MONROECOUNTY
PLANNING & ZONING DEPARTMENT
14345 County Highway B, Suite 5, Sparta WI 54656-4509
FAX: 608-366-1809
Administrator-Alison Elliott, 608-269-8939

NOTICE OF MEETING

COMMITTEE: Sanitation, Planning & Zoning, & Dog Control
DATE: December 20, 2021
TIME: 6:00 P.M.
PLACE: American Legion Post 100 1116 Angelo Rd, Sparta, WI 54656.

SUBJECT MATTER TO BE CONSIDERED
Discussion and possible action of the following:

a. **Roll Call**

b. **Possible Corrections** and Approval of November 15, 2021 Meeting Minutes

c. **Dog Control**
Kevin Huff Wolf Hybrid Foster Facility Resolution
Kevin Huff-Restricted animal permit

d. **Public Hearings**

Application of Moses Borntreger for a **conditional use permit** for the purpose of constructing a two family dwelling at 18772 Island Rd, WI in part of the NE 1/4, SW 1/4, Section 32, T17N, R1E, Town of Oakdale, parcel number 030-00831-0000, 39.59 acre parcel. The adjoining land use is agriculture and residential.

Application of Aaron Brooks for a **conditional use permit** for a small business to manufacture and sell soap and cosmetic products on property located at 16481 Hamden Rd, in part of the NE 1/4, SW 1/4, Section 20, T17N, R4W, Town of Sparta, parcel number 040-00571-2700, 1.7 acres. The adjoining land use agriculture & residential.

Application of Gary and Kathy VonHaden for a **conditional use permit** for a small business for garden plants and repurposed/antiques on property located at 9998 Elk Rd, in part of the SW 1/4, SW 1/4, Section 18, T18N, R1W, Town of LaGrange, parcel number 020-00565-0000, 20.35 acres. The adjoining land use agriculture & residential.

Application of Tracy Schaitel for a **conditional use permit** for a small business for a Dog Daycare on property located at 8175 Idol Ave, in part of the SW 1/4, SW 1/4, Section 35, T17N, R4W, Town of Sparta, parcel number 040-01194-3000, 1.79 acres. The adjoining land use agriculture & residential.

Application of Sam E. Borntreger for a **conditional use permit** for a Dog Kennel at 20102 King Rd Wilton, WI in part of the NW1/4, NE 1/4, Section 12, T16N, R1W, Town of Wilton, parcel number 048-00239-0000, 23.4 acres. The adjoining land use is agriculture.

Application of Karl Hackbarth and Kyle Schmitz for a **conditional use permit** for a Sporting Clay Course/Trap and Skeet Shoot located at 12833 County Hwy XX, Norwalk, WI., in part of the E ½ , Section 28, T16N, R3W, in the Town of Wells, 200 acres. The adjoining land use is woodland and agriculture.

e. **Office relocation**

f. **Sanitation & Zoning**
FEMA Floodplain Mitigation Grant
DNR Municipal Flood Control Grant

g. **Financial Report** - Vouchers - Inter-departmental Transfers - Line Item Transfers – Budget Adjustments

h. **Set Date for Next Meeting, Possible Agenda Items.**

i. **Adjournment**

_____
Alan McCoy, Chairman

Note: A quorum of the Monroe County Board of Supervisors or Committees may be present but no County Board or Committee business other than the Sanitation, Planning & Zoning and Dog Control Committee will be conducted.

11-15-2-21
Sanitation/Planning & Zoning/Dog Control

Meeting called to order at 6:00 P.M. by Alan McCoy.

Present: Cedric Schnitzler, Alan McCoy, Jim Kuhn and Mary Cook. Absent:Ron Luethe-excused.

Also Present: Alison Elliott-Sanitation, Zoning, Dog Control Administrator.

Possible Corrections and Approval of October 18, 2021 Meeting Minutes.

A **motion** was made by Jim Kuhn, seconded by Mary Cook to approve the minutes from the October 18, 2021 meeting. Motion carried: 4-0.

Public Hearing:
Application of Joseph E. Yoder for a **conditional use permit** for a Dog Kennel at 19538 Juneau Rd Wilton, WI in part of the NW1/4, SE 1/4, Section 2, T16N, R1W, Town of Wilton, parcel number 048-00032-0000, 40 acres. The adjoining land use is agriculture.

Joseph Yoder withdrew his application for conditional use permit for a Dog Kennel.

Application of Sam E. Borntreger for a **conditional use permit** for a Dog Kennel at 20102 King Rd Wilton, WI in part of the NW1/4, NE 1/4, Section 12, T16N, R1W, Town of Wilton, parcel number 048-00239-0000, 23.4 acres. The adjoining land use is agriculture.

Sam Borntreger would like to postpone his application for a conditional use permit for Dog Kennel until December.

A **motion** was made by Jim Kuhn, seconded by Mary Cook to postpone the application of Sam E. Borntreger for a **conditional use permit** for a dog kennel until December 20, 2021. Motion carried: 4-0. December meeting will be held at the American Legion Hall at 6:00 p.m.

Application of David Borntreger for a **conditional use permit** for a Dog Kennel, at 26148 Kiln Ave Wilton, WI in part of the SW1/4, NW 1/4, Section 14, T16N, R1W, Town of Wilton, parcel number 048-00294-0000, 8.320 acres. The adjoining land use is agriculture.

David Borntreger would like to withdraw his application for a conditional use permit for a dog kennel.

Application of Moses Lee/Henry Miller for a **conditional use permit** for a Dog Kennel to replace CUP #101-21, at 24794 Logan Wilton, WI in part of the NW1/4, SW 1/4, Section 36 T16N, R1W, Town of Wilton, parcel number 048-00777-0000, 40 acres. The adjoining land use is agriculture and woodlands.

Moses Lee/Henry Miller would like to withdrawal the application for conditional use permit for dog kennel. He will keep his original conditional use permit limiting number of dogs to 10.

Alison informed the pubic and Committee members that she spoke with the Humane Officer, Jeff Leis today, November 15, 2021 and Mr. Lee is in compliance and currently has 10 dogs.

Application of John Nevin for a **conditional use permit** for a small business-Automobile/Power Sports repair and maintenance shop located at 7445 Casper Ave Sparta, WI, in part of the SE ¼ of SW ¼ Section 27, T19N, R4W, in the Town of Little Falls, Tax Parcel ID# 026-01400-0000, 0.730 acres. The adjoining land use is residential.

Mr. Nevin was present.

Alan McCoy stated that the Town of Little Falls sent a letter approving the application of John Nevin for a conditional use permit for a small business-Automobile/Power Sports repair and maintenance shop.

Discussion was held.

A **motion** was made by Cedric Schnitzler, seconded by Jim Kuhn to approve the application of John Nevin for a Conditional use permit for a small business in the Town of Little Falls. Motion carried: 4-0.

A petition by Jake McClelland, for a **change of zoning** district from GA-General Agriculture to R3-Rural Residential at 23625 State Hwy 27, Cashton, WI, in the NE ¼ -SE ¼ Section 30, T16N, R3W, tax parcel # 046-00654-0000, Town of Wells, Monroe County, 0.68 acres.

Mary Cook excused herself from the Committee meeting at 6:10 to attend another function.

Jake McClelland was present.

Alison explained to the Committee members the reason for the change of zoning that Mr. McClelland has 0.68 acres and is zoned GA-General Agriculture. In order for Mr. McClelland to build a garage and meet his setbacks he needs to rezone to residential to be in compliance.

A letter was received from the Town of Wells approving the application for the change of zoning.

A **motion** was made by Cedric Schnitzler, seconded by Jim Kuhn to approve a petition by Jake McClelland for a change of zoning from GA-General Agriculture to R3-Rural Residential in the town of Wells. Motion carried: 3-0. This will be brought to the full county board November 23, 2021 for approval.

A petition by Dennis Pennel, for a **change of zoning** district from GA-General Agriculture to R3-Rural Residential for parcels of land on Icarus Rd, Sparta, WI, in the NE ¼,NE ¼ and SE ¼ , NE ¼ , Section 30, T17N, R4W, tax parcels # 040-00986-4000, 040-00986-5000 and 040-00986-6000, Town of Sparta, Monroe County, 5.2 acres total.

Mr. Pennel was present.

Alison explained that the Town of Sparta requires new parcels less than 3 acres to rezone to R3-Rural Residential. Mr. Pennel's new parcels are 1.5, 1.6 and 2 acres in size.

Discussion was held.

A **motion** was made by Cedric Schnitzler, seconded by Jim Kuhn to approve a petition by Dennis Pennel for change of zoning from GA-General Agriculture to R3-Rural Residential in the Town of Sparta. Motion carried: 3-0. This will be brought to the full county board on November 23, 2021 for final approval.

Office relocation: Nothing to report.

Sanitation & Zoning

FEMA Floodplain Mitigation Grant
DNR municipal flood control grant

Alison informed the Committee members that the structures have been removed from all sites including the two that were funded by Coulee Cap. Site restoration of those two sites still needs to be completed.

Zoning violation in the Town of Ridgeville (Swenson)

Alison had nothing more to report at this time. Court date has been postponed until April 2022.

Dog Control

Alison and Jeff Leis (On-Call Humane Officer) will be attending a Town Association meeting this Thursday Night (November 18th) to give a presentation on the different ordinances/Laws, dog licenses, etc.

Financial Report
FINANCIAL REPORT - VOUCHERS - INTER-DEPARTMENTAL TRANSFERS – CREDIT CARD EXPENDITURES – LINE ITEM TRANSFERS – BUDGET ADJUSTMENTS

Line item request to transfer $450 from Building maintenance to Motor Vehicles for Dog Control. A **motion** was made by Cedric Schnitzler, seconded by Jim Kuhn to approve the line item transfer from building maintenance to motor vehicles. Motion carried: 3-0.

Budget Adjustment request to transfer $600 from the Sanitation revenue to the Sanitation Motor Vehicle account to help with fuel cost. The Sanitation revenue is over budget by approximately $9,000. Motor vehicles currently only has $47 remaining to cover November/December costs. A **motion** was made by Cedric Schnitzler, seconded by Jim Kuhn to approve the budget adjustment from Sanitation revenue to Motor vehicles. Motion carried: 3-0.

Discussion was held.

October 2021

Department Vouchers		**Interdepartmental Transfers**		**Credit Card Voucher**	
Sanitation	1,828.22	Sanitation		Sanitation Credit	
Zoning	14,472.51	Zoning		Zoning	37.88
Dog Control	1,002.62	Dog Control		Dog Control	586.33
BOA	43.14				
Total	**17,346.49**	**0**			**624.21**

11-15-2-21

Set Date for Next Meeting and Possible Agenda Items.

The next meeting will be held Monday, December 20, 2021, will start at 6:00 pm at the American Legion Hall. Agenda items: We have four new Conditional Use permit applications and two rescheduled applications. (Schmitz/Hackbarth and Borntreger). Handouts were given to the Committee members for the CUP-Schmitz/Hackbarth for review.

A **motion** to adjourn was made by Jim Kuhn, seconded by Alan McCoy. Motion carried: 3-0

Meeting adjourned at 6:35 p.m.

Recorded by Gretchen Jilek

MONROE COUNTY SANITATION/PLANNING & ZONING/DOG CONTROL COMMITTEE
RESOLUTION NO. 1-21

RESOLUTION DESIGNATING A WOLF-HYBRID FOSTER FACILITY IN MONROE COUNTY FOR 2022

WHEREAS, Kevin Huff has constructed a wolf-hybrid facility to be in accordance with state and county regulations located at 6930 Cardinal Ave in Sec. 33, Town of Little Falls; and

WHEREAS, Kevin Huff has assisted the Monroe County Dog Control Department in the relocation, transportation, boarding and care of wolf-hybrids confiscated by the Monroe County Humane Officer; and

WHEREAS, the Department continues to rely on Mr. Huff for assistance with wolf-hybrids confiscated by the Humane Officer; and

WHEREAS, Sec. 5-356 of the Monroe County Code of Ordinances does allow Mr. Huff to possess two wolf-hybrids permanently with approved permits; and

WHEREAS, the Wisconsin Department of Natural Resources does require all people in possession of wolf-hybrids to obtain a state permit by the year 2014; and

WHEREAS, to obtain a state permit, documentation is required from the county showing Mr. Huff's facility has been designated as a wolf-hybrid foster facility; and

WHEREAS, this resolution serves as that documentation.

NOW, THEREFORE, BE IT RESOLVED that the Sanitation/Planning and Zoning/Dog Control Committee does designate Mr. Kevin Huff's wolf-hybrid facility a fostering facility for purpose of assisting the Monroe County Dog Control Department;

BE IT FURTHER RESOLVED that the number of permitted and fostered animals housed on site shall not exceed the facility capacity determined by the State of Wisconsin regulations for wolf-hybrid enclosures;

BE IT FURTHER RESOLVED that all animals shall be spayed or neutered prior to placement in a permanent home;

BE IT FURTHER RESOLVED that this designation shall expire on a yearly basis and may be revisited and renewed each January beginning in 2014;

BE IT FURTHER RESOLVED that Mr. Kevin Huff shall provide annual confirmation of his compliance with DNR licensing in regards to wolf-hybrids.

Dated this 20th day of December 2021

Sanitation, Planning & Zoning, Dog Control Committee

Purpose: To allow the Dog Control Department to continue to utilize Mr. Huff's assistance with regards to wolf-hybrids for the year 2022.

Fiscal Note: None, without designating Mr. Huff's facility as a wolf-hybrid fostering facility Monroe County would incur the cost of transportation, boarding and disposal of any confiscated animals. Currently Mr. Huff assists the County at no charge.

Approved as to form on 11/22/2021
Lisa Aldinger Hamblin, Corporation Counsel

Committee Vote: ____ Yes ____ No ____ Absent

Committee Chair: _____

Application/Permit No.: _____ Date Application Received: _____

MONROE CO. DOG CONTROL DEPTPARTMENT

RESTRICTED ANIMAL PERMIT & ENCLOSURE APPLICATION
(Permit is not valid until signed by the Dog Control Committee Chairman)

RECEIVED
NOV 16 2021
By _____

New Permit: _____ **Renewal:** X (check one) Permits must be renewed annually by March 31st.

I, The undersigned hereby apply for a permit to keep or house a restricted animal on the premises herein described. I, the undersigned am the owner of said property and agree to establish and maintain said animal's containment according to the Animal Ordinance and all other ordinances of the County of Monroe and with all the laws of the State of Wisconsin. I also agree to allow the Dog Control Department to inspect, at reasonable times, the buildings and land where the restricted animal is or will be housed. Applicable to said premises and with the information hereon.

Name of Property Owner: Kevin Huff (please print)
Signature : Kevin Huff
Mailing Address 6930 Cardinal Rd
City, State Zip Sparta WI 54656
Home Phone: N/A
Cellular Phone: 608-498-3167

Name of Animal Owner: Kevin Huff (please print)
Signature: Kevin Huff
Mailing Address 6930 Cardinal Rd
City, State Zip Sparta WI 54656
Home Phone: N/A
Cellular Phone: 608-498-3167
Date of Birth: 12/27/1973

Property Address where animal will be kept: 6930 Cardinal Rd, Sparta WI 54656

Legal Description: SW 1/4 of SE 1/4, Sec. 33 T 19 N, R 4 E or (W)

Town of Little Falls Tax Parcel ID No. 026-00678-5000 Lot size 2.3 acres
Use of Adjoining Property and other details: Farmland
Reason for owning restricted animal: Family Pet
Animal Species: (common and scientific name) Wolf hybrid, Animal Name: Church
Physical description of animal: (color, markings, etc.) black, white, grey
Age of Animal: 3yrs Sex of Animal: male
Type of Animal Enclosure: (fill in all that apply)
Outside Fenced Area: 22,500 square feet
Inside enclosure: 560 x 2 square feet
Aquarium: _____ cubic feet
Other (please describe)

Provide the Following Information:			
Date Enclosure was Constructed: 1/1/2010	**Size of Enclosure:** (Total Enclosed Acres) .75	**Number of Escape or refuge areas:** 3	**Total Number of Gates:** 4

Height of Perimeter Fence: 8/10 ft. _____ inches.

Width of Horizontal Wire provided at top & bottom of the fence on the inside of enclosure: _____ ft. 2 inches.

Does the bottom of the outside of the enclosure fence have: (Check all that apply)

☐ A 12 inch or greater wire apron ☒ An electric fence wire. ☐ Neither ☐ Not Applicable

Species that the enclosure will be permitted for: Wolf hybrid

Total Number of Animals within the Enclosure 1

Describe Food sources that will be available to the captive wild animals:
High Quality dog food w/ supplements

Describe water sources that will be available to the animals:
Fresh potable water changed twice per day

Describe cover & areas that will be available to the animals:

(2) 500 Square ft. buildings with rests & bedding boxes

Percent in woody cover: 90, **Percent in grass type cover:** 90, **Percent in food plots:** 0 **Percent open or mowed:** 100

Planned source of animals (Be specific, location, suppliers name, address, phone #, etc):

Owner Surrenders, animal Shelter, DNR

Veterinarian of Record for the Animals to be kept in enclosure:

Name Morgan Side Vet Clinic **Phone:** 608-269-2355

Address 500 W. Wisconsin St., Sparta WI 54656

Vacination date _____ Micro chip date _____ License # _____

Provide documentation See attached paperwork

Insurance policy information: See attached

Name of Co. _____ **Policy number** _____

Address _____

Agent's Name _____ **Amount** _____

Phone _____

PROVIDE A DETAILED DIAGRAM OF: the perimeter of the enclosure (including dimensions), location of access gates, location of drinking water and feeding locations, location of all natural and man-made escape/refuge areas, structures and adjacent roadways and buildings. You may also attach photos, maps, aerial photos or a separate sheet with larger diagrams if desired.

See attached drawings

I hereby certify the above information and diagram are true and correct. I also understand that providing incorrect information may result in revocation and possible penalties. If this permit is approved by the department, I understand that it is not transferable upon sale of your property or sale of your restricted animal. Every year a fee must be paid to the dog control Department by March 31st.

Signature of Applicant _____ **Date Signed** 11/15/21	
This Section is for Monroe County use only.	**Enclosure Inspected By:** **Title or Position** **Permit Issuance Approved** ☐ YES ☐ NO **Date:**

Federal or State licenses or permits held by Owner: _____

New Application Fee: $100.00
Annual Renewal Fee: $25.00
Fee Paid: $ 25.00 Date Paid: 11-16-21 Receipt Number: 639487

Zoning Committee Action

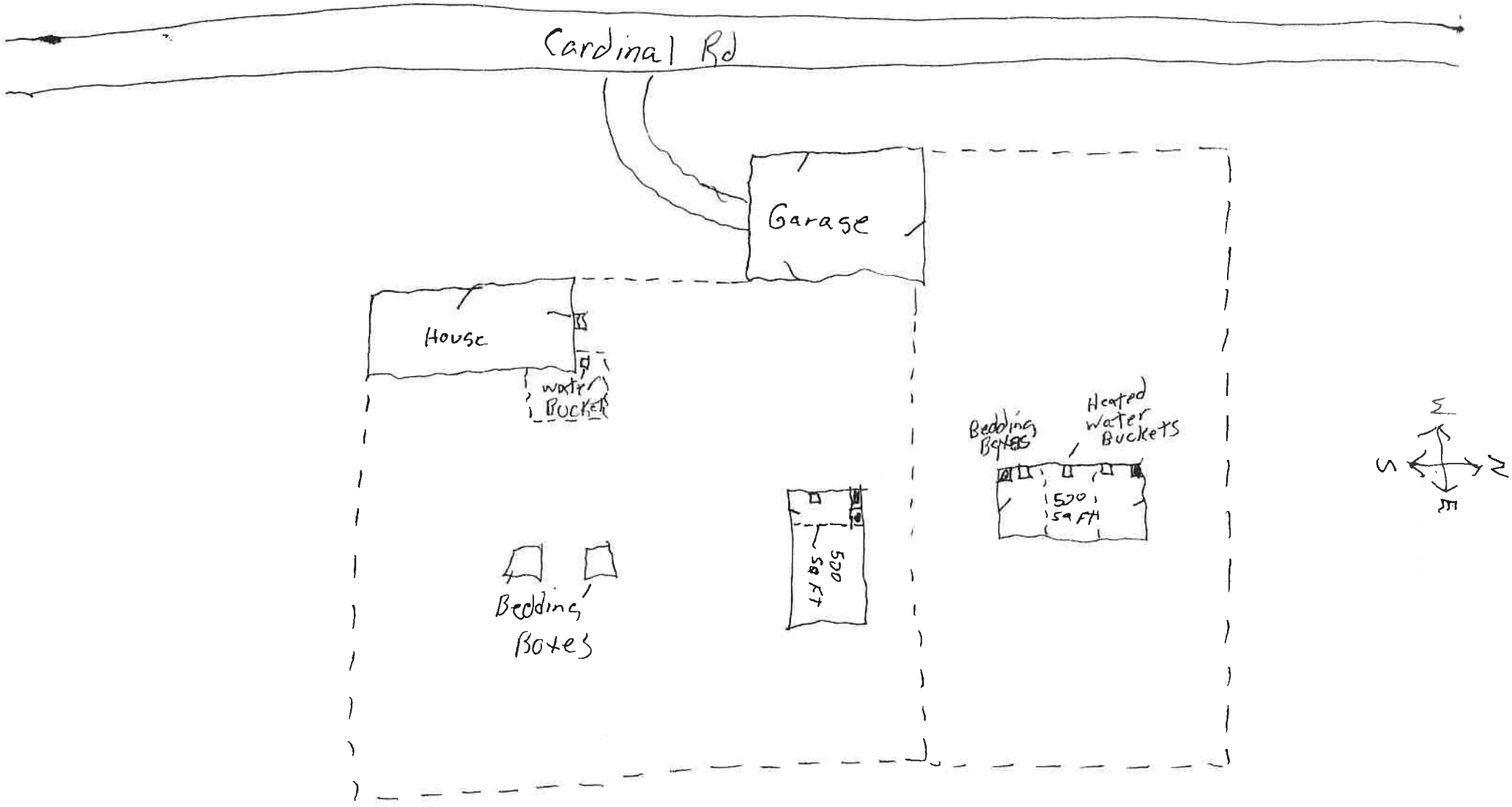
Date of Meeting: 12-20-21, 20____
Granted _____ Denied _____ Reason _____

Restricted Animal Permit

Permit for the housing and keeping of the above described restricted animal, in conformity with the Animal Ordinance, and the decision of the Monroe County Dog Control Committee is Hereby Granted.

Date _____, 20____

_____
Chairman, County Dog Control Committee


Cardinal Rd
Garage
House
water Bucket
Bedding Boxes
500 sq ft
Bedding Boxes
Heated water Buckets
500 sq ft
S
N
E

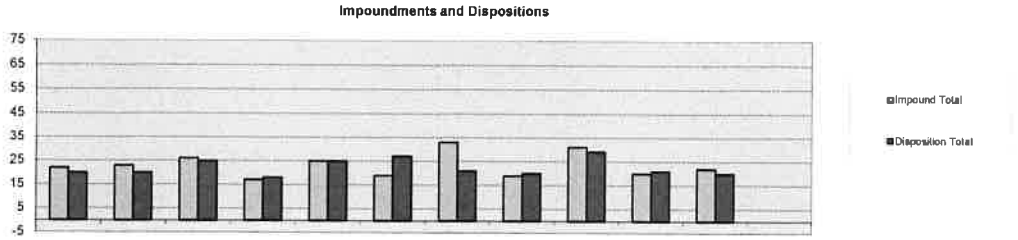
MONROE COUNTY DOG SHELTER MONTHLY STATISTICS for 2019

Impoundments and Dispositions

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	YTD
Stray	10	12	24	11	16	14	20	17	20	12	11		167
Surrendered	11	6	2	6	6	5	0	2	7	7	9		61
Returned	0	1	0	0	2	0	1	0	1	1	0		6
Criminal Impound	1	4	0	0	1	0	12	0	3	0	2		23
Impound Total	**22**	**23**	**26**	**17**	**25**	**19**	**33**	**19**	**31**	**20**	**22**	**0**	**257**
													0
In House	**7**	**10**	**11**	**10**	**10**	**2**	**14**	**13**	**15**	**14**	**16**		**122**
													0
Redeemed	10	9	17	11	17	14	14	18	14	6	8		138
Adopted	10	8	8	6	6	13	6	2	13	15	11		98
Euthanized	0	3	0	1	2	0	1	0	2	0	1		10
Disposition Total	**20**	**20**	**25**	**18**	**25**	**27**	**21**	**20**	**29**	**21**	**20**	**0**	**246**

Misc Statistical Data

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	YTD
Mileage-Amber	376	321	426	299	394	534	510	488	345	177	383		4023
Mileage-Jeff	762	743	1264	632	482	1079	1061	997	843	766	1044		9673
Number of top tier adoptions	2	0	1	2	1	2	1	0	1	10	6		26
Total fees waived	$0	0	2	0	0	0	4	1	1	3	1		12
Price Adjustments	$100.00	$0	$0	$0	$0	$150	$0.00	$0	$0	$0	$0		250



Price Adjustment Explanations

JANUARY	**FEB**
MARCH	**APRIL**
MAY	**JUNE** 3 dogs adopted at reduced rate of $50
JULY	**AUGUST**
SEPTEMBER	**OCT** 3 dogs transferred to other rescue shelter
NOVEMBER	**DEC**

TOTAL FEES WAIVED

January	2- one transfer, one adopted after long-term foster-medical	**Feb**
March	2-shelter transfer	**April**
May		**June**
July	4-dogs transferred to make room-full	**August**
September	1-dog transferred to another shelter	**Oct**
November	1-Owner passed away, friend came to redeem dog	**Dec**

Euthanization: (REASON)

Feb (3) for Aggression, 1 after bite quarantine
April (1) senior dog-prevent suffering
May (2) senior dog end of life, one for aggression/behavior
July (1) owner paid for euth-confiscated dog
Nov (1) aggression
September-(2) One for behavior, one for terminal health

December 2, 2021

Staff Report
Monroe County Planning & Zoning Department

Moses Borntreger
Hearing Date: December 20, 2021

Property Owner(s):	Moses Borntreger
Town:	Oakdale
Site Address:	18772 Island Rd.
Parcel Id:	030-00831-0000
Legal Description:	NE1/4, SW 1/4, Section 32 T17N, R1E
Total Acres:	39.59 Acres
Current Zoning:	GA General Agriculture
CUP Requested:	Two-Family Dwelling

Link to Monroe County Comprehensive Plan referenced below: *http://www.co.monroe.wi.us/wp-content/uploads/2015/02/MonroeCounty_ComprehensivePlan_Revised%209-24-14.pdf*

Attachments:
1. Application
2. Site Map

Background:

Purposed for Request:
To construct a breezeway between two dwellings to create a two-family dwelling.

General Features of the Property:
Based on the county zoning map the parcel is bounded on all sides by parcels zoned General Agriculture. Access for this parcel is off of Island Rd.

Current land use is indicated as Agriculture/Open Land. (see *Existing Land Use-Map 12*) Adjoining land use to the site is currently agriculture and some residential.

Monroe County Comprehensive Plan:
This parcel does not contain Floodplain or Wetlands but does contain Shorelands and an intermittent stream.

Technical Review Findings:

Sec. 47-292(19) of the Monroe County Zoning Ordinance requires a Conditional Use Permit for two-family dwellings in a General Agriculture Zoning District.

Applicable Statutes and Criteria:

The Planning & Zoning Committee may consider the following provisions before granting approval for the Conditional Use Permit:

1. The proposed use is consistent with Monroe County Zoning Ordinance and all other applicable Ordinances.
2. The proposed use is consistent with surrounding land uses.
3. The Town's approval or disapproval of the request.
4. Conditions to be placed on the permit per Sec. 47-584(d) of the Zoning Ordinance.

Under Section 59.69(5e) of Wis. Stats created by 2017 Act 67: Any condition imposed must be related to the purpose of the ordinance and be based on substantial evidence as defined below. The requirements and conditions must be reasonable and, to the extent practicable, measurable. The applicant must demonstrate

that the application and all requirements and conditions established by the county relating to the conditional use are or shall be satisfied, both of which must be supported by substantial evidence.

Planning and Zoning Committee Action:

Pursuant to Section 47-584 of the Zoning Ordinance, The Planning and Zoning Committee may do one of the following:

1. Approve the Conditional Use Permit as requested.
2. Approve the Conditional Use Permit with Conditions.
3. Deny the Conditional Use Permit with reason.

Section 59.69(5e) of Wis. Stats States that If an applicant for a conditional use permit meets or agrees to meet all of the requirements and conditions specified in the county ordinance or those imposed by the county zoning committee, the county shall grant the conditional use permit. The county's decision to approve or deny the permit must be supported by substantial evidence.

Definitions: Wis Stats Section 59.69(5e)(a)(2) "Substantial evidence" means facts and information, other than merely personal preferences or speculation, directly pertaining to the requirements and conditions an applicant must meet to obtain a conditional use permit and that reasonable persons would accept in support of a conclusion.

Town of Oakdale

RECEIVED
NOV 01 2021
BY

Permit No. _____

APPLICATION FOR CONDITIONAL/SPECIAL USE PERMIT
MONROE COUNTY, WISCONSIN

TO THE MONROE COUNTY ZONING COMMITTEE:

The undersigned hereby applies to the Monroe County Zoning Committee for a determination that the following site is suitable for the purpose indicated, and that suitable safeguards are met, in accordance with the provisions and requirements of the Monroe County Zoning Ordinance.

1) Name of Current Property Owner (please print): Moses S. Borntreger

Signature of Owner: Moses S. Borntreger Phone: None

Mailing Address 18772 Island Rd City, State Zip Tomah Wi 54660

2) Name Co-applicant: (please print) wife Anna B. Borntreger

Co-applicant Signature: Anna B. Borntreger Co-applicant Phone: _____

Co-applicant Address 18772 Island Rd City, State Zip Tomah, Wis 54660

PROPOSED USE

Entrance use between 2 Houses for the purpose of constructing a two family dwelling

DESCRIPTION OF SITE

NE ¼ of SW ¼ Section 32 T 17 N, R 1 W(E) 39.59 ± acres

Lot No. _____ Block No. _____ Subdivision or CSM No. _____

Town of Oakdale Tax Parcel ID: 030-00831-0000 40117-32-3100000

Zoning District GA Property Address: 18772 Island Rd Tomah Wi 54660

BUILDINGS AND AREA USED

New Buildings Width (ft.) 14 Length (ft.) 16 Height (ft.) 8 Stories 1

Existing Buildings Width (ft.) _____ Length (ft.) _____ Height (ft.) _____ Stories _____

Use of Adjoining Property and Other Details _____

YOU ARE RESPONSIBLE FOR COMPLYING WITH STATE AND FEDERAL LAWS CONCERNING CONSTRUCTION NEAR OR ON **WETLANDS, LAKES, AND STREAMS**. WETLANDS THAT ARE NOT ASSOCIATED WITH OPEN WATER CAN BE DIFFICULT TO IDENTIFY. FAILURE TO COMPLY MAY RESULT IN **REMOVAL OR MODIFICATION** OF CONSTRUCTION THAT VIOLATES THE LAW OR OTHER PENALTIES OR COSTS. FOR MORE INFORMATION, VISIT THE DEPARTMENT OF NATURAL RESOURCES WETLANDS IDENTIFICATION WEB PAGE www.dnr.wi.gov/wetlands/delineation.html OR CONTACT A DEPARTMENT OF NATURAL RESOURCES SERVICE CENTER.

Moses S. Borntreger
Signature of Property Owner

10-26-21
Date

By signing this, I acknowledge that I have received this notice.

Monroe County, WI

Legend

- Addresses
- Lakes and Rivers
- Rivers and Streams
  - FX
  - H
  - FH
- Parcels
- Parcel Labels
- Towns
- Monroe County
- Other Counties
- Interstates
- US Highways
- State Highways
- County Roads
- Local Roads and Streets
- Fort McCoy Roads
- Named Private Drive
- Private Driveway
- Limited Access
- Railroads
- Ortho (2020 - Color)
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3

N

0 20 40 60ft

DISCLAIMER: This map is not guaranteed to be accurate, correct, current, or complete and conclusions drawn are the responsibility of the user.

10/12/21 3:24 PM

MONROE COUNTY WISCONSIN

December 3, 2021

Staff Report
Monroe County Planning & Zoning Department

Aaron Brooks

Hearing Date: December 20, 2021

Property Owner(s):	Aaron Brooks
Town:	Sparta
Site Address:	16481 Hamden Rd.
Parcel Id:	040-00571-2700
Legal Description:	NE1/4, SW 1/4, Section 20 T17N, R4W
Total Acres:	1.7 Acres
Current Zoning:	GA General Agriculture
CUP Requested:	Small Business – Soap & Cosmetics

Link to Monroe County Comprehensive Plan referenced below: *http://www.co.monroe.wi.us/wp-content/uploads/2015/02/MonroeCounty_ComprehensivePlan_Revised%209-24-14.pdf*

Attachments:
1. Application
2. Site Map

Background:

Purposed for Request:
To operate a small business manufacturing and selling soap and cosmetic products.

