

Date of Meeting: June 7, 2016

# 12c

**BOARD OF SUPERVISORS  
BUSINESS MEETING  
ACTION ITEM**

**SUBJECT:** **TRANSPORTATION AND LAND USE COMMITTEE  
REPORT: ZOAM 2014-0006, Noise Standards**

**ELECTION DISTRICT:** Countywide

**CRITICAL ACTION DATE:** At the pleasure of the Board

**STAFF CONTACTS:** Theresa Stein, Planner, Zoning Administration  
Mark Stultz, Zoning Administrator  
Chris Mohn, Deputy Zoning Administrator  
Ricky Barker, Director, Planning and Zoning

**PURPOSE:** To amend the Noise Standards (Section 5-1507), Additional Regulations for Specific Uses (Section 5-600), and related Definitions (Article 8) of the Revised 1993 Loudoun County Zoning Ordinance (Zoning Ordinance) in order to revise outdated standards and better protect residents from excessive noise levels while balancing the needs of businesses to promote increased economic development.

**RECOMMENDATIONS:**

**Transportation and Land Use Committee:** The Transportation and Land Use Committee (TLUC) voted 4-0-1 (Randall absent) to forward ZOAM 2014-0006, Noise Standards (Noise ZOAM) to the Board of Supervisors' (Board) June 7, 2016 business meeting with a recommendation to direct staff to advertise the item for the Board's July 13, 2016 Public Hearing. The TLUC's motion included a recommendation to amend Section 5-600, Additional Regulations for Specific Uses, to revise the location from which noise is measured for bed and breakfasts and commercial wineries to be consistent with the noise regulations of farm wineries and limited breweries. The TLUC further moved a recommendation to the full Board that archery and firearm ranges be added to the definition of recreation establishment, outdoor and that such addition be included in the first available rural zoning ordinance amendment.

**Planning Commission:** On March 10, 2016, the Planning Commission (Commission) voted 8-1-0 (Scheel opposed) to forward the item to the Board with a recommendation of approval, subject to changes to the draft Zoning Ordinance made at the meeting. Specifically, the Commission recommended changes to Section 5-1507(B), *Applicability*, to require that expansions or extensions of existing uses on a commonly held parcel be subject to the new ordinance in the aggregate after the expansion.

**Staff:** Staff recommends that ZOAM 2014-0006, Noise Standards, be advertised for the July 13, 2016 Board Public Hearing and that the draft text include revisions recommended at the March 10, 2016 Commission and the May 13, 2016 TLUC meetings.

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**BACKGROUND:** The Noise Zoning Ordinance Amendment (ZOAM) process has been formally underway since July 16, 2014, at which time the Board adopted a Scope of Work and Work Plan authorizing staff to hire a consultant to assist with a comprehensive review and refinement of the Noise Standards of the Zoning Ordinance. On April 1, 2015 the Board voted 9-0 to adopt a Resolution of Intent to Amend the Zoning Ordinance Noise Standards. A chronology of the Noise Standards ZOAM process to date is provided as Attachment 1.

From May 2015 through April 2016, staff has held numerous meetings with members of the Loudoun County Chamber of Commerce, the Zoning Ordinance Action Group, subcommittees of the Economic Development Advisory Commission, the National Association of Office and Industrial Parks, the Department of Economic Development, data center and other industry representatives. Staff also conducted three public outreach meetings. Staff made changes to the proposed ordinance amendment in response to expressed concerns, resulting in improved regulations that staff believes will more effectively and equitably address noise complaints.

The Planning Commission (Commission) held a public hearing on the Noise ZOAM on December 15, 2015, and voted 6-0-3 (Douglas, Dunn, Ryan absent) to forward the item to a work session for further discussion. At its March 10, 2016 work session, the Commission recommended approval of the Noise ZOAM and voted 8-1 (Scheel opposed) to forward the item to the Board with a recommendation of approval, subject to changes to the draft Zoning Ordinance made at the meeting. Specifically, the Commission recommended changes to Section 5-1507(B), *Applicability*, to require that expansions or extensions of existing uses on a commonly held parcel be subject to the new ordinance in the aggregate after the expansion. The revised text, as amended and recommended by the Planning Commission, is found in Attachment 2.

