



March 5, 2020

Mr. Tom Gudex, President
Village of Lannon
20399 West Main Street
P.O. Box 456
Lannon, WI 53046

Re: Blight Determination of Properties Served by Private Wells
Village of Lannon, Wisconsin (Village)

Dear President Gudex:

The Village is currently planning the expansion of the municipal water utility distribution system to serve properties with private wells that have experienced an elevated rate of positive coliform and *E. coli* bacteria test results in the private well water quality samples. The issue of poor water quality in private wells throughout the Village is reported to date back to the 1990s, and it has presented a public health issue that persists through the present. The Waukesha County Division of Community Development indicated that the private well water quality issues may qualify to be determined as blight in accordance with Wisconsin State Statutes (Wis. Stats.) and the United States Department of Housing and Urban Development (HUD) guidelines. A blight determination will help the Village and residents to qualify for special funding to address the private well water quality issues. This letter outlines the blight determination requirements and presents a recommendation for a blight determination.

1. State Statutes and HUD Blight Definitions

Wis. Stats. 66.1333 addresses blight elimination and defines a blighted area as follows in Wis Stats. 66.1333(2m)(b), emphasis added in bold:

“Blighted area” means any of the following:

1. **An area**, including a slum area, **in which there is a predominance of buildings** or improvements, whether residential or nonresidential, **which by reason of** dilapidation, deterioration, age or obsolescence, inadequate provision for ventilation, light, air, **sanitation**, or open spaces, high density of population and overcrowding, **or the existence of conditions which endanger life or property by fire and other causes, or any combination of such factors is conducive to ill health**, transmission of disease, infant mortality, juvenile delinquency, or crime, **and is detrimental to the public health, safety, morals or welfare.**

2. **An area which by reason of the presence of** a substantial number of substandard, slum, deteriorated or deteriorating structures, **predominance of** defective or inadequate street layout, faulty lot layout in relation to size, adequacy, accessibility or usefulness, **unsanitary or unsafe conditions, deterioration of site or other improvements**, diversity of ownership, tax or special assessment delinquency exceeding the fair value of the land, defective or unusual conditions of title, **or the existence of conditions which endanger life or property by fire and other causes, or any combination of such factors, substantially impairs or arrests the sound growth of a city**, retards the provision of housing accommodations **or constitutes an economic or social**

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liability and is a menace to the public health, safety, morals, or welfare in its present condition and use.

3. An area which is predominantly open and which because of obsolete platting, diversity of ownership, deterioration of structures or of site improvements, or otherwise, substantially impairs or arrests the sound growth of the community.

A blighted property is similarly defined by Wis Stats. 66.1333(2m)(bm), emphasis added in bold:

“Blighted property” means **any property** within a city, whether residential or nonresidential, **which by reason of** dilapidation, deterioration, age or obsolescence, **inadequate provisions for** ventilation, light, air or **sanitation**, high density of population and overcrowding, **or the existence of conditions which endanger life or property by fire and other causes, or any combination of such factors, is conducive to ill health**, transmission of disease, infant mortality, juvenile delinquency or crime, **and is detrimental to the public health, safety, morals or welfare, or any property which by reason of faulty lot layout in relation to size, adequacy, accessibility or usefulness, insanitary or unsafe conditions, deterioration of site or other improvements**, diversity of ownership, tax or special assessment delinquency exceeding the fair market value of the land, defective or unusual conditions of title, **or the existence of conditions which endanger life or property by fire and other causes, or any combination of such factors, substantially impairs or arrests the sound growth of a city**, retards the provisions of housing accommodations **or constitutes an economic or social liability and is a menace to the public health, safety, morals or welfare in its present condition and use**, or any property which is predominantly open and which because of obsolete platting, diversity of ownership, deterioration of structures or of site improvements, or otherwise, substantially impairs or arrests the sound growth of the community.

HUD has prioritized the elimination of slums and blight, and therefore, has provided a Community Development Block Grant (CDBG) program administered locally by the Waukesha County Division of Community Development. HUD has published a document titled “Guide to National Objectives and Eligible Activities for Entitlement Communities.” This document addresses “Slum Blight Areas” in Chapter 3 and presents the following tests, found in Section 3.3.1 (pages 3 to 13), for an area to be designated as blighted, emphasis added in bold:

- **The designated area** in which the activity occurs **must meet the definition of a slum, blighted, deteriorated or deteriorating area under state or local law;**
- Additionally, the area must meet either one of the two conditions specified below:
 - Public improvements throughout the area are in a general state of deterioration; or
 - **At least 25 percent of the properties throughout the area exhibit one or more of the following:**
 - **Physical deterioration of buildings/improvements;**
 - Abandonment of properties;
 - Chronic high occupancy turnover rates or chronic high vacancy rates in commercial or industrial buildings;
 - Significant declines in property values or abnormally low property values relative to other areas in the community; or
 - **Known or suspected environmental contamination.**

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- Documentation must be maintained by the grantee on the boundaries of the area and the conditions that qualified the area at the time of its designation. The designation of an area as slum or blighted must be re-determined every 10 years for continued qualifications.