General Features of the Property:
Based on the county zoning map the parcel is bounded on all sides by parcels zoned General Agriculture. Access for this parcel is off of Hamden Rd.

Current land use is indicated as Residential. (see *Existing Land Use-Map 12*) Adjoining land use to the site is currently residential and some agriculture.

Monroe County Comprehensive Plan:
This parcel does not contain Floodplain, Wetlands, Shorelands.

Technical Review Findings:

Sec. 47-292(15) of the Monroe County Zoning Ordinance requires a Conditional Use Permit for a small business in a General Agriculture Zoning District.

Sec. 47-7 Definitions.

Small business means any occupation for gain or support conducted on property by resident occupants which is customarily incidental to the principal use of the premises.

Applicable Statutes and Criteria:

The Planning & Zoning Committee may consider the following provisions before granting approval for the Conditional Use Permit:

1. The proposed use is consistent with Monroe County Zoning Ordinance and all other applicable Ordinances.
2. The proposed use is consistent with surrounding land uses.
3. The Town's approval or disapproval of the request.
4. Conditions to be placed on the permit per Sec. 47-584(d) of the Zoning Ordinance.

Under Section 59.69(5e) of Wis. Stats created by 2017 Act 67: Any condition imposed must be related to the purpose of the ordinance and be based on substantial evidence as defined below. The requirements and conditions must be reasonable and, to the extent practicable, measurable. The applicant must demonstrate that the application and all requirements and conditions established by the county relating to the conditional use are or shall be satisfied, both of which must be supported by substantial evidence.

Planning and Zoning Committee Action:

Pursuant to Section 47-584 of the Zoning Ordinance, The Planning and Zoning Committee may do one of the following:

1. Approve the Conditional Use Permit as requested.
2. Approve the Conditional Use Permit with Conditions.
3. Deny the Conditional Use Permit with reason.

Section 59.69(5e) of Wis. Stats States that If an applicant for a conditional use permit meets or agrees to meet all of the requirements and conditions specified in the county ordinance or those imposed by the county zoning committee, the county shall grant the conditional use permit. The county's decision to approve or deny the permit must be supported by substantial evidence.

Definitions: Wis Stats Section 59.69(5e)(a)(2) "Substantial evidence" means facts and information, other than merely personal preferences or speculation, directly pertaining to the requirements and conditions an applicant must meet to obtain a conditional use permit and that reasonable persons would accept in support of a conclusion.

Town of SPARTA

OCT 25 2021

Permit No. _____

APPLICATION FOR CONDITIONAL/SPECIAL USE PERMIT
MONROE COUNTY, WISCONSIN

TO THE MONROE COUNTY ZONING COMMITTEE:

The undersigned hereby applies to the Monroe County Zoning Committee for a determination that the following site is suitable for the purpose indicated, and that suitable safeguards are met, in accordance with the provisions and requirements of the Monroe County Zoning Ordinance.

1) Name of Current Property Owner (please print): Aaron Brooks

Signature of Owner: Aaron Brooks Phone: (608) 633-9028

Mailing Address 16481 Hamden Rd. City, State Zip Sparta, WI 54656

2) Name Co-applicant: (please print) _____

Co-applicant Signature: _____ Co-applicant Phone: _____

Co-applicant Address _____ City, State Zip _____

PROPOSED USE

Small Business - Manufacture and sale of soap and cosmetic products.

DESCRIPTION OF SITE

NE ¼ of SW ¼ Section 20 T 17 N, R 4 (W)E, 1.7 acres

Lot No. 8 Block No. _____ Subdivision or CSM No. 14 CSM 178

Town of SPARTA Tax Parcel ID: 040-0571-2700

Zoning District GA Property Address: 16481 Hamden Rd.

BUILDINGS AND AREA USED

New Buildings Width (ft.) _____ Length (ft.) _____ Height (ft.) _____ Stories _____

Existing Buildings Width (ft.) 13 Length (ft.) 27 Height (ft.) 10 Stories 1

Use of Adjoining Property and Other Details The area used for business is a portion of our garage attached to our residence.

YOU ARE RESPONSIBLE FOR COMPLYING WITH STATE AND FEDERAL LAWS CONCERNING CONSTRUCTION NEAR OR ON **WETLANDS, LAKES, AND STREAMS**. WETLANDS THAT ARE NOT ASSOCIATED WITH OPEN WATER CAN BE DIFFICULT TO IDENTIFY. FAILURE TO COMPLY MAY RESULT IN **REMOVAL OR MODIFICATION** OF CONSTRUCTION THAT VIOLATES THE LAW OR OTHER PENALTIES OR COSTS. FOR MORE INFORMATION, VISIT THE DEPARTMENT OF NATURAL RESOURCES WETLANDS IDENTIFICATION WEB PAGE www.dnr.wi.gov/wetlands/delineation.html OR CONTACT A DEPARTMENT OF NATURAL RESOURCES SERVICE CENTER.

Aaron Brooks 10/18/21

Signature of Property Owner Date

By signing this, I acknowledge that I have received this notice.

Monroe County, WI

Legend

- Addresses
- Lakes and Rivers
- Rivers and Streams
- Parcels
- Parcel Labels
- Towns
- Monroe County
- Other Counties
- Interstates
- US Highways
- State Highways
- County Roads
- Local Roads and Streets
- Fort McCoy Roads
- Named Private Drive
- Private Driveway
- Limited Access
- Railroads
- Ortho (2020 - Color)

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0 20 40 60ft

DISCLAIMER: This map is not guaranteed to be accurate, correct, current, or complete and conclusions drawn are the responsibility of the user.

10/12/2021 4:13 PM

MONROE COUNTY WISCONSIN

December 2, 2021

Staff Report
Monroe County Planning & Zoning Department
Gary and Kathy VonHaden
Hearing Date: December 20, 2021

Property Owner(s):	Gary and Kathy VonHaden
Town:	LaGrange
Site Address:	9998 Elk Rd.
Parcel Id:	020-00565-0000
Legal Description:	SW1/4, SW 1/4, Section 18 T18N, R1W
Total Acres:	20.35 Acres
Current Zoning:	GA General Agriculture
CUP Requested:	Small Business – Garden Plants and Repurposed/Antique Sales

Link to Monroe County Comprehensive Plan referenced below: *http://www.co.monroe.wi.us/wp-content/uploads/2015/02/MonroeCounty_ComprehensivePlan_Revised%209-24-14.pdf*

Attachments:
1. Application
2. Site Map

Background:
Purposed for Request:
To operate a small business selling garden plants, antiques and repurposed items.

General Features of the Property:
Based on the county zoning map the parcel is bounded on the west side by the unzoned Town of Greenfield. It is bounded on the north, east and south sides by parcels zoned General Agriculture. Access for this parcel is off of Elk Rd.

Current land use is indicated as Agriculture/Open Land. (see *Existing Land Use-Map 12*) Adjoining land use to the site is currently agriculture.

Monroe County Comprehensive Plan:
This parcel does not contain Floodplain, Wetlands, Shorelands.

Technical Review Findings:

Sec. 47-292(15) of the Monroe County Zoning Ordinance requires a Conditional Use Permit for a small business in a General Agriculture Zoning District.

Sec. 47-7 Definitions.

Small business means any occupation for gain or support conducted on property by resident occupants which is customarily incidental to the principal use of the premises.

Applicable Statutes and Criteria:
The Planning & Zoning Committee may consider the following provisions before granting approval for the Conditional Use Permit:

1. The proposed use is consistent with Monroe County Zoning Ordinance and all other applicable Ordinances.
2. The proposed use is consistent with surrounding land uses.
3. The Town's approval or disapproval of the request.
4. Conditions to be placed on the permit per Sec. 47-584(d) of the Zoning Ordinance.

Under Section 59.69(5e) of Wis. Stats created by 2017 Act 67: Any condition imposed must be related to the purpose of the ordinance and be based on substantial evidence as defined below. The requirements and conditions must be reasonable and, to the extent practicable, measurable. The applicant must demonstrate that the application and all requirements and conditions established by the county relating to the conditional use are or shall be satisfied, both of which must be supported by substantial evidence.

Planning and Zoning Committee Action:

Pursuant to Section 47-584 of the Zoning Ordinance, The Planning and Zoning Committee may do one of the following:

1. Approve the Conditional Use Permit as requested.
2. Approve the Conditional Use Permit with Conditions.
3. Deny the Conditional Use Permit with reason.

Section 59.69(5e) of Wis. Stats States that If an applicant for a conditional use permit meets or agrees to meet all of the requirements and conditions specified in the county ordinance or those imposed by the county zoning committee, the county shall grant the conditional use permit. The county's decision to approve or deny the permit must be supported by substantial evidence.

Definitions: Wis Stats Section 59.69(5e)(a)(2) "Substantial evidence" means facts and information, other than merely personal preferences or speculation, directly pertaining to the requirements and conditions an applicant must meet to obtain a conditional use permit and that reasonable persons would accept in support of a conclusion.

Town of La Grange

RECEIVED

Permit No. _____

APPLICATION FOR CONDITIONAL/SPECIAL USE PERMIT
MONROE ~~COUNTY, WISCONSIN~~

TO THE MONROE COUNTY ZONING COMMITTEE:

The undersigned hereby applies to the Monroe County Zoning Committee for a determination that the following site is suitable for the purpose indicated, and that suitable safeguards are met, in accordance with the provisions and requirements of the Monroe County Zoning Ordinance.

1) Name of Current Property Owner (please print): Gary L Von Haden

Signature of Owner: Gary L. Von Haden Phone: 608-343-6297

Mailing Address 9998 Elk Rd. City, State Zip Tomah, WI 54660

2) Name Co-applicant: (please print) Kathy L. Von Haden

Co-applicant Signature: Kathy L. Von Haden Co-applicant Phone: 608-343-6298

Co-applicant Address 9998 Elk Rd City, State Zip Tomah, WI 54660

PROPOSED USE

This business is garden plants and repurposed/Antique Sales.

DESCRIPTION OF SITE

SW ¼ of SW ¼ Section 18 T 18N N, R 1W W/E, 20.35 acres

Lot No. _____ Block No. _____ Subdivision or CSM No. _____

Town of LaGrange. Tax Parcel ID: 020-00545-0000

Zoning District General ag Property Address: 9998 Elk Rd

BUILDINGS AND AREA USED

New Buildings	Width (ft.)		Length (ft.)		Height (ft.)		Stories
Existing Buildings	Width (ft.)	32	Length (ft.)	40	Height (ft.)	16	Stories 1

Use of Adjoining Property and Other Details small green house 8x12 outside shelter 12x12

YOU ARE RESPONSIBLE FOR COMPLYING WITH STATE AND FEDERAL LAWS CONCERNING CONSTRUCTION NEAR OR ON **WETLANDS, LAKES, AND STREAMS**. WETLANDS THAT ARE NOT ASSOCIATED WITH OPEN WATER CAN BE DIFFICULT TO IDENTIFY. FAILURE TO COMPLY MAY RESULT IN **REMOVAL OR MODIFICATION** OF CONSTRUCTION THAT VIOLATES THE LAW OR OTHER PENALTIES OR COSTS. FOR MORE INFORMATION, VISIT THE DEPARTMENT OF NATURAL RESOURCES WETLANDS IDENTIFICATION WEB PAGE www.dnr.wi.gov/wetlands/delineation.html OR CONTACT A DEPARTMENT OF NATURAL RESOURCES SERVICE CENTER.

Gary L. Von Haden
Signature of Property Owner

11-9-21
Date

By signing this, I acknowledge that I have received this notice.

Monroe County, WI

Legend

- Addresses
- Lakes and Rivers
- Rivers and Streams
  - FA
  - II
  - PN
- Parcels
- Parcel Labels
- Towns
- Monroe County
- Other Counties
- Interstates
- US Highways
- State Highways
- County Roads
- Local Roads and Streets
- Fort McCoy Roads
- Named Private Drive
- Private Driveway
- Limited Access
- Railroads
- Ortho (2020 - Color)
  - Red Band_1
  - Green Band_2
  - Blue Band_3

N

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DISCLAIMER: This map is not guaranteed to be accurate, correct, current, or complete and conclusions drawn are the responsibility of the user.

10/25/21 2:43 PM

MONROE COUNTY WISCONSIN

December 3, 2021

Staff Report
Monroe County Planning & Zoning Department

Tracy Schaitel

Hearing Date: December 20, 2021

Property Owner(s):	Tracy Schaitel
Town:	Sparta
Site Address:	8175 Idol Ave.
Parcel Id:	040-01194-3000
Legal Description:	SW1/4, SW 1/4, Section 35 T17N, R4W
Total Acres:	1.79 Acres
Current Zoning:	R2 Suburban Residential
CUP Requested:	Small Business – Dog Daycare

Link to Monroe County Comprehensive Plan referenced below: *http://www.co.monroe.wi.us/wp-content/uploads/2015/02/MonroeCounty_ComprehensivePlan_Revised%209-24-14.pdf*

Attachments:
1. Application
2. Site Map

Background:

Purposed for Request:
To operate a Dog Daycare Facility.

General Features of the Property:
Based on the county zoning map the parcel is bounded on the west side by a parcel zoned R2 Suburban Residential. It is bounded on the north, east and south sides by parcels zoned General Agriculture. Access for this parcel is off of Idol Ave. The driveway is located approximately 500 feet off of State Hwy 27.

Current land use is indicated as Residential. (see *Existing Land Use-Map 12*) Adjoining land use to the site is currently agriculture and residential with the closest residence being approximately 150-200 away.

Monroe County Comprehensive Plan:
This parcel does not contain Floodplain, Wetlands, Shorelands.

Technical Review Findings:

Sec. 47-130(6) of the Monroe County Zoning Ordinance requires a Conditional Use Permit for a small business in a R2 Suburban Residential Zoning District.

Sec. 47-7 Definitions.

Small business means any occupation for gain or support conducted on property by resident occupants which is customarily incidental to the principal use of the premises.

Applicable Statutes and Criteria:

The Planning & Zoning Committee may consider the following provisions before granting approval for the Conditional Use Permit:

1. The proposed use is consistent with Monroe County Zoning Ordinance and all other applicable Ordinances.
2. The proposed use is consistent with surrounding land uses.
3. The Town's approval or disapproval of the request.
4. Conditions to be placed on the permit per Sec. 47-584(d) of the Zoning Ordinance.

Under Section 59.69(5e) of Wis. Stats created by 2017 Act 67: Any condition imposed must be related to the purpose of the ordinance and be based on substantial evidence as defined below. The requirements and conditions must be reasonable and, to the extent practicable, measurable. The applicant must demonstrate that the application and all requirements and conditions established by the county relating to the conditional use are or shall be satisfied, both of which must be supported by substantial evidence.

Planning and Zoning Committee Action:

Pursuant to Section 47-584 of the Zoning Ordinance, The Planning and Zoning Committee may do one of the following:

1. Approve the Conditional Use Permit as requested.
2. Approve the Conditional Use Permit with Conditions.
3. Deny the Conditional Use Permit with reason.

Section 59.69(5e) of Wis. Stats States that If an applicant for a conditional use permit meets or agrees to meet all of the requirements and conditions specified in the county ordinance or those imposed by the county zoning committee, the county shall grant the conditional use permit. The county's decision to approve or deny the permit must be supported by substantial evidence.

Definitions: Wis Stats Section 59.69(5e)(a)(2) "Substantial evidence" means facts and information, other than merely personal preferences or speculation, directly pertaining to the requirements and conditions an applicant must meet to obtain a conditional use permit and that reasonable persons would accept in support of a conclusion.

Town of Sparta

Permit No.

RECEIVED
NOV 15 2021
By

APPLICATION FOR CONDITIONAL/SPECIAL USE PERMIT
MONROE COUNTY, WISCONSIN

TO THE MONROE COUNTY ZONING COMMITTEE:

The undersigned hereby applies to the Monroe County Zoning Committee for a determination that the following site is suitable for the purpose indicated, and that suitable safeguards are met, in accordance with the provisions and requirements of the Monroe County Zoning Ordinance.

1) Name of Current Property Owner (please print): Tracy Susan Schaitel

Signature of Owner: _____ Phone:608 386 1037

Mailing Address 8175 Idol Avenue City, Sparta State WI Zip 54656

2) Name Co-applicant: (please print) _____

Co-applicant Signature: _____ Co-applicant Phone: _____

Co-applicant Address _____ City, State Zip _____

PROPOSED USE

Building to be used for Dog Daycare - Small business

DESCRIPTION OF SITE

SW ¼ of SW ¼ Section 35 T 17 N, R 4 (W) E, 1.79 acres

Lot No. 3 Block No. _____ Subdivision or CSM No. 19CSM190

Town of Sparta Tax Parcel ID: 040-0184-30000

Zoning District R-2 Suburban Residential Property Address: 8175 Idol Avenue, Sparta WI 54656

BUILDINGS AND AREA USED

New Buildings Width (ft.) 30 Depth (ft.) 40 Height (ft.) 10 Stories —

Existing Buildings Width (ft.) _____ Depth (ft.) _____ Height (ft.) _____ Stories _____

Use of Adjoining Property and Other Details Land also has family home already existing.

YOU ARE RESPONSIBLE FOR COMPLYING WITH STATE AND FEDERAL LAWS CONCERNING CONSTRUCTION NEAR OR ON **WETLANDS, LAKES, AND STREAMS**. WETLANDS THAT ARE NOT ASSOCIATED WITH OPEN WATER CAN BE DIFFICULT TO IDENTIFY. FAILURE TO COMPLY MAY RESULT IN **REMOVAL OR MODIFICATION** OF CONSTRUCTION THAT VIOLATES THE LAW OR OTHER PENALTIES OR COSTS. FOR MORE INFORMATION, VISIT THE DEPARTMENT OF NATURAL RESOURCES WETLANDS IDENTIFICATION WEB PAGE www.dnr.wi.gov/wetlands/delineation.html OR CONTACT A DEPARTMENT OF NATURAL RESOURCES SERVICE CENTER.

Monroe County, WI

Legend

- Addresses
- Lakes and Rivers
- Rivers and Streams
  - FX
  - H
  - PN
- Parcels
- Parcel Labels
- Towns
- Monroe County
- Other Counties
- Interstates
- US Highways
- State Highways
- County Roads
- Local Roads and Streets
- Fort McCoy Roads
- Named Private Drive
- Private Driveway
- Limited Access
- Railroads
- Ortho (2020 - Color)
  - Red: Band_1
  - Green: Band_2
  - Blue: Band_3

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DISCLAIMER: This map is not guaranteed to be accurate, correct, current, or complete and conclusions drawn are the responsibility of the user.

11/15/21 2:41 PM

MONROE COUNTY WISCONSIN

Brief Description of Business

Name: **Fido's On Idol**

Description: Dog Daycare Business

Hours of Operation: 6.30am to 6pm

Address: 8175 Idol Avenue, Sparta, 54656, WI

Phone: (608) 386 1037

Owner: Tracy S Schaitel

Fido's On Idol offers dog owners a place to drop off their dog for half a day or a full day. Maybe they have an appointment to keep, wedding or funeral to attend or just a break for "Play Care" for their own Fido!

I will offer fresh air walks, playtime with other dog friends, toys, fresh food, water and comfy beds for nap time. I will also post regular pictures on social media so pet owners can check in on the wonderful time their pets are having.

I appreciate your time in considering my application for my business idea. I am a pet owner, lover of dogs and would like to utilize my property which is located in a country setting but yet convenient to town for my new business adventure.

Thank you,

Tracy Schaitel

July 30, 2021

Staff Report
Monroe County Planning & Zoning Department

Sam E. Borntreger
Hearing Date: August 23, 2021

Property Owner(s):	Sam E. Borntreger
Town:	Wilton
Site Address:	20102 King Rd
Parcel Id:	048-00239-0000
Legal Description:	NW1/4, NE 1/4, Section 12 T16N, R1W
Total Acres:	23.4 Acres
Current Zoning:	GA General Agriculture
CUP Requested:	Kennel

Link to Monroe County Comprehensive Plan referenced below: *http://www.co.monroe.wi.us/wp-content/uploads/2015/02/MonroeCounty_ComprehensivePlan_Revised%209-24-14.pdf*

Attachments:
1. Application
2. Site Map

Background:

Purposed for Request:
To operate a dog breeding facility on the property. There are currently 5 adult dogs licensed at this address.

General Features of the Property:
Based on the county zoning map the parcel is bounded on all sides by parcels zoned General Agriculture. Access for this parcel is off of King Rd.

Current land use is indicated as Agriculture/Open. (see *Existing Land Use-Map 12*) Adjoining land use to the site is currently agriculture and a quarry.

Monroe County Comprehensive Plan:
This parcel does not contain Shorelands, Wetlands or Floodplain.

Governmental Agency Review:
Staff has not yet received correspondence from the Town of Wilton.

Technical Review Findings:

Sec. 47-292(8) of the Monroe County Zoning Ordinance requires a Conditional Use Permit for a Kennel in a General Agriculture Zoning District.

47-7 Definitions
Kennel means the use of land, with related buildings and structures, for the breeding, rearing, boarding or training, possession, or ownership of more than five dogs over five months of age for a time period exceeding six months.

Applicable Statutes and Criteria:

The Planning & Zoning Committee may consider the following provisions before granting approval for the Conditional Use Permit:

1. The proposed use is consistent with Monroe County Zoning Ordinance and all other applicable Ordinances.
2. The proposed use is consistent with surrounding land uses.

Town of Wilton

RECEIVED
JUL 15 2021
By

Permit No. _____

APPLICATION FOR CONDITIONAL/SPECIAL USE PERMIT
MONROE COUNTY, WISCONSIN

TO THE MONROE COUNTY ZONING COMMITTEE:

The undersigned hereby applies to the Monroe County Zoning Committee for a determination that the following site is suitable for the purpose indicated, and that suitable safeguards are met, in accordance with the provisions and requirements of the Monroe County Zoning Ordinance.

1) Name of Current Property Owner (please print): Sam E Bontreger

Signature of Owner: Sam E Bontreger Phone: _____

Mailing Address 20102 King RD City, State Zip Wilton Wi 54670

2) Name Co-applicant: (please print) _____

Co-applicant Signature: _____ Co-applicant Phone: _____

Co-applicant Address _____ City, State Zip _____

PROPOSED USE

dog Kennels

DESCRIPTION OF SITE

NW ¼ of NE ¼ Section 12 T 16 N, R 1 W/E, 23.04 acres

Lot No. _____ Block No. _____ Subdivision or CSM No. _____

Town of Wilton Tax Parcel ID: 048-00231-0000

Zoning District GA Property Address: 20102 King RD Wilton wi 54670

BUILDINGS AND AREA USED

New Buildings Width (ft.) _____ Length (ft.) _____ Height (ft.) _____ Stories _____

X Existing Buildings Width (ft.) 24 Length (ft.) 40 Height (ft.) 7' Stories 1

Use of Adjoining Property and Other Details I will use around ½ of the building aquiture 4

YOU ARE RESPONSIBLE FOR COMPLYING WITH STATE AND FEDERAL LAWS CONCERNING CONSTRUCTION NEAR OR ON **WETLANDS, LAKES, AND STREAMS**. WETLANDS THAT ARE NOT ASSOCIATED WITH OPEN WATER CAN BE DIFFICULT TO IDENTIFY. FAILURE TO COMPLY MAY RESULT IN **REMOVAL OR MODIFICATION** OF CONSTRUCTION THAT VIOLATES THE LAW OR OTHER PENALTIES OR COSTS. FOR MORE INFORMATION, VISIT THE DEPARTMENT OF NATURAL RESOURCES WETLANDS IDENTIFICATION WEB PAGE www.dnr.wi.gov/wetlands/delineation.html OR CONTACT A DEPARTMENT OF NATURAL RESOURCES SERVICE CENTER.

Sam E Bontreger
Signature of Property Owner

7-10-21
Date

By signing this, I acknowledge that I have received this notice.

Google Maps 20102 King Rd

Imagery ©2019 Google, Map data ©2019 Google 50 ft

This is the building I want to us for dog kennels

Alison Elliott

From: Town Wilton <townofwiltonclerk@gmail.com>
Sent: Sunday, October 17, 2021 7:49 PM
To: Alison Elliott; Amber Dvorak; Jeff Leis
Subject: Town of Wilton Resolution for Dog Kennel CUPs
Attachments: Resolution for Dog Kennel CUP Guidelines.pdf; Sam Borntreger dog kennel letter.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Good Morning Everyone,

Please see the attached documents. The first document is the Resolution that the Town of Wilton town board has passed. Bascially what this document states is that these are the "conditions" that the Town of Wilton is attaching to all dog kennel CUP applications both pending and future.

As of today, we have been notified that Joseph Yoder on Juneau Road and Daniel Borntreger on Kiln Avenue have requested to recind their CUP applications. As far as pending applications at the time of our meeting on October 12th, leaves Sam Borntreger on King Road. The town is approving his application using the resolution as conditions to the approval of his conditional use permit for a dog kennel. I have attached the letter that we are mailing out to Sam Borntreger letting him know, giving him advance notice prior to his hearing on November 15th. Please note that Sam Borntreger has not made any attempts to contact the town other than his initial permit application, which he was made aware that we would be limiting to 10 dogs over the age of 5 months. I want to draw to your attention that part of the resolution requires the applicant to acquire a State of Wisconsin Seller's Permit regardless of the number of dogs being sold. I am also going to follow up with Dawson that this is what the Town of Wilton town board has decided. This decision is made based on a recommendation from Dawson. The town feels that the extra reinforcement could be beneficial to all involved.

Now, in regards to Moses Lee on Logan Road. Moses Lee, Henry Miller and Neal Troyer did attend our meeting on October 12th. Mr. Lee and Mr. Miller were made fully aware that the Town of Wilton will NOT be changing their mind about allowing over 10 dogs over the age of 5 months. The town board is fully aware that he applied for a new conditional use permit, which came officially from your office after the meeting. Mr. Lee has been advised to work with your office to safely rehome his animals in access to 10 dogs. The town board advised him that his abatement order would stand. So please follow through with your original date, which I believe is November 1st. It was explained to Mr. Lee that he can stay with his current conditional use permit limiting him to no more than 10 dogs, etc or he can reapply for a new conditional use permit and the resolution would be applied, which is basically the same thing with a new more conditions. Ultimately, we are grandfathering the two conditional use permits on file for dog kennels as we do not feel we can go backwards with what has been previously approved.

I want to thank you all again for all the help and effort that you have set forth in this matter. It is appreciated by myself and the rest of the Town of Wilton Town Board.

Becky Pitel
Town of Wilton
Clerk

Town of Wilton
Dog Kennel Conditional Use Permit Guidelines
Resolution: 21-10-12

Monroe County Kennel Definition

The Town of Wilton will follow the Monroe County definition of a kennel. The current definition is that a "Kennel means the use of land, with related buildings and structures, for the breeding, rearing, boarding or training, possession, or ownership of more than five dogs over five months of age for a time period exceeding six months". This definition may or may not be updated as Monroe County updates their definition.

Town Provisions to Conditional Use Permit for Dog Kennels

- No more than 10 dogs over the age of 5 months per property.
- Any of the town board members with the owner, have a right to inspect for dog numbers with or without notice. If the owner refuses inspection, the town will ask the Monroe County Humane Officer to perform the inspection.
- If found in violation of being over the 10 dog limit, the owner of the facility will be given 30 days from the date of violation to reduce the dog numbers to 10 dogs or less. If the Town finds you in violation, the violation will be turned over to Monroe County, in which they may choose to perform their own inspection. After the 30 days, Monroe County will proceed with an abatement order and fines according to present fee schedule.
- Reduction of dogs should be done humanly and with the oversite of Monroe County Animal Control. Dog reduction should not be done through euthanization of any kind unless it deemed by a Monroe County Humane Officer that this is in the best interest of the animal due to health concerns. Dog reduction should be documented with Monroe County and/or the Wilton Town Board as to where that animal has been rehomed. If rehoming is not an option, the owner should work with Monroe County Animal Control for placement in a shelter or a certified foster.
- The conditional use permit will be null and void if their dog(s) are found at large more than twice within a year. On the third offense, the owner will have 30 days to reduce their dog numbers to 5 or less dogs. Complaints of dogs running at large does require proper documentation from concerned citizens. The Monroe County Humane Officer and/or Sheriff's Department will make the determination of whether an animal is considered at large and what is considered proper documentation. After the 30 days, Monroe County will proceed with an abatement order and fines according to present fee schedule.
- Barking, whining or howling in a manner so as to materially disturb or annoy persons who are ordinary sensibilities. If the Sheriff's department or Monroe County Animal Control receives two separate and distinct formal, written complaints within a consecutive four-week period or if observed by a law enforcement officer/humane officer for a continuous period of 15 minutes or more, shall make the Conditional Use Permit null and void. On the third offense, the owner will have 30 days to reduce their dog numbers to 5 or less dogs. After the 30 days, Monroe County will proceed with an abatement order and fines according to present fee schedule.
- All dogs will be licensed and vaccinated at all times according to State Statutes, any violation of licensing and vaccinating shall make the Conditional Use Permit null and void. Monroe County Animal Control will determine if they feel that the owner should be granted longer than 30 days to comply.

- The Town of Wilton requires a State Seller's Permit regardless of the number of dogs sold clause. This requirement has been verified as an option with the State of Wisconsin Humane Officer. The permit must be obtained prior to a Conditional Use Permit being issued. The Town of Wilton places value on the requirements in Attachment 1 and Attachment 2 and expects all parts of the attachments to be followed. Any violations or non-compliance of the State Seller's Permit, shall make the Conditional Use Permit null and void. If the permits are voided, dog reductions should be done within 30 days of the permit(s) being voided. After the 30 days, Monroe County will proceed with an abatement order and fines according to present fee schedule.
- Conditional Use Permit is issued to the applicant only at the property address on the application. If the property owner moves to a new location within the township, a new conditional use permit will be required. If the property is sold to another person/party, the conditional use permit is null and void.
- Conditional Use Permit is only to be approved if the applicant is in full compliance with the Town of Wilton, State of Wisconsin and a Monroe County. Any non-compliance shall void the conditional use permit.
- If the Conditional Use Permit is voided or the owner is found guilty by Monroe County or the State of Wisconsin for any form of animal abuse, a new Conditional Use Permit for a Dog Kennel will not be approved by the Town of Wilton.

As of October 12, 2021, there are only two Conditional Use Permits for Dog Kennels issued in the Town of Wilton. These two permits will be grandfathered from this resolution. If either one of these applicants choose to reapply at a later date for any reason, they will need to comply with this resolution.

As of October 12, 2021, the Town of Wilton is unaware of any one that has presently has more than 5 dogs on their property that has not followed proper licensing requirements. If it be determined that a resident within the Town of Wilton has more than 5 dogs that lacked to license, they will need to comply with this resolution.

Dated October 12, 2021

Chris Chambers

Chairman, Chris Chambers

Jan Brandau

Supervisor, Jan Brandau

Alison Elliott

From: Denise Vernier <vernier@charter.net>
Sent: Saturday, November 13, 2021 12:02 PM
To: Alison Elliott
Subject: Dog Kennel Permits

To Members of the Monroe Country Panning and Zoning Committee:

I am writing to strongly encourage voting AGAINST the conditional use permits for dog kennels at the Monroe County Zoning meeting on November 15, 2021. The area already has several kennels with very little oversight and too many animals without proper care that end up unwanted and in local animal shelters.

Please pass this letter along to anyone involved.
Regards,

Denise Vernier
Tomah, Wisconsin

Alison Elliott

From: CenturyLink Customer <juliewesson@centurytel.net>
Sent: Wednesday, August 18, 2021 4:05 PM
To: Alison Elliott
Subject: Please read this at your August 23rd county meeting. Thank you, Julie Wesson, Town of Wilton

I'm Julie Wesson from the town of Wilton, and for health reasons, I'm unable to attend your meeting this evening. However, Alison graciously gave me the opportunity to share my thoughts with you in this email.

First, I commend the board for putting in place well thought out ordinances regarding the keeping and care of dogs in our county. Because these are in place, half the battle is over. The other half of the battle, however, has been terribly difficult. Jeff Leis is our 20 hour a month humane officer, and I am so pleased with his reaction to my concerns of kennels popping up in our town with animals not vaccinated, not licensed and in our case, the next door neighbor's dogs running loose. We do not take loose unvaccinated and unlicensed dogs lightly, and we are very pleased with Jeff Leis's response.

