

16AMEND1007

Biodigester LDC Text Amendment



Louisville Metro Planning/Zoning, Land Design &
Development Committee

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August 31, 2016

Requests

- Amendments to Chapter 1.2 of the Land Development Code (Definitions)
- Amendments to Chapter 4.2 (Conditional Uses)
- This request is not related to a specific site. It pertains to potential Metro-wide regulations in the Land Development Code that would dictate where biodigesters could be located in the future.

Case Summary / Background

Biodigester Functions

- Uses natural digestion processes to convert biodegradable materials including but not limited to food scraps, yard trimmings and spoiled or outdated food products into biogas, organic solids and liquids.
- Biogas can be cleaned for use as sustainably-produced natural gas or burned to produce electricity.
- Solid and liquid byproducts can be used as a fertilizer.
- Biodigesters may reduce the amount of food waste and other biodegradable materials that are placed in landfills.



Case Summary / Background

Existing Regulations

- Land Development Code (LDC) has no regulations specific to biodigesters.
- Stand-alone biodigesters are interpreted as Non-accessory Alternative Energy Systems (Sec. 4.2.37).
- Allowed with a Conditional Use Permit in the following 18 zoning districts: OR, OR-1, OTF, OR-2, OR-3, CN, C-1, C-2, C-3, C-M, M-1, M-2, M-3, EZ-1, PEC, PRO, W-1, and W-2.
- These uses have standards related to setbacks, Air Pollution Control District review, noise, and screening, all of which are carried over to the proposed biodigester draft amendments.

Case Summary / Background

Metro Council passed an ordinance in February 2016 that:

- Recognized a need for zoning regulations specific to biodigesters;
- Imposed a temporary ban on biodigesters; and
- Requested Planning & Design Staff to research regulations from other communities, produce a draft set of regulations for biodigesters, and hold a public hearing with the Planning Commission.

Research & Community Forums

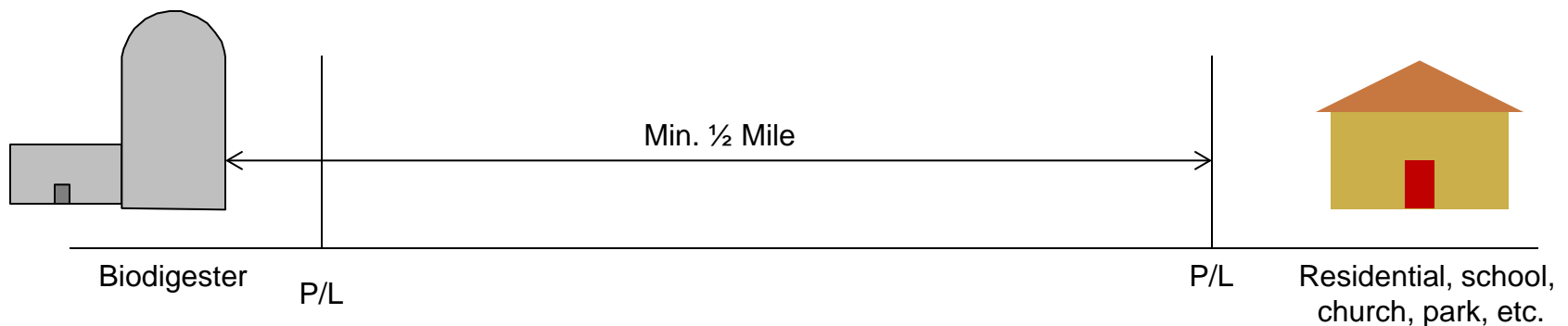
- Research
 - Generally, allowed in Industrial zoning districts, with a Conditional Use Permit (CUP), setbacks, buffering, and separation requirements
 - Separation ranged from 500' to 4,000' from residential uses and some public uses
- Community Forums
 - 6 community forums were held throughout Jefferson County
 - 186 attendees
 - Draft Regulations, Comment Sheets, and Frequently Asked Questions
 - Opportunity for local community members to provide input and ask questions of Staff

Summary of Planning Commission Draft

- Biodigesters require a CUP under the following locational and separation standards:
 - M-3 (heavy Manufacturing) zoning only
 - Minimum of 2,640 feet (1/2 mile) from nearest existing residential use, residentially-zoned property, college, school, institution of learning, religious building, park, playground, community center, hospital, nursing home, or assisted living facility

