CON: 12-15
Doc # 31032

Site Name: Ankeny Sanitary Dump - East, Ankeny, Iowa

Initial Site Screening (ISS)

Project Manager: Daniel Cook

Date: June 12, 2015

☐ **3931 - Phase II Assessment Review – Brownfield Funded**
Phase II submitted as part of standard real estate development, pre-purchase agreement, or other due diligence, not a part of a community grant project, or

☐ **3837 - Phase II Assessment – Brownfield Grant Funded**
Phase II submitted as part of an EPA grant funded community-wide or targeted assessment project – see Mel Pins if questions on this determination, or

☒ **3321 - Phase II Assessment Review – CERCLA Pre-Remedial Funded**
Phase II submitted that is not part of a real estate transaction

Location:
Latitude: 41.707062 *Longitude: -93.554788*
(Decimal Degree format)

County:
Polk

USGS Quadrant:
Des Moines NE

Site Size:
20.47

Site Dimension: ☒ Acres ☐ Square Feet ☐ Feet ☐ Square Miles ☐ Miles

Site Alias Name(s):
None

Congressional District:
3

Grant Recipient Name, Address & Contact:
NA

Current Owner & Address:
Beverly J Bianchi, 504 SW Cherry St, Ankeny, IA 50023

Responsible Party Name(s) & Address, if different from current owner:
City of Ankeny, Iowa

Site Street Address or Tier, Range, Section & Subsections (if street address is unknown)
South ½ of the NE ¼ SW ¼ & South ½ of the NW ¼ SE ¼ lying west of NE Berwick Drive in Section 29, Township 80, Range 23, Polk County, Iowa

Directions to site:
From Interstate 35 in Ankeny take exit 90 to State Hwy 160 and go east on Hwy 160 for 1.2 miles. Go north on NE Berwick Drive for ¼ mile and the site will be on the west side of the road. (See Figure 1)

Summarize the site history (past usages, past ownerships, wastes, known or suspected contamination pathways such as tanks, septic tank/tile field, lagoon, land applications, S.W. burial, etc)
Prior to 1964 the site consisted of 20 acres of pasture that was approximately 50 percent forested with no history of any improvements other than possibly small sheds for livestock.

Under a November 6, 1961 lease agreement with the City of Ankeny, a portion of the site was used as a municipal dump from 1964 through 1967. When the dump closed it was capped and the site was returned to agricultural use. The current owner is not the property owner (lessor) that owned the property during the use of the site as a dump.

Today the property remains undeveloped with approximately 70 percent forest and 30 percent tilled.

Underground utilities are found on the eastern boundary of the property along NE Berwick Drive but there are no private hookups on the property. There are no water, storm water drains, or sanitary sewer systems on the property.

Briefly describe the site assessment that was conducted (number of borings, monitoring wells, number of samples, depth of soil samples and monitoring wells, analysis, etc.)
Three soil boreholes were drilled to analyze the soil across the site. Boring B-1 was drilled to 25 feet below the surface and boring B-2 and B-3 drilled to 20 feet deep. Soil descriptions and photoionization detector (PID) readings were collected and recorded in the boring log for each boring. The two down gradient borings, B-1 and B-3, were located close to the boundaries of the property in the direction of anticipated groundwater flow. Boring B-2 was the considered the background location. A saturated sand seam was noted in the three borings around 16 feet below the surface. Soil samples collected from boring B-1 and B-2 at the groundwater interface were sent to the laboratory and analyzed for RCRA metals using EPA Method 6010B. No sampling was done in the former dump site

The three borings were converted to 2 inch PVC monitoring wells (MW-1, 2 and 3) and were purged and allowed to stabilize prior to groundwater measurements and sampling. The water table was found around 12 feet below the surface in each of the three monitoring wells. Groundwater samples collected from MW-1 and MW-2 were analyzed for volatile organic compounds (VOCs) using EPA Method 8260B.. The groundwater sample collected from MW-3 was analyzed for semi-volatile organic compounds (SVOCs) using EPA Method 8270C. The elevation of the wells were not surveyed in so groundwater flow was not determined but was estimated to be to the west-southwest towards Hickory Lake directly to the southwest of the site. See Figure 2 for the soil boring and monitoring well locations.

Summarize the findings and conclusions regarding the contaminants found and their extent and concentrations. Relate those values to known criteria such as action levels, MCLs, water quality standards, background levels or other benchmarks used to determine site priority.
The soil samples were collected from the southwest corner (B-1) and north central area (B-2) of the property and analyzed for RCRA metals. Cadmium, mercury,

selenium and silver, were not detected above the laboratory method detection limits. Barium, chromium, and lead were detected in both soil samples B-1 and B-2 but at levels below their respective Statewide Standards for soil. Arsenic was detected in B-1 at 2.9mg/kg and B-2 at 5.7mg/kg with the Statewide Standards for soil at 1.7mg/kg or 17mg/kg as an accepted background level statewide. The levels of arsenic found at B-1 and B-2 are typical of naturally occurring levels found throughout the State of Iowa.