The proposed ordinance was initially planned for inclusion on the Board's public hearing agenda for May 13, 2016. However, at its April 5, 2016 business meeting, the Board passed a motion (8-0-1, Buona absent) to send the Noise ZOAM to the May 13, 2016, TLUC meeting, along with the amendments to Chapter 654.02 of the Codified Ordinances of Loudoun County (Codified Ordinance), which consist of the noise regulations enforced by the Loudoun County Sheriff's Office (Sheriff's Office). Such action was taken to provide the Sheriff's Office an opportunity to respond to Board questions and concerns, and enable additional discussion about the proposed amendments prior to scheduling final action.

At the May 13, 2016 meeting, the TLUC discussed how the Zoning Ordinance distinguishes between firearm ranges and indoor/outdoor recreational establishments as it relates to noise. Staff explained that the Noise Standards regulate noise as it relates to uses found in the Zoning Ordinance, such as a firearm range, rather than individuals shooting on their property or hunting. In addition, as a use found in the Zoning Ordinance, noise from a firearm range is subject to a

maximum decibel level which is different from the Sheriff's Office proposed standard of "audible and discernible". The Zoning Administrator noted that he has previously determined that a firearm range is excluded from the definition of an outdoor recreation establishment because the use (firearm range, indoor) is specifically named in several zoning districts and the definition of an indoor recreation establishment expressly includes a firearm range. Therefore, an outdoor recreation establishment could not have an outdoor firearm range. The TLUC requested that the full Board consider an amendment to the definition of outdoor recreation establishment to include outdoor firearm range, and that such amendment be considered with the first available zoning ordinance amendment impacting rural uses. Such a change would allow outdoor firearm ranges wherever outdoor recreation establishments are permitted or allowed by special exception approval.

The TLUC also discussed how the Zoning Ordinance regulates noise differently for certain similar uses in the rural areas. Specifically, the Zoning Ordinance currently applies specific noise limitations to certain rural economy uses, such as commercial wineries and bed and breakfasts, pursuant to Section 5-600, *Additional Regulations for Specific Uses*, which supersedes the generally applicable noise standards of Section 5-1507, whereas Virginia farm wineries and limited breweries do not have such noise standards and are therefore subject to the generally applicable standards. As such, those rural economy uses governed by the noise standards of Section 5-1507 would be subject to the Noise ZOAM, to include changes in how and where noise levels are measured, while those subject to the more specific standards of Section 5-600 would not. Attachment 3 sets forth the current Noise Standards applicable to breweries, wineries, and a variety of bed and breakfast uses, and indicates which of those uses would be subject to the revised Noise Standards. The TLUC discussed the implications of regulating noise differently for similarly situated rural economy uses, concluding that the Noise ZOAM should be revised to ensure consistent regulation of such uses, and that such refinement be achieved by removing the noise standards for rural economy uses found in Section 5-600, *Additional Regulations for Specific Uses*, or otherwise making noise regulation for all bed and breakfasts, breweries and wineries the same. It should be noted that any use lawfully established prior to the adoption of the Noise ZOAM shall continue to be governed by the noise standards in effect at the time of establishment.

During the discussion, Supervisor Higgins requested that a chart be provided showing the proposed changes to Section 5-1507 compared to the existing Noise Standards, which is found in Attachment 4, and also includes maximum noise levels of surrounding jurisdictions. Supervisor Higgins also inquired as to the number of noise complaints during the period of 2010 until 2015 which were directed at uses in the western part of the County. Of the 64 noise complaints received by Zoning Enforcement over a 5 year period, 3 were related to the primary complaint of noise in western Loudoun (west of Route 15) and were related to: a home occupation; a refrigerator unit at a winery; and a restaurant. The TLUC voted 4-0-1 (Randall absent) to recommend that the Noise ZOAM be forwarded to the June 7, 2016 Board business meeting with a recommendation that the Board direct staff to advertise the Noise ZOAM, as revised at the May 13, 2016 TLUC meeting, for the Board's July 13, 2016 public hearing. The revised text as amended by the Planning Commission at its March 10, 2016 work session is found in Attachment 2. Revisions recommended by the TLUC at the May 13, 2016 meeting, will be attached to the July 13, 2016 Board public hearing staff report.