The difficult part of course is inspection and enforcement throughout the county, and with only a part time officer, it's impossible. It was so heartening to read in your July meeting notes that you are funding the training of another humane officer, and that training will take place in September. Hurrah for you! We need help desperately, as many new "kennels" are popping up in various areas of the county. These dogs need a voice, and we have the job to keep them safe, comfortable and properly cared for. That's why inspection and enforcement are so critical as the puppies keep

coming, and from what I heard at the Wilton town meeting, trucks from Florida come to our county to pick up the poor little ones, un-socialized, afraid, caged, to haul them off to Florida to sell.

Our neighbor's son and his wife came to our home recently to tell us they wanted to be good neighbors. The son's wife let us know that the dogs are LIVESTOCK!! that they have at the farm nextdoor. Livestock??? I asked them if people have cows in their homes. No, cows are livestock. Do people have horses living in their homes? No, horses are livestock. Do puppies and dogs live in peoples' homes? Yes, yes they do. These domesticated and loving animals are not livestock and should not be the "cash cows ", so to speak, for those running the kennels without following the rules of our county.

How do we stop this activity? We must inspect, enforce, return, inspect, enforce, return. If 1 1/2 officers are not enough, we must budget for more. The only way to stop the law breaking is to break the cycle of setting up kennels at will with no regard for the rules put in place by you wise officials.

Most sincerely, Julie Wesson

September 3, 2021

Staff Report
Monroe County Planning & Zoning Department

Karl Hackbarth and Kyle Schmitz

Hearing Date: September 20, 2021

Property Owner(s):	Karl Hackbarth
Co-Applicant(s):	Kyle Schmitz
Town:	Wells
Site Address:	12833 County Highway XX
Parcel Id(s):	046-00593-0000, 046-00594-5000, 046-00592-0000, 046-00604-0000, 046-00603-0000, 046-00606-0000, 046-00605-0000
Legal Description:	E1/2, Section 28 T16N, R3W
Total Acres:	200 Acres
Current Zoning:	GA General Agriculture
CUP Requested:	Sporting Clay Course/Trap & Skeet Shoot

Link to Monroe County Comprehensive Plan referenced below: *http://www.co.monroe.wi.us/wp-content/uploads/2015/02/MonroeCounty_ComprehensivePlan_Revised%209-24-14.pdf*

Attachments:
1. Application
2. Parcel Map
3. Wetlands Map
4. Business narrative
5. Site Plan

Background:

Purposed for Request:
To operate a trap/skeet/clay shooting range in a "golf course" style layout.

General Features of the Property:
Based on the county zoning map the parcel is bounded on all sides by parcels zoned General Agriculture. Access for this parcel is off of County Highway XX.

Current land use is indicated as Forested. (see *Existing Land Use-Map 12*) Adjoining land use to the site is currently woodlands and agriculture.

Monroe County Comprehensive Plan:
These parcels contain Shorelands and Wetlands but no mapped Floodplain. An un-named tributary to the Little La Crosse River also flows through these parcels.

Governmental Agency Review:
Staff has not yet received correspondence from the Town of Wells.

Technical Review Findings:

Sec. 47-292(2) of the Monroe County Zoning Ordinance requires a Conditional Use Permit for a Trap and Skeet Shoot facility in a General Agriculture Zoning District.

Applicable Statutes and Criteria:

The Planning & Zoning Committee may consider the following provisions before granting approval for the Conditional Use Permit:

1. The proposed use is consistent with Monroe County Zoning Ordinance and all other applicable Ordinances.
2. The proposed use is consistent with surrounding land uses.
3. The Town's approval or disapproval of the request.
4. Conditions to be placed on the permit per Sec. 47-584(d) of the Zoning Ordinance.

Under Section 59.69(5e) of Wis. Stats created by 2017 Act 67: Any condition imposed must be related to the purpose of the ordinance and be based on substantial evidence as defined below. The requirements and conditions must be reasonable and, to the extent practicable, measurable. The applicant must demonstrate that the application and all requirements and conditions established by the county relating to the conditional use are or shall be satisfied, both of which must be supported by substantial evidence.

Planning and Zoning Committee Action:

Pursuant to Section 47-584 of the Zoning Ordinance, The Planning and Zoning Committee may do one of the following:

1. Approve the Conditional Use Permit as requested.
2. Approve the Conditional Use Permit with Conditions.
3. Deny the Conditional Use Permit with reason.

Section 59.69(5e) of Wis. Stats States that If an applicant for a conditional use permit meets or agrees to meet all of the requirements and conditions specified in the county ordinance or those imposed by the county zoning committee, the county shall grant the conditional use permit. The county's decision to approve or deny the permit must be supported by substantial evidence.

Definitions: Wis Stats Section 59.69(5e)(a)(2) "Substantial evidence" means facts and information, other than merely personal preferences or speculation, directly pertaining to the requirements and conditions an applicant must meet to obtain a conditional use permit and that reasonable persons would accept in support of a conclusion.

Town of Wells

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JUL 29 2021
By

Permit No. _____

APPLICATION FOR CONDITIONAL/SPECIAL USE PERMIT
MONROE COUNTY, WISCONSIN

TO THE MONROE COUNTY ZONING COMMITTEE:

The undersigned hereby applies to the Monroe County Zoning Committee for a determination that the following site is suitable for the purpose indicated, and that suitable safeguards are met, in accordance with the provisions and requirements of the Monroe County Zoning Ordinance.

1) Name of Current Property Owner (please print): Karl Hackbarth

Signature of Owner: Karl Hackbarth Phone: 608-366-1212

Mailing Address 12833 County Highway XX City, State Zip Norwalk, WI, 54648

2) Name Co-applicant: (please print) Kyle Schmitz

Co-applicant Signature: Kyle Schmitz Co-applicant Phone: 608-343-1296

Co-applicant Address 25944 Midway Ave City, State Zip Wilton, WI, 54670

PROPOSED USE

Sporting Clay Course/Trap and Skeet

DESCRIPTION OF SITE

Part of ¼ of E ½ ¼ Section 28 T 16 N, R 3 W/E, 200 acres

Lot No. _____ Block No. _____ Subdivision or CSM No. _____

Town of Wells Tax Parcel ID: 046005930000, 046005945000, 046005920000, 046006040000, 046006030000, 046006060000, 046006050000

Zoning District General Ag./CUP Property Address: 12833 County Highway XX, Norwalk WI 54648

BUILDINGS AND AREA USED

New Buildings Width (ft.) _____ Length (ft.) _____ Height (ft.) _____ Stories _____
Existing Buildings Width (ft.) _____ Length (ft.) _____ Height (ft.) _____ Stories _____

Use of Adjoining Property and Other Details Woodlands + Agriculture

YOU ARE RESPONSIBLE FOR COMPLYING WITH STATE AND FEDERAL LAWS CONCERNING CONSTRUCTION NEAR OR ON **WETLANDS, LAKES, AND STREAMS**. WETLANDS THAT ARE NOT ASSOCIATED WITH OPEN WATER CAN BE DIFFICULT TO IDENTIFY. FAILURE TO COMPLY MAY RESULT IN **REMOVAL OR MODIFICATION** OF CONSTRUCTION THAT VIOLATES THE LAW OR OTHER PENALTIES OR COSTS. FOR MORE INFORMATION, VISIT THE DEPARTMENT OF NATURAL RESOURCES WETLANDS IDENTIFICATION WEB PAGE www.dnr.wi.gov/wetlands/delineation.html OR CONTACT A DEPARTMENT OF NATURAL RESOURCES SERVICE CENTER.

Karl Hackbarth 7/28/2021

Signature of Property Owner Date

By signing this, I acknowledge that I have received this notice.

Zoning Committee Action

Date of Publication _____, 20_____ Date of Hearing _____, 20_____

Granted _____ Denied _____ Reason _____

Granted on Condition _____ Condition _____

Special Use Permit

Permit for construction and/or use above described, in conformity with the Zoning Ordinance, and the decision of the Monroe County Zoning Committee is Hereby Granted subject to any conditions stated above.

Date _____, 20_____

_____
Chairman, County Zoning Committee

FEE $ 200.00 Date paid 7-29-21 **Receipt no.** 251994 **PERMIT NO.** _____

I, Kyle Schmitz am applying for a conditional use permit for a trap/skeet/sporting clay range at the parcels associated with the address of 12833 County Highway XX, Norwalk, WI.

I believe our community can benefit from this business and strengthen important life values for guests by; spending time with family and friends, teaching life skills, respecting others, staying healthy with outdoor physical activity, and enjoying the freedoms of our country in this beautiful God-given landscape.

Below is a list of specific things our local community could benefit from:

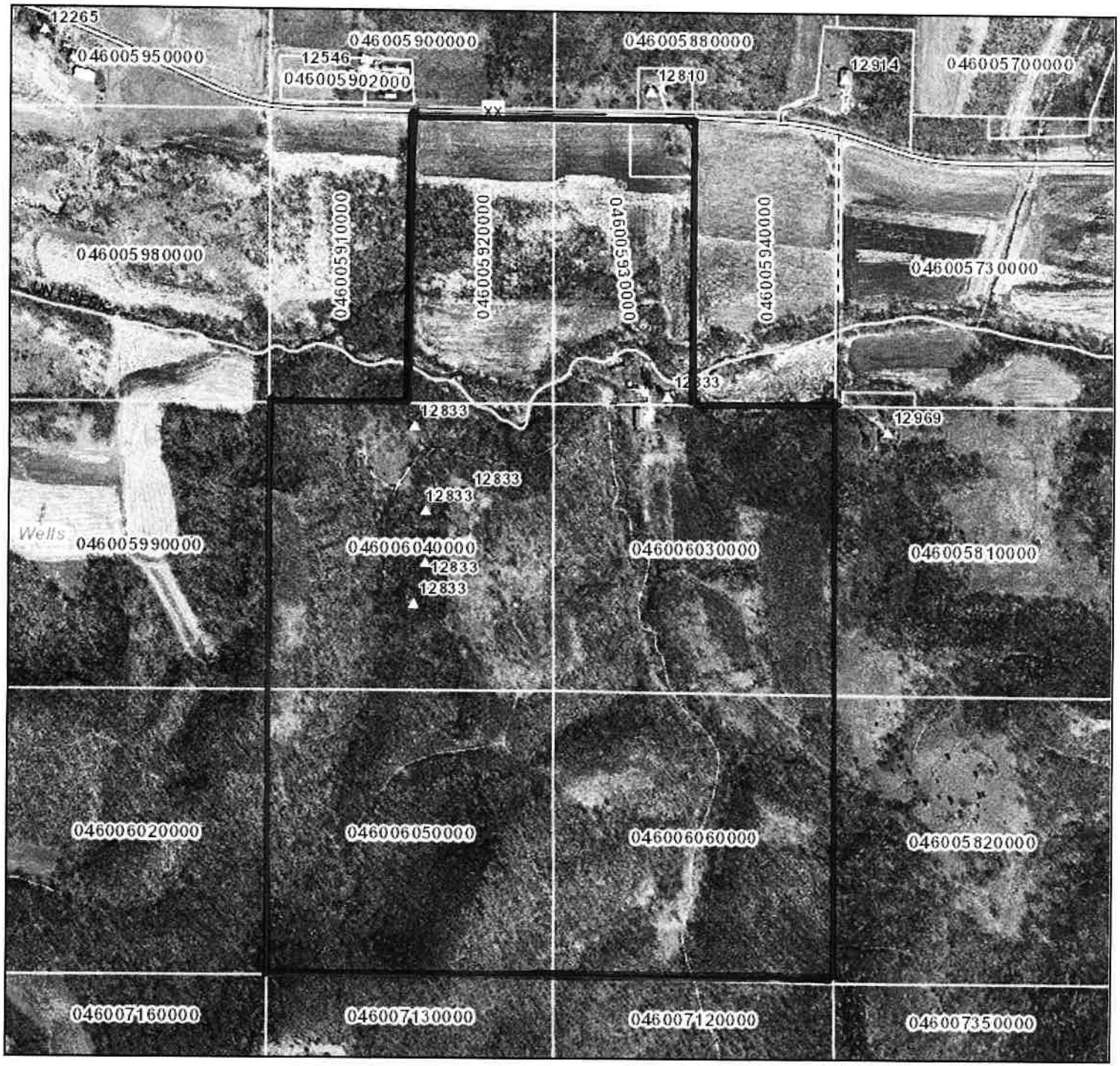
1. Guests are looking for a way to relax and take their mind off work, this is a huge stress relief process for many people, being outdoors and focused on something other than work will help keep people from becoming depressed, this is especially true in the winter months.
2. The local community may use the stations to relax or improve their shooting skills, many local schools now have trap shooting teams.
3. Hunters love to go on destination hunts, this would allow local outdoorsmen to essentially hike with a gun and train their bodies for physical endurance.
4. This is an outdoor activity thus giving people the ability to keep distance from one another to not spread any viruses or germs.

For a general understanding, stations throughout the land will be placed for guests to shoot clay targets thrown from an automated machine. Paths for the guests will connect each station. Shotguns and golf carts will be available for rent. The villas on the land will be rented by night as they currently are.

The following is a list of precautions or actions that will be taken to ensure safety. Safety is the number one priority.

1. All hunter safety rules, and best practices will be followed.
2. No person or building will be within 150yds of a person's line of fire.
3. Targets will be thrown in a designated area to limit each stations line of fire.
4. Only shotguns will be allowed on the range
5. Only 7 ½ shot or larger will be allowed on the range, limiting the line of fire's distance.
6. No alcohol will be permitted/sold to a customer before or while using a firearm.
7. The use of alcohol or drugs with a firearm is unlawful and prohibited.
8. Lead shot will not be fired across or into any natural navigable waters.
9. Hearing and eye protection will be required while firing a firearm.
10. The speed limit on the range will be 10mph.
11. Guests will only be allowed on the designated paths.
12. Areas where a potential roll over could occur, barricades or highly visible caution signs will be placed.
13. Firearm safety signs, reminders, and first-aid kits will be placed throughout the stations.
14. Neighboring land will not be within 300yds of a person's line of fire.
15. Necessary equipment for customers will be sanitized after each use during covid19.

Please see the maps I have provided with a rough idea of where the stations will be placed on the land. The number of stations shown is not accurate. The red and white pins are stations, the red triangles have 50yd sides for reference, the blue and purple lines are the proposed designated paths, the purple houses are the villa rentals and main house, the light blue house is the proposed office, the yellow P is a proposed parking area.



Monroe County, WI

Legend

- Addresses
- Lakes and Rivers
- Rivers and Streams
  - FX
  - I
  - PN
- Parcels
- Parcel Labels
- Towns
- Monroe County
- Other Counties
- Interstates
- US Highways
- State Highways
- County Roads
- Local Roads and Streets
- Fort McCoy Roads
- Named Private Drive
- Private Driveway
- Limited Access
- Railroads
- Ortho (2020 - Color)
  - Red : Band_1
  - Green : Band_2
  - Blue : Band_3

N

0 200 400 600ft

DISCLAIMER: This map is not guaranteed to be accurate, correct, current, or complete and conclusions drawn are the responsibility of the user.

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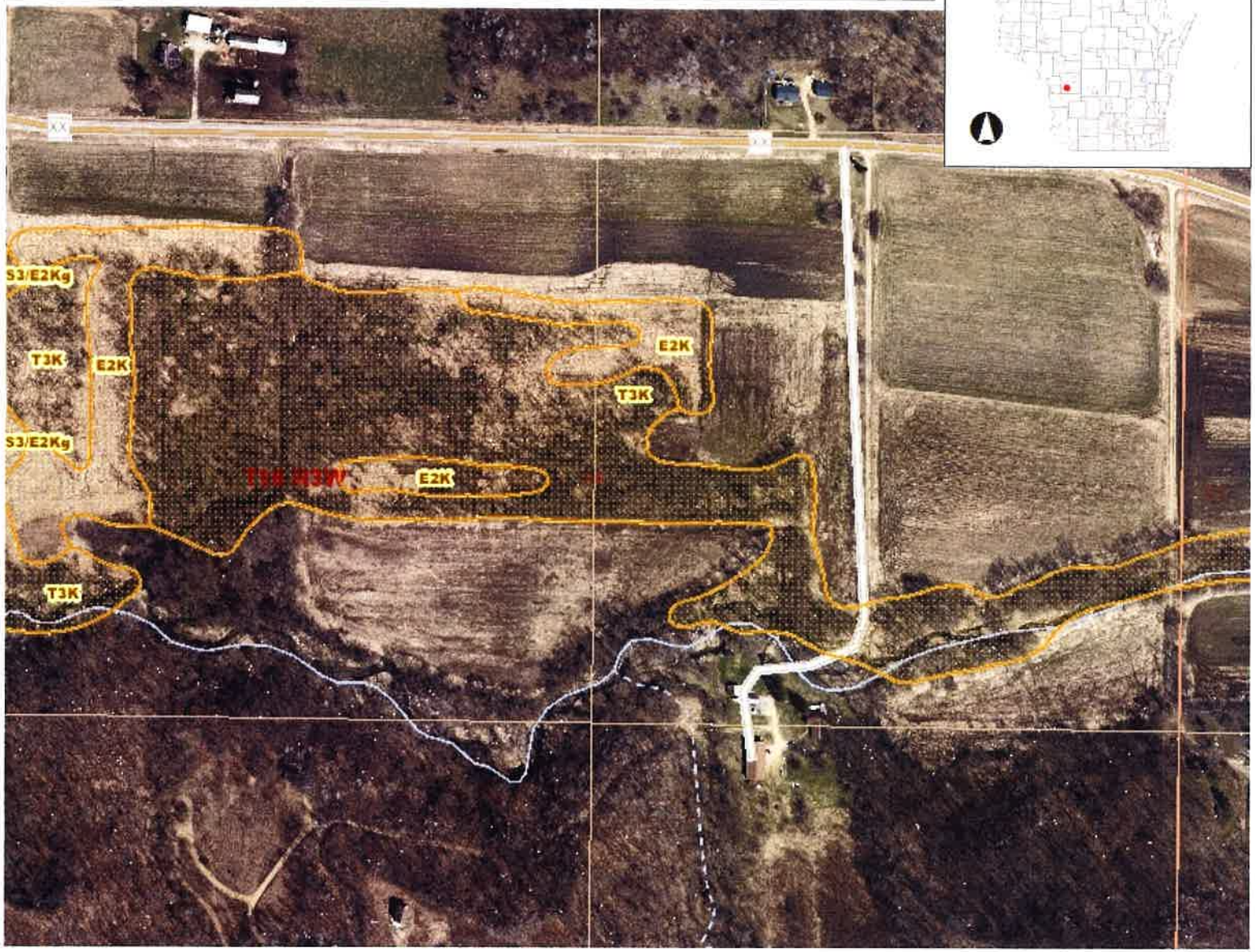
MONROE COUNTY WISCONSIN

Surface Water Data Viewer Map



Legend

- Wetland Class Areas
- Wetland Class Points
  - Dammed pond
  - Excavated pond
  - Filled/drained wetland
  - Wetland too small to delineate
  - Filled excavated pond
- Filled Points
- Wetland Class Areas
- Filled Areas
- Wetland Class Areas
- Wetland Class Points
  - Dammed pond
  - Excavated pond
  - Filled/drained wetland
  - Wetland too small to delineate
  - Filled excavated pond
- Filled Points
- Wetland Class Areas
- Filled Areas
- Wetland Identifications and Confirmations
- Township
- Section
- Quarter-Quarter
- County Boundary
- Cities, Towns & Villages
  - City
  - Village
  - Civil Town
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway

Notes

0.1 0 0.06 0.1 Miles

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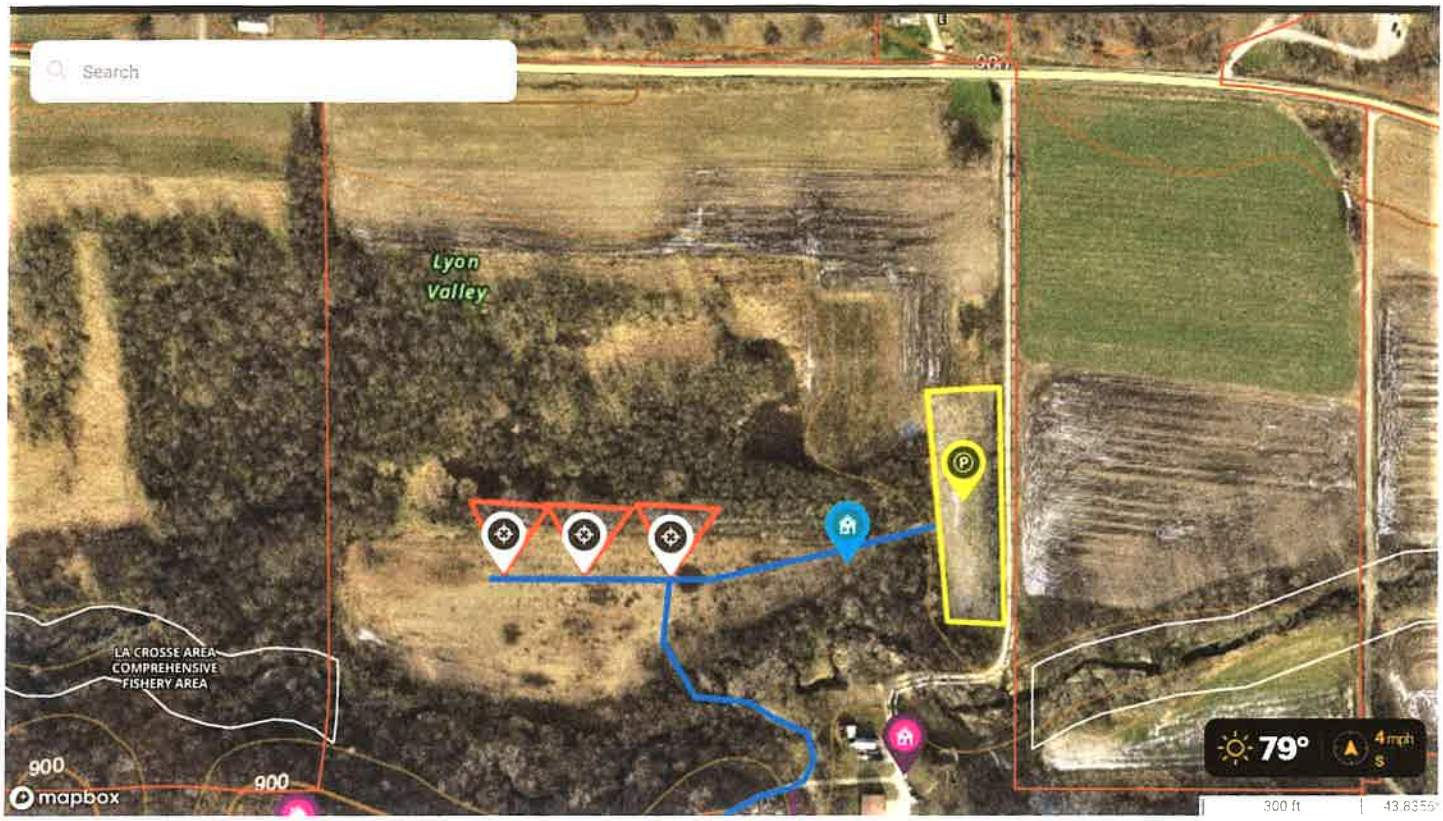
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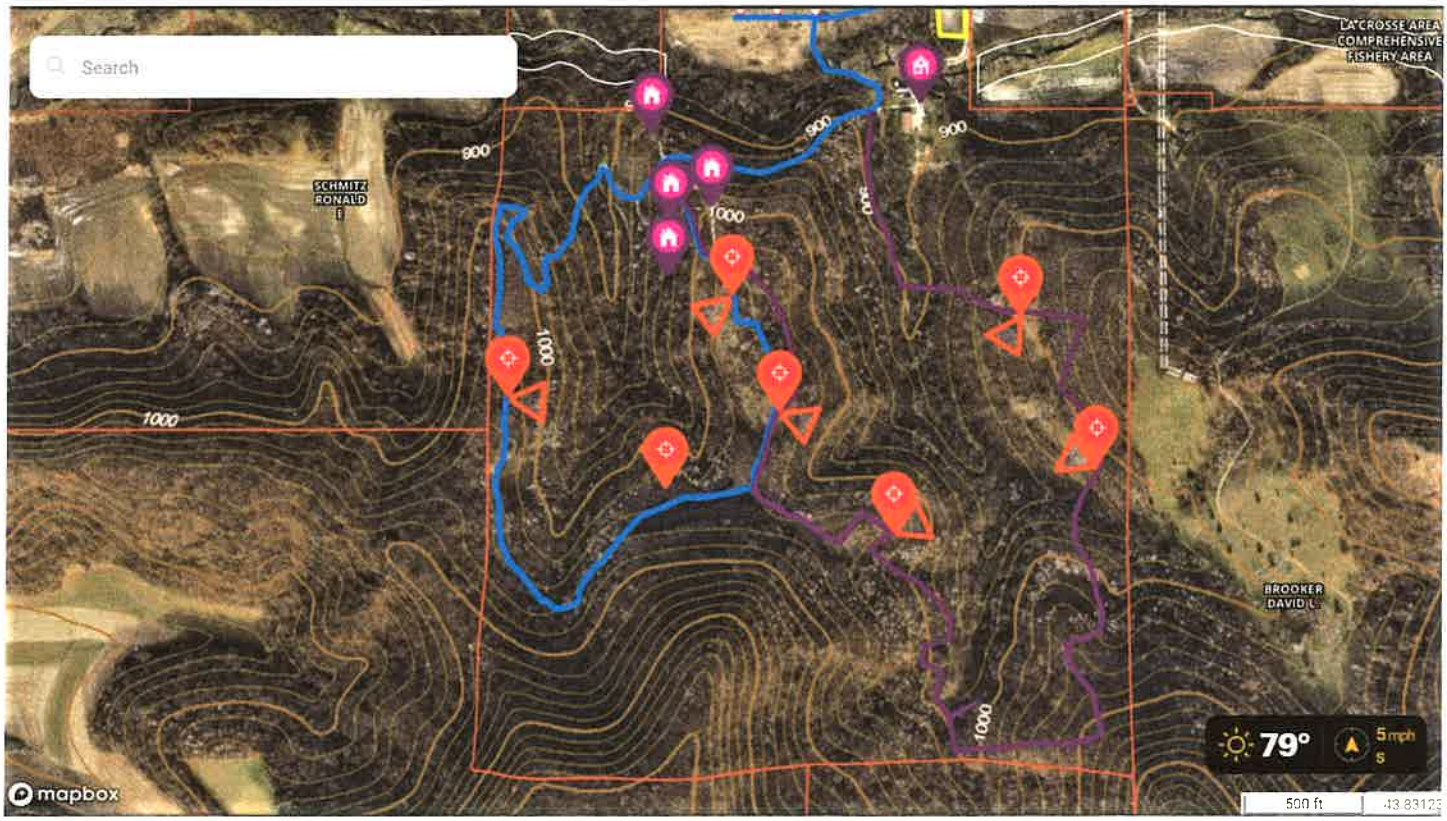
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stationary snowmobiles in the January 2004 Society of Automotive Engineers Standard J2567.

(d)

1. Except as provided in subd. 2., for every snowmobile manufactured on or after July 2, 1975, the noise level standard for exhaust and engine noise shall be 88 decibels as measured in accordance with the procedures established for the measurement of exhaust sound levels of stationary snowmobiles in the January 2004 Society of Automotive Engineers Standard J2567.

2. After consulting with the snowmobile recreational council, the department may promulgate a rule that establishes a noise level standard for exhaust and engine noise that is other than 88 decibels.

350.10 Miscellaneous provisions for snowmobile operation.

(1) No person shall operate a snowmobile in the following manner:

.....

(d) In such a way that the exhaust and engine **noise** exceeds the applicable **noise** level standard specified in s. 350.095 (2) (c) or (d).

895.527 Sport shooting range activities; limitations on liability and restrictions on operation.

(1) In this section, "sport shooting range" means an area designed and operated for the use and discharge of firearms.

(2) A person who owns or operates a sport shooting range is immune from civil liability related to noise resulting from the operation of the sport shooting range.

(3) A person who owns or operates a sport shooting range is not subject to an action for nuisance or to zoning conditions related to noise and no court may enjoin or restrain the operation or use of a sport shooting range on the basis of noise.

(4) Any sport shooting range that exists on June 18, 2010, may continue to operate as a sport shooting range at that location notwithstanding any zoning ordinance enacted under s. 59.69, 60.61, 60.62, 61.35 or 62.23 (7), if the sport shooting range is a lawful use or a legal nonconforming use under any zoning ordinance enacted under s. 59.69, 60.61, 60.62, 61.35 or 62.23 (7) that is in effect on June 18, 2010. The operation of the sport shooting range continues to be a lawful use or legal nonconforming use notwithstanding any expansion of, or enhancement or improvement to, the sport shooting range.

(5) Any sport shooting range that exists on June 18, 1998, may continue to operate as a sport shooting range at that location notwithstanding all of the following:

(a)Section 167.30, 941.20 (1) (d) or 948.605 or any rule promulgated under those sections regulating or prohibiting the discharge of firearms.

(b)Section 66.0409 (3) (b) or any ordinance or resolution.

(c) Any zoning ordinance that is enacted, or resolution that is adopted, under s. 59.69, 60.61, 60.62, 61,35 or 62.23 (7) that is related to noise.

(6) A city, village town or county may regulate the hours between 11:00 p.m. and 6:00 a.m. that an outdoor sport shooting range may operate, except that such a regulation may not apply to a law enforcement officer as defined in s. 165.85 (2) (c), a member of the U.S. armed forces or a

SOP/ STANDARD OPERATING PROCEDURE

GODS COUNTRY GAME CLAYS LLC,

Table of Contents

GENERAL OPERATION

PURPOSE

The purpose of this SOP/ Standard Operating Procedure is to outline the general operation rules governing Gods Country Game Clays LLC outdoor gun range located at 12833 County Highway XX, Norwalk WI-54648. The following range operation rules are established to ensure the safety and discipline for individuals utilizing the range as well as the safety of its neighbors and surrounding properties.

GENERAL

Operations are the policies and procedures which includes the actual shooting, events, and the implementation of goods and services of this facility. The range will be open to the public, members, and employees. The business will require the public, members, and its employees to sign a yearly waiver. The business will also require liability insurance to operate.

MODIFICATIONS

Any revisions to this operational plan shall supersede and replace any previously adopted operation plan segments and any previously distributed copies shall be destroyed. This operational plan shall be reviewed once a year to assure the plan is working and remains relevant.

SECTIONS

This procedure contains four sections as listed below.

SECTION I: ADMINISTRATIVE

SECTION II: SERVICES

SECTION III: MAINTINENCE

SECTION IV: ENVIRONMENT

All customers are required to acknowledge, abide, and enforce these rules as follows.

SECTION I: ADMINISTRATIVE OPERATIONS

HOURS OF OPERATION

The business will have 3 different sets of hours and seasons. Hours and seasons are preliminary until customer frequency is determined.

Sporting Clays:

Mon	9AM – 8PM
Tues	CLOSED
Wed	CLOSED
Thurs	9AM – 8PM
Fri	9AM – 8PM
Sat	9AM – 8PM
Sun	9AM – 5 PM

Leaf Color Change – December – CLOSED
Days under 15 degrees by 9AM – CLOSED
Spring Thaw ~ 1 month CLOSED

Club House:

Mon	6AM – 12AM
Tues	CLOSED
Wed	CLOSED
Thurs	6AM – 12AM
Fri	6AM – 12AM
Sat	6AM – 12AM
Sun	6AM – 12AM

Spring Thaw – CLOSED

Villas: The Villa Hours and seasons are set as they currently operate. Open 7 Days/Week

SUPERVISION OF CUSTOMERS

Staff members are required to randomly monitor customers by moving throughout the range and engaging with the customers to ensure safety rules and regulations are understood and are being followed. All staff must act as mentors and set good examples by practicing the rules required on the range.

SUPERVISION OF EMPLOYEES

Supervisors will train employees how to maintain the range, engage with customers, and enforce rules and regulations. Employees will also be monitored and tested to ensure they understand the rules, regulations, and procedures.

TRAINING

Employees and supervisors are required to complete the Wisconsin DNR hunter safety course. Range safety officers will complete proper training to watch for and correct unsafe acts on the range. All staff will be required to pass practical and mental tests conducted on the range, first with an unloaded gun, then with a loaded gun, to ensure the rules and regulations are understood and why we have them. For qualified staff to be downrange and reload machines, they are required to have 8 hours of documented experience with a supervisor practicing those tasks. To set targets and adjust machine angles or spring tension, staff are required to have 24 hours of documented experience with a supervisor practicing those tasks. All staff are required to fulfill local, company, and state requirements to serve alcohol to customers.