Groundwater samples were collected from monitoring wells MW-1 and MW-2 and analyzed for VOCs only. In MW-1 benzene was detected at 8.6ug/L with the action level at 5ug/L. Chloroethane, 1,2 dichloroethane, 1,1,2-trichloroethane, chlorobenzene, 4-methyl 2-pentanone, and 1,2-dichlorobenzene were also detected in MW-1 above the method detection limit but below the action levels for groundwater. No VOCs were detected above the method detection limit in monitoring well MW-2. Bis(2-ethylhexyl)phthalate was the only SVOC detected in monitoring well MW-3 at 20ug/L with the action level at 6ug/L. Bis(2-ethylhexyl)phthalate is commonly known as DEHP and is used in the production of polyvinyl chloride (PVC) piping and other plastics.

Identify on-site or off-site potential and actual targets (e.g., municipal wells, private wells, drinking water intakes). What is known of the neighboring area, i.e., are there residences, businesses, public use areas, etc.? Are there utility lines that could be impacted by site contaminants? Identify any other use/location issues that deserve consideration.

The subject property is found within a 20 acre undeveloped parcel used for livestock grazing and row crops. The parcel bordering to the west contains a five acre private lake (Hickory Lake) with four housing units along the western shoreline. The dump site is within 250 feet of Hickory Lake and the surface water drainage from the dump site flows into the lake. Groundwater flow has also been estimated to flow towards the lake. Areas directly to the west and north of Hickory Lake are heavily developed as a residential area. Parcels to the east and south of the site are generally used for agriculture purposes and/or low density housing.

One private well is located within ¼ mile of the site and is listed as household use. Nine private wells are between ¼ and ½ mile with seven of them listed as household use and two for heat pumps (geothermal). No municipal wells or intakes are found within ½ mile. See Figure 3 for the private wells locations.

The underground utilities are found 1,000 feet to the east of the former dump site along NE Berwick Drive.

Rate the site on a scale of 1 to 4, in decreasing order of severity or priority.

2

Summarize the reasoning, knowledge or any other information used in determining your recommendation regarding the priority assigned to this site.

The site is a known disposal site warranting further evaluation. VOCs may have been disposed of in the dump site with the possibility of uncontrolled leachate impacting the groundwater. Iowa Code 455B.304.13 grants an exemption for municipal landfills that closed prior to July 1, 1992 for post closure leachate controls and for the revocation of the exemption if leachate is found.

Benzene was detected in MW-1, located 250 feet from the dump site, at 8.6ug/L with the action level at 5ug/L. Chloroethane, 1,2 dichloroethane, 1,1,2-trichloroethane, chlorobenzene, 4-methyl 2-pentanone, and 1,2-dichlorobenzene were detected above the method detection limit but below action levels for groundwater. Although the benzene was the only VOC detected above an action level the concern is the contaminants may be leachate from the dump site.

With the surface water flow and potentially the groundwater flow towards Hickory Lake, a surface water sample may need to be collected and analyzed for the chemicals of concern.

The SVOC bis(2-ethylhexyl)phthalate was found at monitoring well MW-3 above the groundwater action level but VOCs were not tested for at MW-3. Additional testing for VOCs is needed at MW-3 to determine if dumping occurred in other locations on the property. Historic aerial photos show the area around MW-3 was disturbed at the same time the dump site was in use. See Figure 4 for the areas with disturbed soil.

Site recommended for:

- ☐ No further action
- ☐ Additional investigation under state program (activity code 2824)
- ☒ Additional investigation under CERCLA (Extended Site Screening)
- ☐ Transfer to LUST/UST

Form Reviewed: Cal Lindberg **Date Reviewed:** 6/29/15

Revised 3/2015

PRE-CERCLIS SCREENING ASSESSMENT CHECKLIST/DECISION FORM

This checklist can assist the site investigator during the Pre-CERCLIS screening. It will be used to determine whether further steps in the site investigation process are required under CERCLA. Use additional sheets, if necessary.

Checklist Preparer: Daniel Cook (Name/Title) 06/09/2015 (Date)
502 E 9th Street, Des Moines Iowa 50319 (Address) 515-725-8371 (Phone)
dan.cook@dnr.iowa.gov (E-mail Address)

Site Name: Ankeny Sanitary Dump - East

Previous Names (if any):

Site Location: 8130 NE Berwick Drive
Ankeny (City) IA (ST) 50023 (Zip)

