

Goodhue County A3 Urban Fringe District Health Impact Assessment



Goodhue County is in the process of changing the land use zone around the incorporated city limits of Red Wing, Goodhue, Zumbrota, Wanamingo, Pine Island, Kenyon, Cannon Falls, Lake City and Dennison from an Urban Fringe District to one of two types of Agricultural Districts. The differences between the Urban Fringe Zoning District and the Agricultural Districts are housing density, and some conditionally permitted activities.

Health was not being considered as a factor for this proposed zoning change, even though different types of land use could result in different potential health impacts.

Goodhue County Health and Human Services, in collaboration with Goodhue County Land Use Management, conducted a health impact assessment (HIA) to inform which health impacts to consider when deciding zoning district changes. The HIA brought light to some of the health impacts of these decisions and helped identify ways to mitigate potential negative impacts.

Steps of Health Impact Assessment



Populations impacted by the Project

Residents living in the A-3 Urban Fringe District.

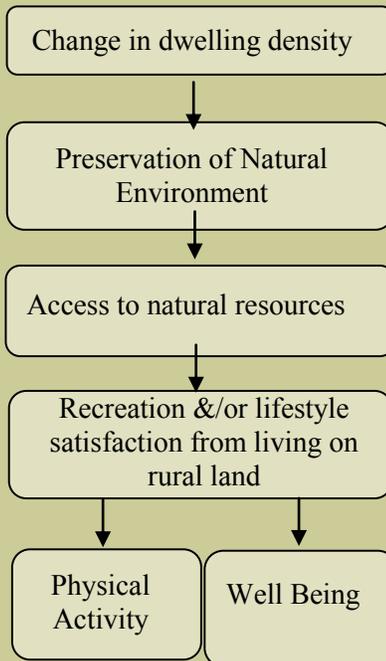
Health determinants impacted by the Project

Mental Well-being; Physical Activity; Physical Health

Decision Makers

The Planning Advisory Commission makes recommendations to the County Board of Commissioners. The County Board of Commissioners will make the final decision about land use.

Natural Resources

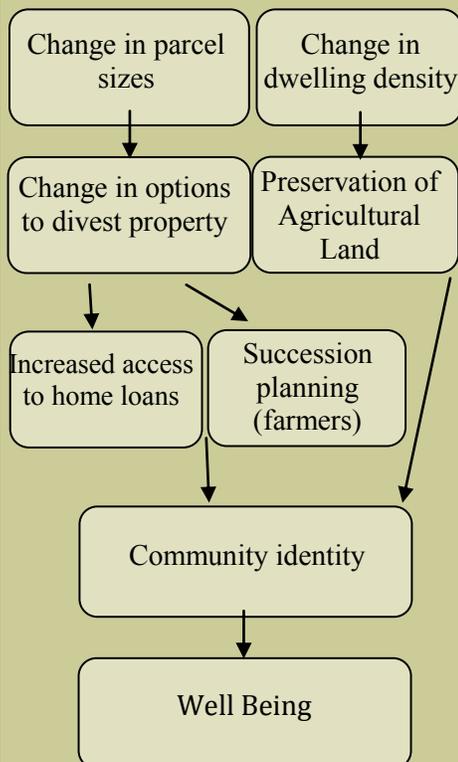


Steering Committee: A steering committee was created in January, 2014 to help guide the HIA process. Committee members included representatives from the townships and cities that would be impacted, as well as representatives from county agencies for Soil and Water Conservation, Land Use Management, and Health and Human Services. The steering committee identified key areas of study, which helped create preliminary pathway diagrams. The HIA team narrowed suggestions down to three final pathway diagrams based on available time and resources. From the pathways, the HIA team created research questions. The steering committee met in April 2014 and finalized the scope of the project by going through the final pathways, amending them slightly and adding some research questions and survey questions.

Methods

Literature Review: A literature review was conducted to understand the relationships between the zoning decision, certain social determinants of health, and specific health outcomes. The health outcomes associated with this Health Impact Assessment are physical activity, well-being, and physical health.

Succession Planning



Survey: Six hundred sixty-three surveys were mailed out to the A-3 Zoning District landowners to inform land owners of the proposed change and ask their opinions about the research questions of interest. Three hundred thirty-eight surveys were returned by the deadline, yielding a response rate of 51%.

Focus Groups: One hundred forty-six survey respondents indicated that they were interested in participating in a focus group. A sampling approach was used to identify participants with particular opinions on succession planning and land use development, supplemented by an attempt to reflect the overall demographic characteristics of the survey respondents. A total of 29 people participated in the three focus groups that were held- one in Cannon Falls, one in Red Wing, and one in Zumbrota.