SERVING CUSTOMERS

Staff should serve customers with respect and understanding. If a customer has a discrepancy with our services, work with them to resolve the issue. If the issue cannot be resolved, explain why it cannot be done and find another method to counter the issue. The business shall have the proper permits required by state and local agencies to sell alcohol on its grounds. Gun owners are required to put their gun back in a vehicle, case, locker, or disassembled before alcohol can be served to a customer.

DOWNRANGE

Before entering downrange, a sign or barricade will be placed at all station's entrances that share the same shot-fall area, stating that the staff is downrange and preforming maintenance on the station. Turn off the stations sensors so the machines cannot be activated by a customer. Once these objectives are done it is now safe to enter the downrange area of the station.

RELOADING TARGETS IN MACHINES

Approach the machine from the rear. Before reloading a machine can occur, stand behind the machine and cycle/disarm the throwing arm, so the machine is not cocked/loaded, by standing clear and pressing the disarm button. Make sure correct targets are reloaded for that specific machine. Reload targets carefully in the machine so they do not crack or break. After reloading, stand behind the machine and cycle/arm the machine until it is throwing the target properly.

ADJUSTING MACHINES

Approach the machine from the rear. Before making any adjustments, stand behind the machine and cycle/disarm the throwing arm, so the machine is not cocked/loaded, by standing clear and pressing the disarm button. Adjustments are now allowed to be made. Adjust the machine using proper fitting tools. After adjustments are made, double check nuts and bolts are tight, and the machine is in a secured position. Stand behind the machine and cycle/arm the machine until it is throwing the target properly and in the desired area. Look for any loose components while cycling.

TARGET SETTING

Targets have multiple settings such as direction, vertical angle, tilt angle, and speed. Ariel photos will be taken of each station to plot and plan the targets trajectory. Ariel maps will be used to measure distance from one station to adjacent stations to ensure safety. Once targets are set in position, the targets must be tested a minimum of 3 times from the shooting station to ensure the criteria and safety standards have been met.

Targets should meet the following criteria:

1. Minimum distance of 5 yds from the shooter
2. Maximum distance of 60 yds from the shooter
3. Visibly presentable for background changes
4. Avoid rising above or below backstops
5. Avoid a shooting window in-line with adjacent stations

SECTION II: SERVICES

This business will provide the following services to its customers:

TARGETS

Clay targets will be thrown from machines into the air or across the ground for the customer to shoot. These targets come in a variety of shapes, sizes, colors and can be thrown at different directions, angles, and speeds. The customers will move from station to station until all targets have been presented to them.

CART RENTAL

Golf carts will be available for customers if they do not want to walk from station to station or to their villa rental.

SHOTGUN RENTAL

Shotguns will be available for rent if the customer does not have one. A identification card shall be retained while the gun is rented. A copy of the renter's legal identification card must be made.

INDOOR ARCHERY RANGE

An indoor archery range will be available for customers that want to practice and exercise their skills in the off-season.

FOOD AND DRINKS

Prepackaged food and drinks will be available for customers at the club house.

CLASSES:

We want to host educational classes for the community on topics like; how to properly prepare, harvest, and manage sustainable wildlife, these are things that would also provide environmental and biology studies for students in the area.

SECTION III: MAINTENANCE

STATIONS

Stations will be maintained on a daily, weekly, and monthly basis. Station's upkeep is important for the environment and customer satisfaction. Hand tools will be used to clean up trash, shotgun shells, wads, and target fragments. A magnetic broom pulled by an ATV will be used to clean up shot.

The following is the maintenance schedule for all stations:

1. Trash - Daily
2. Shotgun shells – Daily
3. Wads – Weekly
4. Shot- Monthly
5. Target fragments- Monthly

HOUSEKEEPING

The business shall keep customer amenities well organized, clean, and disinfected. This includes the clubhouse, bathrooms, villas, and golf carts. All staff is required to wash their hands after using the restroom. After a customer has used the villa rentals all garments including bed sheets, towels, and hand clothes are required to be washed.

TARGET MACHINES

The target machines need to be inspected and greased once a month or more to ensure they are in proper working order. The machines will be inspected by a supervisor and properly fixed if needed.

SECTION IV: ENVIRONMENT

SOUND ABATEMENT

Sound should be abated in accordance with the safety plan. Evergreen trees, shrubs, barricades, earth berms, and shot curtains are all forms of sound abatement. Shrubs and evergreen trees will be planted near the property boarders to abate the sound even further and stay aesthetically pleasing for the surrounding community.

TRAVEL PATHS

Travel paths should be landscaped to avoid steep slopes. Where slopes are present the travel path should be gravel. Ditches or culverts should be placed where potential washouts could occur. During winter months, the paths will be plowed, and the slopes will be salted.

RESEEDING

Stations where the ground is bare will be shut down or targets will be reconfigured to allow vegetation to regrow. Straw will be placed over the bare areas to aid the growth of vegetation. If the bare area is on a slope, water breakers or silt fence will be placed to prevent erosion.

CLEARING

Where clearing is needed, the brush can be used within the stations for target obstacles or stacked and used as noise abatement. The brush could also create habitat for wildlife.

STATION ROTATION

Additional stations can be staged and ready in the case another station breaks down or needs work. This will also be a good practice to keep the stations vegetation fresh and thriving.

SAFETY PLAN

GODS COUNTRY GAME CLAYS LLC

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SAFETY PLAN

PURPOSE

The purpose of this Safety Plan is to outline the rules and regulations governing the Gods Country Game Clays LLC outdoor gun range located at 12833 County Highway XX, Norwalk WI-54648. The following range rules and regulations are established to ensure the safety and discipline for individuals utilizing the range as well as the safety our neighbors and surrounding properties.

GENERAL

Live fire conducted at the range is designed to provide authorized personnel access to a facility where they can become proficient with firearms and practice both individual and group shooting sports. Individuals using the range will become familiar with these safety rules and procedures prior to using the range. The range safety rules and procedures help to provide range supervision and allow enforcement of these rules to reduce or eliminate incidents from occurring. Customers learn and practice shooting in a controlled environment, which is a space with precisely regulated environmental factors with all respect to our neighbors, surrounding properties, and the environment based on the written rules and regulations described in this Safety Plan.

MODIFICATIONS

The range rules will be prominently displayed on the range and incorporated into the Safety Plan. Any revisions to this document will supersede and replace any previously adopted segments and previously distributed copies will be destroyed. This Safety Plan shall be reviewed once a year to assure the plan is working and remains relevant.

AREA EVALUATION

Site selection for shooting stations will be evaluated for direction, shooting angles, topography, vegetation, distance from people, buildings, traveling paths, and neighboring land. Ariel maps will be used to measure distances from each station to ensure proper safety criteria is met. During operation, evaluations will be conducted to ensure the design and controls are working properly.

SIGNAGE/ AWARENESS

A list of our rules will be posted for staff and customers to read before entering the range.

AGE RESTRICTIONS

Shooters through age eleven (11) must be accompanied and directly supervised by non-shotting parent/ legal guardian. Shooter's ages twelve (12) thru fifteen (15) must be accompanied by and can shoot with a parent/ legal guardian if they have passed and present a hunter safety permit. Shooter's ages sixteen (16) thru seventeen (17) must have passed and present a hunter safety permit and have a waiver signed by a parent/legal guardian. **NO** unattended children allowed on the property.

ENGINEERING PLAN

The range grounds, shooting stations, and controls will be designed as follows:

1. A station's line of fire shall not be within 300 yds of people, travel paths, buildings, and neighboring land without proper backstops.
2. A station's line of fire shall not be within a 150 yds of people, travel paths, and buildings with proper backstops.
3. A station's targets should not be set to rise over or fall under a stations backstop without consideration of vertical and horizontal gun angle and shot-fall distance. A gun angle of 30 degrees, using 7 ½ shot with no wind, can travel a maximum distance of 256 yds.
4. A station's sound level should be abated when sound levels are over 65 decibels at the point of the property boundary nearest an existing neighboring house. Tests shall be conducted twice a year. (OSHA's requirement is 90 dB)
5. No station shall be built within 50 ft of the property line.
6. Clay targets should be launched in a designated area to keep the shooters shot window within approximately 90-100 degrees.
7. Targets shall be a minimum of 5 yards away from the shooter.
8. The stations firing lines shall point the shooter in a safe direction, be a minimum of 6 feet apart, and 3 feet wide.
9. A station's program must have a sound delay of a 2 second minimum before targets are launched so the shooter has time to get ready.
10. Stations will have a sign showing how many targets to expect at each station.
11. The entrance to each station firing lines should be marked for proper entry.
12. The travel paths should be in one direction and wide enough to pass with a golf cart.
13. The speed limit shall be no more than 10 mph.
14. Barricades shall be placed on the travel path near steep slopes to prevent accidents.
15. Arrow and signs will show which way to travel.
16. Fire extinguishers and first aid kits shall be pertinently placed throughout the grounds.
17. The Villa rentals shall be contained within a fence and signs posted to make them aware of the range boundaries.

EDUCATION

Training programs for employees and supervisors will be required. Customers that use the facility will also be informed of our rules and operations. The following steps will be taken to ensure proper training and information is being conveyed.

1. Staff members and supervisors must have completed the Wisconsin DNR hunter safety training course. All staff members must be properly trained to watch for and correct unsafe acts on the range. Staff are required to pass practical and mental tests to prove understanding.
2. A waiver shall be signed by staff and customers yearly to ensure they have read and understand our rules and operations.
3. A daily acknowledgement sign in will also be required before entering the range.

ENFORCEMENT

Staff members and supervisors will ensure customers are following the rules by:

1. Ensuring all new customers have read and understand the rules by signing the waiver.
2. Explaining to customers how to use and when to enter the stations.
3. Making random checks with customers on the range.
4. Issue a customer a verbal warning to leave if deliberately disrespecting the range or rules.
5. Asking a customer to leave and follow them off the grounds if necessary.

RANGE MASTER

Range Master is a range authorized person that has a formal firearms training (including live fire) certification or Range Safety Officer credential from a national organization like the NRA, CMP, Law Enforcement or US Military.

PENALTIES

Verbal warnings, temporary or permanent restriction of use/removal from the range. Charges for damages to property owned by Gods Country Game Clays LLC.

RECORDKEEPING

Range Office will maintain daily record of the list of customers, penalties, and events.

CUSTOMER RESPONSIBILITIES

All customers are required to abide by and enforce these rules. All customers are expected to politely point out to any customer in violation of these rules, the nature of the violation, request they stop, and if they continue to violate the rule or rules, report the incident to the Range Master on duty for further action.

LIABILITY WAIVER

All customers using the Gods Country Game Clays LLC range must fill out and sign a liability waiver yearly. Customers must have a current and signed liability waiver on file before using the range.

SECTIONS

This plan contains four rule sections as listed below.

Section I: Gun Handling Rules

Section II: General Range Rules

Section III: Specific Range Rules

Section IV: Administrative Rules and Regulations

All customers are required to acknowledge, abide, and enforce these rules as follow.

SECTION I: GUN HANDLING RULES

1. ***ALWAYS*** KEEP THE GUN POINTED IN A SAFE DIRECTION
2. ***ALWAYS*** KEEP YOUR FINGER OFF THE TRIGGER UNTIL READY TO SHOOT
3. ***ALWAYS*** KEEP THE GUN UNLOADED UNTIL READY TO USE
4. FIRING IS TO BE DIRECTED ONLY AT CLAY TARGETS, EXCEPT WHEN SHOOTING AT A PATTERNING TARGET
5. WHILE OTHERS ARE DOWN RANGE, MAKE SURE ALL SHOTGUNS ARE IN THE RACK. DO NOT HANDLE ANY SHOTGUNS OR STAND AT THE FIRING STATION.
6. SHOTGUN ACTIONS MUST REMAIN OPEN AND MAY BE LOADED ONLY WHEN THE SHOOTER IS POSITIONED AT THE SHOOTING STATION AND IS READY TO SHOOT.
7. SHOTGUNS SHOULD BE POINTED DOWNRANGE WHEN LOADED.
8. SHOTGUNS SHOULD BE POINTED AWAY FROM PEOPLE AT ALL TIMES.
9. EMPTY SHELL CASINGS ARE NOT TO BE RETRIEVED UNTIL THE ROUND IS COMPLETE
10. SHOTS MAY ONLY BE FIRED FROM A SHOULDERED SHOTGUN.
11. USE ONLY THE CORRECT AMMUNTION FOR YOUR GUN
12. STORE GUNS SO THEY ARE NOT ACCESSIBLE TO UNAUTHORIZED PERSONS
13. IN THE EVENT OF A MALFUNCTION, WHEN A LIVE ROUND REMAINS IN THE GUN, THE SHOOTER MUST KEEP THE GUN POINTED IN A SAFE DIRECTION AND SEEK ASSISTANCE. ALL SHOOTING ON THE AFFECTED FIELD CEASES UNTIL THE CONDITION HAS BEEN CORRECTED. IN CASE OF A HANGFIRE OR MISFIRE, DO NOT OPEN THE GUN FOR AT LEAST 30 SECONDS.
14. ALL FIREARMS MUST BE OPENED IMMEDIATELY AFTER SHOOTING AND BEFORE THE SHOOTER TURNS TO LEAVE THE SHOOTING STATION. FIREARMS MUST BE CARRIED POINTED IN A SAFE DIRECTION. FIREARMS CARRIED OVER A SHOULDER MUST HAVE THE BARREL POINTED FORWARD.
15. THE PRACTICE OF TRACKING TARGETS WITH AN UNLOADED GUN IS PROHIBITED, UNLESS THE SHOOTER IS ON A STATION AND READY TO SHOOT.

SECTION II: GENERAL RANGE RULES

1. **KNOW AND OBEY ALL RANGE COMMANDS AND POSTED RULES**
2. **KNOW WHERE OTHERS ARE AT ALL TIMES**
3. **SHOOTERS AND SPECTATORS MUST COMPLY WITH ALL RANGE RULES**
4. **ONLY AUTHORIZED PERSONNEL ARE ALLOWED IN THE TRAP HOUSES, DOWNRANGE, AND OTHER RESTRICTED AREAS**
5. **ONLY FIREARMS DESIGNED TO USE SHOTSHELLS AND DESIGNED TO BE FIRED FROM THE SHOULDER ARE PERMITTED.**
6. **NO ONE IS ALLOWED PAST THE FIRING LINE OR THE MOST FORWARD SHOOTING POSITON AT ANY TIME WHILE THE FIELD IS IN USE.**
7. **A RANGE OFFICER MAY INSPECT AMMUNITION AND REJECT ITS USE IF IT DOES NOT CONFORM TO RANGE RULES OR THE RULES OF THE SHOOTING ACTIVITY BEING CONDUCTED.**
8. **KNOW YOUR TARGET AND WHAT IS BEYOND.** Be mindful of adjacent areas and act accordingly.
9. **ALL SHOOTERS MUST SHOOT ONLY FROM THE DESIGNATED SHOOTING STATION**
10. **KNOW HOW TO USE THE GUN SAFELY**
11. **NEVER USE ALCOHOL OR DRUGS BEFORE OR WHILE SHOOTING**
12. **WEAR EYE AND EAR PROTECTION**
13. **KNOW HOW TO LOAD, UNLOAD, AND OPERATE YOUR SHOTGUN**
14. **BE SURE THE GUN IS SAFE TO OPERATE**

SECTION III: SPECIFIC RANGE RULES

1. ALL SHOOTERS AND SPECTATORS MUST SIGN A WAIVER
2. ONLY NON-TOXIC SHOT IS ALLOWED ON THE RANGE
3. ONLY SHOTGUNS 12 GAUGE AND SMALLER ARE PERMITTED
4. SHOT SIZES ARE LIMITED TO A MAXIMUM OF NO. 7
5. NOVICE SHOOTERS MUST BE ACCOMPANIED BY AN EXPERIENCED SHOOTER AT ALL TIMES
6. EXCEPT FOR PATTERNING, ALL SHOOTING MUST BE AT CLAY TARGETS THROWN FROM APPROVED MACHINES.
7. INDIVIDUALS AND THEIR MEANS OF TRASPORT MUST STAY ON THE DESIGNATED PATHS
8. SHOOTING SQUADS ARE RESTRICTED TO ONLY ONE SHOOTER PER DESIGNATED FIRING LINE WITHIN THE STATION
9. WHEN SHOOTING WITH A PARTNER KEEP THE SAME PACE WHEN ENTERING THE STATION AND STOP WHEN THE MACHINES ARE TRIGGERED
10. DO NOT DISRESPECT THE RANGE OR RULES, IF DAMAGES OCCUR YOU WILL BE HELD RESPONSIBLE AND YOU WILL BE ASKED TO LEAVE
11. GUNS MUST BE UNLOADED AND THE ACTIONS KEPT OPEN AT ALL TIMES EXCEPT WHEN THE SHOOTERS ARE AT THE FIRING STATION. LOADING IS PERMITTED ONLY WHEN IT IS THE SHOOTER'S TURN TO SHOOT. BREAK ACTION SHOTGUNS MAY BE CLOSED FOR STORAGE IN A CASE OR RACK BUT MUST BE OPENED UPON REMOVAL FROM THE CASE OR RACK.
12. GUNS MUST BE SECURE WHILE TRANSPORTING
13. NO PETS ALLOWED

SECTION IV: ADMINISTRATIVE RULES

1. A RANGE SAFETY OFFICER MUST BE ON THE GROUNDS FOR THE RANGE TO OPERATE
2. PROPER TRAINING IS REQUIRED TO BECOME A RANGE SAFETY OFFICER
3. ALL STAFF AND CUSTOMERS MUST SIGN A YEARLY WAIVER BEFORE ENTERING THE GROUNDS
4. NO PERSON SHALL BE WITHIN 300 YDS OF A STATIONS LINE OF FIRE WITHOUT BACKSTOPS
5. IF A CUSTOMER WANTS TO USE THEIR OWN NON-TOXIC SHOT, VERIFY IT IS NOT LARGER THAN 7 ½
6. NO PERSON SHALL BE WITHIN 150 YDS OF A STATIONS LINE OF FIRE WITH BACKSTOPS
7. NO ALCOHOL SHALL BE PERMITTED OR SOLD TO A CUSTOMER BEFORE OR WHILE USING A FIREARM
8. IF YOU HAVE REASON TO SUSPECT A CUSTOMER HAS BEEN USING DRUGS OR ALCOHOL DO NOT ALLOW THEM TO USE OR HANDLE A GUN
9. PLACE A SIGN AT THE STATION ENTERANCE TO MAKE CUSTOMERS AWARE SOMEONE IS DOWNRANGE
10. NEVER ENTER THE RANGE WITHOUT DISARMING THE STATION FIRST
11. ALWAYS DISARM THE MACHINE BEFORE LOADING TARGETS
12. COMPETITION TARGTS MUST ONLY BE THROWN FROM DESIGNATED POSITIONS AND IN DIRECTIONS OR ELEVATIONS REQUIRED FOR SAFETY
13. ALL THROWING MACHINES SHALL BE INSPECTED ONCE A MONTH FOR PROPER OPERATION
14. NOISE LEVELS SHALL BE RANDOMLY TESTED TWICE A YEAR AND RECORDED NEAR THE PROPERTY BOUNDARIES TO COMBAT ANY RISE IN SOUND LEVELS
15. FIRE EXTINGUISHERS SHOULD BE PLACED AT EVERY STATION AND INSPECTED EVERY MONTH
16. FIRST AID KITS SHOULD BE PLACED AT EVERY OTHER STATION
17. IN THE CASE OF SOMEONE NEGLECTING THE RULES GIVE THEM A VERBAL WARNING, ASK THEM TO LEAVE AND FOLLOW THEM OUT IF THEY WILL NOT COMPLY
18. IN THE CASE OF SOMEONE DOING A BLATENTLY UNSAFE ACT, ASK THEM TO LEAVE AND FOLLOW THEM OFF THE GROUNDS
19. INSPECT BACKSTOPS, WALKING PATHS, AND ENVIROMENTAL CHANGES DAILY
20. KEEP A DAILY RECORD OF MATERIALS DEPOSITED ON THE LAND AND MAINTENCE ROUTINES

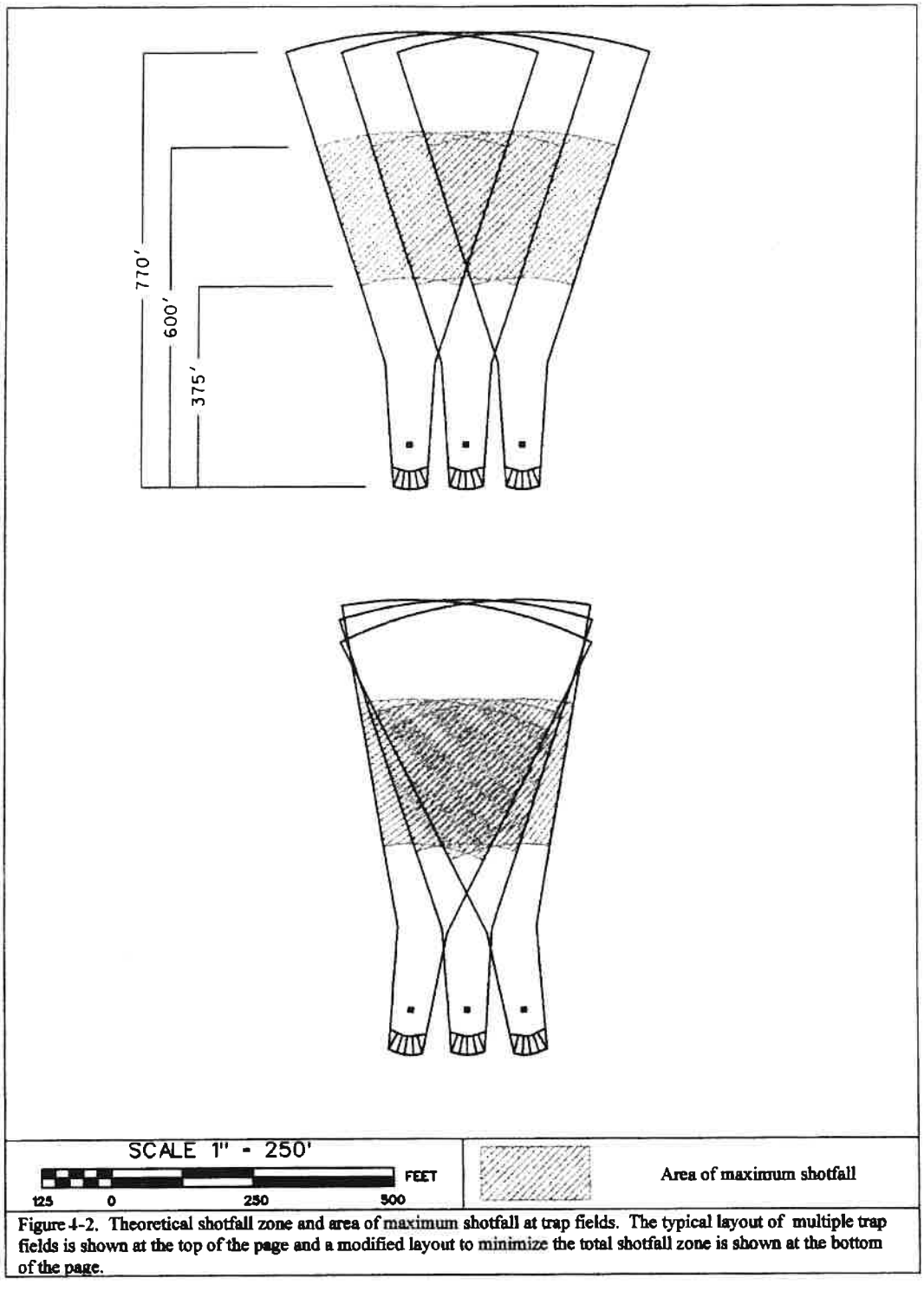


Figure 4-2. Theoretical shotfall zone and area of maximum shotfall at trap fields. The typical layout of multiple trap fields is shown at the top of the page and a modified layout to minimize the total shotfall zone is shown at the bottom of the page.

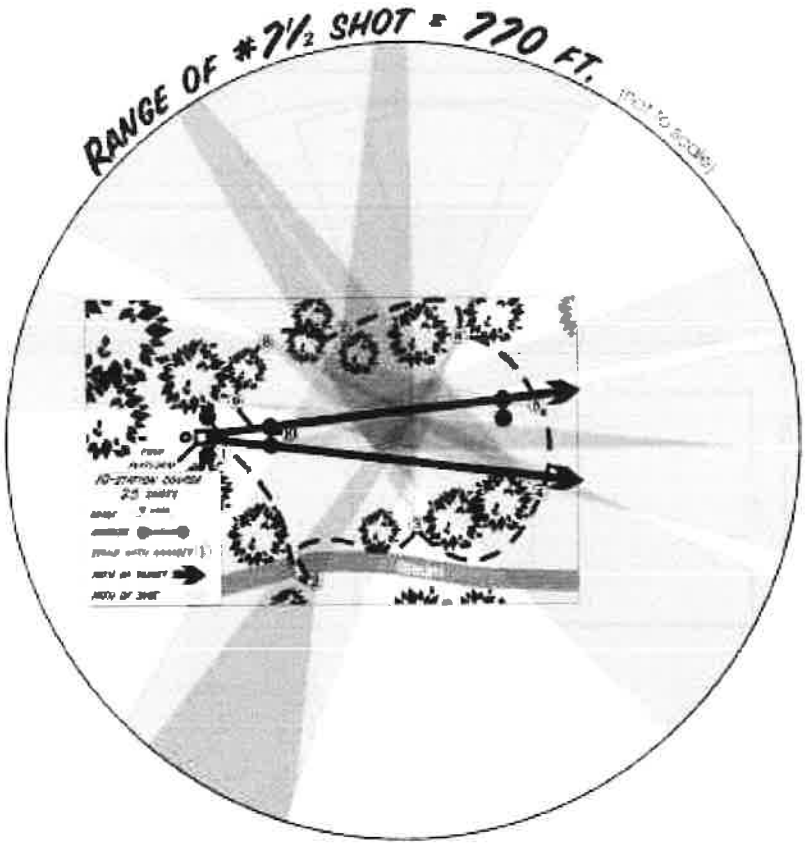


Figure 4-4. Shotfall zones for a simple hypothetical sporting clays course, illustrating the wide area over which shot can be distributed and the possible overlap of multiple shotfall zones at some distance from the shooters. Note: If more than one party at a time were to use a course laid out in a way resembling this illustration, there could be serious safety concerns. Shooter safety must be the primary consideration in range layout.

Wisconsin Statue 62.23 (7) (de)

(da) *Interim zoning.* The common council of any city which has not adopted a zoning ordinance may, without referring the matter to the plan commission, enact an interim zoning ordinance to preserve existing uses while the comprehensive zoning plan is being prepared. Such ordinance may be enacted as is an ordinary ordinance but shall be effective for no longer than 2 years after its enactment.

(de) *Conditional use permits.*

1. In this paragraph:

a. "Conditional use" means a use allowed under a conditional use permit, special exception, or other special zoning permission issued by a city, but does not include a variance.

b. "Substantial evidence" means facts and information, other than merely personal preferences or speculation, directly pertaining to the requirements and conditions an applicant must meet to obtain a conditional use permit and that reasonable persons would accept in support of a conclusion.

2.

a. If an applicant for a conditional use permit meets or agrees to meet all of the requirements and conditions specified in the city ordinance or those imposed by the city zoning board, the city shall grant the conditional use permit. Any condition imposed must be related to the purpose of the ordinance and be based on substantial evidence.

b. The requirements and conditions described under subd. 2. a. must be reasonable and, to the extent practicable, measurable and may include conditions such as the permit's duration, transfer, or renewal. The applicant must demonstrate that the application and all requirements and conditions established by the city relating to the conditional use are or shall be satisfied, both of which must be supported by substantial evidence. The city's decision to approve or deny the permit must be supported by substantial evidence.

3. Upon receipt of a conditional use permit application, and following publication in the city of a class 2 notice under ch. 985, the city shall hold a public hearing on the application.

4. Once granted, a conditional use permit shall remain in effect as long as the conditions upon which the permit was issued are followed, but the city may impose conditions such as the permit's duration, transfer, or renewal, in addition to any other conditions specified in the zoning ordinance or by the city zoning board.

5. If a city denies a person's conditional use permit application, the person may appeal the decision to the circuit court under the procedures contained in par. (e) 10.

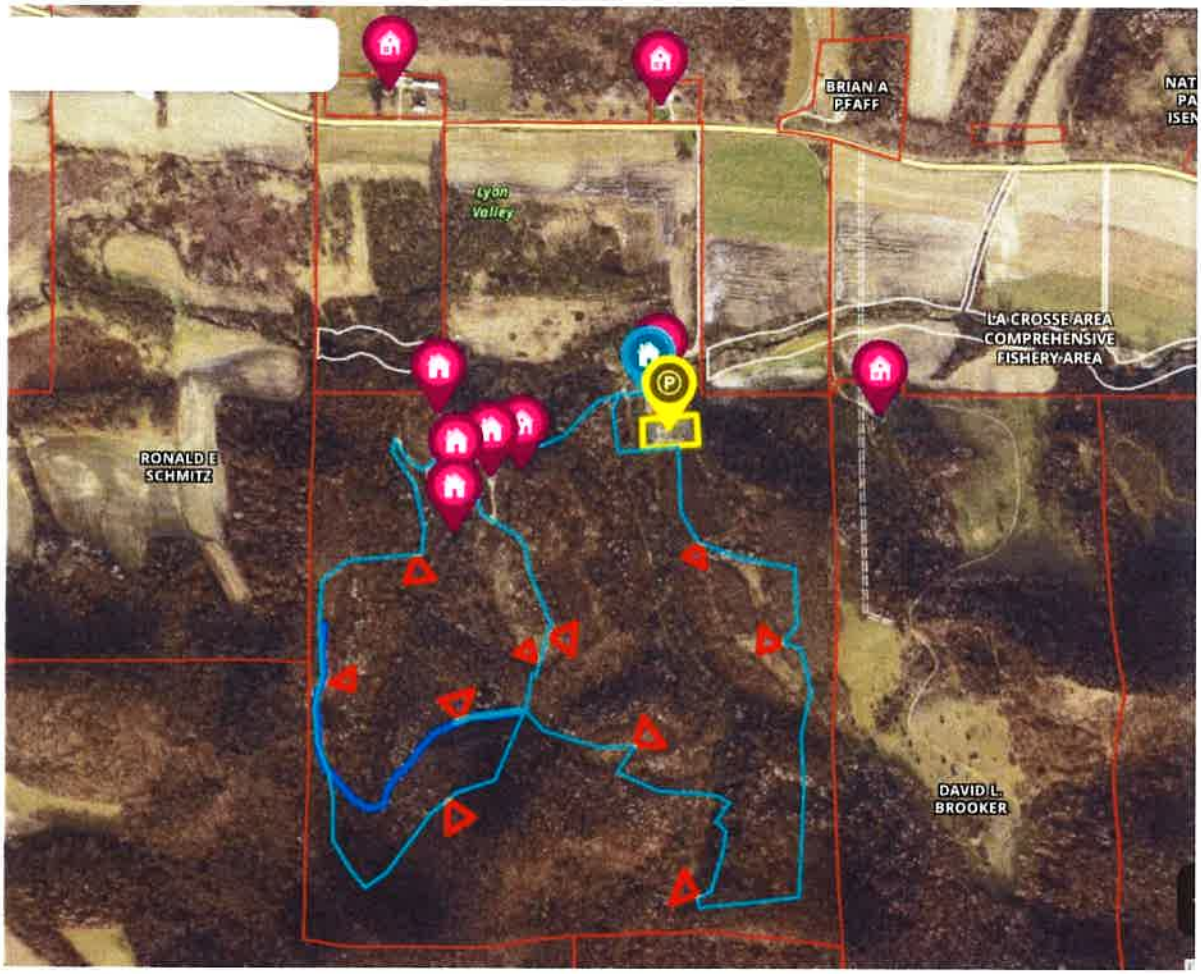
Alison Elliott

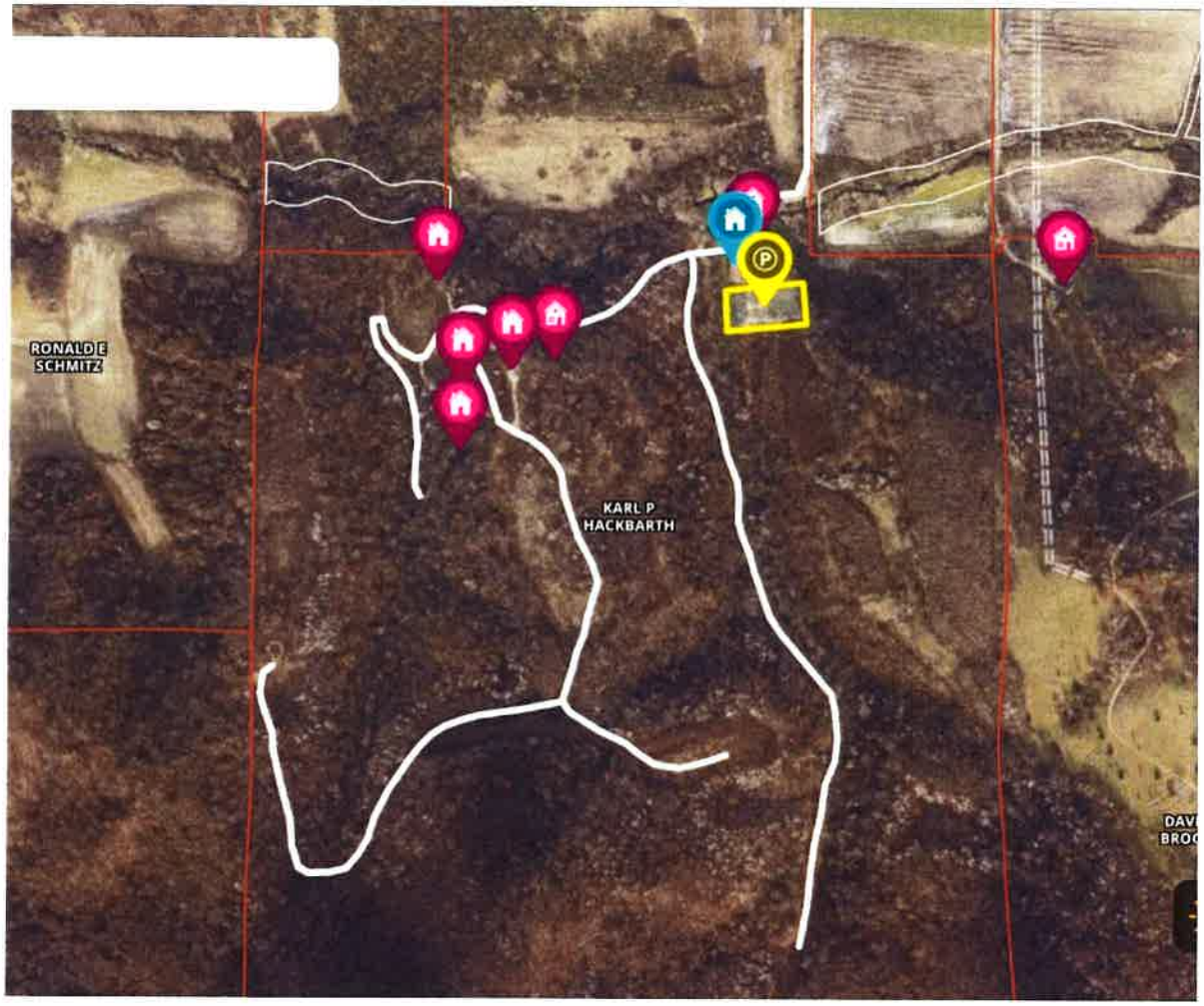
From: Kyle Schmitz <kschmitz32@hotmail.com>
Sent: Thursday, December 2, 2021 10:03 AM
To: Alison Elliott
Subject: Kyle Schmitz CUP Application additions
Attachments: Noise Reduction by vegitation and ground.pdf; Wisconsin Noise Requirments.pdf; Bystanderarticle-JAAA-11.pdf; NSSF Target Fragments.pdf; NRA inverse square law.pdf; NRA Sound properties.pdf; Revised Map1.pdf; Current Emergency vehicle trails.pdf

Alison,

Please include these documents in my application for review. I have also revised the course map to eliminate using the front 40 acre parcel as a gun range in consideration of the townships concerns. I have also provided a map with the current well established trials for emergency vehicles.