Latitude: 41.707062 **Longitude:** -93.554788

Compare the following checklist. If "yes" is marked, please explain below.	YES	NO
1. Does the site already appear in CERCLIS?	☐	☒
2. Is the release from products that are part of the structure of, and result in exposure within, residential buildings or businesses or community structures?	☐	☒
3. Does the site consist of a release of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found?	☐	☒
4. Is the release into a public or private drinking water supply due to deterioration of the system through ordinary use?	☐	☒
5. Is some other program actively involved with the site (i.e., another Federal, State, or Tribal program)?	☐	☒
6. Are the hazardous substances potentially released at the site regulated under a statutory exclusion (i.e., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)?	☐	☒
7. Are the hazardous substances potentially released at the site excluded by policy considerations (e.g., deferral to RCRA Corrective Action)?	☐	☒
8. Is there sufficient documentation that clearly demonstrates that there is no potential for a release that could cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance release have occurred, EPA approved risk assessment completed)?	☐	☒

Please explain all "yes" answer(s), attach additional sheets if necessary:

Site Determination:

☐ Enter the site into CERCLIS. Further assessment is recommended (Explain below).

☐ The site is not recommended for placement into CERCLIS (Explain below).

☒ Further assessment is recommended under PRE-CERCLA (Explain below).

DECISION/DISCUSSION/RATIONALE:

The site is a known disposal site warranting further evaluation. VOCs may have been disposed of in the dump site with the possibility of uncontrolled leachate impacting the groundwater. Iowa Code 455B.304.13 grants an exemption for municipal landfills that closed prior to July 1, 1992 for post closure leachate controls and for the revocation of the exemption if leachate is found.

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Regional EPA Reviewer:

Print Name/Signature _____ Date _____

State Agency/Tribe:

CAL LUNDBERG Cal Lundberg 6/29/15

Print Name/Signature Date

REGION VII
U.S. ENVIRONMENTAL PROTECTION AGENCY

ENFORCEMENT SENSITIVE INFORMATION
FOR INTERNAL USE ONLY

LOCATION FORM - *(Required information highlighted in red)*

SITE NAME: 8130 NE Berwick Drive **EPA ID:** NA

Latitude: 41.707062 **Longitude:** -93.554788 **Measurement Sequence:** ____
(Decimal Decree format) (See Comment A)

Lat/Long Source:
☐ Contractor ☐ Dun & Bradstreet ☐ EPA Region 7 ☐ Geograph ☐ Other Federal Agency ☐ Regulated Entity ☒ State
☐ EPA Headquarters ☐ Epic ☐ Other ☐ Private ☐ SNAP ☐ Tribe ☐ Unknown
☐ (Blank)

Designate Lat/Lon: ☒ Primary ☐ NPL Coordinate

Collection Method:
☐ Address Matching -House Number ☐ Address Matching - Block Face ☒ Address Matching - Street Centerline
☐ Address Matching -Nearest Intersection ☐ Address Matching - Primary Name ☐ Address Matching - Digitized
☐ Address Matching - Other ☐ Census Block - 1990 - Centroid ☐ Census Block/Group 1990-Centroid
☐ Census Block/Tract - 1990 - Centroid ☐ Classical Surveying Techniques ☐ Census - Other
☐ GPS Carrier Phase Static Relative Position ☐ GPS Carrier Phase Kinematic Relative Position ☐ GPS, with Canadian Active Control System
☐ GPS Code (Pseudo Range) Differential ☐ GPS Code (Pseudo Range) Precise Position ☐ GPS Code (Pseudo Range) Standard Position (SA-Off)
☐ GPS Code (Pseudo Range) Standard Position Service SA-On ☐ GPS-Unspecified ☐ Interpolation-Digital Map Source (TIGER)
☐ Interpolation-Map ☐ Interpolation -MSS ☐ Interpolation -Photo ☐ Interpolation – Satellite ☐ Interpolation - SPOT
☐ Interpolation-TM ☐ Interpolation - Other ☐ LORAN C ☐ Public Land Survey-Eighth Section ☐ Public Land Survey-Footing
☐ Public Land Survey-Quarter Section ☐ Public Land Survey-Section ☐ Public Land Survey-Sixteenth Section
☐ ZIP+2 Centroid ☐ ZIP+4 Centroid ☐ ZIP Code - Centroid ☐ Unknown

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Reference Point:
☐ Administrative Building ☐ Air Monitoring Station ☐ Air Release Stack ☐ Air Release Vent
☐ Atmos. Emissions Trtmnt Unit ☐ Boundary Point ☐ Building Entrance ☒ Facility/Centroid Cent ☐ Facility/Station Bldg Entrance
☐ Intake Point ☐ Lagoon or Settling Pond ☐ Liquid Waste Treatment Unit ☐ Loading Area Centroid ☐ Loading Facility
☐ Monitoring Point ☐ NE Corner of Land Parcel ☐ NW Corner of Land Parcel ☐ Other ☐ Plant Entrance (Freight)
☐ Plant Entrance (General) ☐ Plant Entrance (Personnel) ☐ Process Unit Area Centroid ☐ Process Unit ☐ SE Corner of Land Parcel
☐ Solid Waste Storage Area ☐ Solid Waste Trtmnt/Disp. Unit ☐ Storage Tank ☐ SW Corner of Land Parcel ☐ Unknown
☐ Water Monitoring Station ☐ Water Release Pipe ☐ Well ☐ Well Protection Area ☐ Release Point ☐ Treatment/Storage Plant