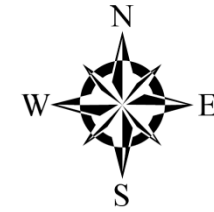
Summary of Planning Commission Draft

- Biodigesters require a CUP under the following locational and separation standards:
 - $\frac{1}{2}$ mile separation can be reduced by the BOZA to no less than 1,320 feet ($\frac{1}{4}$ mile) upon consideration of factors including, but not limited to, nearby land uses, capacity, noise, odor, and type of feedstock (material fed into the biodigester)









Locations Potentially Eligible for Biodigesters In M3 Zoning 1/2 Mile from Protected Uses

Working Draft



Legend

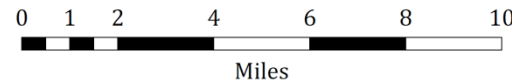
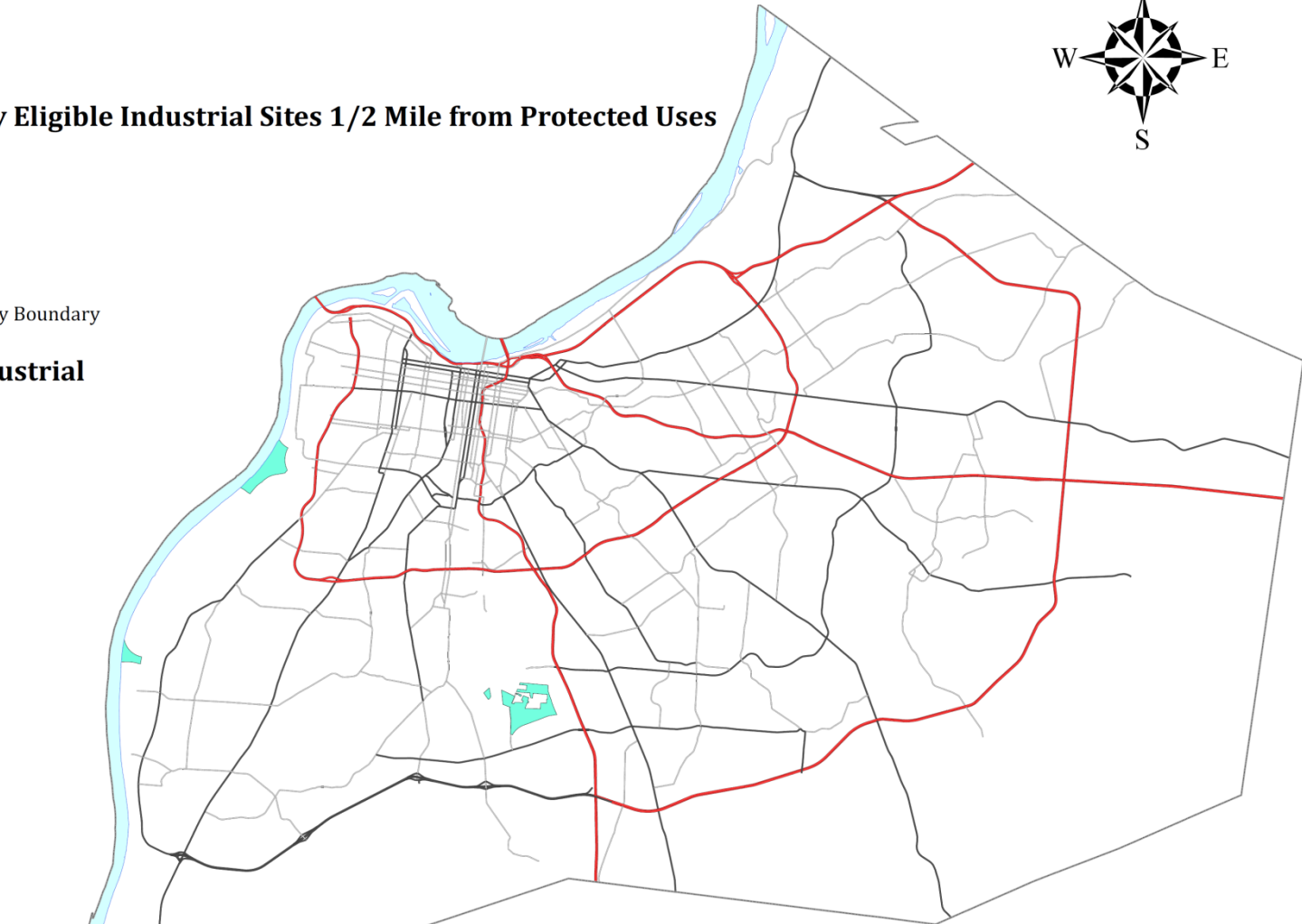
-  **Potentially Eligible Industrial Sites 1/2 Mile from Protected Uses**
-  Ohio River
-  Expressway
-  Major Arterial
-  Minor Arterial
-  Jefferson County Boundary

M3 - Heavy Industrial

Data Source: Potential Eligible Sites - derived from zoning district boundary data (Planning & Design Services); land use, school, and religious building data (Property Valuation Administrator); park property and community center data (LOJIC) / County Boundary, Metro Council Districts and Roadways (LOJIC).