2. History of Bacteriological Contamination of Private Wells in Lannon

More than 20 years ago, the Village did not have municipal sewer or water. Village residents had private wells (not built to modern standards) and septic systems, which allowed wastewater to leak into the ground. Several private wells were contaminated by bacteria at that time because the septic systems would discharge onto the bedrock, which is high in elevation, and quickly flow toward private wells. This issue was so prevalent that the Wisconsin Department of Natural Resources (DNR) created a special well casing area on December 31, 1958, that acknowledged the contamination potential relative to the high bedrock elevation. This special casing area requires that cement grouted casing be required for the top 100-feet of the well depth. The intent of the casing is to eliminate holes in the bedrock where contaminants traveling on top of the bedrock could easily penetrate to the shallow aquifer. However, wells installed before 1958 most likely do not satisfy this requirement.

The Village contemplated installing both sewer and water in the 1990s to alleviate the issue of private wells with bacteriological contamination, but the cost was overly burdensome. The DNR allowed the Village to first install Village-wide sewer in order to see if that would fix the issue. That sewer system was installed in 1997 with United States Department of Agriculture (USDA) funding. Residents were required to abandon their septic systems and connect to the municipal sanitary sewer.

The drinking water quality seemed to improve, and the issue was largely forgotten until the Lannon Elementary School (School) tested positive for *E. coli* in fall 2018. The well could not be cleaned, despite several attempts by qualified professionals. The DNR issued a Notice of Violation to the School on January 15, 2019, citing the following:

“Section NR 809.30, Wis. Adm. Code - Distribution system microbiological contaminant maximum contaminant levels. The following are the maximum contaminant levels for coliform bacteria applicable to public water systems.

(1) MCL for *Escherichia coli* (*E. coli*).

(a) The MCL for *E. coli* is exceeded if any of the following occurs:

1. The public (in this case the Lannon Elementary School is considered public because the private well serves a public population of students) water system has an *E. coli* positive repeat sample following a total coliform positive routine sample.

From September 11, 2018 to November 18, 2018, 24 water samples were collected from the School water system. Of the 24 samples collected, 14 were total coliform positive and 4 were *E. coli* positive. *E. coli* positive source water samples from the School well confirm “fecally contaminated source water” and corrective action is required per s. NR 809.327 (2)(b), Wis. Adm. Code.”

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The Notice of Violation also cited several Findings of Fact, listed below, that implicated not only that the contamination issue was related to bacteria in the shallow aquifer, which impacts additional surrounding private wells, but also that the well casing was deficient, and that the remedy is the extension of municipal water to the School.

“9. From September 26, 2018 to October 31, 2018, water samples from private domestic wells in the vicinity of the School were tested by Waukesha County Department of Health. Of the 56 samples collected, 33 were total coliform positive and 12 were *E. coli* positive.

10. The School is in a known area with shallow bedrock that is susceptible to surficial contamination.

11. The School is within the Special Well Casing Area “Village of Lannon - Area 59b” which requires new potable well construction to have at least 100 feet of cement grouted casing due to the potential for bacterial contamination.

12. WUWN ES799 (the School’s well) has 17 feet of cement grouted casing with no description of annular seal material from 17 feet to 87 feet where the 6-inch steel well casing is set in limestone. WUWN ES799 does not conform to the Special Well Casing Area requirements.

13. WUWN ES799 is located in the School’s basement and may pose a sanitary hazard to safe drinking water. The department has not allowed well terminations in basements since April 10, 1953.”

The DNR, the School, and the Village concluded that the only reasonable solution was for the School to request an extension of municipal water service to the School. The Village declared a public health emergency at the October 8, 2018, Village Board Meeting to extend water service to the School. Municipal water was extended, and the School was connected during summer 2019. The School indicated that it continued to test its well up until the point of connection to municipal water system; the private well continued to test positive for bacteria.