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Reference Datum: ☐ NAD27 ☒ NAD83 ☐ Other ☐ Unknown ☐ WGS84

Accuracy Meters +/-: ____ ☐ **Accuracy Unknown** **Collection Date:** ____/____/____

Verification Method:
☐ Ground Truth Conducted ☐ Point in Polygon (Zip) ☐ Proximity to Polygon Centroid(Other) ☐ Verified Relative to Map Features (1:100K/Tiger) ☐ Verified Relative to Map Features (Other) ☐ Proximity to Polygon Centroid (County)
☐ Point In Polygon (County) ☐ Proximity to Alternative Facility Coordinate) ☐ Proximity to Polygon Centroid (Zip Code) ☐ Verified Relative to Map Features (1:24K) ☐ Verified, Unknown Method ☐ Point in Polygon (Other)
☐ Blank ☒ Not Verified

Point/ Line/ Area: ☐ AREA ☐ LINE ☒ POINT ☐ REGION ☐ ROUTE ☐ (BLANK)

Source Map Scale: ☒ 1:10,000 ☐ 1:12,000 ☐ 1:15,840 ☐ 1;20,000 ☐ 1:24,000 ☐ 1:25,000 ☐ 1:50,000
☐ 1:62,500 ☐ 1:63,360 ☐ 1:100,000 ☐ 1:125,000 ☐ 1:250,000 ☐ 1:500,000 ☐ NONE ☐ UNKNOWN
☐ OTHER____

COMMENTS:____

Signatures:

RPM/OSC: _____ **Date:** ___/___/___ **BRANCH CHIEF:** _____ **Date:** ___/___/___

A) A sequential number to indicate the order in which points on a line or area are connected. For an area, the maximum point is connected to the first. Required if the feature is polygonal or linear 3 numeric.

REGION VII U.S. EPA SUPERFUND
NO DISCOVERY DATE

PRE-CERCLIS INITIATION FORM
NPL Status = O-NOT A VALID SITE OR INCIDENT

Site Name: Ankeny Sanitary Dump - East **Identified By:** ☐ Removal ☒ Site Assessment ☐ Federal Facilities ☐ States ☐ Other Federal Agency Check if: ☐ FUD Site

Address: 8130 NE Berwick Drive **County Name:** Polk

City, State, Zip: Ankeny, IA 50023 State ID (if one exists): 2340 Congressional District: 3

NPL Status: = : Not a Valid Site or Incident **Federal Facility Indicator:** ☐ Federal Facility ☒ Not a Federal Facility ☐ Status Undetermined

Section: ☐ C-(STAR) SPFD Technical Assistance/Re-Use Branch ☐ L-(EFLR) Enfr/Fund Lead RV Branch ☐ F-(FFSE) Federal Facilities/Special Emphasis Branch ☐ M-(MOKS) MO/KS remedial Branch ☒ I-(IANE) IA/NE Remedial Branch ☐ O-(ER&R) Emergency Response & RV Branch

List Site Alias Name (s): _____

Directions to Site: From Interstate 35 in Ankeny take exit 90 to State Hwy 160 and go east on Hwy 160 for 1.2 miles. Go north on NE Berwick Drive for ¼ mile and the site will be on the west side of the road.

Site Description: Former municipal dump

USGS Quadrant: Des Moines NE main USGS Hydro Unit: _____

Latitude: 41.707062 **Longitude:** -93.554788
(Decimal Degree format) (with release of 3.17 see attached required location data form)

Lat/Long Accuracy: ☒ Seconds ☐ Miles ☐ Feet ☐ Degrees ☐ Minutes ☐ Kilometers ☐ Meters

Owner Operator Type
- ☐ Bank/Loan Company
- ☐ County Owned
- ☐ District Owned
- ☐ Federally-Owned
- ☐ Former Federally Owned or Operated
- ☐ Former Federally Owned or Operated
- ☐ Government Owned/Contractor Operated
- ☐ Privately Owned/Government Operated
- ☐ Property Defaulted Back to Government
- ☐ Brownfields/Public
- ☐ Municipality
- ☐ Other
- ☒ Private
- ☐ Mixed Ownership
- ☐ State Owned
- ☐ State Owned
- ☐ Trustee, Federal
- ☐ Trustee, State
- ☐ Unknown

Operational Status: ☐ Active ☒ Inactive ☐ Unknown ☐ Blank
Native American Interest: ☐ Yes ☒ No

Non-NPL Status (Choose one):