Thanks,
Kyle Schmitz

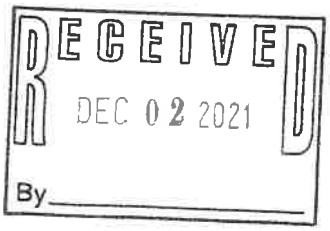




Current well established trail for emergency vehicles

Noise Reduction by Vegetation and Ground

Donald Aylor



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Noise Reduction by Vegetation and Ground

DONALD AYLOR

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Transmission of random noise through dense corn, a dense hemlock plantation, an open pine stand, dense hardwood brush, and over cultivated soil was measured. The relation between attenuation and frequency in these diverse cases suggested models that permit the prediction of attenuation in any configuration of vegetation and soil. The corn crop had an excess attenuation of 6 dB/100 ft for each doubling of frequency between 500 and 4000 Hz. On the other hand, the stems of the hemlock, pine, and brush all reduced noise by only about 5 dB/100 ft at 4000 Hz. Bare ground attenuates frequencies of 200–1000 Hz, and the frequency of maximum attenuation depends on the soil permeability to air. Thus, tilling the soil reduced the frequency of peak attenuation from 700 to 350 Hz and increased maximum attenuation at 52 m from the source by nearly 80%. Furthermore, earlier conflicting reports of noise attenuation by vegetation appear reconciled if ground attenuation is taken into account. Scattering and ground attenuation are the principal factors in sound attenuation by vegetation. Both factors attenuate relatively less sound as distance from the sound source increases. Hence measurements far from the source can underestimate the effect of a narrow band of vegetation or soil.

INTRODUCTION

Plants have often been proposed as a natural way to reduce noise levels outdoors, but the effectiveness and practicality of vegetative screens still is being debated. For example, a recent review[1] concluded that an "improvement" in the noise level of a community would require a buffer either 400 or 1900 ft wide, depending upon whose data were used.

Although numerous scattered measurements and opinions of sound reduction by plants have been reported, most discussion depends on three primary works.[2–4] The disagreement among these about the quantity or quality of noise reduction is the source of some of the confusion about how and how much plants reduce noise. For example, Embleton found that vegetation reduced sound equally for all frequencies between 200 and 2000 Hz, while both Eyring and Wiener and Keast reported attenuation that increased monotonically with frequency. Also Eyring found a positive correlation between visibility and attenuation, while Embleton did not. Further, Wiener and Keast's results were qualitatively similar to Eyring's even though the plants were more similar to those studied by Embleton.

To design effective vegetative mufflers of noise we must analyse the interactions between plants and sound that decrease transmission. Therefore, experiments were performed to determine, separately as far as possible, the effects of leaf area, stem diameter and density, and ground conditions on the transmission of sound between a source and receiver that are both near the ground. In addition to the data, physical models are presented that correlate the experimental results and permit the calculation of attenuation in any configuration of soil and vegetation.

Once the important parameters have been identified, their effects can be added to determine the noise reduction by a particular stand of vegetation or to design types and configuration of plantings to muffle given frequencies.

I. FIELD EXPERIMENTS

Experiments were designed to study individually the various parameters thought effective in reducing sound energy: foliage area, trunk and limb density, and ground impedance; that is, the attenuation of noise was measured in a dense corn crop, an undisturbed hemlock plantation, a managed red pine forest, and dense hardwood brush. All sites were level and contained a single plant species except the hardwood brush.

A. Vegetation and Soil

1. Corn

Field corn (*Zea mays* L. var. Pa 290) was planted at high density. The corn provided rapid development of

TABLE I. Vertical distribution of stem density and diameter in the hardwood brush.

Strata (m)	No. stems/m²	Mean stem diam. (cm)
0–1.5	4.7	2.15
1.5–3.0	6.9	1.03
3.0–4.5	4.5	0.95
4.5–6.0	5.1	0.69
6.0–7.5	5.4	0.65

foliage near the ground and could be easily thinned to measure the effect of leaf area on sound energy. On 11 sample areas, the mean plant density was 27 plants/m² with a standard deviation of five when the first observations of sound were made. The total leaf area per unit volume of canopy or F was 6.3 m^{-1}. On the same day we removed alternate rows, leaving 13±3 plants/m². F was then 3 m^{-1} and the sound observations were repeated. At the end of the same day, all corn was removed and sound transmission was again observed. The mean stem diameter was 1.5 cm and the average plant height was 1.8 m. The vertical distribution of leaf area in the canopy was approximately Gaussian.[5]

The corn was planted in a fine sandy loam. Subsequently, rain and wind broke down the tillage aggregates, crusted the surface, and reduced the pores to the sizes associated with closely packed sand and silt grains. The bulk density of 6-cm-deep cores of the surface soil was 1.4 g/cm³ and the total porosity was 45%.

2. *Hemlock*

Ten-year-old hemlocks (*Tsuga canadensis* L. Carr.) had been planted on a 1.8×1.8 m grid over a 37-m×66-m area and were left entirely undisturbed. The canopy was closed and extended from the ground to about 6 m. Within the plantation and to a height of 2.5 m, needles had fallen, but all branches and twigs remained. Nearly 70% of the stems were double and the density was approximately 0.5 stems/m². The mean stem diameter at 1.5-m height was 9±2.5 cm.

Under the stand, a 0.6 to 1.2-cm layer of needles covered the fine sandy loam. Numerous roots in the surface layer of soil created a bulk density of only 1.2 g/cm³ and the total porosity was 52%.

3. *Red Pine*

The red pine (*Pinus resinosa* Ait.) plantation was relatively open. The trees were 16 m tall and the bottom of the closed canopy was 10.5 m above the ground. Row thinning and then dominance thinning within the remaining rows left approximately 0.0865 trees/m² with a mean spacing of 3.3 m. The dead lower branches had been pruned, and the trunks were free of branches to a height of 8 m. The mean trunk diameter at 1.5 m above the ground was 23±3.5 cm.

In this older stand, unlike the hemlock, 2.5 cm of organic soil in addition to 2.5 cm of more recently fallen litter lay over the mineral soil. The bulk density of the top 6 cm of soil beneath the needles was about 0.65 g/cm³, with a total porosity of about 68%.

4. *Hardwood Brush*

The dense hardwood brush was composed of deciduous tree and shrub species with foliage extending from the ground to a height of 6 m. The brush was on low land and consisted of 81% shrubs [highbush blueberry, (*Vaccinium corymbosum* L.), sweet pepperbush (*Clethra alnifolia* L.), and pinxterbush (*Rhododendron nudiflorum* L. Torr.), 10% red maple, (*Acer rubrum* L.), 6% birch (*Betula populifolia* Marsh.), 1.5% oak (*Quercus* sp.), and 1.5% alder [*Alnus rugosa* (DuRoi) Spreng.]. At ground level there were 4.7 stems/m², with a mean diameter of 2.15 cm. Because of the intermingling of shrubs and dominant trees, the vertical distribution of stem density and mean stem diameter was measured in five 1.5-m strata (Table I).

The vertical distribution of stem density reflects a two-story distribution, with shrubs 1.5–3.0 m tall interspersed with dominant trees 6 m tall. The approximate leaf area per land area was 2.5 for the shrubs and birch and 6 for the maple and oak. Thus, the average F was about 0.5 m^{-1}.

Both species density and soil conditions varied along the transect between sound source and receiver. Near the source, pinxterbush, highbush blueberry, and birch dominated. The loamy soil was covered with 7–8 cm of partially decomposed peat humus. The bulk density of the organic soil was 0.34 g/cm³ with a total porosity of about 75%. As one moved along the transect from the source to the farthest microphone position at 65 m, the dense brush gave way to evenly dispersed trees and then merged back into dense brush. The soil conditions gradually changed to sand, with a bulk density of 1.2 g/cm³ and total porosity of 53%. The over-all appearance of the vegetation in leaf was uniform.

Measurements were made in the brush both in summer and again after the leaves had fallen but before the ground was frozen. Because the ground was soft and peaty near the source, we assumed that the fallen leaves would not alter ground impedance significantly, an assumption sustained by the measurements on sound.

5. *Soil*

We also measured transmission over bare earth whose surface porosity had been altered systematically. A fine sandy loam was plowed, allowed to settle for a month, and then smoothed and rolled. Seven centimeters of rain crusted the surface by slaking the aggregates. The porosity of the surface was inspected microscopically in clods and in thin sections[6] cut perpendicular to the surface. The mean pore diameter

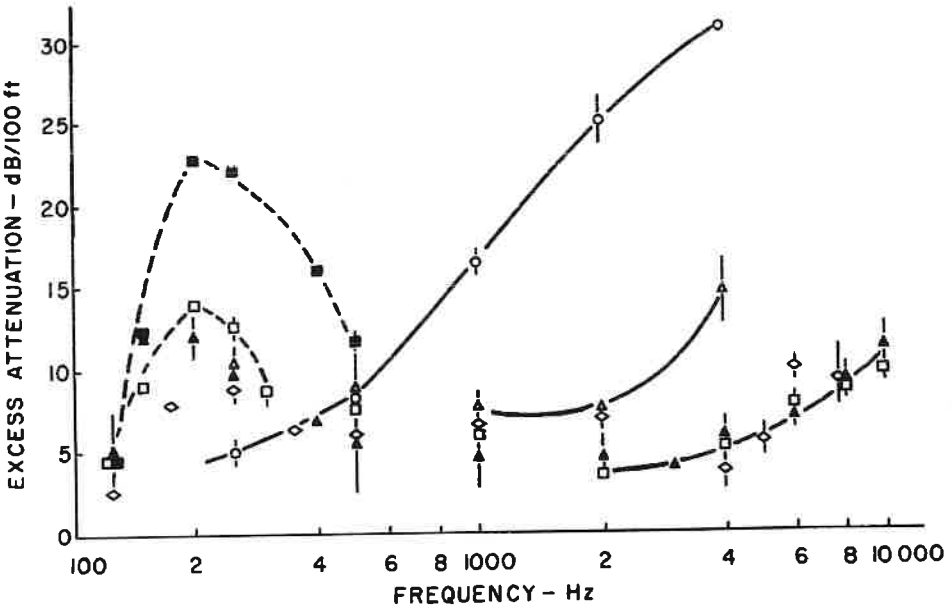

FIG. 1. Excess attenuation in decibels/100 ft for corn (○), hemlock (◇), pine measured at 200 ft (□), pine measured at 100 ft (■), brush in summer (△), and brush in autumn (▲) at frequencies of 100 to 10 000 Hz. The source height was 1 m for the corn and 1.5 m for the hemlock, pine, and brush.

was 50 μ, and there was approximately 1 pore/cm along a transect.

The soil was then disked. After disking, the soil was characterized by aggregates, mostly 100 to 2000 μ in diameter. The mean pore size within the periphery of the aggregates and between the individual aggregates ranged from 150 to 400 μ and there were approximately 10 pores/cm of transect.

B. Apparatus

1. Acoustics

Random noise was projected through vegetation, and the total transmission loss was recorded. Except for the Altec Lansing power amplifier and speaker system, all equipment was manufactured by the General Radio Company, West Concord, Massachusetts.

The source was either octave- or third-octave-band pink noise generated by a random-noise generator (1382) and filtered through a sound and vibration analyzer (either a 1558-BP or a 1564-A). The signal was amplified (352-A) and fed into a combination cone speaker and sectoral horn system (9844A) that had a satisfactorily broad spatial energy distribution over the frequency range tested.[7]

The speaker was situated outside the vegetation with its axis directed roughly perpendicular to the boundary. The height of the source is specified in the figure legends for each case. The output of the speaker was monitored with a ceramic microphone (1560-P5) and line driving amplifier (1560-P40), which were situated 3 m in front of the speaker with the microphone at the height of the source, and were connected to a sound-level meter (1551-C). After transmission through the vegetation, the sound was measured by a second identical microphone system situated on the speaker axis and analyzed in tenth-octave bands with a sound and vibration analyzer (1564-A).

At any particular frequency the source strength was varied 10 dB or more in a random order unknown to the analyzer. Each observation included a measurement of ambient noise level. The entire sensing system was frequently calibrated in the field with a sound-level calibrator (1562-A).

2. Climatology

Wind velocity and temperature gradients were based on measurements at 0.6, 1.8, 3.0, and 4.3 m above the ground. Wind profiles were monitored continuously with four matched Cassella cup anemometers and the temperature profiles were observed at regular intervals by means of four matched radiation shielded mercury–glass thermometers. Relative humidity was measured at 1 m with a ventilated wet-bulb psychrometer.

C. Additivity

It will be assumed that the separate effects of leaves, stems, and ground can be simply added to obtain the total effect for any combination of these. Of course, this is not strictly true, since there will always be some interaction between parts; for example, multiple reflections between the bottom of the canopy and the soil in the case of the corn and between contiguous leaves and stems in the case of the brush. These interactions are extremely difficult to evaluate either by

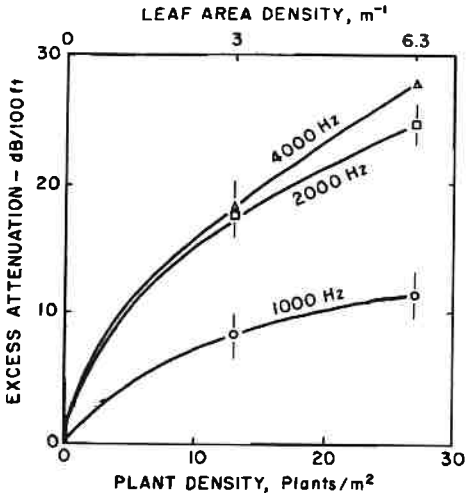

FIG. 2. Excess attenuation in decibels/100 ft for corn with leaf area densities of 3 and 6.3 m^{-1} at frequencies of 1000 (○), 2000 (□), and 4000 (△) Hz.

experimental or analytical means. However, intuitively, it seems correct that these interactions are small and, therefore, that a valid first approximation can be obtained by simply adding. This is plausible for the corn because those frequencies that are attenuated most by the soil and by the foliage will be shown to be widely separated. This is not true for the leaves and the stems of the brush, because the frequencies are not widely separated. However, the data taken in summer and autumn in the brush will indicate that adding the two effects is not unreasonable.

II. RESULTS

The results presented in Figs. 1 and 3 have been expressed in terms of excess attenuation, Ae, obtained by subtracting the calculated divergence and atmospheric absorption[8–10] from the total measured transmission loss. Refraction due to wind and temperature gradients can modify ordinary divergence, but no corrections were necessary for the data presented here. This conclusion is not based solely on a calculation of the distance to the sound shadow boundary,[11] but also on the observation that no systematic increases in attenuation were detected even when the temperature gradient increased substantially. Further, the modified humidity and temperature profiles within the vegetative canopy[12] do not significantly alter the calculation of attenuation due to molecular relaxation. Finally, units of decibels/100 ft rather than decibels per meter have been used for excess attenuation to facilitate comparison with previous work.

The excess attenuation per 100 ft of ground and vegetation in six circumstances is summarized in Fig. 1. Each point represents an average of two to five observations and the vertical lines represent the standard deviations from the sample mean.

Two clear patterns emerge. All tree-clad sites attenuate considerable low-frequency, little intermediate-frequency, and some high-frequency sound. Moreover, very little difference occurs between the hemlock, red pine, and leafless brush at high frequency. The corn field, on the other hand, attenuated little low-frequency and much high-frequency sound. In fact, a 4000-Hz sound beyond the corn was so attenuated that it was not significantly greater than ambient, and the Ae is simply called "greater than 30 dB."

To facilitate comparison with others, the data of Fig. 1 have all been standardized, on a scale of decibels/100 ft of vegetation. Difficulties with normalization arise when attenuation is not linear with distance. In Fig. 1 are two sets of observations in the red pine for the frequency 100–500 Hz, one set made at 100 ft, and one set at 200 ft from the source. The maximum attenuation per 100 ft is nearly double when based on measurements at 100 ft rather than 200 ft. Clearly, this attenuation is not linear with distance and measurements at great distances from the source would grossly underestimate the attenuation by a narrow strip of ground and vegetation.

The effect of varying corn-leaf area density is shown in Fig. 2. Each point represents the average of two to three observations and the vertical lines represent the standard deviation from the sample mean. The data have been corrected for ground attenuation because the transmission loss was measured on the same day over the identical transect with the corn present and after the corn was removed. The difference between these two establishes the zero Ae. Clearly, leaf area and accompanying stems increase attenuation, especially at high frequencies. The increase in Ae with plant density is not, however, linear.

For example, at 2000 Hz, there is only about a 40% increase in attenuation due to doubling plant density from 13 plants/m^2 to 27 plants/m^2. Thus, more plants attenuate more, but less dense, more easily manageable plantings are quite effective.

Another measure of the effect of changing leaf area can be obtained by comparing summer and autumn observations in the hardwood brush (Fig. 1). The divergence of these two curves with increasing frequency, again, indicates that leaves are relatively more effective at higher frequencies. The effect of the hardwood leaves is considerably less than the effect of the corn, but since the leaf area per unit volume F in the corn was fully 12.5 times greater than in the brush, the difference in attenuation is not surprising.

The effect of tillage on noise attenuation is presented in Fig. 3. Sound was observed at a distance of 52 m from the source, and the data have not been normalized as in previous figures. A shallow disking of the weather-slaked fine sandy loam increases the maximum attenuation, shifts the maximum attenuation to a lower frequency, and narrows the width of the peak.

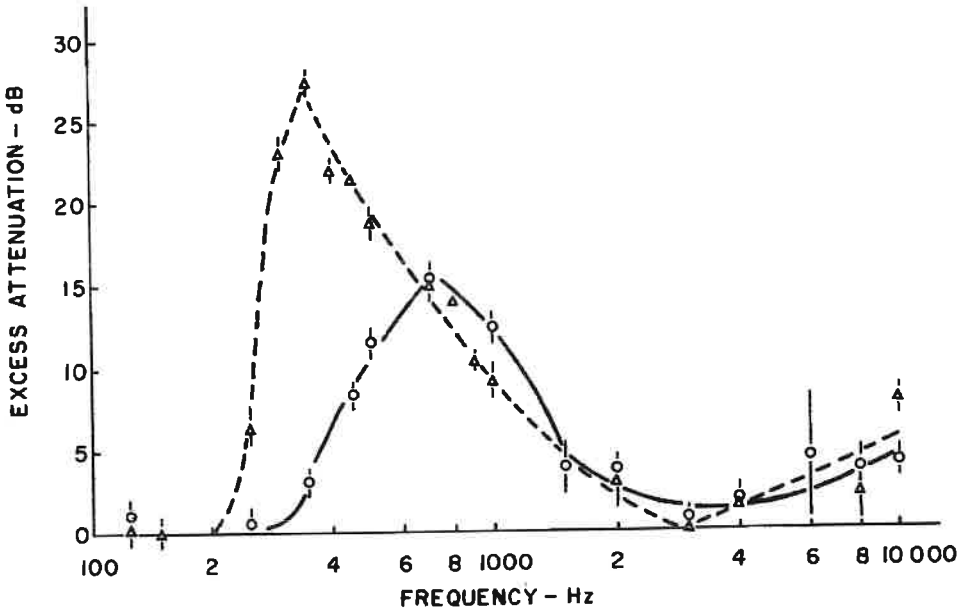

FIG. 3. Excess attenuation in decibels for a weather-slaked fine sandy loam (○) and for the same soil after disking (△) at frequencies of 100 to 10 000 Hz. The source and receiver heights were 1 m and sound was measured at a distance of 52 m from the source.

The unique frequency dependence exhibited in each test together with some physical models help identify the mechanisms responsible for the attenuation, and these are discussed below.

III. DISCUSSION

To give these specific experimental results more general applicability, models are devloped that are physically intuitive, agree with the present experiment, and can be used to predict attenuation for any configuration of plants and ground condition. Sound transmitted through vegetation may be reduced by viscous and thermal dissipation between the fluid media and plant surfaces, by scattering, and by dissipation in driven damped harmonic oscillators.

Embleton[4] has shown that dissipation due to sound-driven oscillations in tree limbs is negligible. This is likely true for needles and leaves as well because the natural frequency of their lowest mode of oscillation is much lower than acoustic frequencies. Damping of sound within the leaf and damping between plant surfaces that touch and oscillate out of phase with one another have also been neglected. Thus, in this section, expressions for viscous and thermal losses in the boundary layer near plant surfaces, transmission loss due to scattering by an array of leaves, and scattering by hard cylinders are presented. The present data are also discussed in terms of the theory of ground attenuation.[13]

A. Effect of Leaf Area

Viscosity and thermal conductivity, although negligible in an unbounded medium for quite long transmission paths, are significant in the vicinity of stationary diathermal surfaces. Since plants display substantial surface per unit ground area, losses due to these mechanisms might be important.

To estimate these losses, the result for energy dissipated due to viscosity by a flat plate oscillating in a stationary fluid[14] was integrated over the leaf area along the transmission path. For sound wavelengths longer than spatial inhomogenities in the canopy, an average leaf area density F, can be introduced, so that the attenuation of acoustic intensity I over a small length of canopy is approximately

$$dI \simeq \mu F(\pi f/\nu)^{\frac{1}{2}} U^2 \cos^2 kx dx. \tag{1}$$

Here, μ is the viscosity of air, f is the sound frequency, ν is the kinematic viscosity of air, U is the particle velocity, k is 2π divided by the sound wavelength λ, and x is distance along the transmission path.

Dividing Eq. 1 by the intensity of a plane wave produces

$$dI/I = (4\pi\nu f)^{\frac{1}{2}}(F/c)\cos^2 kx dx, \tag{2}$$

where c is the speed of sound in air, so that the excess attenuation in decibels for a length of canopy $L \gg \lambda$ is

$$Ae = 4.35(4\pi\nu f)^{\frac{1}{2}} FL/2c. \tag{3}$$

Thus, in air at STP, viscous dissipation in 100 ft of corn reduces a 1000-Hz tone by about a half-decibel.

Losses due to heat conducted through the boundary layer can be represented by an expression similar to Eq. 3.[15] However, heat conduction increases the attenuation given by Eq. 3 by only about 50%.

Although this calculation indicates that viscous and thermal dissipation will contribute some attenuation, the measured attenuation is 10 dB greater than that

calculated. Further, Eq. 3 predicts that Ae depends on the square root of frequency, while the measured attenuation increases about 6 dB per doubling of frequency—or Ae is approximately equal to 20 log$f$. Therefore, another mechanism must be found.

In deriving Eq. 3 it was assumed that all of the sound passed over, rather than through, a leaf. Certainly, some of the energy incident on a leaf is reflected and some is transmitted, with the relative amounts of each depending primarily on the angle of incidence of the sound wave to the leaf and the surface-area density of the leaf.

Clearly, the energy transmitted through a canopy is scattered many times. Because of multiple scattering between leaves, it is plausible to assume that the canopy can effectively be represented by a single thin wall of unknown surface area densities to sound transmission. It is, therefore, natural to introduce the formula for the loss through a thin solid wall[16]:

$$Ae = 20 \log_{10}(\pi s f/41.5) \tag{4}$$

for air at 20°C, where s is the area density or the density times the thickness of the wall. For a corn leaf, s is about 0.02 g/cm^2.

Although calculating the proper wall thickness involves solving the detailed scattering problem within the canopy, the applicability of Eq. 4 can be checked by the observations of Fig. 2. Reducing leaf area certainly decreases the effective wall thickness. Moreover, the scattering cross section of an individual leaf is an increasing function of frequency, and thus the effective wall thickness must also increase with frequency. These qualitative aspects of this model are nicely confirmed by the data. That is, Ae increases with both leaf-area density F and frequency, which must increase $s(F,f)$. Finally, to account quantitatively for the observed reductions of 1000-Hz sound, the effective wall thickness s needs only be about three leaf thicknesses. This is not unreasonable.

B. Effect of Stems

Little sound energy is scattered by a rigid cylinder when the sound wavelength is large compared to the cylinder radius.[17] Thus attenuation through forests by scattering of low-frequency sound is negligible. On the other hand, when the sound wavelength is small compared to the cylinder radius, scattering is complete, and the attenuation through forests due to scattering of high-frequency sound is important. For the high-frequency limit, defined by $ka = 2\pi a/\lambda \gg 1$, the sound field inside the forest is comprised almost entirely of previously scattered energy, and therefore, to find an expression for the intensity of sound, multiple reflections between trees must be considered. In the few cases when the receiver was inside the forest, a horizontal spatial average gave substantially the same result as the time-average intensity $\langle I\rangle_t$. Thus, phase effects due to reflections between trees have been neglected.

In deriving an expression for the time-average intensity within the forest, a detailed energy balance is made on a differential slab of woods of thickness dy located at a distance y from the origin. This slab is much thinner than the width of forest but still much thicker than the mean radius of tree trunks in the forest. Moreover, the mean spacing between trees is much greater than the tree radius, and thus multiple reflections within the differential slab are neglected. The derivation of $\langle I\rangle_t$ is completely analogous to that given for pure scattering of heat radiation[18] and the resulting integral equation for $\langle I\rangle_t$ when a plane acoustic wave of unit intensity is incident at the origin is

$$\langle I(\xi)\rangle_t = \int_{-\pi/2}^{\pi/2} e^{-\xi/\beta}\beta\, d\phi + \int_0^{\xi}\int_{-\pi/2}^{\pi/2}\int_0^{2\pi} \tfrac{1}{4}\sin\left(\frac{\phi'-\phi}{2}\right)\langle I(\tau\,\phi')\rangle_t \times d\phi' e^{-(\xi-\tau)/\beta} d\phi\, d\tau - \int_{\xi}^{\xi_d}\int_{-\pi/2}^{\pi/2}\int_0^{2\pi} \tfrac{1}{4}\sin\left(\frac{\phi'-\phi}{2}\right) \times \langle I(\tau,\phi')\rangle_t d\phi' e^{-(\xi-\tau)/\beta} d\phi\, d\tau, \tag{5}$$

where $\beta = \cos\phi$, ϕ is the angle a beam of energy makes with the y axis, $\xi = 4Nay$ is a dimensionless parameter representing the scattering path length where N is the number of trees per land area, and a is the mean radius of the tree trunks. The first integral represents the energy lost to the main beam by scattering to other directions, while the second and third integrals represent augmentation and reduction of the main beam by scattering energy originally traveling in other directions into the y direction. The scattering coefficient σ of a single tree has been taken as[17]

$$\sigma(\phi',\phi) = a \sin[(\phi'-\phi)/2]$$

and is the amount of energy traveling in the ϕ' direction that is scattered by the cylinder into the ϕ direction.

An approximate expression for $\langle I(\xi)\rangle_t$, valid when $\xi \gg 1$, can be obtained by letting $\langle I(\tau,\phi')\rangle_t = 0$ and by using known expansions[19] for the resulting integral in Eq. 5. Choosing $\langle I(\tau,\phi')\rangle_t = 0$ is a reasonable first approximation because the intensity does, indeed, approach zero for large values of ξ. Therefore, at the far edge, $y = d$, of a sufficient dense woods, one obtains

$$\langle I(\xi)\rangle_t \simeq (2\pi/\xi)^{\frac{1}{2}} e^{-\xi}(1 - 9/8\xi). \tag{6}$$

Putting Eq. 6 into Eq. 5 shows that a second approximation is of the order $e^{-2\xi}$ and, thus, negligible compared to Eq. 6.

The value of Na for the three wooded sites tested ranged from about 1×10^{-2} m^{-1} to 5×10^{-2} m^{-1}. The Ae through 69 m of hemlock at 8 kHz, corresponding to

a ξ_d of about 6 and ka also about 6, was 25 dB, while Eq. 6 predicts an Ae of 28 dB for frequencies high enough that $ka \gg 1$. Ninety-two meters inside the red pine forest an Ae of 18.5 dB was observed and Eq. 6 with a ξ_d of 3.6 predicts 16 dB excess attenuation. Finally, an Ae of 40 dB is predicted for transmission through the brush, but only 26 dB was observed. This large discrepancy in brush is not surprising because, at 10 kHz, ka was only about 1 and therefore scattering by these stems was not complete.

The parameters Na and ka are important for the attenuation of high frequencies by stems. It is interesting that the combination of these parameters in the hemlock, pine, and brush permits nearly identical excess attenuation at high frequency for these three cases (Fig. 1). Moreover, the value of Na for a mixed hardwood forest after 40 years of natural succession[20] lies intermediate in the range studied here and we expect to find the same attenuation at high frequency.

Finally, visibility is not a good measure of the attenuating capacity of a vegetative stand. For example, a white moving object was visible at distances greater than 180 m in the red pine but for only about 10 m inside the hemlock; yet the excess attenuation was nearly the same. This occurs because visibility is reduced by small objects that do not scatter much sound, e.g., the small branches and twigs inside the stand of hemlock.