**ISSUES:** The effective date of the revised standards must take into account the time necessary to purchase and receive standard noise meters (SLM) (discussed below), as well as the completion of training of Zoning Enforcement staff. For this reason, staff recommends the effective date of the revised Noise Standards be three months from the date of Board approval.

**FISCAL IMPACT:** The revised Noise Standards require a specific type of noise meter not currently in use by the Department of Planning and Zoning (DP&Z). The justification for the new noise meters is that they provide more versatility and more accurately measure sound than the meters currently in use by filtering out and adjusting for background sound. As such, implementation of the revised noise standards will require the purchase of new equipment and training of nine (9) members of the Zoning Enforcement division of DP&Z regarding its operation and use. Staff recommends the purchase of two (2) SLMs in order to ensure that at least one SLM is available at any given time to account for operational contingencies as well as the annual calibration of the SLM, which will require shipment to the manufacturer. The upfront cost for purchase of the two SLMs and training of Zoning Enforcement staff will total approximately \$18,000. The initial purchase price includes the first calibration of each device. The initial funds for equipment and training has been identified in the DP&Z FY 2016 and FY 2017 budgets. Recurring expenses impacting subsequent year budgets are estimated to total approximately \$800, not accounting for inflation. Such recurring expenses are anticipated to cover annual equipment calibration, which may need to be increased to account for additional training costs when necessitated by the addition of new staff.

**ALTERNATIVES:**

1. The Board may forward the Noise ZOAM to the July 13, 2016 Public Hearing with revisions to Section 5-600 as recommended at the May 13, 2016 Transportation and Land Use Committee meeting.
2. The Board may forward the Noise ZOAM to the July 13, 2016 Public Hearing without the revisions to Section 5-600 recommended at the May 13, 2016 Transportation and Land Use Committee meeting.
3. The Board may forward the Noise ZOAM to the July 13, 2016 Public Hearing with additional changes to the draft text.

**DRAFT MOTIONS:**

1. I move that the Board of Supervisors direct staff to advertise ZOAM 2014-0006, Noise Standards, for the Board of Supervisors' July 13, 2016 Public Hearing, as recommended by the Planning Commission at its March 10, 2016 work session, and with the revisions recommended by the Transportation and Land Use Committee at its May 13, 2016 meeting.

AND

I further move that the Board of Supervisors direct staff to add archery and firearm range to the definition of recreation establishment, outdoor and include such change as part of the next available rural zoning ordinance amendment being processed.

OR

2. I move that the Board of Supervisors direct staff to advertise ZOAM 2014-0006, Noise Standards, for the Board of Supervisors' July 13, 2016 Public Hearing, as recommended by the Planning Commission at its March 10, 2016 work session, but without the revisions recommended by the Transportation and Land Use Committee at its May 13, 2016 meeting.

AND

I further move that the Board of Supervisors direct staff to add archery and firearm range to the definition of recreation establishment, outdoor and include such change as part of the next available rural zoning ordinance amendment being processed

3. I move an alternate motion.

**ATTACHMENTS:**

1. Chronology of Process: ZOAM 2014-0006, Noise Standards
2. Draft Text Sections 5-1507 and Article 8 as amended by the Planning Commission
3. Comparison of Maximum Decibel Level of Area Jurisdictions
4. Comparison of Rural Uses

## CHRONOLOGY OF ZOAM 2014-0006, NOISE PROCESS

Significant actions and/or events associated with the Noise ZOAM are summarized as follows:

- **January 10, 2014:** The firm of Miller, Beam & Paganelli, Inc. provided a presentation regarding data center noise to the Transportation and Land Use Committee (TLUC) as part of its review of the Data Center ZOAM (ZOAM 2013-0003). Said presentation included a question and answer period that included discussion about noise regulation in general, and it was explained that the noise standards in the Revised 1993 Loudoun County Zoning Ordinance (Zoning Ordinance) could be revised to clarify and specify certain noise elements, such as the location from which sound is measured.
- **February 18, 2014:** The Zoning Ordinance Action Group (ZOAG) issued its report regarding the Data Center ZOAM, which included a recommendation that the noise standards be reviewed to determine if changes are necessary to assure noise is adequately addressed for all uses, and that certain elements be reviewed such as the height of adjoining structures, adequate enforcement of the noise standards, and the appropriate location for measuring sound.
- **July 16, 2014:** Board adopted (8-0-1, Higgins absent) Scope of Work and Work Plan at its Business Meeting authorizing staff to procure a consultant for the purpose of reviewing and revising the Noise Standards in the Zoning Ordinance, if necessary.
- **September 2014:** Contract awarded to Hessler and Associates (Consultant). Staff and the Consultant began research of noise standards in various local jurisdictions and federal agencies.
- **December 2014:** Consultant issued "Research In Support of Amending the Current Loudoun County Zoning Ordinance Section 5-1507 Noise Standards" and an Addendum, dated April 18, 2016 (collectively "Research Report"), attached hereto as **Attachment 1A**. The results are the basis for the recommended revisions to the Zoning Ordinance text.
- **April 1, 2015:** Board voted (9-0-0) to adopt a Resolution of Intent to Amend the Zoning Ordinance Noise Standards.
- **April 10, 2015:** Research Report and the draft text circulated to County referral agents and ZOAG.
- **May 1, 2015:** Staff and Consultant met with the ZOAG subcommittee to discuss the draft text, answer questions, and to review comments/concerns from the subcommittee.
- **May 6, 2015:** The ZOAG subcommittee presented its findings and recommendations to the full ZOAG, where the subcommittee's recommendations were approved to go forward to the Planning Commission with a single change to the subcommittee's referral.
- **April/May 2015:** Staff received referral comments from the Department of Economic Development (DED), Community Planning, and Zoning Administration, and revisions were made to address many of the comments.
- **August 5, 6, and 20, 2015:** Three public outreach sessions held at a variety of locations throughout the County in order to receive comments, suggestions, and

concerns from citizens and businesses after DED and the Loudoun County Chamber of Commerce (LCCC) expressed concerns about the speed at which the amendment was proceeding. The public expressed concerns about the proposed draft text and made comments/suggestions, which have been compiled and summarized in **Attachment 1B**. In addition to the three public outreach sessions, staff established an email address for the public to forward their comments. Since July 2015, there have been approximately two dozen emails sent which have centered on the regulation of animal noises, loud parties/excessive outdoor music, passing vehicle noise, excessive aircraft/airport noise, and noise associated with the discharging of firearms.

- **September 1 and November 3, 2015:** Staff met with the Compliance and the Entertainment Subcommittees of the Nighttime Economy Ad-Hoc Committee (EDAC Subcommittees), under the Economic Development Advisory Commission (EDAC), respectively, to present the draft text amendment and a summary of outreach comments. The EDAC Subcommittees inquired as to whether the County would propose requirements for noise attenuation for uses and questioned whether the County should consider revising building standards. In addition, they were unsure if the proposed noise standards provided for special events. Staff informed the EDAC Subcommittees that there are no noise attenuation requirements proposed, and that no revisions to the building code standards are proposed or anticipated. Staff clarified that the Zoning Ordinance proposal does not provide for specific special event noise standard, although in the course of applying for a Special Events permit, noise could be a consideration when issuing a permit. On May 13, 2016, the Nighttime Economy Ad-Hoc Committee will present their recommendations for noise to the EDAC.
- **September 15, 2015:** Staff met with data center representatives, a representative from DED, and members of the LCCC, as well as other related industry representatives (Representatives) to answer questions and to hear their views and concerns about the draft text. Representatives stated that the noise from generators were not problematic, but that the rooftop condensers created the volume of noise. Staff noted that the tonal quality of data centers is typically the objectionable sound, but the proposed noise standards do not address tonal quality, which is a difficult and complicated issue to resolve. Representatives also discussed the need to run all generators during required testing period and during emergency situations. The draft was revised to define emergency situations and to exempt testing and emergencies from the noise standards. There were also concerns about sounds originating from public utilities that, although such sound may be objectionable, are necessary. Staff revised the draft text to include an exemption for public uses and utilities.
- **November 19 and 20, 2015:** ZOAG, Representatives, and EDAC Subcommittee members were invited to a follow-up meeting to discuss changes that had been made to the draft text since the earlier meeting. Comments received requested more clarity on where sound is measured along the property line, exempting generators upon request from utility companies, and provide more clarity on expansion of existing uses. Staff incorporated those comments into the draft text.