☒ Not a Valid Site or Incident
☐ Not a Valid Site or Incident: RCRA Lead
☐ Not a Valid Site or Incident: NRC Lead
☐ Not a Valid Site or Incident: State Lead
☐ Not a Valid Site or Incident: Tribal Lead

Add Action: OU 00
PRE-CERCLIS SCREENING: **Planned Complete:** 06/09/2015

Actual Complete: 06/09/2015

Lead code (choose one)
☒ F-EPA Fund Financed ☐ FF - Federal Facility ☐ S - State, Fund Financed

SCAP Note: _____

Add below Action (if No Further Action):
OU 00 Lead: EP
☐ PRE-CERCLIS ARCHIVE Actual Complete: ____/____/____
SCAP Note: _____
Comments: ☐ Site or ☐ Action: _____

Signatures:
States: _____ Date: 6/29/15 RPM/OSC/SAM: _____ Date __/__/__

(NOTE: Data analysts will send form to records center after data entry and QA.)

Site Type: (Choose all that apply - for every main category chosen in bold at least one sub- category must be selected; if more than one and sub-category is selected indicate which is primary):

Primary Designation: _____

☐ **MP-Manufacturing/Processing/Maintenance** - *Applicable sub-categories:*
- ☐ CA-Chemicals and allied products
- ☐ CG-Coal gasification
- ☐ CP-Coke production
- ☐ EP-Electric power generation and distribution.
- ☐ FT-Fabrics/textiles
- ☐ EE-Electronic/electrical equipment
- ☐ LW-Lumber and wood products/pulp and paper
- ☐ WP-Lumber and wood products/wood preserving/preserving/treatment
- ☐ MF-Metal fabrication/finishing/coating and allied industries
- ☐ OR-Oil and gas refining
- ☐ OP-Ordnance production
- ☐ PR-Plastics and rubber products
- ☐ PM-Primary metals/mineral processing
- ☐ RA-Radioactive products
- ☐ TA-Tanneries ☐ OT-Other-Description(needed):_____
- ☐ TS-Trucks/ships/trains/aircraft and related components

☐ **MI-Mining** - *Applicable sub-categories*
- ☐ CO-Coal ☐ ME-Metals ☐ NM-Non-metal minerals
- ☐ OG-Oil and Gas ☐ OT-Other-Description(needed):_____

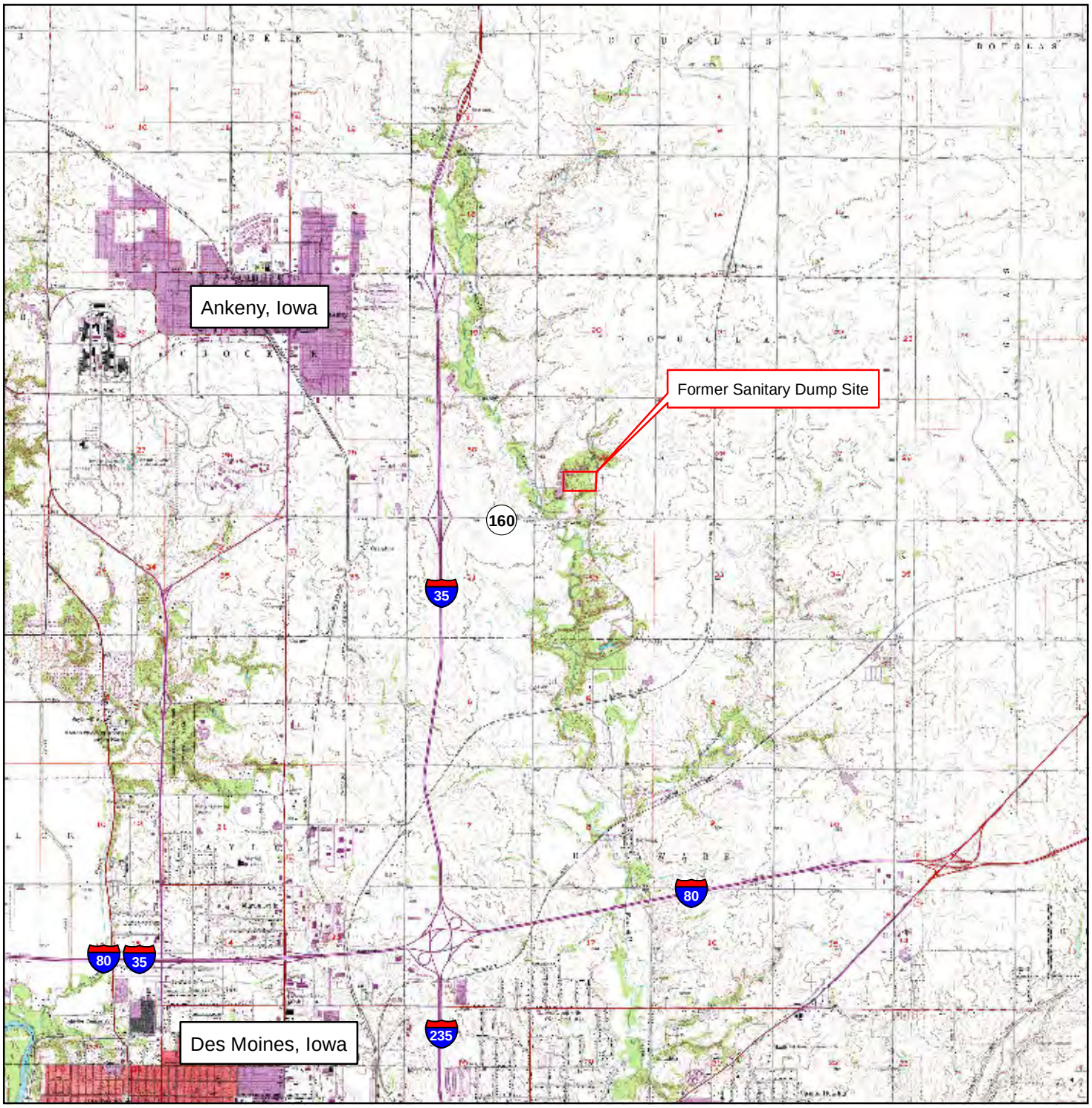
☒ **WM-Waste Management** - *Applicable sub-categories*
- ☐ CL-Co-disposal landfill (municipal and industrial)
- ☐ ID-Illegal disposal/open dump
- ☐ IF-Industrial waste facility (non-generator)
- ☐ MD-Mine tailings disposal ☐ OT-Other-Desc.(needed):_____
- ☒ ML-Municipal solid waste landfill
- ☐ RW-Radioactive waste treatment, storage, disposal (non-generator)