Word of this issue spread, and several Village property owners tested their wells and found that they also tested positive for coliform bacteria or *E. coli* (fecal bacteria). As stated in the DNR’s Notice of Violation to the School, 56 private wells in the Village were tested by Waukesha County between September 26, 2018, and October 31, 2018, and 33 wells tested positive for coliform bacteria. Of those 33, 12 tested positive for *E. coli*. Because so many wells tested positive, the issue is most likely related to the water quality of the aquifer and the surficial impacts of bedrock on the water that impacts multiple wells in the area.

The Notice of Violation letter also cited deficient well casing and construction as contributing factors to the positive coliform and *E. coli* tests. In addition to designating a Special Well Casing Area in 1958, the DNR has conducted updates to codes that govern the construction of private wells in: April 1953, October 1975, October 1981, January 1991, October 1994, October 2014, and new revisions proposed for May 2020. Therefore, the majority of private wells in the Village of Lannon are likely out of compliance with current codes.

The Village’s municipal well has not tested positive for *E. coli* bacteria to date. The municipal well is constructed in compliance with the Special Well Casing area requirements. Furthermore, the municipal well is disinfected with sodium hypochlorite before being pumped into the distribution system.

Therefore, the extension of a treated municipal water source to existing properties is being contemplated by the Village Board.

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3. Financial Tools Available to Blighted Properties

The primary financial tool available to the Village and its residents is the CDBG. The CDBG recognizes the elimination of blight within a designated area as a qualifying purpose. The Village has made two applications to Waukesha County CDBG that total approximately \$850,000. If awarded, this grant will be used to partially fund property owner expenses associated with the private property work that will be required for property owners to connect to the Village's public, municipal water distribution system. The specific scope of this private property work includes the installation of a private water service lateral and the plumbing conversion within the residence from the private water well to the municipal water source.

A benefit to Village residents is that, according to Waukesha County, a grant awarded for blight determination does not require individual household income verification in order for property owners within the blighted area to be eligible.

The Village continues to seek sources of funding to aid property owners with the anticipated expense of connecting to municipal water. A blight determination may also qualify the Village for future funding sources.

4. Village Engineer Recommendation of Determination

Based on all the information reviewed and presented thus far, the Village Engineer proposes the following two recommendations.

A. Wis. Stats. 66.133 Blighted Area and Blighted Property Determination Recommendation

- (1) Blighted Area—A property with a private well in the Village should be determined to be blighted based on the known surficial impacts of high bedrock to private well water quality, the strong likelihood that private wells are not constructed in accordance with current code, the likelihood that a majority of private wells are not cased in accordance with the Special Well Casing Area requirements, and that 60 percent of all wells tested were coliform positive.

Based on these factors, the Village Board should make a blighted area determination in accordance with Wis. Stats. 66.1333. Specifically, that this area has a predominance of buildings, which by reason of sanitation, and the existence of conditions that are conducive to ill health, are detrimental to the public health and welfare of the community.

- (2) Blighted Property—The Village Board should recognize that the area of blight shall include any property that has a private well and any property that has not yet been developed. Exceptions would be for properties currently zoned quarry, park, or conservation (based on the likelihood of these properties not being developed), or properties zoned agricultural that do not have habitable buildings. This determination should be made by reason of the predominance of unsanitary or unsafe conditions and the deterioration of site or other improvements (specifically, nonconforming private wells). It should also be made because the

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factors listed substantially impair or arrest the sound growth of the Village, constitute an economic or social liability, and are a menace to the public health and welfare in the present condition of use of the private wells.

B. HUD Blight Determination

Upon making a determination in accordance with Wis. Stats. 66.1333 of blighted properties and a blighted area, the first of two HUD blight determination tests will have been satisfied.

The second determination test is that 25 percent or more of the properties must exhibit one or more designated conditions. Properties within the blighted area satisfy this test as follows:

(1) Physical Deterioration of Buildings and Improvements

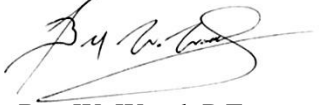
A private well is a physical improvement of a building. As previously described, the majority of, and certainly more than 25 percent, of all private wells in the Village are in a state of physical deterioration because either the well casing does not satisfy the requirement of the Special Well Casing Area requirements of 1958, the well does not conform to the construction standards of current DNR codes, or both. Therefore, this test is satisfied.

(2) Known or Suspected Environmental Contamination

Based on the test results cited by the DNR, 60 percent of all private wells tested were coliform positive, and 22 percent of all private wells tested were *E. coli* positive, indicating fecal contamination. Furthermore, it is suspected that more than 25 percent of properties have actually tested *E. coli* positive and that property owners have not reported those results to the Village based on the fear that property owners may be forced to abandon their private well, which is currently their only source of water. Therefore, this test is satisfied.