- **December 15, 2015:** Planning Commission public hearing conducted. Noise ZOAM forwarded to subsequent work session. A summary of the public hearing is provided in **Attachment 2**.
- **March 10, 2016:** Planning Commission work session conducted, with Planning Commission voting (8-1-0, Scheel opposed) to forward proposed text to Board of Supervisors with recommendation of approval, to include change to Section 5-1507(B), Applicability.
- **April 6 and 13, 2016:** Staff met with ZOAG and with the Loudoun County Subcommittee of the Legislative Affairs Committee of the Northern Virginia Chapter of National Association of Industrial and Office Parks (NAIOP) on the respective dates to provide updates on the status of the Noise ZOAM. The ZOAG stated that they would provide any follow-up comments at the Board public hearing.

**Noise Standards:-**

(A) **Purpose.** The purpose of these standards is to protect citizens from excessive sound (noise), which is detrimental to health and peaceful enjoyment of property. No use~~It shall be unlawful for any person to operate~~ operated or ~~permit~~ permitted to be operated ~~any stationary noise source~~ in such a manner as to create a sound level ~~which exceeds~~ the maximum A-weighted sound levels ~~limits~~ set forth in Table 5-1507(E). Examples of sounds regulated by this Ordinance include, but are not limited to amplified music or voice or barking dogs at kennels.

(B) **Applicability.** Any legally established use, existing prior to the adoption of these standards, shall continue to comply with the noise standards in effect at the time of establishment. The aggregate sound created by such legally established use and any expansion or extension of such use beyond the floor area or portion of the lot area that it occupied on the effective date of this Ordinance shall comply with these standards.

These standards shall not apply to extraction and mining special exception operations otherwise regulated herein, or where Section 5-600, Additional Regulations for Specific Uses, specifies noise standards for a specific use, or between multiple uses located within the same building or on the same lot, unless the receiving property is Mixed-Use residential. ~~the following tables, except for extraction and mining special exception operations otherwise regulated herein. In addition, before 7 a.m. and after 7 p.m., the permissible sound levels, at residential district boundaries where they adjoin nonresidential districts, shall be reduced by 5 dba in the table for impact noises.~~

(C) **Definitions.** For the purposes of this section only, the below terms are defined as follows:

(1) A-Weighted Sound Level is the sound pressure level in decibels as measured on a sound level meter (SLM) using the A-weighting network. The level is designated as dB(A) or dBA.

(2) Emergency is any occurrence or set of circumstances involving actual or imminent physical trauma, property damage or loss of electric or phone services, which require immediate action.

(3) L Equivalent (Leq) is the constant sound level that, in a given situation and time period, conveys the same sound energy as the actual time-varying A-weighted sound level.

(4) Mixed-Use Residential is any dwelling unit located in a Planned Development zoning district listed in Article 4,

1 Division A and Division D that permits residential uses,  
2 excluding the Planned Development – Housing (PD-H) zoning  
3 district.

4 (5) Residential is any dwelling unit located in a zoning district  
5 listed in Article 2 or 3, or the PD-H zoning district, and any  
6 other dwelling unit that does not meet the definition of mixed-  
7 use residential.

8 (6) Receiving property is the lot or parcel, or for mixed-use  
9 residential, the affected dwelling unit, that is the recipient of  
10 the subject sound.

11 (7) Sound is an oscillation in pressure, particle displacement,  
12 particle velocity, or other physical parameter, in a medium  
13 with internal forces that causes compression and rarefaction of  
14 that medium.