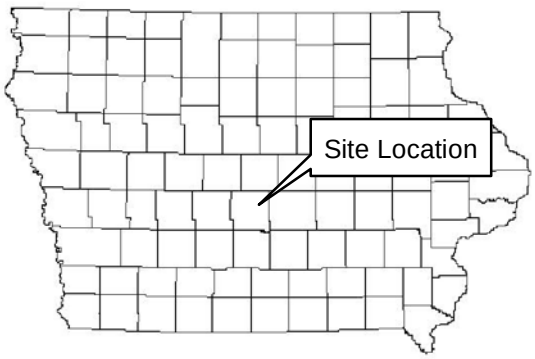
☐ **OT-Other** - *Applicable sub-categories*
- ☐ AG-Agricultural (e/g.,grain elevator)
- ☐ CS-Contaminated sediment site with no identifiable source
- ☐ DC-Dust control ☐ OT-Other-Desc (needed):_____
- ☐ GP-Ground water plume site with no identifiable source
- ☐ MO-Military/Other Ordinance
- ☐ PS-Product Storage/distribution
- ☐ RD-Research,development,and testing facility
- ☐ RC-Retail/commercial
- ☐ SE-Spill or other one-time event
- ☐ TP-Transportation (e.g., railroad yards, airport, barge docking, site)
- ☐ TW-Treatment works/septic tanks/other sewage treatment

☐ **RE-Recycling** - *Applicable sub-categories*
- ☐ AT-Automobiles/tires ☐ DT-Drums/tanks ☐ WO-Waste/used
- ☐ BS-Batteries/scrap metals/secondary smelting/precious metal recovery
- ☐ CC-Chemicals/chemical waste (e.g., solvent recovery)
- ☐ OT-Other-Description(needed):_____