Sincerely,

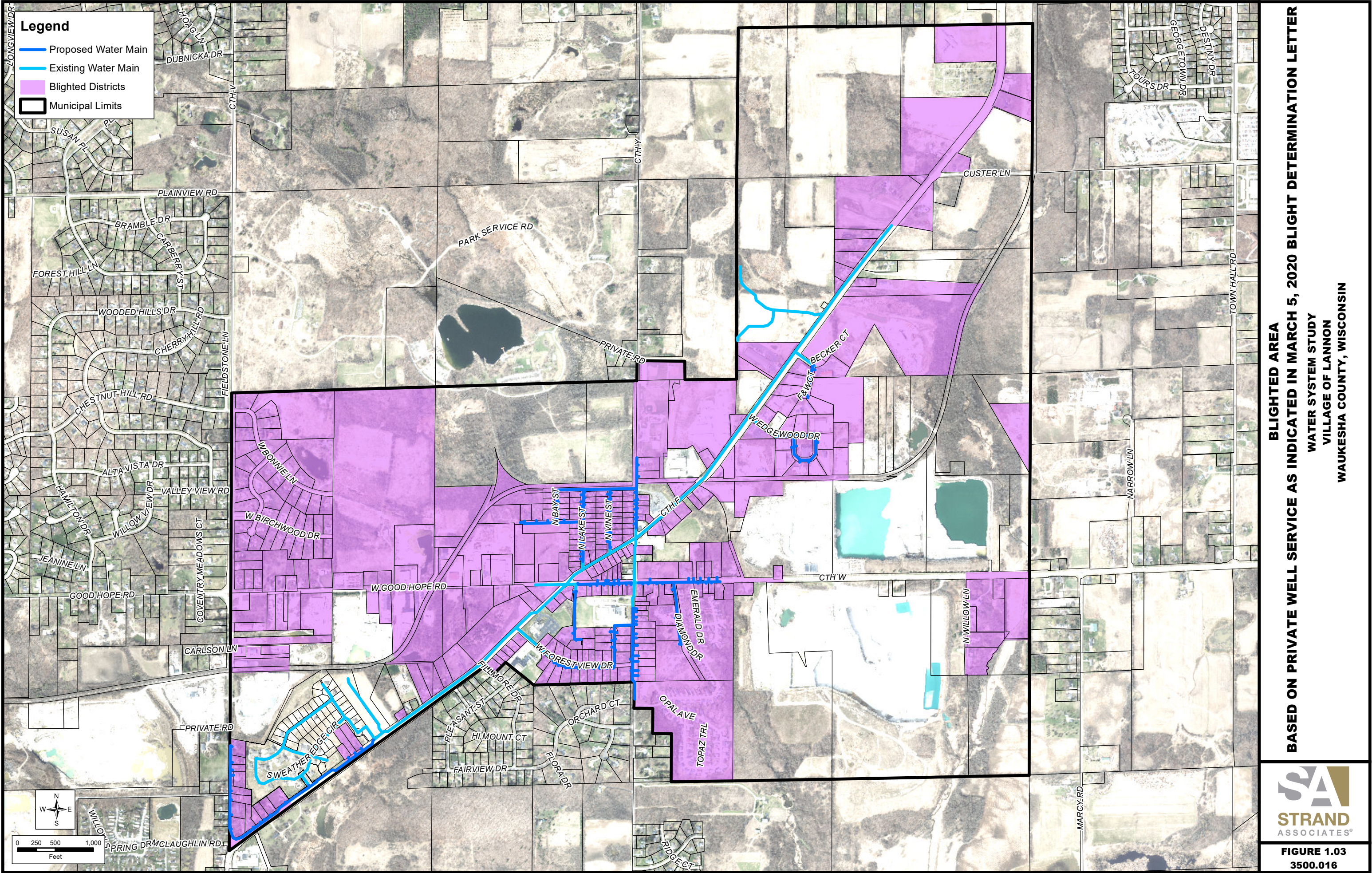
STRAND ASSOCIATES, INC.®



Ben W. Wood, P.E.

Enclosure

c/enc.: Board of Trustees, Village of Lannon
Brenda Klemmer, Clerk, Village of Lannon
Hector de la Mora, Village Attorney, Von Briesen & Roper, S.C.



BLIGHTED AREA
BASED ON PRIVATE WELL SERVICE AS INDICATED IN MARCH 5, 2020 BLIGHT DETERMINATION LETTER
WATER SYSTEM STUDY
VILLAGE OF LANNON
WAUKESHA COUNTY, WISCONSIN

