

IOWA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL SERVICES DIVISION

Field Office 6,
1023 West Madison, Washington, IA 52353-1623
Tel: (319) 653-2135 Fax: 2856

REPORT OF INVESTIGATION

INVESTIGATION DATES: Current: 4-13-2010
Last Inspection:

TO: Bob Palla
Wastewater Engineering
DNR
Des Moines

PERSONS CONTACTED:
Adam Kirchau, Facility Manager

RE: Wastewater Site Survey for Land Application Fields
Facility # 6-90-00-1-05
Work Request # 2030

INSPECTOR:

Paul Brundt

DATE:

4-27-10

REVIEWER:

James T. Stevens

DATE:

4-27-10

DISTRIBUTION: FIELD OFFICE: CENTRAL OFFICE

OBSERVATIONS/RECOMMENDATIONS:

On 4-13-2010, I conducted a wastewater site survey at Chamness' Eddyville facility. Purpose of the survey was to check on several new areas for wastewater land application. There were 3 areas located several miles south of the Chamness facility near HWY 34 in Wapello County, designated as areas C-36, C-37 and C-38. Mr. Kirchau also showed me 2 areas adjacent to the Chamness facility which I did not have paper work for at this time.

The site survey was conducted using the separation distances taken from the Iowa Wastewater Facilities Design Standards, Chapter 21.

The Design Standards, 21.2.1 requires 1000' from any shallow public water supply well; 500' from any public lake or impoundment and half a mile from any public lake or impoundment used a raw water source by a potable water supply.

There are no public water supply wells, nor any public lakes or impoundments in this area.

Section 21.1.1.2 of the design standards requires:

- A. 300' of dwellings or public use areas (roads are not public use areas)
- B. 50' of property lines if surface applying or possibly less if injecting
- C. 400' of potable water wells not on the property
- D. 300' of a structure, continuous flowing stream, or other physiographic feature that may provide direct connection between the ground water table and the surface.

Page 2

The three sites near HWY 34, C-36/37/38, are located in sections 29, 31 & 19 of T72N and R15W of Wapello County. These are all large tracts ranging from 190 to 275 acres. They are very rolling terrain, mostly pasture, with no row crop on them. All have creeks, waterways and hills at some point on the property. Some of the flatter, upland areas will be suitable for land application, but other portions will not be. Compliance with the above noted design standards and the NPDES operating permit will require proper management of these areas with respect to separation distances and application practices.

We also looked at two sites adjacent to the Chamness facility. One is located directly west across the county line road in Monroe County. This is a large site in the eastern half of section 24, T73N and R16W, Monroe County. This ground was corn last year and will be beans this year. Much of it is flat, but the NE corner is somewhat rolling and has terraces and tile intakes. The western side is somewhat rolling and has grassed waterways rather than terraces/tiles. There is a farmhouse along the south side of the section that is not part of the property. Overall, there is a lot of useful ground here, but the sloping areas must be avoided.

The other site is directly south of the facility and could be described roughly as the SW $\frac{1}{4}$, section 19, T73N and R15W of Wapello County. This site and the one above are owned by the same person. This is similar to the one above in that a lot of it is flat, but the NE portion of the site is rolling ground with terraces and tile intakes.

I have included maps and aerial photos of these two sites.

All of the 5 sites have useful areas for land application, and areas that are unsuitable. This becomes an issue of proper site management for maintaining the required separation distances and proper application practices to avoid any wastewater runoff.

J:/pbrandt/ww/chamn0410-roi