C. Effect of Soil

To determine the attenuation of sound by vegetation, it is necessary to account for the influence of the ground on the measured sound field. The well-defined maxima indicated at low frequency in Figs. 1 and 3 are due to ground attenuation. This attenuation results from acoustic interference between the sound energy traveling directly and that which arrives at the measurement point after reflection from the ground. Franken[21] showed that acoustic interference is important when analyzing random noise by narrow-band filters, as was the case in the present experiment. The phase of the reflected wave is retarded with respect to the direct wave by two effects. First, there is a delay due to the increased distance Δr traveled by the reflected energy. In addition, for porous surfaces there is a phase lag ϕ due to interaction of sound with the surface. In general, this delay is larger the more porous the surface[22] and accounts for the shift to lower frequency of the peak attenuation shown in Fig. 3.

The sound pressure P far from a point source can be expressed as[13]

$$P \simeq P_F(1+\mathbf{R}_0), \tag{7}$$

where P_F is the sound pressure that would occur in a free field away from solid boundaries, and $\mathbf{R}_0$, a vector, is the plane-wave reflection coefficient defined as

$$\mathbf{R}_0 = (\cos\theta - \beta)/(\cos\theta + \beta).$$

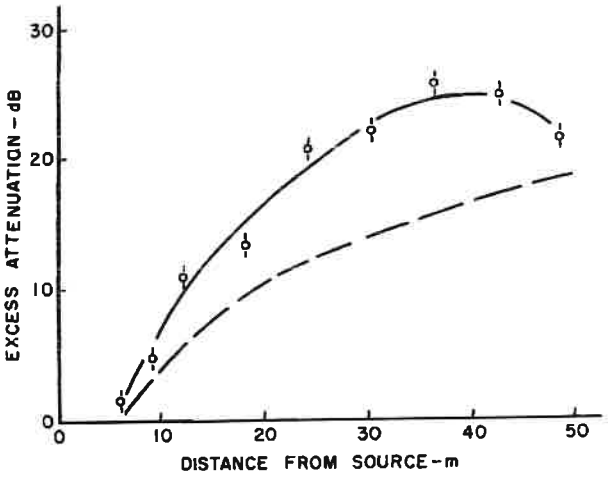

FIG. 4. Excess attenuation versus distance from the source over a disked soil for a tenth-octave band of pink noise at 300 Hz. Source and receiver heights were 1 m and the reference microphone was 6 m from the source. The dashed line represents 6 dB per doubling of microphone separation distance.

Here, θ is the angle of incidence of the sound ray with the ground and β is the specific acoustic impedance of air, ρc, divided by the specific acoustic impedance of the soil surface. Far from the source, or for near grazing incidence, $\cos\theta/\beta \ll 1$, so that $\mathbf{R}_0 \simeq (2\cos\theta/\beta) - 1$.

Moreover, $\cos\theta \simeq 2Z_0/X$, where Z_0 represents the source and receiver heights and X is the distance between the source and receiver. In the farfield then,

$$P \simeq 4Z_0/\beta X^2,$$

which indicates that the sound pressure is attenuated at a rate of 12 dB per doubling of distance, and hence an excess attenuation of 6 dB per doubling of distance.

Figure 4 presents observations on a tenth-octave band of pink noise at 300 Hz from 6 to 49 m over a disked soil similar to the soil tested in Fig. 3. For the source and receiver heights used (1 m), the phase delay at this frequency due to path-length difference alone is only important quite near the source. However, the retardation of the reflected wave due to the impedance of the ground is significant everywhere. For this soil condition, the maximum attenuation occurred around 300 Hz for all separation distances from 6 to 49 m.

The 6-dB excess attenuation per doubling of separation distance predicted by theory is exceeded somewhat over the soil at the distances shown in Fig. 4, and the attenuation exhibits a peak at 36.5 m. This peak and subsequent decrease in attenuation is caused by the variation in the total phase angle due to Δr changing with distance. Far from the source, $k\Delta r/\phi \ll 1$, and the attenuation would be influenced by $\mathbf{R}_0$ alone. Thus, the excess attenuation should approach the 6-dB per doubling of distance asymptote indicated in Fig. 4.

To fit the data exactly, the acoustic impedance of the soil as a function of frequency must be known.

TABLE II. Summary of physical conditions and sound attenuation characteristics for various ground surfaces. The f_0 is the peak frequency for ground attenuation and f_1 and f_2 are the frequencies on either side of f_0 for which the attenuation was reduced by 3 dB. The distance at which sound was observed is included parenthetically in the last column. The data for the pine and hemlock indicate a 6-dB excess attenuation per doubling of distance as predicted by theory (Ref. 13).

	Bulk density (g/cm³)	Moisture (vol. percent)	Total porosity (percent)	f_0 (Hz)	f_1-f_2 (Hz)	Excess attenuation measured at f_0 (dB)
Pine	0.65[a]	14	68	200	70	22.5(31 m); 27.5(61 m)
Hemlock	1.2[a]	22	52	250	140	15.5(40 m); 22 (69 m)
Brush	0.34[b]	44[c] 46[d]	75	175	70	26(65 m)
Silt loam (crusted)	1.4	34	45	700	500	15(49 m)
Silt loam (disked)	1.29	31	45	350	100	27(49 m)

[a] Litter not included.
[b] Near source.
[c] Summer.
[d] Fall.

Dickinson and Doak[23] have measured the impedance of several ground surfaces; however, they did not test any surface as porous as the disked soil. From Figs. 3 and 4 and Eq. 20 of Ref. 13, a normal specific acoustic impedance of $0.5\ \rho c+i3.5\rho c$ is found for the disked soil at 300 Hz.

The present data does not contain sufficient information to determine the impedance of the crusted soil completely. However, a reactance of about 10 ρc is reasonable for a hard surface.[23] Using this value, Fig. 3 indicates a resistive component of impedance of about 3 ρc. This value of flow resistance is close to that measured for a grass-covered soil by Dickinson and Doak. Moreover, the reduction of flow resistance from 3 to 0.5 due to disking the soil is not unreasonable, considering the measurements of pore sizes and assuming the resistance of pores of radius a to vary like $(1/a)^2$ as in Poiseulle flow.

Table II summarizes the ground conditions for all our tests. Comparison between the attenuation characteristics and soil properties illustrates the preceding discussion. In general, softer, more porous surfaces attenuate more at lower frequency for near grazing incidence and have more specific frequency selection than harder, less porous surfaces. The entries in the table for the maximum attenuation, which occurs at frequency f_0, include parenthetically the distance of the measurement point from the source and indicates the 6-dB excess attenuation per doubling of distance as predicted by theory. Examination of Table II indicates that neither fallen pine nor hemlock needles effects attenuation much. This is especially evident in the pine where the extremely loose mat of needles has an air permeability several orders of magnitude greater than the soil, but where the width of the peak and $Ae/100$ ft are not much different than above the disked loam (last line of Table II). We presume that the short, flat hemlock needles, which form a relatively close-packed mat, may influence ground attenuation slightly, but that the loose pine-needle carpet has negligible effect. Moreover, our tests on the hardwood brush indicated that the recently fallen leaves had no noticeable effect on attenuation.

The observed differences in ground attenuation help us to reconcile the previous reports.[2–4] Examination of Embleton's results for the first 50 ft of woods indicates attenuation peaks in the neighborhood of 250 Hz, similar to those reported here. The fact that these peaks are less evident for his measurements made farther from the source may be due to the nonlinear attenuation with distance and the fact that his data have been normalized.

The negative attenuation near 800 Hz observed by Embleton may also be explained in terms of ground attenuation. He calculated excess attenuation by subtracting measurements made over nearby open ground from those made within the woods. Figure 3 shows that peak attenuation occurs at higher frequencies for harder or less porous surfaces than for the softer ground usually found in established forests where roots and decayed matter reduce the bulk density of the surface soil.

On the other hand, Eyring and Wiener and Keast did not find an attenuation maximum at low frequency. However, Eyring described the jungle floor as "flat muddy ground"[24] while Wiener and Keast described the forest floor at their test site as being covered with "frequent puddles and wet spots."[25] Aljibury and Evans[26] showed that the air permeability is very low for soil moisture tensions less than 100 cm of H_2O. Thus we would expect ground attenuation in these cases to be less and to occur at higher frequency.

IV. CONCLUSIONS

Important generalizations useful for evaluating transmission of sound through natural forests or for designing vegetative mufflers have been presented. Foliage reduces sound transmission substantially, especially at the higher frequencies where scattering is enhanced, and the effectiveness of the foliage increases with increasing leaf number density, and should increase with increased leaf width and leaf thickness. When little foliage is present, high-frequency sound is reduced mainly by stems.

Diverse forests attenuate nearly the same amount of sound and thus, old or young, planted or natural,

stands of trees are about equally effective in attenuating high-frequency noise. The ground attenuates considerable amounts of acoustic energy at lower frequencies, where scattering is not effective. This is caused by acoustic cancellation, and the frequency of peak attenuation can be varied by altering the ground. Finally, since attenuation by vegetation and ground decreases with increasing distance from the source, the efficiency of a band of ground or vegetation decreases with increasing width of the band.

Foliage, stems, and ground conditions are all important in the attenuation of noise transmitted near the ground, and together their effects span most acoustically important frequencies. Depending upon the particular annoyance, some one or all of these factors may be effective. For example, while a strip of soft ground would be most effective in reducing the low-frequency noise from trucks starting up at toll booths, a band of dense foliage would better reduce the noise from high-speed traffic.

The success of noise reduction by vegetation depends upon the change in loudness, i.e., the improvement noticed by people. One hundred feet of dense corn on a line of sight between a sound source and receiver will reduce the loudness of a 1000-Hz tone by a little more than half. To accomplish the same reduction without the vegetation requires that the distance between a point source and receiver be more than doubled. Heavy traffic more closely approximates a line source than a point source of sound.[27] In this case, when refraction due to wind and temperature is negligible, to reduce loudness equivalently requires nearly a four-fold increase in distance. Since, in congested areas, people are concerned both with loudness and limited space, it seems logical to employ vegetative bands rather than large distances to achieve the same reduction in loudness.

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Auditory Risk to Unprotected Bystanders Exposed to Firearm Noise

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Abstract

Background: What is the risk of hearing loss for someone standing next to a shooter? Friends, spouses, children, and other shooters are often present during hunting and recreational shooting activities, and these bystanders seem likely to underestimate the hazard posed by noise from someone else's firearm. Hunters use hearing protection inconsistently, and there is little reason to expect higher use rates among bystanders. Acoustic characteristics and estimates of auditory risk from gunfire noise next to the shooter were assessed in this study.

Research Design: This was a descriptive study of auditory risk at the position of a bystander near a recreational firearm shooter.

Data Collection and Analysis: Recordings of impulses from 15 recreational firearms were obtained 1 m to the left of the shooter outdoors away from reflective surfaces. Recordings were made using a pressure-calibrated 1/4 inch measurement microphone and digitally sampled at 195 kHz (24 bit depth). The acoustic characteristics of these impulses were examined, and auditory risk estimates were obtained using three contemporary damage-risk criteria (DRCs) for unprotected listeners.

Results: Instantaneous peak levels at the bystander location ranged between 149 and 167 dB SPL, and 8 hr equivalent continuous levels (L_{eqA8}) ranged between 64 and 83 dB SPL. Poor agreement was obtained across the three DRCs, and the DRC that was most conservative varied with the firearm. The most conservative DRC for each firearm permitted no unprotected exposures to most rifle impulses and fewer than 10 exposures to impulses from most shotguns and the single handgun included in this study. More unprotected exposures were permitted for the guns with smaller cartridges and longer barrel length.

Conclusions: None of the recreational firearms included in this study produced sound levels that would be considered safe for all unprotected listeners. The DRCs revealed that only a few of the small-caliber rifles and the smaller-gauge shotguns permitted more than a few shots for the average unprotected listener. This finding is important for professionals involved in hearing health care and the shooting sports because laypersons are likely to consider the bystander location to be inherently less risky because it is farther from the gun than the shooter.

Key Words: Auditory risk, firearms, impulse noise, noise exposure, prevention—hearing loss

Abbreviations: AHAAH = Auditory Hazard Assessment Algorithm for Humans; ACP = automatic Colt pistol; BOSS® = Ballistic Optimizing Shooting System; DRC = damage-risk criterion; HPD = hearing protection device; MPE = maximum permissible exposure; SEL = sound exposure level

The use of firearms and participation in recreational hunting vary as a function of geographical location and culture. In the United States, 18.6 million individuals over the age of 16 yr hunted an average of 18 days a year during the 5 yr period from 2002 to 2006. Youth hunters 6 to 15 yr of age are estimated to number 1.6 million (U.S. Fish and Wildlife Service, 2006). The National Shooting Sports Foundation (2009)

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reports that there are 30 million active sports shooters (hunters, cowboy shooters, etc.) over age seven in the United States. In addition, there are an estimated 20.3 million active target shooters (skeet, trap, and sporting clays) in the United States (National Shooting Sports Foundation, 2009). These statistics do not include the "occasional shooter" who may fire a weapon at gun shows, guest resort activities, rural farms/ranches, or outdoor fundraising/sporting events. Friends, family members, spectators, and instructors may accompany these "shooters" and be indirectly exposed to firearm impulses that potentially put them at risk of acoustic trauma.

Impulses from firearms are commonly referenced in terms of instantaneous peak sound pressure levels. Peak sound pressure levels typically exceed the U.S. Occupational Safety and Health Administration (1983), the National Institute of Occupational Safety and Health (NIOSH), the U.S. MIL-STD-1474D (U.S. Department of Defense, 1997), and the World Health Organization (1999) limit of 140 dB SPL (Odess, 1972; Ylikoski et al, 1995; Kardous et al, 2003; Murphy and Tubbs, 2007) and can potentially lead to noise-induced hearing loss (Patterson and Hamernik, 1992; Chan et al, 2001). However, the potential damage to the auditory system is not fully represented by peak SPL values. Sound exposure characteristics such as the total energy contained in the impulse, frequency spectrum, and pressure wave (i.e., *A*) and pressure envelope (i.e., *B*) durations of the time waveform are important considerations in terms of describing auditory risk from firearms (see Flamme et al, 2009a, for a review; Committee on Hearing, Bioacoustics, and Biomechanics [CHABA], 1992). Briefly, the A-duration is the time interval between the initial pressure rise of the impulse and the moment the pressure passes through ambient. The B-duration is the time interval during which the envelope of the signal resides within 20 dB of the peak pressure.

Firearm impulse sound exposure contributes to the poorer hearing ability and hearing handicap evident in sports hunters when compared to nonhunters (Taylor and Williams, 1966; Stewart et al, 2002). Nondahl et al (2000) calculated a 7% increase in the likelihood of having a marked high-frequency hearing loss for every 5 yr of hunting. In addition, hunters consistently used hearing protection less than 5% of the time during their hunting activities (Wagner et al, 2006). Hunters are more likely (62–80%) to wear hearing protection when target shooting than when hunting (Wagner et al, 2006), and the use of hearing protection tends to be higher among target shooters (Nondahl et al, 2000). This tendency was also noted in police officers, who were also more likely to consistently wear hearing protection devices (HPDs) during job-related firearms-qualification activities (95%) as opposed to nonoccupational shooting activities (0% [Hughes and Lankford, 1992]). In workers exposed to occupational noise, the additional exposure to firearm noise can be expected to lead to a greater degree of hearing loss than for peers without exposure to firearm noise (Prosser et al, 1988; Clark, 1991; Kryter, 1991; Pekkarinen et al, 1993; Stewart et al, 2001; Neitzel et al, 2004).

Exposure to firearm noise is encountered in both occupational and nonoccupational settings. Law enforcement, security, military, wildlife officers, hunting guides, firearm and ballistics/accessory manufacturers, gunsmiths, and firearm range personnel are occupationally exposed to firearm noise. Recreational firearm use encompasses the traditional hunter and target shooters and also extends to cowboy action shooting, travel resort shooting galleys, dog training, .50 caliber shooting associations, gun shows, Boy/Girl Scouts, and 4-H activities. In most if not all of these situations, a bystander may be participating in the training and/or observing the event.

Bystander firearm noise exposure has primarily been assessed in the occupational shooting range environment. Recently, Kardous et al (2003) recorded a time-weighted average noise exposure of 108 dBA (19,282% daily dose) for an observer in an indoor shooting range using the NIOSH (1998) noise sampling criteria. While these authors recognize the limitations of noise dosimeter instrumentation in terms of capturing the impulse noise source, the results are valid in terms of documenting overexposure for the bystander.

While there are few data concerning the auditory risk to those near the shooter, there is evidence to suggest that the noise exposure is dependent upon the location of the listener (or bystander). Plomp (1967) showed that the Fusil Automatique Léger assault rifle produced lower peak levels 180 degrees from the line of fire than at other locations. Similar results were obtained recently with a bolt-action rifle chambered for the .22 Hornet cartridge (Rasmussen et al, 2009). The current study was designed to measure the impulse sound levels and estimate the auditory risk for persons standing approximately 1 m to the left of a right-handed shooter. The auditory risk for a bystander will be estimated by using the waveform parameter–based damage-risk criterion (DRC) developed by Coles et al (1967) and modified by the National Academy of Sciences Committee on Hearing, Bioacoustics, and Biomechanics (1968); the energy-based approach advocated by Smoorenburg (2003); and the Auditory Hazard Assessment Algorithm for Humans (AHAAH) developed by Price and Kalb (1991) and described further by Price (2007).

METHOD

Firearms and Ammunition

The 15 firearms used in this study were selected to represent a variety of those used for recreational shooting activities such as hunting and target practice.

Details concerning each firearm are presented in Table 1. Photographs of the guns and ammunition are available as supplementary data accompanying the electronic version of this article on the publisher's Web site (www.audiology.org/resources/journal). The .410 gauge and 20 gauge shotguns are typically used when hunting smaller game such as rabbits, squirrels, and some game birds; while the 12 and 10 gauge shotguns are favorites for hunting waterfowl (Stewart et al, 2009), pheasant, quail, and turkeys. The .30-06 rifle, 7 mm Remington Magnum rifle, .45-70 rifle, and the .50 caliber muzzle-loader are commonly used for large game such as deer, elk, and bear. According to Wagner et al (2006), the .30-06 rifles and 12 gauge shotguns are the most frequently used firearms for large and small game, respectively. For target shooters, the firearm preferences are rifles (67.4%), handguns (62.5%), muzzle-loaders (24.5%), and shotguns (20.4% [Southwick Associates, 2009]). The AR-15, the M14, and the Auto-Ordnance (Thompson) 1927-A1 Model T1 "Tommy gun" rifles are civilian versions of military models and can be used for hunting but are typically used for target practice. The .22 caliber handgun is also used primarily for target practice. Three rifles had commercial barrel modifications (muzzle brake, compensator, or flash suppressor), and measurements were obtained with these in place. These devices are designed to improve shooting accuracy and reduce recoil; however, installing a muzzle brake on a firearm will increase peak sound pressure levels when the gun is fired. The ammunition used in the firearms in this study included a wide variety of commercially available cartridges typically used for hunting and target practice activities.

Instrumentation

Impulse recordings were made using a 1/4 inch prepolarized pressure-calibrated microphone (G.R.A.S. Type 40BD) having an essentially flat frequency response through 70 kHz, oriented at grazing incidence to the sound source. Microphone output was conditioned by a G.R.A.S. Type 26AC preamplifier and a G.R.A.S. Type 12AA power supply and routed to a Tucker-Davis Technologies real-time processor (RP2.1). The real-time processor was configured to perform 24 bit analog-to-digital conversion at a 195 kHz sample rate prior to storage in a memory buffer and subsequent transfer and scaling into Pascal units in MATLAB.

Data Analyses

After recordings were transferred to the analysis computer, impulse baseline corrections were made by

Table 1. Description of Recreational Firearms and Ammunition Used in the Measurement of Impulse Noise

Manufacturer	Model	Gauge/Caliber	Cartridge/Bullet	Action	Barrel Length (inches)
Rifles					
Winchester	Model 70	7 mm Remington Magnum	140 grain	bolt action	26 with BOSS
Remington	742 Woodsman	.30-06	165 grain	semiautomatic	18
Remington	742 Woodsman	.30-06	165 grain	semiautomatic	22
Ruger	Model 1S	.45-70	300 grain	single shot, lever	22
Thompson/Center	Encore Pro Hunter	.50	250 grain with 150 grain powder	muzzle-loader	22
Rock River Arms	M14	7.62 × 51 mm (.308)	150 grain	semiautomatic	24 with flash suppressor
Colt	AR-15	5.56 × 45 mm (.223)	60 grain	semiautomatic	20
Auto-Ordnance (Tommy Gun)	1927-A1 Model T1	.45 ACP	230 grain	semiautomatic	16.5 with compensator
Shotguns					
Remington	SP10	10 gauge	3.5 inch	semiautomatic	28
Remington	11-87 slug gun	12 gauge	3 inch copper solid	semiautomatic	21
Remington	11-87 turkey gun	12 gauge	3 inch turkey load	semiautomatic	21
Remington[a]	11-87 standard	12 gauge	3 inch duck load	semiautomatic	26
Remington[a]	11-87 standard	12 gauge	2.75 inch field load	semiautomatic	26
Mossberg	—	20 gauge	2.75 inch	pump	26
Mossberg[b]	—	.410 caliber	3 inch	bolt	24
Mossberg[b]	—	.410 caliber	2.5 inch	bolt	24
Handgun					
Ruger	Bearcat	.22 Long Rifle	40 grain	revolver	4

[a]Same gun.
[b]Same gun, with and without external choke.

subtracting the mean value during a silent period in the waveform from all points on the recording. Each impulse was then analyzed independently using MATLAB software routines developed in the NIOSH Taft Laboratories (Cincinnati, Ohio). Risk estimates were calculated in terms of maximum permissible exposure (MPE) via the three DRCs for a listening condition in which the adult bystander was directly facing the sound source (i.e., grazing incidence to the ear). The MPE metric represents the highest number of exposures allowable without exceeding the exposure limits defined within the DRCs. We judged the median to be the best indicator of MPE for each firing condition, while ranges are also reported in the results that follow.

The DRCs included the Coles/CHABA (Coles et al, 1967; CHABA, 1968) approach based on waveform parameters, the Smoorenburg (2003) approach based on A-weighted energy in the impulse, and the AHAAH, developed by Price and Kalb (1991), using a physiological model of the ear (Price, 2007). A detailed review of these DRCs has been presented elsewhere (Flamme et al, 2009a), but prior comparisons of these DRCs (Flamme et al, 2009a; Flamme et al, 2009b) have revealed that there are substantial differences in MPE determined by these DRCs. The Coles/CHABA criterion is most conservative for high-level impulses and least conservative for low-level impulses, the Price/Kalb DRC is the least conservative for high-level impulses and most conservative for low-level impulses, and the Smoorenburg DRC lies somewhere in the middle for impulses less than 116 dBA sound exposure level (SEL). The SEL represents the integrated sound level over an averaging period of 1 sec (see Earshen, 2000, p. 72). In this sense, SEL is similar to the 8 hr equivalent continuous level, but instead of dividing the sound energy over a time frame of 8 hr, the amount of sound energy is divided over a 1 sec period when computing SEL. The Smoorenburg DRC is discontinuous for impulses with 8 hr equivalent A-weighted sound pressure levels greater than 80 dB. In this range, MPE is 0 for impulses with peak levels above 116 dBA SEL but increases to a fixed value of 50 for impulses below 116 dBA SEL and above 80 dBA 8 hr equivalent continuous level (dBL_{eqA8}). As suggested by Smoorenburg (2003), a +4 dB correction was applied to the SEL limit (i.e., 120 dB SEL) to retain consistency with the other DRCs, which presumed that the impulse source was oriented at grazing incidence to the ear. The Price/Kalb DRC permits separate assessments of auditory risk for listeners who are unwarned or warned that firing is imminent. The difference between these conditions follows a hypothesis that human listeners who know an impulse is imminent (i.e., warned listeners) will contract their middle-ear muscles in anticipation and therefore gain some additional protection from the high-pass filtering provided when the middle-ear muscles are contracted. On the other hand, the middle-ear muscle contractions for unwarned listeners will be reflexive and follow the latency characteristics of a reflex, resulting in a contraction long after the impulse has passed. MPEs via the Price/Kalb DRC were calculated using a maximum of 500 auditory risk units under unwarned listening conditions (i.e., no anticipatory middle-ear muscle contraction). We elected to use the unwarned condition based on the results of Bates et al (1970), which found that anticipatory middle-ear muscle contractions cannot be conditioned in the majority of human listeners.

Procedure

A minimum of five shots (range = 5–24) were fired from each firearm. The firearms were fired on a horizontal plane in a nonreverberant open field with the shooter in a typical standing shooting position. The microphone was positioned with a grazing incidence 1 m immediately to the left of the right-handed shooter to simulate a typical bystander location for civilian shooting conditions.

RESULTS

Acoustic Characteristics of Firearm Impulse Noise

Examples of noise impulses from each type of firearm are presented in Figure 1. For each gun, a secondary peak caused by ground reflection lagged the primary peak by approximately 6 msec. Standard deviations of impulse levels were 1 dB or less for all guns except the A-weighted peak level produced by the Remington SP10 Magnum, 10 gauge (Table 2). Unweighted peak levels produced at the bystander location ranged between 149.1 dB SPL for the Mossberg .410 shotgun and 166.5 dB SPL for the Winchester Model 70 with the Ballistic Optimizing Shooting System® (BOSS) muzzle brake. A-weighted levels were 1.7 to 3.7 dB lower than unweighted levels. Peak levels of shotguns and the handgun were more affected by A-weighting than those of rifles. A-weighted 8 hr equivalent continuous levels (L_{eqA8}) varied between 64.0 and 82.9 dB SPL and corresponding sound exposure levels ranged between 108.6 and 127.5 dB SPL.

Rifles tended to produce the highest peak levels at the bystander location, followed by shotguns and the .22 handgun. Exceptions were the Remington SP10 Magnum 10 gauge and Remington 11-87 12 gauge slug shotguns, which produced greater peak levels than most rifles (see Table 2). The Remington SP10 Magnum and the Remington 11-87 slug gun also produced higher peaks than all other shotguns. This may be related to the type of ammunition used in these particular shotguns. The Remington SP10 Magnum 10 gauge shotgun fired a 3.5

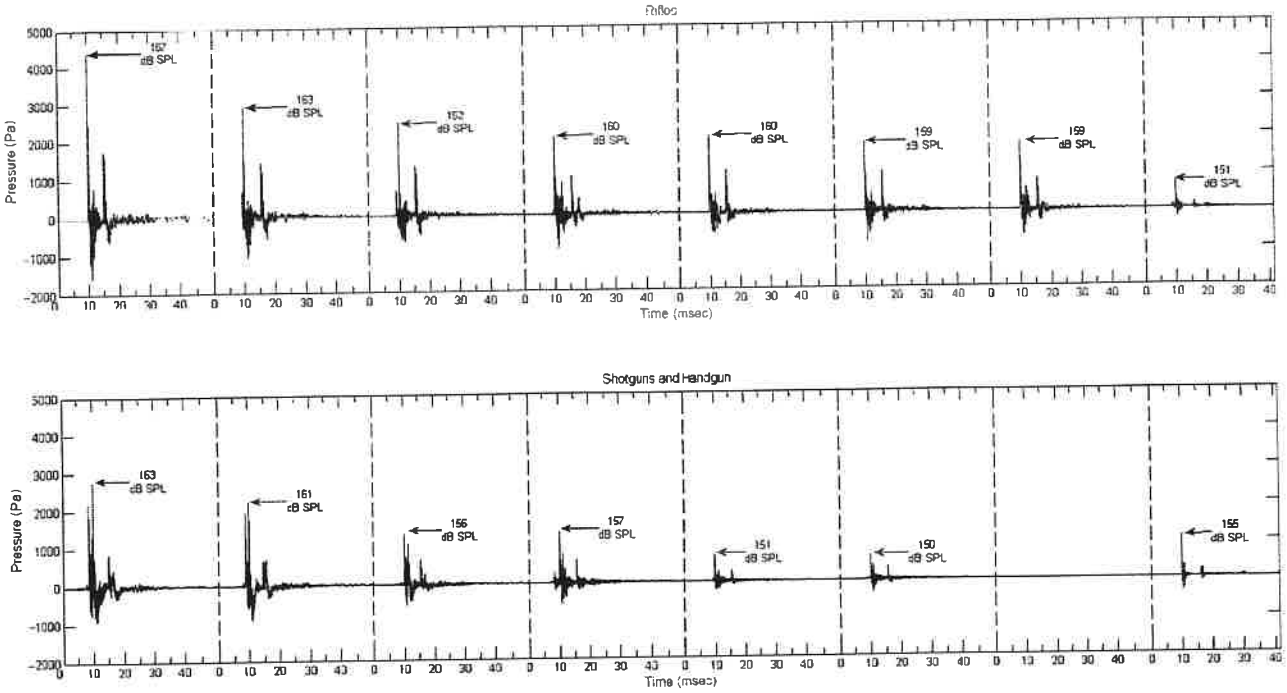

Figure 1. Examples of individual impulses from each gun. The upper panel includes sample impulses for each rifle; examples from the shotguns and the handgun are in the lower panel. Upper panel impulses are from the Winchester Model 70 (7 mm Magnum), Remington #742 carbine (.30-06), Remington #742 with a 22 inch barrel (.30-06), Ruger Model 1 (.45-70), Thompson/Center Encore muzzle-loader (.50), M14 (7.62 × 51 mm), Colt AR-15 (5.56 × 45 mm), and Auto-Ordnance Tommy gun (.45 ACP), respectively. Lower panel sample impulses are from the Remington SP10 Magnum (10 gauge), Remington 11-87 slug gun (12 gauge), Remington 11-87 turkey gun (12 gauge), Remington 11-87 standard gun firing a 3 inch cartridge (12 gauge), Mossberg 20 gauge, Mossberg .410 caliber firing a 3 inch cartridge, and Ruger Bearcat .22 caliber, respectively. Differences between individual examples and summary values (Table 1) are due to rounding and the specific example selected for display.

inch cartridge as opposed to a 3 or 2.75 inch cartridge, while the Remington 11-87 12 gauge slug shotgun fired a cartridge with a single large (1 oz) projectile (i.e., slug) rather than multiple smaller projectiles (i.e., shot). The .22 caliber revolver also produced higher bystander peak levels than the 20 gauge and .410 caliber shotguns and the Auto-Ordnance Tommy gun, which fires .45 caliber handgun ammunition. The higher bystander peak levels produced by the .22 handgun, which fires the smallest cartridge of all the firearms in this study, may be related to the significantly shorter barrel length and action of this firearm, which resulted in the bystander being positioned closer to the sound source.

A comparison of the acoustic characteristics of impulses generated by the same firearm but with different-size cartridges is also shown in Table 2. Three-inch cartridges fired in the Remington 11-87 12 gauge shotgun (turkey or duck loads) generated impulses with higher peak levels and longer durations compared to 2.75 inch cartridges fired by the same firearm. Three-inch and 2.5 inch cartridges fired in the same .410 shotgun produced essentially equivalent peak levels, and B-durations, but the smaller cartridge had shorter A-durations.

Table 2 also displays the mean durations for firearm impulses measured in this study. Pressure wave A-durations were generally less than 500 msec, particularly for smaller cartridges. Pressure envelope B-durations for impulses ranged from 6.8 to 9.3 msec. In general, the 10 and 12 gauge shotguns produced the longest B-duration values (approximately 9 msec), while the Winchester Model 70 (7 mm Remington Magnum) rifle and the .22 Ruger Bearcat revolver produced the shortest and nearly identical mean B-durations of 6.868 and 6.896 msec, respectively.

Risk Estimates

Maximum permissible exposures, assuming no hearing protection, differed across DRCs. The Coles/CHABA DRC showed the greatest range of median unprotected MPEs across firearms, ranging from 0.18 MPE (i.e., no allowable unprotected exposure) for the Winchester Model 70, 7 mm Remington Magnum, equipped with a muzzle brake to 217 MPE for the .45 Tommy gun. The Price/Kalb DRC produced the smallest range of unprotected median MPEs, with values ranging from 4 MPE for the Winchester Model 70, 7 mm Remington Magnum, to 26 MPE for the .45 Tommy gun. The Smoorenburg DRC generated median MPEs of either 0 MPE (big-bore rifles and the M14) or 50 MPE (all other firearms).