Updated by The Newberry Group/Last Update: 01/08/2008

Updated by Systems Research Group 03MAR06





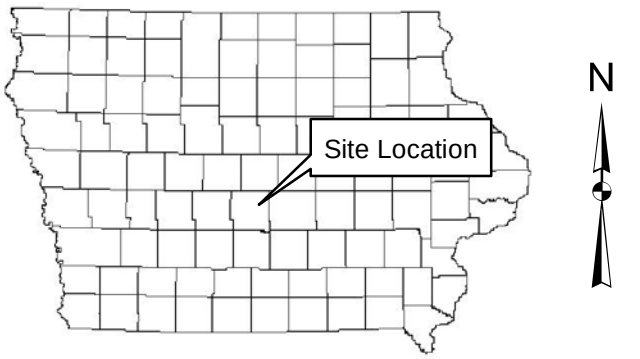
N

0 1 2 3 4
Miles

Iowa Department of Natural Resources

Ankeny Sanitary Dump - East
8130 NE Berwick Drive
Ankeny, Iowa 50021

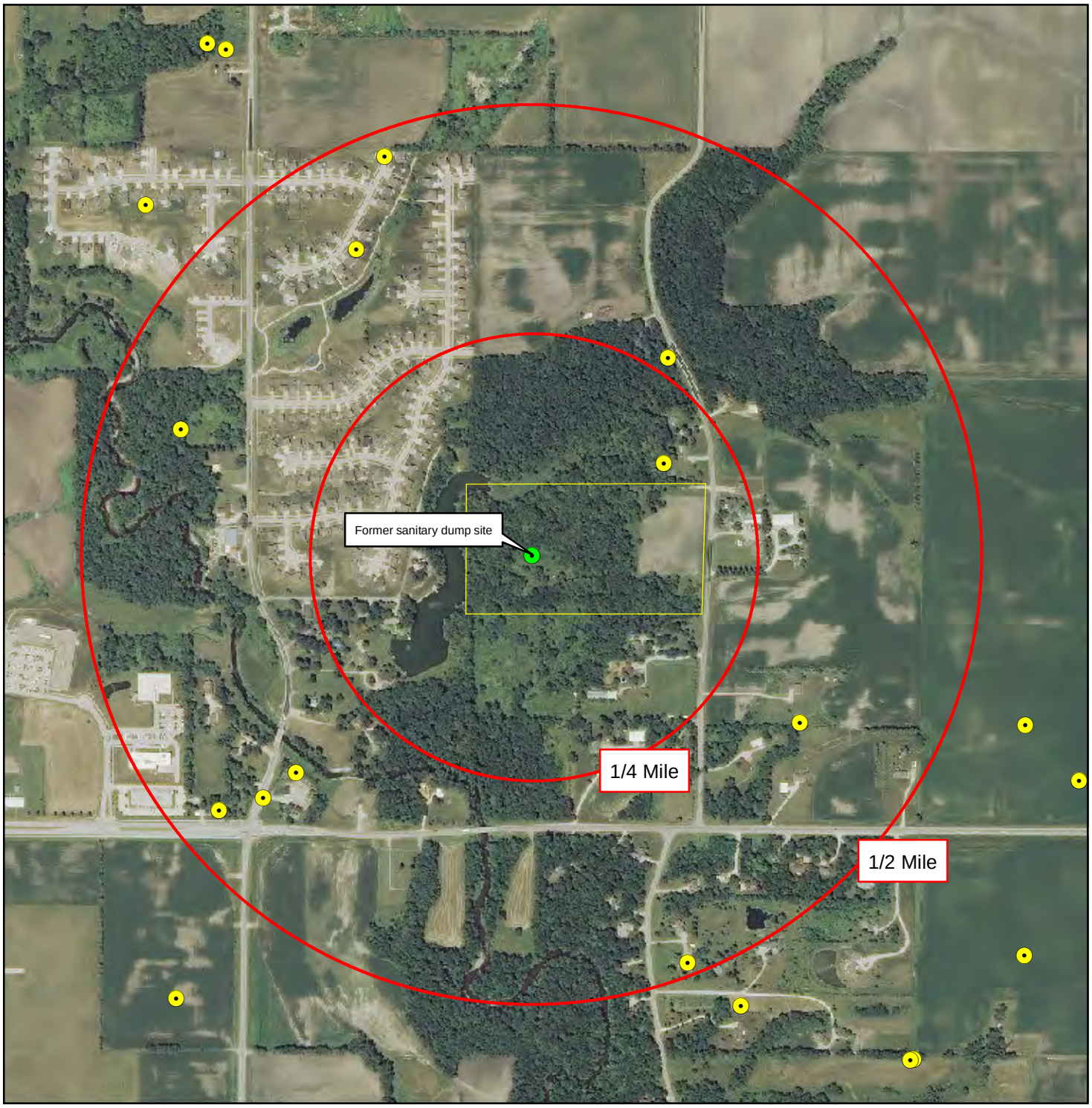
Location
Figure 1

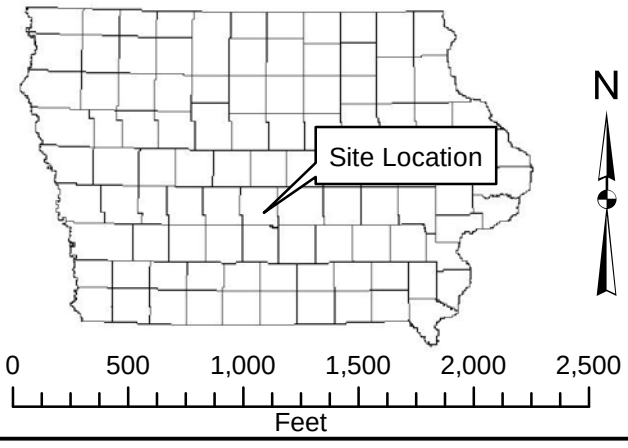


Iowa Department of Natural Resources

Ankeny Sanitary Dump - East
8130 NE Berwick Drive