Key Informant Interviews: Alliance Bank was contacted to inform the HIA about access to home loans in the rural area. A personal banker answered questions regarding the difference between agricultural loans and conventional mortgages.

Geographic Information Systems (GIS) Analysis: GIS analysis was used to map data for the area such as soils/prime farmland, dwellings, natural resources, split properties, and land sales analyzed.

Major Findings

Housing Development

— [Natural Resources] —

Dwelling Density and Access to Natural Resources and Recreation:

Although survey and focus group findings differed on this topic, an overall review of the findings suggests that there will be limited change in dwelling density, which means there will be no change in utilization of property for natural resources. Survey findings show that Goodhue County residents use their property for recreational activities such as hiking/walking, bird watching, hunting, riding ATVs, and horseback riding. If people are using their property for these activities today, it is anticipated they will continue to do so after the zoning change.

Well-Being:

The focus groups confirmed being able to utilize property for recreation lowers stress levels and enhances well-being. Adversely, other people using their property can lead to stress. Neighbors can use each other's property when it is requested of them, however when non-neighbors impose on property owners it is stressful.

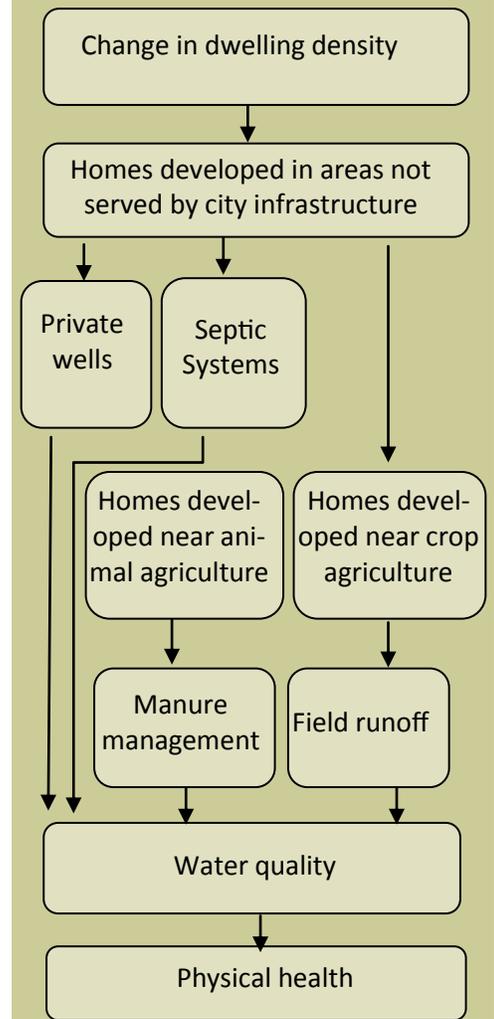
— [Succession Planning] —

Succession Planning:

Survey responses indicated that the zoning change would improve the ability to transfer property to someone else, that transferring property to a family member is important, and that not being able to transfer to family would impact the overall sense of community. A sense of community has a positive impact on the well-being of those who live in the area. The steering committee also confirmed the desire to keep Goodhue County agricultural in nature and preserve the existing sense of community in the rural area.

Dwelling Density and Preservation of Agricultural Land:

There were mixed reviews on whether the proposed changes would make it easier or harder to sell land. Some stated that the smaller lot size will make it easier to sell land and obtain loans. Others stated that the proposed zoning changes would take away from the rural aspect of their property which would then make it harder to sell their land. The prediction is that allowing dwellings to be sited on two acres would allow for more options to divest property. The perception was that allowing smaller tax parcels would lead to more homes being built than what are there currently.



Major Findings cont.