Table 2. Acoustic Characteristics of Firearm Impulses at the Bystander Location

Firearm and Ammunition	N	Variable	Peak (dB SPL)	A-Weighted Peak (dB SPL)	L_{eqA8} (dB SPL)	SEL_A (dB SPL)	A-Duration (μsec)	B-Duration (msec)
Rifles								
Winchester Model 70, 7 mm Magnum	5	Mean	166.5	164.8	82.9	127.5	519	6.868
		SD	0.3	0.5	0.3	0.3	32	0.061
Remington 742 carbine, .30-06	13	Mean	162.9	160.6	78.9	123.5	378	7.907
		SD	0.4	0.2	0.2	0.2	85	0.173
Remington 742 22 inch barrel, .30-06	24	Mean	161.6	159.4	77.7	122.3	353	8.044
		SD	0.5	0.4	0.3	0.3	57	0.287
Ruger Model 1, .45-70	5	Mean	160.1	157.6	77.4	122.0	442	8.354
		SD	0.2	0.1	0.7	0.7	77	0.450
Thompson/Center Encore, .50	5	Mean	159.7	157.2	75.3	119.9	427	7.396
		SD	0.2	0.3	0.2	0.2	32	0.670
M14, 7.62 × 51 mm	5	Mean	159.0	156.4	75.6	120.2	403	7.126
		SD	0.2	0.2	0.1	0.1	11	0.139
Colt AR-15, 5.56 × 45 mm	5	Mean	158.9	156.4	74.5	119.1	382	7.305
		SD	0.1	0.2	0.6	0.6	155	0.441
Auto-Ordnance Tommy Gun, .45 ACP	5	Mean	151.0	148.5	64.0	108.6	238	7.080
		SD	0.4	0.2	0.2	0.2	25	0.609
Shotguns								
Remington SP10 Magnum, 10 gauge	5	Mean	161.4	157.7	79.8	124.4	518	9.228
		SD	1.0	1.2	0.4	0.4	184	2.199
Remington 11-87 12 gauge slug	5	Mean	160.1	157.1	78.2	122.8	461	8.792
		SD	0.8	0.3	0.5	0.5	139	2.113
Remington 11-87 12 gauge turkey load, 3 inch ammunition	5	Mean	156.0	153.3	73.9	118.5	300	9.205
		SD	0.3	0.3	0.3	0.3	26	2.375
Remington 11-87 12 gauge duck load, 3 inch ammunition	5	Mean	156.1	153.2	72.6	117.2	382	9.090
		SD	0.4	0.6	0.3	0.3	114	0.054
Remington 11-87 12 gauge, 2.75 inch ammunition	5	Mean	152.7	149.7	68.2	112.8	230	7.904
		SD	0.6	0.7	0.7	0.7	32	0.527
Mossberg 20 gauge	5	Mean	150.1	147.1	66.2	110.8	208	7.438
		SD	0.4	0.4	0.3	0.3	38	0.221
Mossberg .410, 3 inch ammunition	5	Mean	149.1	145.8	64.5	109.1	382	7.750
		SD	0.3	0.5	0.6	0.6	114	0.750
Mossberg .410, 2.5 inch ammunition	5	Mean	150.0	146.6	65.8	110.4	248	7.358
		SD	0.4	0.6	0.7	0.7	23	0.554
Handgun								
Ruger Bearcat .22	6	Mean	154.0	150.6	67.1	111.7	134	6.896
		SD	0.6	0.8	0.7	0.7	10	0.098

Rifles

The preponderance of DRCs recommended no more than 10 unprotected exposures to impulses produced by the rifles in this study (Fig. 2). For large conventional hunting rifles (e.g., those firing 7 mm Magnum, .30-06, and .45-70 cartridges), median MPEs ranged between 0 (Smoorenburg DRC) and 5 (Price/Kalb DRC). The median MPEs for the Thompson/Center Encore .50 caliber muzzle-loader and the M14 and AR-15 rifles ranged between 0 (M14 rifle, Smoorenburg DRC) and 50 (Thompson/Center Encore and AR-15 rifles, Smoorenburg DRC). Median MPEs for the .45 Tommy gun ranged between 26 (Price/Kalb DRC) and 217 (Coles/CHABA DRC).

Shotguns

Most of the shotguns included in this study (i.e., all but the 10 gauge shotgun and the 12 gauge slug gun) produced noise impulses with unprotected median MPEs greater than 1 as estimated by all three damage-risk criteria (Fig. 3). The Smoorenburg DRC generated median MPE values of either 50 or 0 across all shotguns, while the Price/Kalb produced median MPE values ranging from 1 to 26 across all shotguns. The Coles/CHABA DRC tended to produce similar MPE values as the other two DRCs for the large-bore shotguns (10 and 12 gauge) but calculated much larger median MPEs (300–500) for the smaller-bore shotguns (20 and .410 gauge). In general,

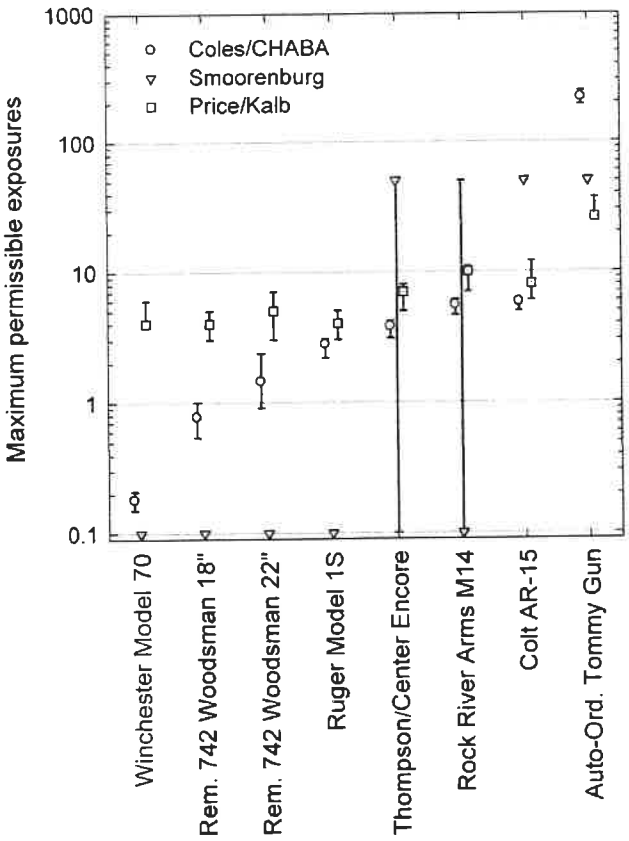

Figure 2. Median maximum permissible unprotected exposures for each rifle, by damage-risk criterion. Error bars represent the range of maximum permissible unprotected exposures across shots. Permissible exposures of 0 returned by the Smoorenburg criterion were entered as 0.1 to permit plotting.

greater numbers of permissible exposures were observed for shotguns firing smaller-diameter cartridges. The 10 gauge shotgun and 12 gauge slug gun had the fewest permissible exposures (unprotected), while the .410 caliber shotgun had the most by all three DRCs. The two types of ammunition used in the standard 12 gauge firearm had a substantial effect on MPE estimated by the Coles/CHABA risk criterion, increasing from 16 MPE with a 3 inch cartridge to 69 MPE with a 2.75 inch cartridge. However, small differences (<1 dB) in the opposite direction were observed with the .410 gauge shotgun. Fewer exposures were permissible with the shorter cartridge (2.5 inch) than with the longer cartridge (3 inch) for the Coles/CHABA and the Price/Kalb DRCs. Medians for the Smoorenburg DRC were 50 MPE regardless of .410 gauge shell length.

Handgun

Unprotected MPEs for the Ruger Bearcat .22 Long Rifle caliber handgun exhibited similar trends to those observed with the other types of recreational firearms. A minimum of 40 MPE and maximum of 86 MPE (median 55) were estimated via the Coles/CHABA DRC (Fig. 3). The Smoorenburg DRC resulted in an estimate of 50 MPE for all impulses from this gun. The Price/Kalb DRC estimated a range of 9 to 15 MPE (median 10).

DISCUSSION

Auditory Risk to Bystanders

The focus of this investigation was to describe auditory risks for bystanders exposed to civilian firearm noise. This study reports the acoustic characteristics and risk estimates for firearm noise across several rifles ($N = 8$), several shotguns ($N = 6$), and a handgun at a single position where a bystander might typically be located. That location was 1 m to the left of the individual firing each of the guns listed in Table 1. Although numerous other locations could and should be assessed, this location was chosen as a likely position for a hunting guide, firearms instructor, hunting partner, observer, or additional shooter who might or might not be an active part of a shooting event. It should also be mentioned that these data were collected outdoors in a nonreverberant open field without walls, barriers, trees, or other obstructions. The magnitude of each impulse was evaluated using unweighted instantaneous peak levels and A-weighted instantaneous peak levels, 8 hr equivalent continuous levels (L_{eqA8}), and sound exposure levels (SEL_A). In addition, the pressure wave durations (i.e., A-durations) and the pressure envelope durations (i.e., B-durations) of the impulse waveforms were evaluated (Table 2).

Several different approaches to determining auditory damage risk from exposure to impulse noise can be applied (Coles et al, 1967; CHABA, 1968; Smoorenburg, 2003; Price, 2007), and the results of each can be transformed into maximum permissible unprotected exposures, which is simply the number of gunshot exposures allowed for a given firearm. These can be seen in Figures 2 and 3 for the firearms used in this study. It is noted that the Price/Kalb model appears to compress the range of MPEs across firearms compared to the other two models. This makes it atypically liberal relative to the other DRCs that would allow few shots (e.g., large game rifles) and also atypically conservative in cases where the other DRCs would tend to allow many unprotected shots (e.g., the 20 gauge and .410 shotguns). It is apparent for the rifles tested (Fig. 2) that most MPE values ranged from 0 to 10, whereas for shotguns tested (Fig. 3) most ranged from 0 to 50 MPE. As expected, the higher the peak sound pressure levels, the lower the MPE for both the rifles and shotguns. The one rifle that produced the highest peak SPL (166.3 dB) was a bolt-action rifle with a 26 inch barrel and a BOSS muzzle brake. This particular firearm configuration used a belted 7 mm Remington

Magnum cartridge (high velocity and high powder capacity).

The higher peak SPLs for rifles may relate to the larger powder charge and/or the higher bullet velocity when all other variables are considered. The exception to this generalization is the addition of porting or brakes to the barrel of the firearm. The brake allows the muzzle gases to escape from openings in the brake, permitting the noise to travel more directly toward the bystander and shooter. Ports (holes) and slits in the barrel of firearms and muzzle brakes (used to reduce recoil, barrel elevation, and vibration) are potentially more hazardous to hearing than firearms without such alterations.

There is also a trend for the unprotected MPEs to be lower for more powerful hunting rifles than for the military-style rifles (AR-15, M14, and Tommy gun), particularly when those rifles were evaluated using the Coles/CHABA and Smoorenburg DRCs (Fig. 2). The rationale for this outcome may be that the military-style firearms have smaller powder capacities (.223, .308, and .45) than the typical hunting rifles (7 mm Remington Magnum, .30-06, and .45-70), regardless of the caliber of the cartridge.

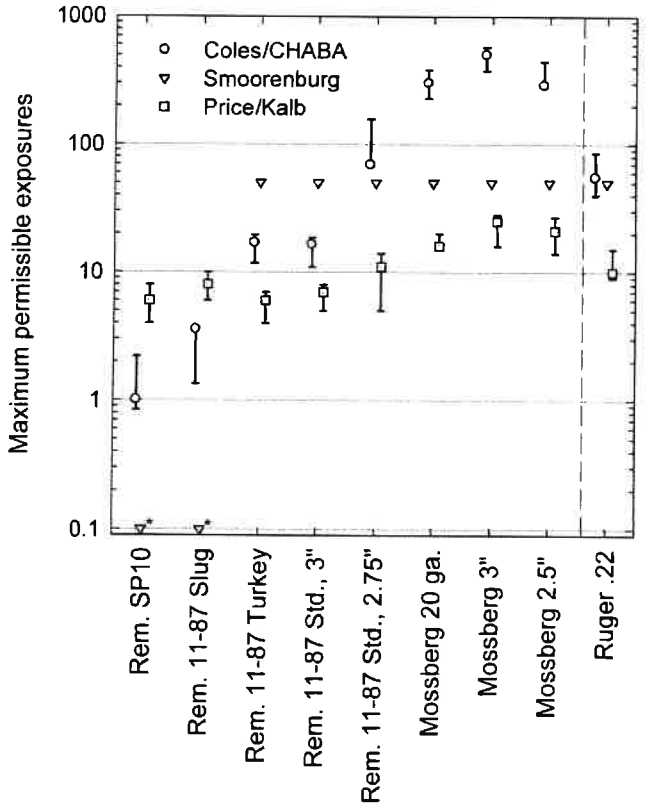

Figure 3. Maximum permissible unprotected exposures for each shotgun and the Ruger .22 caliber handgun, by damage-risk criterion. Error bars represent the range of maximum permissible unprotected exposures across shots. Separate estimates of maximum permissible unprotected exposures were obtained for each cartridge fired in the 12 gauge standard and the .410 caliber shotguns. Permissible exposures of 0 returned by the Smoorenburg criterion were entered as 0.1 to permit plotting.

The highest peak noise level from a shotgun at the bystander location (161.4 dB SPL) was produced by the largest-gauge shotgun sampled, a 10 gauge firing a 3.5 inch cartridge. On the other end of the shotgun noise level range was the .410 gauge shotgun firing a 3 inch cartridge and producing a peak level of 149.1 dB SPL. When the same 12 gauge shotgun is fired with two different cartridges (2.75 vs. 3 inch), the longer cartridge yields a higher peak SPL (150.0 dB), assuming barrel length and distance to the bystander are held constant. It is also apparent that the larger cartridge diameters (gauge) yield higher peak SPLs.

The impulse noise from the handgun assessed in this study should also be mentioned. This small revolver fired one of the smallest cartridges commercially available: the .22 Long Rifle. However, the peak was 154.0 dB SPL, which exceeded the peak levels of five of the other firearms. This may be explained in two ways. First, the shorter 4 inch barrel length places the noise source closer to the bystander. Second, since this firearm is a revolver, there is a significant blast of gases and noise emitted between the exit chamber from the cylinder and the rear opening of the barrel, further reducing the distance between the noise source and the ears of the bystander. These two factors probably account for the high SPL for such a small cartridge.

When the Auto-Ordnance .45 Tommy gun and the .22 Ruger revolver noise levels are compared, another seemingly counterintuitive finding was observed. The Tommy gun shoots a rather substantial (larger) handgun cartridge (.45 automatic Colt pistol [ACP]) that produced a peak level of 151.0 dB SPL, while the .22 caliber Ruger revolver produced a higher peak level (154.0 dB SPL). This probably again reflects the short barrel length of the handgun and the opening between the cylinder and barrel when compared to the longer barrel and closed interface of the chamber with the barrel of the Tommy gun.

It could be concluded that firing a handgun with a short barrel length (especially one with a large bore), compared to long-barreled rifles and shotguns, may increase the auditory risk factor for the bystander. And when the handgun is a revolver, the bystander's risk for hearing loss may be greater than for semiautomatics or single-shot handguns.

Estimates of MPEs were based on the assumption that the shooter or bystander is unprotected (not wearing earplugs and/or earmuffs). Hearing protectors can be expected to generally decrease the auditory risks to the wearer in direct proportion to the reduction in the peak sound level (W. Murphy, personal communication, March 4, 2010). Therefore, the unprotected MPEs from the current study could be adjusted by the proportional effect of a given ear protector. For example, with

the Winchester Model 70 (7 mm Remington Magnum) rifle with the BOSS muzzle brake producing an unprotected MPE of 0.2 (Coles/CHABA DRC) or 4 (Price/Kalb DRC), an ear protector that reduces the DRCs by a factor of 100 would increase the MPE to 20 or 400, respectively. Unfortunately, this approach would not be suitable for the Smoorenburg DRC, because many guns have an MPE of either 0 or 50 and increases in MPEs due to the hearing protector would need to be determined by the effect of the hearing protector on the A-weighted 8 hr equivalent level and the SEL, after transformation of the recordings under the protector to equivalent levels in the undisturbed sound field.

None of the guns included in this study should be considered safe for unprotected bystanders, but the sound produced by some guns (e.g., Mossberg bolt-action .410) is less risky than others, and the longer gun barrels and lower-powered guns and ammunition carry less risk to the unprotected auditory system. We assumed a grazing incidence for the risk estimates in this study, and this situation may not always reflect the angle of incidence to the bystander's ear in the field. The relative risk of auditory damage may be higher for normal incidence where the acoustic effects of the head and pinna lead to greater gain in the high frequencies (Shaw, 1974).

The presumed location of the bystander in this study was 1 m to the left of a right-handed shooter. However, the sound field surrounding the firearm and shooter is not uniform (Rasmussen et al, 2009). The results of the current study can be expected to provide underestimates of sound levels and auditory risk for bystanders nearer the muzzle (e.g., closer to the shooter or forward) and could overestimate the risk for those farther away. Companion hunters, shooting instructors, and long-range precision shooting teams are examples where bystanders might be closer than the conditions evaluated in this study. In the case of companion hunters, particularly waterfowl hunters in a blind, it is possible to have a group of three or more shooters firing at flying waterfowl simultaneously from inside an enclosure (e.g., a duck blind [Stewart et al, 2009]). In such conditions, each person is both a bystander and a shooter, and each listener's distance to the muzzle is determined by the flight path of the bird. Shooting instructors will occasionally help the student shooter use the gunsight from a position directly behind the student shooter. In these conditions, it would be most appropriate to apply auditory risk estimates obtained at the shooter's location. Long-range precision shooting teams employ a person in the role of spotter who assists in identifying the location and range to the target, and competitions of this sort could lead to the spotter occupying a location forward of the shooter, particularly when shooting from inside an enclosure or in close quarters.

Clinical Implications

People involved in hearing health care are acutely aware of the general risk of unprotected firearm noise exposure for shooters, and this research highlights the need to extend this clinical awareness to bystanders. The specific auditory risk to any particular bystander is contingent upon the shooter's behavior, the firearm in use, the number of shots fired, the ammunition used, and the shooting environment. Bystanders accompanying hunters may not recognize that their relative risk would be expected to increase when accompanying bird hunters who may have higher daily limits on quail (10) and are successful on every third shot versus pheasant hunters with a lower daily limit (two–five) or deer hunters who may fire only one or two limited opportunity shots. Bird hunts are often group hunts, and bystander exposure is common. Persons functioning as hunting guides or instructors may find themselves routinely in the bystander position regardless of the type of hunting. Many hunters assist other hunters once they have gained the skills or harvested their personal game, thus increasing their personal risk of hearing loss.

Hearing protection is advisable for anyone observing in close proximity to a shooter, whether a family member accompanying a hunter to a waterfowl blind or an observer at a target shooting event. Firearm users who take turns shooting and become temporary bystanders may not realize that they could be positioned in a more hazardous situation than the shooter. These situations may necessitate the utilization of hearing protection. Bystanders cannot predict the frequency and acoustic conditions of impulse noise exposure, and consequently a conservative approach to universally recommending HPDs is justified. Shooters themselves may be the most likely person to advise a bystander of the need to wear hearing protection, since shooters are often aware of other safety considerations before firing a shot. Electronic or nonlinear hearing protection may be especially useful for bystanders who wish to maintain speech communication and environmental awareness while participating in the shooting activity.

It may be advantageous to relocate bystanders or fellow shooters to a less hazardous observation point when feasible and practical. If close observation is not warranted or desired, then increasing the distance between the bystander and the muzzle blast would be preferable. In the case of formal shooting events and supervised target practice, spectators can be required to observe from a substantial distance. In many sports, video cameras are used to bring the "action" closer to the spectator, and these strategies might be useful in terms of hearing loss prevention for bystanders at shooting events.

Special consideration for children who are bystanders may be warranted, since the World Health Organization (1999) suggests that children should not be

exposed to impulse peak sound levels greater than 120 dB SPL. In this case, hearing protection that fits well and provides adequate attenuation is necessary when bystander exposure cannot be avoided. The American culture of passing on hunting traditions from parents and grandparents to young children can be respected by counseling adults on the importance of eliminating unnecessary and unprotected firearm exposure to children and modeling appropriate protective behaviors.

Audiologists are encouraged to expand their clinical inquiry beyond asking, "Do you shoot firearms?" to address any history of firearm noise exposure as a bystander and/or shooter, e.g., "Are you exposed to *any* firearm noise?" Follow-up questions would then focus on the use of hearing protection, the description of bystander situations, and the types of firearms (if known). Any specific occurrences of unprotected firearm noise exposure should receive special attention. Extensive counseling focusing on higher-risk situations—using high-powered rifles, large shotguns, handguns, and firearms with muzzle brakes—should emphasize the need to wear effective HPDs in these instances. Routine audiologic monitoring should also be encouraged for bystanders exposed to firearm noise in order to monitor hearing protector effectiveness.

CONCLUSION

Bystanders are at risk of auditory damage from unprotected civilian firearm noise exposure, and HPD use is warranted. Civilian firearm impulse noise peak levels ranged from 149 to 166.5 dB SPL when measured from a bystander location 1 m to the left of the shooter. These results illustrate that maximum permissible exposures (unprotected) vary across firearms, ammunition, and DRCs. MPEs ranged from 0 to 217 dependent upon the DRC applied and firearm used. In general, firearms with longer barrels and lower-power ammunition are less hazardous to hearing. The risk of auditory damage is influenced by a variety of acoustic, firearm, ammunition, environmental, and circumstantial conditions that cannot always be predicted in advance of the exposure. Damage-risk criteria can be used to quantify the relative auditory damage risk between various firearms and shooting conditions. Audiologists are advised to consider unprotected bystander firearm noise exposure in the clinical evaluation of hearing loss and when implementing hearing loss prevention programs for recreational firearm users and bystanders/spectators.

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West Virginia	W. Va. Code § 61-6-23
Wisconsin	Wis. Stat. § 895.527
Wyoming	Wyo. Stat. Ann. §§ 16-11-101 et seq.

2.02 Sound

Sound waves behave like ripples on a pond after someone throws a rock into it. The object thrown becomes the sound source, the ripples the sound pressure waves. In the pond we see a two-dimensional pattern of circular waves, but in the atmosphere sound waves are three-dimensional, spherical and far more complex.

The following definitions will help explain some of the technical terms used by engineers and others who practice in the field of acoustics.

2.03 Terms

Ambient Sound: The totality of sound in a given place and time. It is usually a composite of sounds from varying sources at varying distances.

A-Weighted Sound Level (La): Sound pressure level, filtered or weighted to reduce the influences of the low and high frequency sound. It was designed to approximate the response of the human ear. Ambient sound is measured on a dBA scale. Small arms fire is generally measured on the A weighted scale.

Background Sound: The total sound in a situation or system except the sound that is desired or needed.

Decibel (dB): The unit used to measure the relative loudness or level of a sound. The range of human hearing is from 0 to 140 decibels.

Impulsive Sound: Sound with an abrupt onset, high intensity, and short duration typically less than one second and often rapid changing spectral composition.

Inverse Square Law: Describes the reduction of sound as the distance to the source increases. For example, over an open field, the sound decreases six decibels for each doubling of the distance from the source.

L(eq) energy equivalent sound level (Leq): Is a measure which describes with a single number the sound level of a fluctuating sound environment over a time period. It is a sound level based on the arithmetic average energy content of the sound.

L(dn): Is the Leq (energy averaged sound level) over a 24-hour period.

Wisconsin
Noise Related Statutes and Administrative Code

STATUTES

23.33 All Terrain Vehicles

.....

(e) Every all-terrain vehicle is required to be equipped with a functioning muffler to prevent excessive or unusual **noise** and with a functioning spark arrester of a type approved by the U.S. forest service.

,,,,,,,,,,

(6m) Noise limits. No person may manufacture, sell, rent or operate an all-terrain vehicle that is constructed in such a manner that **noise** emitted from the all-terrain vehicle exceeds 96 decibels on the A scale as measured in the manner prescribed under rules promulgated by the department.

30.62 Other equipment.

.....

(2) Muffler requirement and **noise** level standards.

(a)Mufflers. The engine of every motorboat propelled by an internal combustion engine and used on the waters of this state shall be equipped and maintained with a muffler, underwater exhaust system or other noise suppression device.

(b)Maximum **noise** levels for operation. No person may operate a motorboat powered by an engine on the waters of this state in such a manner as to exceed a noise level of 86 measured on an "A" weighted decibel scale.

(c)Maximum noise levels for sale. No person may sell, resell or offer for sale any motorboat for use on the waters of the state if the motorboat has been so modified that it cannot be operated in such a manner that it will comply with the noise level requirements under par. (b).

(d)Maximum noise level for manufacture.

1. No person may manufacture and offer for sale any motorboat for use on the waters of this state if the motorboat cannot be operated in such a manner so as to comply with the **noise** level requirements under par. (b).

2. The department may promulgate rules establishing testing procedures to determine noise levels for the enforcement of this section.

3. The department may revise these rules as necessary to adjust to advances in technology.

(e) Tampering. No person may remove or alter any part of a marine engine, its propulsion unit or its enclosure or modify the mounting of a marine engine on a boat in such a manner as to exceed the noise levels prescribed under par. (b).

(f) Local ordinances. No political subdivision of this state may establish, continue in effect or enforce any ordinance that prescribes noise levels for motorboats or which imposes any requirement for the sale or use of marine engines at prescribed noise levels unless the ordinance is identical to the provisions of this subsection or rules promulgated by the department under this subsection.

(g)Exemption for specific uses. This subsection does not apply to any of the following:

1. A motorboat while competing in a race conducted under a permit from a town, village or city or from an authorized agency of the federal government.

2. A motorboat designed and intended solely for racing, while the boat is operated incidentally to the testing or tuning up of the motorboat and engine for the race in an area designated by and operated under a permit specified under subd. 1.

3. A motorboat on an official trial for a speed record if conducted under a permit from a town, village or city.

4. The operation of a commercial or nonrecreational fishing boat, ferry or other vessel engaged in interstate or international commerce, other than a tugboat.

(h)Exemption by rule. The department may promulgate by rule exemptions from compliance with this subsection for certain activities for certain types of motorboats for specific uses and for specific areas of operation.

42.05 Auto races.

(1) Except during the annual state fair and at other times between 8 a.m. and 10 p.m., every motor vehicle, as defined in s. 287.15 (1) (e), that is used at state fair park in racing competition or practice shall be equipped with a **muffler** which, at all times, shall be in good working condition sufficient to prevent excessive or unusual noise.

66.0411 Sound-producing devices; impoundment; seizure and forfeiture.

(1) In this section, "sound-producing device" does not include a piece of equipment or machinery that is designed for agricultural purposes and that is being used in the conduct of agricultural operations.

(a) Any city, village, town or county may, by ordinance, authorize a law enforcement officer, at the time of issuing a citation for a violation of s. 346.94 (16) or a local ordinance in strict conformity with s. 346.94 (16) or any other local ordinance prohibiting excessive **noise**, to impound any radio, electric sound amplification device or other **sound**-producing device used in the commission of the violation if the person charged with such violation is the owner of the radio, electric sound amplification device or other sound-producing device and has 2 or more prior convictions within a 3-year period of s. 346.94 (16) or a local ordinance in strict conformity with s. 346.94 (16) or any other local ordinance prohibiting excessive noise. The ordinance may provide for impoundment of a vehicle for not more than 5 working days to permit the city, village, town or county or its authorized agent to remove the radio, electric sound amplification device or other sound-producing device if the vehicle is owned by the person charged with the violation and the sound-producing device may not be easily removed from the vehicle. Upon removal of the sound-producing device, an impounded vehicle shall be returned to its rightful owner.

(b) The ordinance under par. (a) may provide for recovery by the city, village, town or county of the cost of impounding the **sound**-producing device and, if a vehicle is impounded, the cost of impounding the vehicle and removing the sound-producing device. The ordinance under par. (a) shall provide that, upon disposition of the forfeiture action for the violation of s. 346.94 (16) or a local ordinance in strict conformity with s. 346.94 (16) or any other local ordinance prohibiting excessive noise and payment of any forfeiture imposed, the sound-producing device shall be returned to its rightful owner.

(2)

(a) Notwithstanding sub. (1m), any city, village, town or county may, by ordinance, authorize a law enforcement officer, at the time of issuing a citation for a violation of s. 346.94 (16) or a local ordinance in strict conformity with s. 346.94 (16) or any other local ordinance prohibiting excessive **noise**, to seize any radio, electric sound amplification device or other sound-producing device used in the commission of the violation if the person charged with such violation is the owner of the radio, electric sound amplification device or other **sound**-producing device and has 3 or more prior convictions within a 3-year period of s. 346.94 (16) or a local ordinance in strict conformity with s. 346.94 (16) or any other local ordinance prohibiting excessive noise.

347.39 Mufflers.

(1) No person shall operate on a highway any motor vehicle subject to registration unless such motor vehicle is equipped with an adequate muffler in constant operation and properly maintained to prevent any excessive or unusual **noise** or annoying smoke. This subsection also applies to motor bicycles.

(2) No muffler or exhaust system on any vehicle mentioned in sub. (1) shall be equipped with a cutout, bypass or similar device nor shall there be installed in the exhaust system of any such vehicle any device to ignite exhaust gases so as to produce flame within or without the exhaust system. No person shall modify the exhaust system of any such motor vehicle in a manner which will amplify or increase the **noise** emitted by the motor of such vehicle above that emitted by the muffler originally installed on the vehicle, and such original muffler shall comply with all the requirements of this section.

(3) In this section, "muffler" means a device consisting of a series of chambers of baffle plates or other mechanical design for receiving exhaust gases from an internal combustion engine and which is effective in reducing noise.

350.095 Noise level requirements.

(1) Noise level standards; total vehicle noise.

(a) Every snowmobile that is manufactured on or after July 2, 1975, and that is offered for sale or sold in this state as a new snowmobile shall be manufactured so as to limit total vehicle **noise** to not more than 78 decibels of A sound pressure, as measured by Society of Automotive Engineers standards.

(b) No snowmobile may be modified by any person in any manner that shall amplify or otherwise increase total vehicle **noise** above that emitted by the snowmobile as originally manufactured, regardless of date of manufacture.

(2) Noise level standards; exhaust and engine noise.

(a) No snowmobile may be manufactured, sold, offered for sale, or operated unless it is equipped with a muffler in good working order.

(b) For snowmobiles manufactured after July 1, 1972, a muffler that is in good working order is one that blends the exhaust **noise** into the overall engine noise and is in constant operation to prevent exhaust and engine **noise** that exceeds the applicable noise level standards established under pars. (c) and (d).

(c) For every snowmobile manufactured after July 1, 1972, and before July 2, 1975, the **noise** level standard for exhaust and engine **noise** shall be 90 decibels as measured in accordance with the procedures established for the measurement of exhaust sound levels of

stationary snowmobiles in the January 2004 Society of Automotive Engineers Standard J2567.

(d)

1. Except as provided in subd. 2., for every snowmobile manufactured on or after July 2, 1975, the noise level standard for exhaust and engine noise shall be 88 decibels as measured in accordance with the procedures established for the measurement of exhaust sound levels of stationary snowmobiles in the January 2004 Society of Automotive Engineers Standard J2567.

2. After consulting with the snowmobile recreational council, the department may promulgate a rule that establishes a noise level standard for exhaust and engine noise that is other than 88 decibels.

350.10 Miscellaneous provisions for snowmobile operation.

(1) No person shall operate a snowmobile in the following manner:

.....

(d) In such a way that the exhaust and engine **noise** exceeds the applicable **noise** level standard specified in s. 350.095 (2) (c) or (d).

895.527 Sport shooting range activities; limitations on liability and restrictions on operation.

(1) In this section, "sport shooting range" means an area designed and operated for the use and discharge of firearms.

(2) A person who owns or operates a sport shooting range is immune from civil liability related to noise resulting from the operation of the sport shooting range.

(3) A person who owns or operates a sport shooting range is not subject to an action for nuisance or to zoning conditions related to noise and no court may enjoin or restrain the operation or use of a sport shooting range on the basis of noise.

(4) Any sport shooting range that exists on June 18, 2010, may continue to operate as a sport shooting range at that location notwithstanding any zoning ordinance enacted under s. 59.69, 60.61, 60.62, 61.35 or 62.23 (7), if the sport shooting range is a lawful use or a legal nonconforming use under any zoning ordinance enacted under s. 59.69, 60.61, 60.62, 61.35 or 62.23 (7) that is in effect on June 18, 2010. The operation of the sport shooting range continues to be a lawful use or legal nonconforming use notwithstanding any expansion of, or enhancement or improvement to, the sport shooting range.

(5) Any sport shooting range that exists on June 18, 1998, may continue to operate as a sport shooting range at that location notwithstanding all of the following:

(a)Section 167.30, 941.20 (1) (d) or 948.605 or any rule promulgated under those sections regulating or prohibiting the discharge of firearms.

(b)Section 66.0409 (3) (b) or any ordinance or resolution.