Ankeny, Iowa 50021

Soil Boring/Monitoring Well Location
Figure 2

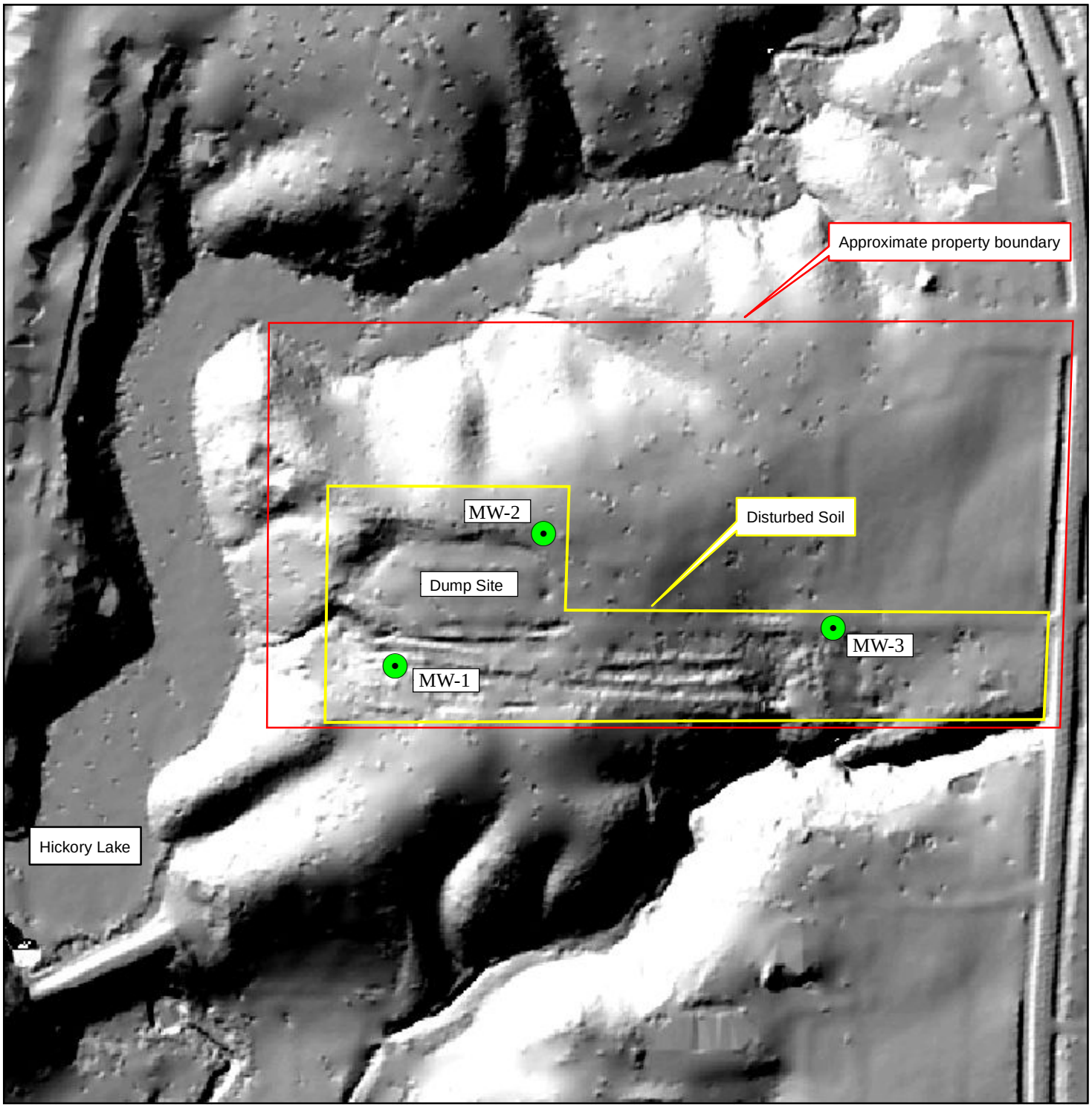


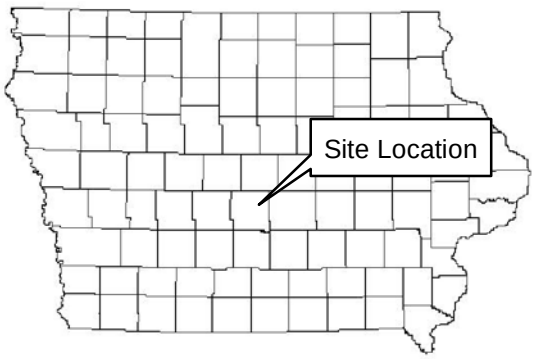


Iowa Department of Natural Resources

Ankeny Sanitary Dump - East
8130 NE Berwick Drive
Ankeny, Iowa 50021

Private Wells
Figure 3





Iowa Department of Natural Resources

Ankeny Sanitary Dump - East
8130 NE Berwick Drive
Ankeny, Iowa 50021

2006 LIDAR Topographic
Shaded Relief Image
Figure 4