15 ~~(A)~~(D) **Methods of Measurement.**

16 ~~(1) Noise levels shall be measured with a sound level meter and~~  
17 ~~shall meet or exceed performance standards for a "Type Two"~~  
18 ~~meter, as specified by the American National Standards~~  
19 ~~Institute.~~

20 ~~(2) Noise levels shall be recorded as A-weighted sound pressure~~  
21 ~~level. The level so read shall be postscripted dBA.~~

22 (1) A-weighted sound levels shall be measured with an integrating  
23 sound level meter (SLM) that meets or exceeds American  
24 National Standard Institute S1.43-1997 for Class 2 SLMs. The  
25 response of such SLM shall be set to FAST, and a time period  
26 of fifteen (15) seconds shall be used. The operator may select  
27 another time period between a minimum of ten (10) seconds  
28 and maximum of one (1) minute if a fifteen (15) second time  
29 period cannot adequately capture the A-weighted sound level.

30 (2) Samples shall be taken only when the subject sound can be  
31 clearly heard and identified by the operator without any  
32 extraneous sounds such as passing traffic, bird songs, etc.

33 (3) The operator shall take a minimum of three (3) samples that  
34 demonstrate the repeatability and consistency of the subject  
35 sound. When possible, the operator should also take at least  
36 one (1) sample when the subject sound is not heard for the  
37 purpose of comparison.

38 (4) The arithmetic average of all samples that demonstrate the  
39 repeatability and consistency of the subject sound shall

1 comply with the maximum A-weighted sound levels in Table  
2 5-1507(E).

3 (5) For residential, commercial, civic, institutional, and industrial  
4 uses, samples of the subject sound shall be taken from the  
5 point on the receiving property line that is located the closest  
6 to the source of the subject sound. The microphone of the  
7 SLM shall be aimed toward the source of the subject sound,  
8 and a standard microphone height of five feet (5') above grade  
9 shall be used.

10 (6) For mixed-use residential, samples of the subject sound shall  
11 be taken from the receiving property at an open window, door,  
12 or other aperture that faces in the direction of the source of the  
13 subject sound. The window, door, or other aperture that is the  
14 closest to the source of the subject sound shall be used. The  
15 microphone of the SLM shall use a windscreen, shall be  
16 located at the center, and shall extend approximately 0.5  
17 inches beyond the outer plan of said open window, door, or  
18 other aperture, and shall be aimed towards the source of the  
19 subject sound.

20 ~~(B)~~(E) Maximum A-Weighted Sound Levels (dBA). Measurements of  
21 noise levels shall be taken at the property boundary of the noise  
22 source. Where differing zoning districts abut, the more restrictive  
23 limit shall apply. The maximum A-weighted sound level is provided  
24 in Table 5-1507 (E) and shall apply any time of day or night.

25 ~~(1)~~ **Maximum dBA, Continuous Noise.**

Residential	55
Commercial	60
Industrial	70

Continuous noise shall be measured using the slow meter response of the sound level meter.

26  
27 ~~(2)~~ **Maximum dBA, Impact Noise.**

Residential	60
Commercial	70
Industrial	80

Impact noise shall be measured using the fast meter response of the sound level meter. Impact noises are intermittent sounds of a single pressure peak or a single burst (multiple pressure peaks) for a duration usually less than one second. Examples of impact noise sources are a punch press, drop forge hammer, or explosive blasting.

<u>Table 5-1507(E)</u>				
<u>Receiving Development Type</u>	<u>Mixed - Use Residential</u>	<u>Residential Uses</u>	<u>Commercial, Civic, and Institutional Uses</u>	<u>Industrial Uses</u>
<u>Maximum A-Weighted Sound Level (dBA)</u>	<u>60</u>	<u>55</u>	<u>65</u>	<u>70</u>

~~(C)~~(F) — Exemptions. The maximum A-weighted sound levels in Table 5-1507(E) shall not apply to the following:

(1) All aircraft sound.

~~(1) — The limitations stated above shall not apply within any district nor within any area subject to a Noise Exposure Forecast in excess of the 30 level as indicated on the "Noise Exposure Forecast (NEF) Areas in the Vicinity of Dulles International Airport for 1975 Operations, September 1969" as prepared by FAA. The boundaries of such noise areas within Loudoun County are indicated on the Zoning Map.~~

(2) Sounds that are regulated under Chapter 654.02 of the Codified Ordinances of Loudoun County, such as, but not limited to, sounds created by the operation of power equipment (, such as power lawn mowers, chain saws, and similar equipment), or related to construction, maintenance and repair, between the hours of 7:00 a.m. and 9:00 p.m. shall not be regulated by these noise issues.