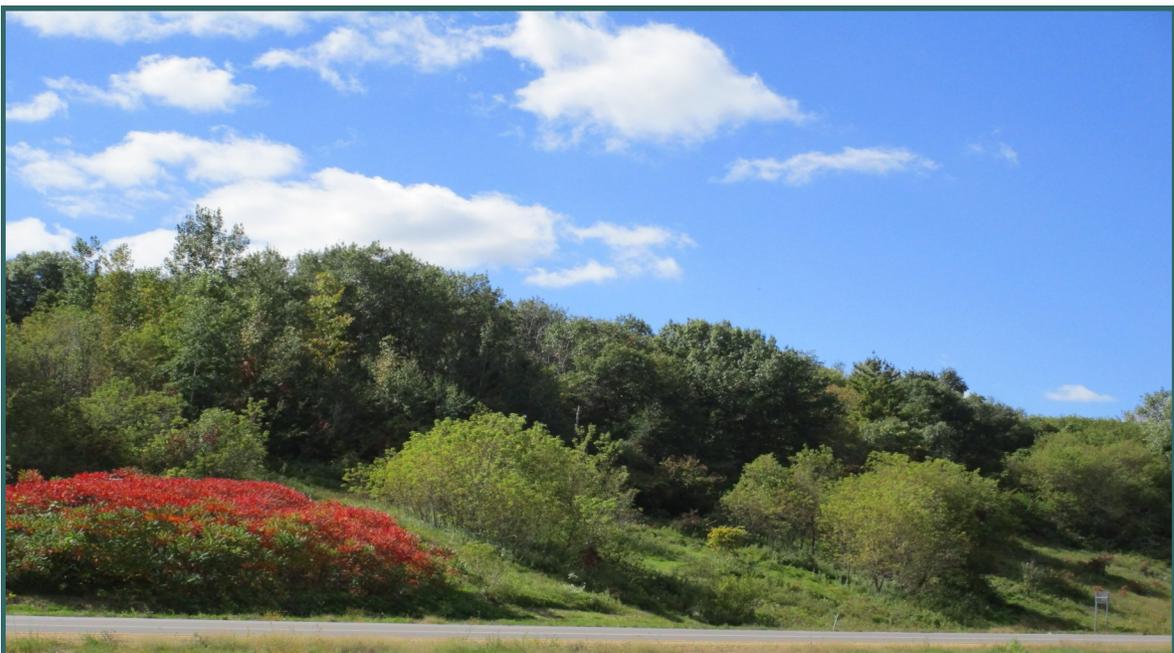
— [Housing Development] —

Homes Developed in Areas Not Served by City Infrastructure: Survey respondents indicated that they were unlikely to sell their property for profit today, and nearly the same percentage reported being unlikely to sell their land for profit if the zoning were to change. This would not support the theory that there could be an increase in houses built. However follow up with the focus group challenged this finding.

Private Wells and Septic Systems: The prediction is that the proposed zoning change will lead to more people building homes in the study area which could lead to an increase in the amount of wells and septic systems. An increase in the amount of wells and septic systems means an increase in the potential for water pollution. Research found that many household products have the potential to pollute ground water. Pollution from these products often occurs from faulty septic tanks and septic leaching fields. Septic systems must be carefully managed to prevent pollution.

Animal Agriculture: Homes developing near animal agriculture may also be at risk for water pollution. Fecal coliform resides in the intestinal tracts of warm-blooded animals including humans. The presence of fecal coliform in drinking water indicates that human or animal waste has been or is present. Fecal coliform in drinking water is a serious concern and appropriate actions should be taken.

Crop Agriculture: Agricultural water is water abstracted from surface and ground water. “Drinking water is vulnerable to pollution by agricultural chemicals, including pesticides, herbicides, fungicides, and fertilizers, as well as their metabolites” (Mott, Fore, Curtis, & Solomon, 1997). In areas where nitrogen-based fertilizers are used, Nitrate can frequently be found in the water.



Recommendations

Natural Resources

- Education to the cities, townships and residents to clarify what the zoning change would mean to residents and landowners. There is a disconnect between what people perceive could happen with what the zoning district would actually allow.
- Maintaining and enforcing zoning ordinances that require setbacks that establish boundaries between neighbors.

Succession Planning

- Maintain agricultural protection standards in the zoning ordinance and the Goodhue County Comprehensive Plan.
- Ensure that density standards are abided by to protect the agricultural districts from becoming over populated.

Housing Development

- Use caution in increasing density in the agricultural sections. Make sure to talk to townships and citizens during the process and attempt to gain consensus prior to increasing density limits. If density limits are increased, enact other measures to preserve agricultural land such as transfer of development rights and encouraging conservation based subdivisions.
- More should be done to increase awareness for property well and septic maintenance. One way could be to create an informative brochure to be given with septic and well permits that advises on proper maintenance techniques and best management practices and to keep such brochure up to date indefinitely.
- Ensure that animal feedlots are utilizing best management practices and adhering to prescribed setbacks when spreading and handling manure.
- Enforcing the required 50 foot buffer on protected waterways will aid in protecting and improving water quality in Goodhue County.

Overall Recommendation

- When deciding what zoning district to apply to the study area decision makers can utilize Appendix G and get recommendations about it from the townships effected.
- The County will need to evaluate the potential effect of the zoning change on other uses not researched in the HIA
- The County will need to address decide how to handle full sections and when a landowner may lose a right to build on their property.

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