

Identifying Preferred Locations for Livestock Feeding Facilities with Geospatial Technology

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Enhancement of the livestock industry is a popular and broad long-term goal for many communities in North Dakota. Specific short-term needs must be met for progress.

For a livestock feeding facility to be successful, specific criteria must be identified. Water supplies, land availability, open space, low population density, local ordinance setbacks and other environmental concerns are important considerations to address.

Geospatial technology is one tool that can be used to address most of these issues. Using geographic information systems (GIS) software, spatial data layers can be overlain on a map. Data layers of identified livestock feeding facility considerations can be mapped on top of one another to help identify prime locations for feeding facilities. Figure 1 is an example of how water concerns and existing facilities can be mapped against preferred areas for livestock development.

Once the maps are completed, communities can utilize them to help plan for and identify areas of emphasis. North Dakota State University Extension can assist communities with geospatial mapping.

Possible Feed Lot Locations Foster County

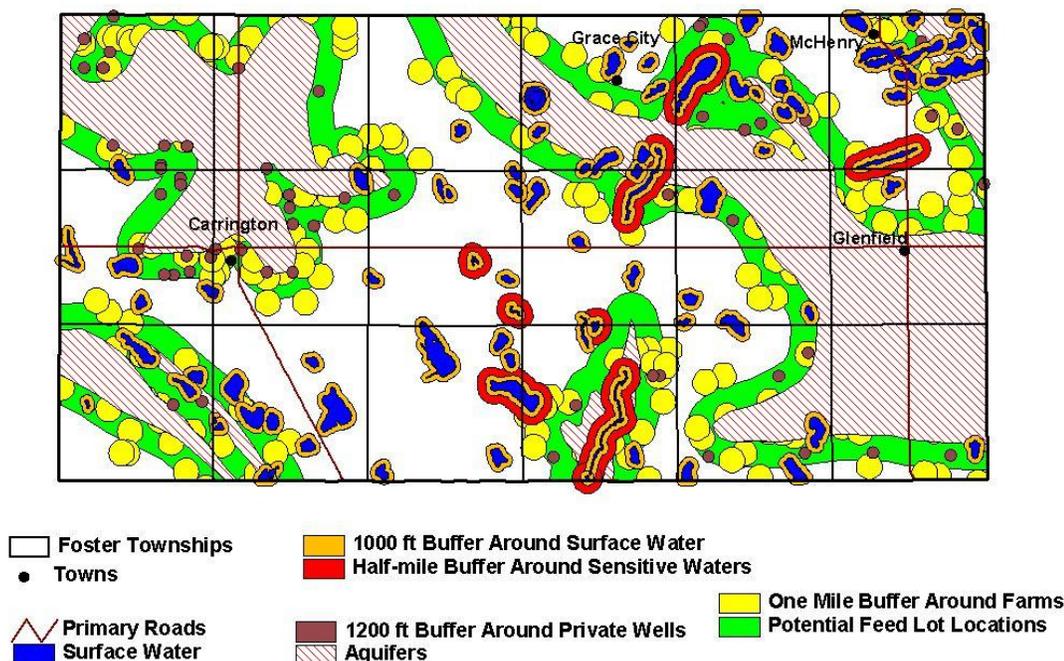


Figure 1. GIS map showing potential feed lot locations for Foster County ND. Livestock feeding facilities can be located anywhere in the county except within the mapped setbacks. Potential livestock feeding locations are mapped on the edge of the aquifers where there is abundant water supply yet not located right on top of groundwater. The blank areas of the map are also potential areas but water supply needs to be investigated.