(3) Sounds created by generators and associated equipment operating during an emergency or at the request of a utility, and the (mandated?) testing of said generators and associated equipment.

~~(3)~~(4) Sounds created by air conditioner condensers for single-family attached dwellings and single-family detached dwellings.

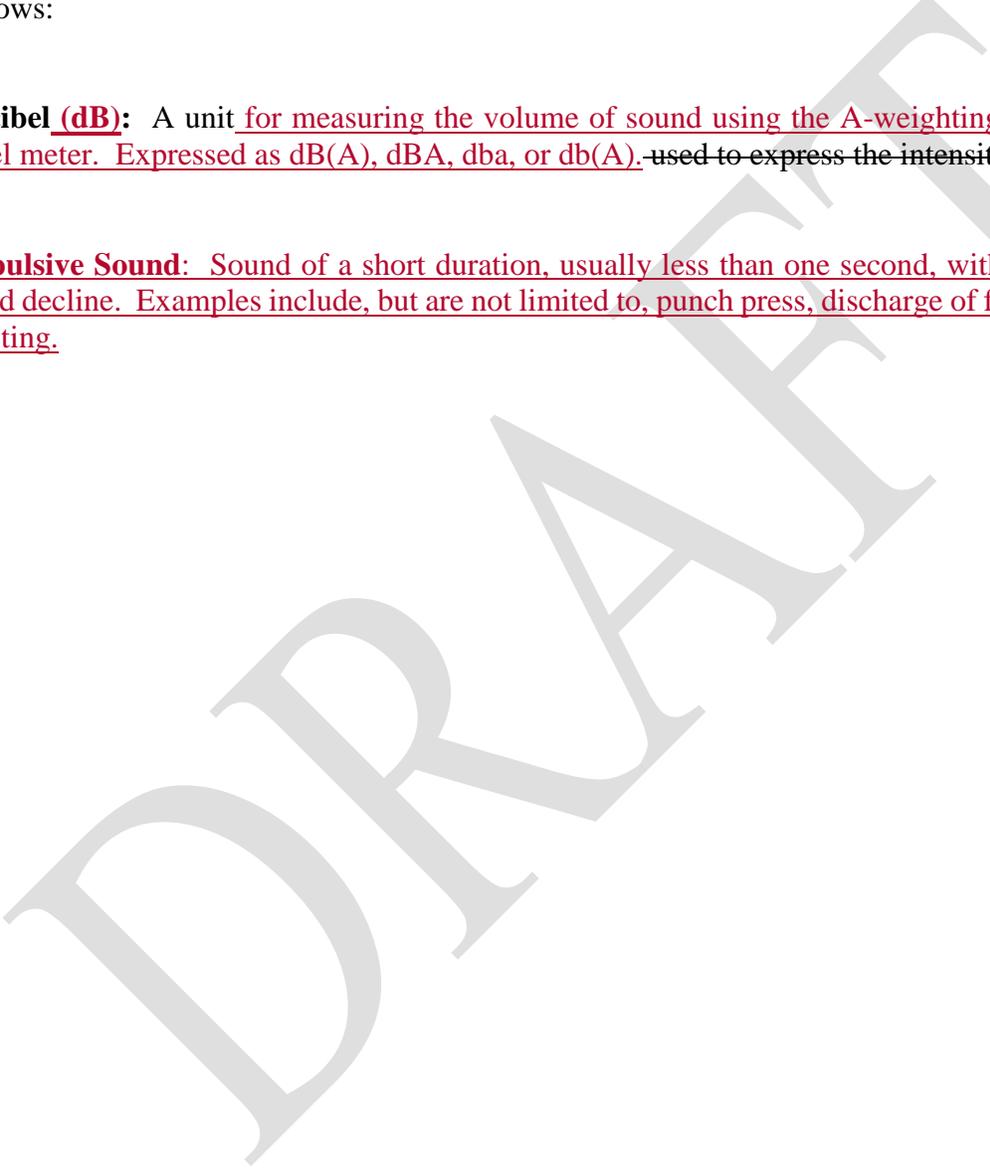
~~(4)~~(5) Sounds created by utilities and public uses, including, but not limited to utility substations, utility transmission lines, sanitary landfills, public sewer, and public water.

