of 30 years and results are used to show the cap is containing the contaminants in place. After 30 years (the year 2040), if the groundwater monitoring indicates no problems, the City of Ankeny can discontinue all O&M activities.



Legend
 MW#9 Monitoring well
 ↙ Groundwater flow direction

(Ankeny Landfill Lagoon Complex)



Contour Interval 10 Feet