Disclaimer: This map was created by Planning & Design Services (PDS) and is intended to show areas where biodigesters could be permitted in Jefferson County under proposed regulations currently being considered. Due to limited data regarding the location of protected uses as defined in the proposed regulations, this map is not entirely accurate. Sites identified on this map as are only eligible for application. Upon further evaluation of a proposed site, it may be found ineligible or eligible following a review of additional information related to the presence of nearby protected uses (including but not limited to a residence, college, school, institution of learning, religious building, park, playground, community center, nursing home/assisted living center, or hospital). Identification of agricultural areas is based on PVA land classification, and these areas have not been field verified as having bona fide agricultural uses. Please contact PDS with any questions regarding the proposed regulations and eligibility thereunder.

Last Edited: August 1, 2016



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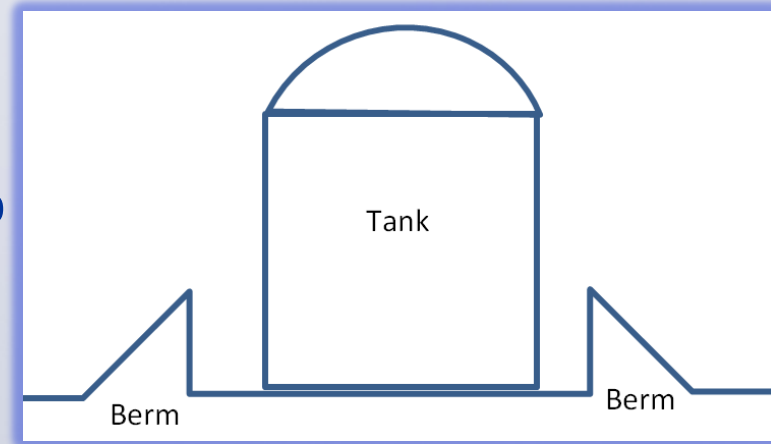


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Summary of Planning Commission Draft

■ Additional Standards

- Delivery, processing and storage of feedstock and other materials in a fully-enclosed building with all doors and windows shut
- All feedstock storage and processing shall occur on an impermeable surface with a sealed drainage system to prevent possible contamination.
- Building shall have equipment to control the release of objectionable odors
- Berms must be placed around outdoor storage tanks to prevent possible spills from spreading



Summary of Planning Commission Draft

■ Additional Standards

- Minimum setback of 50 feet from a perimeter property line adjacent to a public right-of-way.
- Noise mitigation measures are required in the CUP submittal.
- Biodigester shall be screened as a utility substation in accordance with Chapter 10 of the LDC.
- A solid fence or wall shall be installed around the perimeter of the operational area of the biodigester.
- The BOZA may retain special expert consultants to provide assistance in the review of proposed biodigesters.
- Biogas condensate shall be discharged into a sealed drainage system or recirculated back into the digester. Liquids may be discharged into a sewer only as approved by the Metropolitan Sewer District, or may be taken off-site in a closed tanker.

Summary of Planning Commission Draft

- Additional Standards
 - The applicant shall submit the following plans for review, comment, and acceptance prior to the BOZA hearing:
 - Odor mitigation plan to APCD who may review and comment.
 - Emergency response plan to Louisville Metro Emergency Management Agency/MetroSafe and to the Fire Protection District with jurisdiction.
 - Traffic analysis to Transportation Planning, which shall include information on trip generation, peak hour traffic, trip distribution, haul routes, and other information as may be requested.

Planning Commission Recommendation

Planning Commission held a public hearing on August 1, 2016 and during business session on August 4, 2016 recommended approval with modifications, as presented today

Modification to Paragraph E.

In draft:

E. All storage and process tanks shall be bermed with a concrete barrier to prevent spills and shall have a total capacity of at least 110 percent of the largest tank. Each individual tank shall have a capacity of 25 percent of the total tankage volume.

Proposed:

E. All storage and process tanks shall be bermed with a concrete barrier to prevent spills and the bermed area shall have a total capacity of at least 110 percent of the largest tank. Each individual tank shall have a capacity of 25 percent of the total tankage volume.