**ARTICLE 8 - DEFINITIONS**

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Words and terms set forth below shall have the meanings ascribed to them. Any word, term, or phrase used in this Ordinance not defined below shall have the meaning ascribed to such word, term or phrase in the most recent edition of Webster's Unabridged Dictionary, unless in the opinion of the Zoning Administrator, established customs or practices in Loudoun County, Virginia justify a different or additional meaning. For the purpose of this Ordinance, certain words and terms are herein defined as follows:

- Decibel (dB):** A unit for measuring the volume of sound using the A-weighting network on a sound level meter. Expressed as dB(A), dBA, dba, or db(A). ~~used to express the intensity of a sound wave.~~
  
- Impulsive Sound:** Sound of a short duration, usually less than one second, with an abrupt onset and rapid decline. Examples include, but are not limited to, punch press, discharge of firearm, and explosive blasting.



## Comparison of Maximum Decibel Level of Area Jurisdictions Land Use Related Noise

	Loudoun County	Loudoun County	Arlington County	Fairfax County	Prince William County	Town of Leesburg
	<b>EXISTING</b>	<b>PROPOSED</b>				
<b>Point of Measurement:</b>	Emitter property line	Receiving property line	From street, edge of pavement, or any location on receiving property, unless mixed use	Emitter property line or at any point within any other affected property	Emitter property line or at any point within any other affected property	
<b>Maximum DbA (day/night):</b>						
<b>Residential</b>	55	55	60/55	60/55	60/55	Plainly audible using unaided hearing faculties
<b>Commercial</b>	60	65	n/a	65	65/60	
<b>Industrial</b>	70	70	70	72/65	79/72	
<b>Mixed Use</b>	n/a	60	65	65/60	60/55	

## NOISE STANDARDS FOR WINERIES, BREWERIES AND B&Bs

USE	APPLICABLE ORDINANCE SECTION	NOISE STANDARD - CURRENT	NOISE STANDARD – PROPOSED**
VA Farm Winery	5-1507	55 dba at <i>emitter</i> property line	55 dba at <i>receiving</i> property line
Commercial Winery (Sec 5-625)	5-652(B)(2)	55 dba impulsive sound at any adjacent residential/SFD principal use property line  No outdoor music after 11:00 PM.	proposed to be amended for consistency per TLUC  proposed to be amended for consistency per TLUC
Limited (aka Farm) Brewery (Sec 5-667)	5-1507	55 dba at <i>emitter</i> property line	55 dba at <i>receiving</i> property line
Craft Beverage Manufacturing (suburban – PROPOSED USE)	5-1507	55 dba at <i>emitter</i> property line	55 dba at <i>receiving</i> property line
B&B Homestay	5-601(A)(5)(a) and (b)	55 dba impulsive sound at <i>emitter</i> property line  No outdoor music between 11 PM to 10 AM Fri, Sat, and any evening preceding a holiday recognized by Loudoun County, and between 10 PM and 10 AM on any other day	proposed to be amended for consistency per TLUC  proposed to be amended for consistency per TLUC
B&B Inn	5-601(B)(5)(a) and (b)	55 dba impulsive sound at <i>emitter</i> property line  No outdoor music between 11 PM to 10 AM on Fri, Sat, and any evening preceding a holiday recognized by Loudoun County, and between 10 PM and 10 AM on any other day. (proposed to be amended per TLUC)	proposed to be amended for consistency per TLUC  proposed to be amended for consistency per TLUC
County Inn	5-601(C)(5)(a) and (b)	55 dba impulsive sound at <i>emitter</i> property line  No outdoor music between midnight and 7 AM	proposed to be amended for consistency per TLUC  proposed to be amended for consistency per TLUC
Rural Resort/Retreat	5-601(D)(8)(h)	55 dba impulsive sound at <i>emitter</i> property line  No outdoor music after 11:00 PM.	proposed to be amended for consistency per TLUC  proposed to be amended for consistency per TLUC

\*\* EXISTING USES WILL CONTINUE TO BE SUBJECT TO STANDARDS IN EFFECT AT THE TIME ESTABLISHED\*\*