(c) Any zoning ordinance that is enacted, or resolution that is adopted, under s. 59.69, 60.61, 60.62, 61,35 or 62.23 (7) that is related to noise.

(6) A city, village town or county may regulate the hours between 11:00 p.m. and 6:00 a.m. that an outdoor sport shooting range may operate, except that such a regulation may not apply to a law enforcement officer as defined in s. 165.85 (2) (c), a member of the U.S. armed forces or a

private security person as defined in s. 440.26 (1m) (h) who meets all of the requirements under s. 167.31 (4) (a) 4.

(7) A person who is shooting in the customary or a generally acceptable manner at a sport shooting range between the hours of 6:00 a.m. and 11:00 p.m. is presumed to not be engaging in disorderly conduct merely because of the noise caused by the shooting.

ADMINISTRATIVE CODE

CHAPTER Trans 305

Trans 305.25 Horn.

(1) The **horn** of every motor vehicle shall be maintained in proper working condition and in conformity with this section and s. 347.38, Stats.

(2) The horn wiring and connections shall be maintained in good condition.

Trans 305.39 Exhaust system.

(1) Every motorcycle shall be equipped with a functioning exhaust system that is maintained in proper working condition so as to reduce engine **noise.**

The exhaust system shall be maintained in conformity with this section and s. 347.39, Stats.

(2) Every exhaust system shall be maintained free of leaks from the engine exhaust ports through the piping and muffler to the end of the exhaust system. A protective shield or insulated section shall be provided for any portion of the exhaust system that extends above and to the rear of the foot pegs or rests.

CHAPTER Trans 405

Trans 405.04 Siting criteria and policies.

(1) Noise barriers shall be designed to provide protection only to the ground floor of abutting buildings and not other parts of the buildings.

(2) For the department to consider a site for construction of a noise barrier, the site shall meet the following criteria:

(a) For retrofit projects, a receptor shall be exposed to existing noise levels which equal or exceed the levels in Table 1.

(b) For new highway projects, a receptor shall have predicted future noise levels which equal or exceed the levels in Table 1 or which exceed existing noise levels by 15 decibels or more.

(c) A noise barrier protecting a receptor shall reduce noise levels by a minimum of 8 decibels.

(d) The total cost of a noise barrier may not exceed $30,000 in 1988 dollars per abutting residence. The department may annually adjust this $30,000 maximum figure up or down based on changes in the construction price index after 1988. Other land use categories shall be analyzed on a site specific basis to determine cost effectiveness

"Leq" means the equivalent steady-state sound level, which in a stated period of time contains the same acoustic energy as the time-varying sound level during the same period. For purposes of measuring or predicting noise levels, a receptor is assumed to be at ear height, located five feet above ground surface.

"Leq(h)" means the hourly value of Leq. Use of interior noise levels shall be limited to situations where exterior noise levels are not applicable.
Use of interior noise levels shall be limited to situations where exterior noise levels are not applicable

TABLE 1

NOISE LEVEL CRITERIA
FOR CONSIDERING BARRIERS

Land Use Category	Leq(h)[1] (dBA)	Description of Land Use Category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	—	Undeveloped lands.
E[2]	52 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

4.1.3 Shot Distribution at Sporting Clays Courses

The defining feature of sporting clays courses is the complete flexibility in target angles and shooting directions. Because there is no "standard" layout for a sporting clays course, it is impossible to illustrate a "standard" shotfall zone or area of maximum shotfall. Figure 4-4 illustrates one of many possible layouts for a sample 10-station, sporting clays course. The shaded areas indicate the potential shotfall zones from the various shooting positions on the course, with darker areas indicating the overlap of shotfall zones from more than one station. This illustration makes it clear that sporting clays courses can distribute shot widely and can result in overlap of multiple shotfall zones at some distance from the shooting positions. The theoretical shotfall zones could extend 770 ft from the shooting positions, depending on the loads and angles at which they are fired.

4.2 OPERATIONAL APPROACHES TO ENVIRONMENTAL MANAGEMENT

4.2.1 Addressing Fundamental Issues Discussed in Section 3

The relatively small size of the shot in trap, skeet and sporting clays ammunition makes shot ingestion by birds or wildlife potentially more likely than ingestion of bullets or bullet fragments at rifle/pistol ranges. The extent to which the shotfall zone includes desirable bird or wildlife habitat generally determines the extent to which these animals might ingest shot. The entire area of the shotfall zone may require management of stormwater runoff, as well as lead management techniques such as recovery/recycling, clay layers, lime or phosphate additions or planting lead-accumulating plants.

4.2.2 Recovery and Recycling of Shot

The general guidance on lead recovery and recycling in Section 3.1.2.1 is applicable to shotgun ranges, in addition to the information below.

As described above and shown in Figures 4-2, 4-3 and 4-4, lead shot is spread widely at shotgun ranges. **Recovery and recycling of lead can be made much easier if shotgun ranges are constructed and operated in a manner consistent with periodic lead recovery and removal.** Strategically positioning shooters or targets so that shotfall areas overlap (for example as at the bottom of Figure 4-2) will concentrate the shot and lessen the area needed to be mined. Recovery of shot from water or wetlands, steep slopes, and bushy or wooded areas can be very difficult, inefficient and expensive. Recovery is generally easiest from relatively smooth grassy areas. Lead recovery contractors will want to know the approximate amount of lead present. Records of the number of rounds shot annually should be kept for this purpose. Past use may be estimated from the number of targets purchased annually.

Recovered lead should not be stored or accumulated on the premises and should be sent to a recycler as soon as possible.

4.2 .3 Recovery of Targets

Most clay targets presently sold in the United States are composed of approximately 2/3 limestone dust and about 1/3 petroleum pitch. Some environmental questions have been raised about the possibility of environmental effects resulting from some of the components of the petroleum pitch. Petroleum pitch contains polycyclic aromatic hydrocarbons (PAHs). PAHs are a large chemical family that have members linked to certain cancers. However, the pitch is bound so tightly that the chemical and ecological

studies of targets conducted to date have consistently shown that under those circumstances, new or weathered target fragments do not adversely affect water quality and are not toxic to aquatic life (14, 15). **However, the sharp edges of target fragments may pose a hazard to some animals if ingested. Grazing domestic animals in shotgun areas should be discouraged.**

Targets can be viewed as a form of litter, and unsightly piles of fragments may give the impression that range managers are not paying close attention to the environment. Shooters may not notice accumulations of target fragments, or may regard them as normal features at a range. However, they may be much more noticeable and perhaps considered unsightly by new shooters, who are essential to successful range operations. **The possibility of adverse perception of target fragment accumulations should be considered by range managers, especially those that produce target accumulations visible to the public.**

Because of the possible littering aspect of target accumulation, range managers should consider periodic recovery and removal of target fragments as one of the "good housekeeping" aspects of their environmental stewardship plan (see Section 6). Depending on the terrain, target fragments can be hand-raked into piles or scraped together with a blade for pick-up, and a front-loader or other equipment can be used to load them into a truck. Target fragments typically meet the environmental requirements for placement in a solid waste landfill. In at least one case, target fragments have been accepted for recycling by an asphalt plant.

4.2.4 Alternative Shot Materials

In response to environmental concerns associated with lead, manufacturers have examined a variety of alternative shot materials, and efforts are continuing to develop additional non-toxic materials. Today, steel shot is the most common alternative to lead, and steel target loads are presently available in most areas of the country. Although more costly than lead and ballistically different, steel is the most viable alternative shot material available today for shotgun target shooting. Manufacturers continue to develop practical target loads with shot materials such as bismuth, tungsten, molybdenum and other substances. If such loads are introduced in the future, they should be considered for their potential environmental benefits. **Ranges that shoot into or over water, wetlands or other sensitive areas should consider switching to steel shot or other material as this becomes practical.** (See Appendix E for relevant case law regarding shooting over water or wetlands.)

It should be noted that other metals used as a replacement for lead shot may have properties different than lead. For example, lead shot produces very little ricochet, but steel shot produces high energy ricochets off many surfaces. **If a range manager switches to steel or other shot material, care should be taken to update safety measures appropriate for that material.**

4.3 ENGINEERING APPROACHES TO ENVIRONMENTAL MANAGEMENT

4.3.1 Addressing Fundamental Issues Discussed in Section 3

Inexpensive engineering approaches designed to reduce soil erosion, enhance bird and wildlife habitat and feeding, reduce sound impacts, reduce levels of dust and improve overall air quality, and enhance community relations should be considered as parts of an

human ear can barely hear is assigned a value of 0 dB. The chart below lists the approximate decibel level of a number of common activities.

Decibel levels of common activities

40 dB: Quiet office, library or home with minimal activity
50 to 60 dB: Electric toothbrush
50 to 80 dB: Electric shaver
60 dB: Dishwasher, washing machine, coffee percolator, sewing machine
65 to 70 dB: Sound of gunfire from 200 yards to side or behind shooting range
60 to 95 dB: Hair dryer, vacuum cleaner, power lawn mower
70 dB: Freeway traffic, TV audio
70 to 80 dB: Coffee grinder
75 to 85 dB: Flush toilet
80 dB: Pop up toaster, whistling kettle, doorbell, ringing telephone
80 to 90 dB: Blender, food mixer, processor
80 to 95 dB: Garbage disposal
85 dB: Handsaw, heavy traffic, noisy restaurant
95 to 110 dB: Electric drill, motorcycle
110 dB: Baby crying, leaf blower, power saw, dog squeaky toy, symphony concert
110 to 120 dB: Rock concert
120 dB: Ambulance siren, 120 chain saw, hammer on nail
125 dB: Auto stereo (factory installed)
140 dB: Sound of gunfire from directly behind firing line at shooting range
143 dB: Bicycle horn
150 dB: Jet engine taking off, firecracker
157 dB: Balloon pop
180 dB: Rocket launching from pad

Sound Properties

As mentioned above, the human ear can accommodate a huge range of sound levels over a hundred million, million to one. As a result of this huge accommodation capability, the ear is not very sensitive to much smaller changes in sound levels. In fact, the human ear can barely detect a doubling of sound energy levels. The decibel scale helps show this effect. So, for example, a doubling of sound energy, such as from two identical automobiles passing simultaneously, creates only a 3 dB increase in sound over the sound level from a single passing automobile. This doubling of sound energy (represented by a 3 dB increase in sound level) is not perceived as twice as loud, it is barely noticed by the human ear. Measurements have shown that it takes a 10 dB increase in sound levels for the ear to perceive a doubling of the sound.

MONROE COUNTY
Notice of Budgetary Adjustment

Unanticipated Revenue or Expense Increase or Decrease Not Budgeted

Date: December 20, 2021
Department: Sanitation
Amount: $5,735.00
Budget Year Amended: 2021

Source of Increase / Decrease and affect on Program:
(If needed attached separate brief explanation.)

Revenue for sanitatry permit fees was more than anticipated in 2021 increasing revenue bugeted. Sanitation & Zoning Employee started on health insurance during 2021 which was not previously budgeted for.

Revenue Budget Lines Amended:

Account #	Account Name	Current Budget	Budget Adjustment	Final Budget
13680000 44300	Sanitation Fees	$ 88,100.00	$ 5,735.00	$ 93,835.00
				$ -
				$ -
				$ -
Total Adjustment			$ 5,735.00	

Expenditure Budget Lines Amended:

Account #	Account Name	Current Budget	Budget Adjustment	Final Budget
13680000 515020	Health Insurance	$ 8,556.00	$ 5,735.00	$ 14,291.00
				$ -
				$ -
				$ -
				$ -
				$ -
Total Adjustment			$ 5,735.00	

Department Head Approval:
Date Approved by Committee of Jurisdiction: _____

Following this approval please forward to the County Clerk's Office.

Date Approved by Finance Committee: _____
Date Approved by County Board: _____

Per WI Stats 65.90(5)(a) must be authorized by a vote of two-thirds of the entire membership of the governing body.

Date of publication of Class 1 notice of budget amendment: _____

MONROE COUNTY
Notice of Budgetary Adjustment

Unanticipated Revenue or Expense Increase or Decrease Not Budgeted

Date: December 20, 2021
Department: Zoning
Amount: $4,525.00
Budget Year Amended: 2021

Source of Increase / Decrease and affect on Program:
(If needed attached separate brief explanation.)

Revenue for zoning permit fees was more than anticipated in 2021 increasing revenue bugeted. Sanitation & Zoning Employee started on health insurance during 2021 which was not previously budgeted for.

Revenue Budget Lines Amended:

Account #	Account Name	Current Budget	Budget Adjustment	Final Budget
16980000 444000	Zoning Permits and Fees	$ 19,000.00	$ 4,525.00	$ 23,525.00
				$ -
				$ -
				$ -
Total Adjustment			$ 4,525.00	

Expenditure Budget Lines Amended:

Account #	Account Name	Current Budget	Budget Adjustment	Final Budget
16980000 515020	Health Insurance	$ 8,556.00	$ 4,525.00	$ 13,081.00
				$ -
				$ -
				$ -
				$ -
				$ -
Total Adjustment			$ 4,525.00	

Department Head Approval:
Date Approved by Committee of Jurisdiction: _____

Following this approval please forward to the County Clerk's Office.

Date Approved by Finance Committee: _____
Date Approved by County Board: _____

Per WI Stats 65.90(5)(a) must be authorized by a vote of two-thirds of the entire membership of the governing body.

Date of publication of Class 1 notice of budget amendment: _____

Dept/FY	line item number	line item name	vendor	vendor #	amount	invoice number	invoice date	Customer number
Sanitation	**13680000-531000**	Office supplies	RIPP Distributing serv	6821	$25.00	214929	10/31/2021	
Sanitation								
Sanitation								
Total					**$25.00**			
Dog	**14190000-521340**	contracted services	Fairfield computer serv	4590	$135.00	2021-806	Nov.contract	
Dog	**14190000-522015**	FUEL	WeEnergies	3983	$44.33	709060424	Sept/oct	
Dog	**14190000-522010**	electric	XcelEnergy	9405	$171.71	754192395	October	
Dog	**14195000-579200-dc90**	DONATIONS	Morganside Vet	3795	$49.25	175861	Vada	
Dog	**14195000-579200-dc90**	Donations	Fun Fur Pets	6994	$208.00	B077133	allen-cats	
Dog	**14190000-524505**	bldg maint/repair	Amazon	15514	$42.99	21006281	hose	
Dog	**14190000-531000**	Office supplies	RIPP Distributing serv	6821	$30.00	21006250	water	
Dog								
Dog								
Total					**$681.28**			
Zoning	16980000-531060	printing	Evans Print/Media	4796	$122.78	69710	(3) PH, ZN amend	
Zoning	**16980000-531060**	printing	RiverValley Newspaper	6499	$69.67	86577	COZ-Nevin	
Zoning	**16980000-531060**	Printing	Evans Print/Media	4796	$46.01	71557	COZ-Nevin	
Zoning	**16980000-531060**	printing	RiverValley Newspaper	6499	$214.71	11660006350	(4) PH (11-15)	
Total					**$453.17**			
BOA	**16983000-468800**	printing	Evans Print/Media	4796	$28.32	69710	BOA-Mack	
BOA								
Total					**$28.32**			
Depart Total					$1,187.77			

SCHEDULE OF CREDIT CARD EXPENDITURES
DEPARTMENT _Sanitation/Zoning/ Dog Control_
12-2-2021 (November 2021 Statement)

EMPLOYEE	EXPENSE ACCOUNT #	AMOUNT	TRANSACTION DETAIL	PURPOSE
Alison Elliott-2668	16980000-531050	$ 37.08	USPS	(6) certified public hearings
Amber Cordes-4130	14195000-579200-DC900	$ 110.48	Galls	badges/holders-humane officers (2),
	14190000-524505	$ 29.02	WalMart	batteries
	14190000-524505	$ 22.84	Theisen's	hose parts
	14195000-579200-DC900	$ 20.94	Galls	badge holder
	14195000-579200-DC900	$ 11.24	Walmart	supplies
	TOTAL	**$ 231.60**		

Approved by:

_____

_____

_____

_____

SANITATION, ZONING & DOG CONTROL

NOVEMBER 2021

FOR 2021 11 JOURNAL DETAIL 2021 11 TO 2021 11

ACCOUNTS FOR: 13680 SANITATION

ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
13680000 SANITATION						
13680000 443000 SANITARIAN FEES						
-87,500.00	-600.00	-88,100.00	-98,360.00	0.00	10,260.00	111.6%

2021/11/000014	11/02/2021	CRP	-125.00	REF 94100	DAVID TROWBRIDGE	SN - SANITATION SITE EVALUATIO
2021/11/000014	11/02/2021	CRP	-125.00	REF 94101	ROBERT ANTHONY CORTE	SN - SANITATION SITE EVALUATIO
2021/11/000014	11/02/2021	CRP	-350.00	REF 94102	SETH RASCH	SN - MOUND COMPONENT
2021/11/000014	11/02/2021	CRP	-250.00	REF 94103	SETH RASCH	SN - MOUND COMPONENT PR
2021/11/000074	11/09/2021	CRP	-350.00	REF 94371	B & B PLUMBING	SN - IN-GROUND COMPONENT-GRAVI
2021/11/000074	11/09/2021	CRP	-175.00	REF 94372	B & B PLUMBING	SN - IN-GROUND COMPONENT-GRAVI
2021/11/000074	11/09/2021	CRP	-350.00	REF 94374	B & B PLUMBING	SN - MOUND COMPONENT
2021/11/000074	11/09/2021	CRP	-350.00	REF 94376	CADE PLUMBING LLC	SN - MOUND COMPONENT
2021/11/000074	11/09/2021	CRP	-250.00	REF 94377	CADE PLUMBING LLC	SN - MOUND COMPONENT PR
2021/11/000074	11/09/2021	CRP	-350.00	REF 94379	BETCHER PROPERTIES,	SN - IN-GROUND COMPONENT-GRAVI
2021/11/000074	11/09/2021	CRP	-175.00	REF 94380	BETCHER PROPERTIES,	SN - IN-GROUND COMPONENT-GRAVI
2021/11/000074	11/09/2021	CRP	-350.00	REF 94382	KENDALL TRUCKING & P	SN - MOUND COMPONENT
2021/11/000074	11/09/2021	CRP	-250.00	REF 94383	KENDALL TRUCKING & P	SN - MOUND COMPONENT PR
2021/11/000074	11/09/2021	CRP	-125.00	REF 94384	KENDALL TRUCKING & P	SN - SANITATION SITE EVALUATIO
2021/11/000074	11/09/2021	CRP	-350.00	REF 94385	KENDALL TRUCKING & P	SN - AT-GRADE COMPONENT
2021/11/000074	11/09/2021	CRP	-250.00	REF 94386	KENDALL TRUCKING & P	SN - AT-GRADE COMPONENT PLAN R
2021/11/000074	11/09/2021	CRP	-50.00	REF 94388	HILLSBORO PLUMBING &	SN - RECONNECTION -5 YEAR OR L
2021/11/000074	11/09/2021	CRP	-350.00	REF 94389	VALLEY HY	SN - IN-GROUND COMPONENT-GRAVI
2021/11/000074	11/09/2021	CRP	-175.00	REF 94390	VALLEY HY	SN - IN-GROUND COMPONENT-GRAVI
2021/11/000074	11/09/2021	CRP	-125.00	REF 94392	VALLEY HY	SN - SANITATION SITE EVALUATIO
2021/11/000105	11/12/2021	CRP	-50.00	REF 94502	BRAD TODD	SN - RECONNECTION -5 YEAR OR L
2021/11/000105	11/12/2021	CRP	-350.00	REF 94503	GREGORY KAYALA	SN - AT-GRADE COMPONENT
2021/11/000105	11/12/2021	CRP	-250.00	REF 94504	GREGORY KAYALA	SN - AT-GRADE COMPONENT PLAN R
2021/11/000105	11/12/2021	CRP	-125.00	REF 94506	ATLEY FORTNEY	SN - SANITATION SITE EVALUATIO
2021/11/000105	11/12/2021	CRP	-350.00	REF 94507	TOM OR GERI SIMONSON	SN - AT-GRADE COMPONENT
2021/11/000105	11/12/2021	CRP	-250.00	REF 94508	TOM OR GERI SIMONSON	SN - AT-GRADE COMPONENT PLAN R
2021/11/000105	11/12/2021	CRP	-50.00	REF 94510	LEVI YUTZY	SN - NON-PLUMBING SANITATION S
2021/11/000105	11/12/2021	CRP	-50.00	REF 94511	JOHN MAST	SN - RECONNECTION -5 YEAR OR L
2021/11/000119	11/16/2021	CRP	-350.00	REF 94588	VALLEY-HY	SN - AT-GRADE COMPONENT
2021/11/000119	11/16/2021	CRP	-250.00	REF 94589	VALLEY-HY	SN - AT-GRADE COMPONENT PLAN R
2021/11/000119	11/16/2021	CRP	-125.00	REF 94591	VALLEY-HY	SN - SANITATION SITE EVALUATIO
2021/11/000119	11/16/2021	CRP	-350.00	REF 94592	KYLE CARR	SN - AT-GRADE COMPONENT
2021/11/000119	11/16/2021	CRP	-250.00	REF 94594	MARELL	SN - AT-GRADE COMPONENT PLAN R
2021/11/000173	11/19/2021	CRP	-125.00	REF 94738	DANN J SHUTTER	SN - SANITATION SITE EVALUATIO
2021/11/000173	11/19/2021	CRP	-50.00	REF 94739	JOHN SHUCK PLUMBING	SN - RECONNECTION -5 YEAR OR L
2021/11/000198	11/23/2021	CRP	-125.00	REF 94836	PAUL PFAFF	SN - SANITATION SITE EVALUATIO
2021/11/000198	11/23/2021	CRP	-125.00	REF 94837	THOMAS WISE	SN - SANITATION SITE EVALUATIO
2021/11/000220	11/29/2021	BUA	-600.00	REF	SANITATION FEES	
2021/11/000229	11/30/2021	CRP	-125.00	REF 94953	KAREN DEWITT	SN - SANITATION SITE EVALUATIO

SANITATION, ZONING & DOG CONTROL

NOVEMBER 2021

FOR 2021 11 JOURNAL DETAIL 2021 11 TO 2021 11

ACCOUNTS FOR: 13680 SANITATION

ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
13680000 464900 OTHER SANITATION REVENUES						
0.00	0.00	0.00	-359.00	0.00	359.00	100.0%
TOTAL UNDEFINED ROLLUP CODE						
-87,500.00	-600.00	-88,100.00	-98,719.00	0.00	10,619.00	112.1%
SN100 SALARIES & FRINGE BENEFITS						
13680000 511000 SALARIES						
96,941.00	328.00	97,269.00	84,258.56	0.00	13,010.44	86.6%
2021/11/000027 11/05/2021 PRJ	3,733.83 REF 211105 WARRANT=211105 RUN=1 BI-WEEKL					
2021/11/000134 11/19/2021 PRJ	3,709.51 REF 211119 WARRANT=211119 RUN=1 BI-WEEKL					
13680000 515005 RETIREMENT						
6,354.00	25.00	6,379.00	5,522.37	0.00	856.63	86.6%
2021/11/000027 11/05/2021 PRJ	246.02 REF 211105 WARRANT=211105 RUN=1 BI-WEEKL					
2021/11/000134 11/19/2021 PRJ	248.99 REF 211119 WARRANT=211119 RUN=1 BI-WEEKL					
13680000 515010 SOCIAL SECURITY						
6,006.00	22.00	6,028.00	5,137.91	0.00	890.09	85.2%
2021/11/000027 11/05/2021 PRJ	227.68 REF 211105 WARRANT=211105 RUN=1 BI-WEEKL					
2021/11/000134 11/19/2021 PRJ	226.18 REF 211119 WARRANT=211119 RUN=1 BI-WEEKL					
13680000 515015 MEDICARE						
1,404.00	5.00	1,409.00	1,201.51	0.00	207.49	85.3%
2021/11/000027 11/05/2021 PRJ	53.24 REF 211105 WARRANT=211105 RUN=1 BI-WEEKL					
2021/11/000134 11/19/2021 PRJ	52.88 REF 211119 WARRANT=211119 RUN=1 BI-WEEKL					
13680000 515020 HEALTH INSURANCE						
8,556.00	0.00	8,556.00	12,073.60	0.00	-3,517.60	141.1%
2021/11/000027 11/05/2021 PRJ	709.06 REF 211105 WARRANT=211105 RUN=1 BI-WEEKL					
2021/11/000134 11/19/2021 PRJ	709.05 REF 211119 WARRANT=211119 RUN=1 BI-WEEKL					
13680000 515025 DENTAL INSURANCE						
708.00	0.00	708.00	650.28	0.00	57.72	91.8%
2021/11/000027 11/05/2021 PRJ	59.11 REF 211105 WARRANT=211105 RUN=1 BI-WEEKL					

SANITATION, ZONING & DOG CONTROL
NOVEMBER 2021

FOR 2021 11 JOURNAL DETAIL 2021 11 TO 2021 11

ACCOUNTS FOR: 13680 SANITATION

ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
13680000 515030 LIFE INSURANCE						
28.00	0.00	28.00	26.44	0.00	1.56	94.4%
2021/11/000027 11/05/2021 PRJ	2.41 REF 211105 WARRANT=211105 RUN=1 BI-WEEKL					
13680000 515040 WORKERS COMP						
606.00	1.00	607.00	542.63	0.00	64.37	89.4%
2021/11/000027 11/05/2021 PRJ	23.49 REF 211105 WARRANT=211105 RUN=1 BI-WEEKL					
2021/11/000134 11/19/2021 PRJ	23.47 REF 211119 WARRANT=211119 RUN=1 BI-WEEKL					
13680000 515800 CREDENTIALS						
340.00	0.00	340.00	340.00	0.00	0.00	100.0%
TOTAL SALARIES & FRINGE BENEFITS						
120,943.00	381.00	121,324.00	109,753.30	0.00	11,570.70	90.5%
SN200 OFFICE ADMINISTRATIVE COSTS						
13680000 531000 OFFICE SUPPLIES						
1,666.00	0.00	1,666.00	1,096.57	0.00	569.43	65.8%
2021/11/000095 11/12/2021 API	25.00 VND 006821 IN 179069 / 214929 RIPP DISTRIBUTING CO INVOICE # 2149 1057701					
13680000 531050 POSTAGE						
2,000.00	0.00	2,000.00	2,270.19	0.00	-270.19	113.5%
13680000 532500 DUES						
70.00	0.00	70.00	70.00	0.00	0.00	100.0%
TOTAL OFFICE ADMINISTRATIVE COSTS						
3,736.00	0.00	3,736.00	3,436.76	0.00	299.24	92.0%
SN300 TECHNOLOGY & EQUIPMENT						
13680000 522025 TELEPHONE						
741.00	0.00	741.00	485.66	0.00	255.34	65.5%
2021/11/000045 11/05/2021 API	38.01 VND 002393 IN 9891332876 VERIZON LLC VERIZON CELL P 1057600					
2021/11/000049 11/05/2021 API	9.92 VND 016567 IN 723100 OCT. 2021 LVT CORP ACCT #8100 11/ 1057623					

SANITATION, ZONING & DOG CONTROL

NOVEMBER 2021

FOR 2021 11 JOURNAL DETAIL 2021 11 TO 2021 11

ACCOUNTS FOR: 13680 SANITATION

	ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
13680000 SANITATION							
13680000 553100 EQUIPMENT SERVICE CONTRACT	372.00	0.00	372.00	283.22	0.00	88.78	76.1%
2021/11/000092 11/05/2021 API		15.77 VND 002162 IN 27607451		CANON FINANCIAL SERV LEASE 001-0140			6796
TOTAL TECHNOLOGY & EQUIPMENT	1,113.00	0.00	1,113.00	768.88	0.00	344.12	69.1%
SN350 IT POOL							
13680000 599000 TECHNOLOGY POOL	875.00	0.00	875.00	875.00	0.00	0.00	100.0%
TOTAL IT POOL	875.00	0.00	875.00	875.00	0.00	0.00	100.0%
SN400 CONF / EDUCATION & TRAVEL							
13680000 533010 CONFERENCE/SEMINARS	444.00	-437.20	6.80	6.80	0.00	0.00	100.0%
TOTAL CONF / EDUCATION & TRAVEL	444.00	-437.20	6.80	6.80	0.00	0.00	100.0%
SN616 VEHICLE OPS & MAINTENANCE							
13680000 524510 MOTOR VEHICLE - OPER & MAINT	1,795.00	1,037.20	2,832.20	2,013.08	0.00	819.12	71.1%
2021/11/000095 11/12/2021 API		248.81 VND 004972 IN 00362338 211031		KWIK TRIP		ACCT# 00362338	1057673
2021/11/000220 11/29/2021 BUA		600.00 REF		MOTOR VEHICLE - OPER & MAINT			

SANITATION, ZONING & DOG CONTROL

NOVEMBER 2021

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ACCOUNTS FOR: 13680 SANITATION

	ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
TOTAL VEHICLE OPS & MAINTENANCE	1,795.00	1,037.20	2,832.20	2,013.08	0.00	819.12	71.1%
TOTAL SANITATION	41,406.00	381.00	41,787.00	18,134.82	0.00	23,652.18	43.4%
TOTAL SANITATION	41,406.00	381.00	41,787.00	18,134.82	0.00	23,652.18	43.4%
TOTAL REVENUES	-87,500.00	-600.00	-88,100.00	-98,719.00	0.00	10,619.00	
TOTAL EXPENSES	128,906.00	981.00	129,887.00	116,853.82	0.00	13,033.18	

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ACCOUNTS FOR: 13685 SEPTIC TANK AID

ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
13685000 SEPTIC TANK AID						
13685000 435490 SEPTIC SYSTEM-STATE AID						
-52,000.00	0.00	-52,000.00	-4,570.00	0.00	-47,430.00	8.8%
TOTAL UNDEFINED ROLLUP CODE						
-52,000.00	0.00	-52,000.00	-4,570.00	0.00	-47,430.00	8.8%
SN950 GRANTS AND CONTRIBUTIONS						
13685000 579100 GRANTS AND CONTRIBUTIONS						
52,000.00	0.00	52,000.00	4,570.00	0.00	47,430.00	8.8%
TOTAL GRANTS AND CONTRIBUTIONS						
52,000.00	0.00	52,000.00	4,570.00	0.00	47,430.00	8.8%
TOTAL SEPTIC TANK AID						
0.00	0.00	0.00	0.00	0.00	0.00	.0%
TOTAL SEPTIC TANK AID						
0.00	0.00	0.00	0.00	0.00	0.00	.0%
TOTAL REVENUES						
-52,000.00	0.00	-52,000.00	-4,570.00	0.00	-47,430.00	
TOTAL EXPENSES						
52,000.00	0.00	52,000.00	4,570.00	0.00	47,430.00	

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ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
14190000 DOG CONTROL						
14190000 442000 DC100 DOG LIC FEMALE						
-13,215.00	0.00	-13,215.00	-14,652.60	0.00	1,437.60	110.9%
2021/11/000074 11/09/2021 CRP	-19.00	REF 94347	SHELTER	DC-A DOG LICENSE FEE IN EXCESS		
2021/11/000074 11/09/2021 CRP	-7.60	REF 94348	SHELTER	DC-A DOG LICENSE MIN W/TAX - F		
2021/11/000198 11/23/2021 CRP	-19.00	REF 94827	SHELTER	DC-A DOG LICENSE FEE IN EXCESS		
2021/11/000198 11/23/2021 CRP	-7.60	REF 94828	SHELTER	DC-A DOG LICENSE MIN W/TAX - F		
14190000 442000 DC110 DOG LIC MALE						
-15,380.00	0.00	-15,380.00	-16,582.70	0.00	1,202.70	107.8%
2021/11/000074 11/09/2021 CRP	-38.00	REF 94345	SHELTER	DC-B DOG LICENSE FEE IN EXCESS		
2021/11/000074 11/09/2021 CRP	-15.20	REF 94346	SHELTER	DC-B DOG LICENSE MIN W/ TAX -		
2021/11/000198 11/23/2021 CRP	-19.00	REF 94825	SHELTER	DC-B DOG LICENSE FEE IN EXCESS		
2021/11/000198 11/23/2021 CRP	-7.60	REF 94826	SHELTER	DC-B DOG LICENSE MIN W/ TAX -		
14190000 442000 DC120 DOG LIC SPAYED FEMALE						
-28,435.00	0.00	-28,435.00	-25,391.30	0.00	-3,043.70	89.3%
2021/11/000014 11/02/2021 CRP	-9.00	REF 94114	SHELTER	DC-C DOG LICENSE FEE IN EXCESS		
2021/11/000014 11/02/2021 CRP	-2.85	REF 94115	SHELTER	DC-C DOG LICENSE MIN W/TAX-SPA		
2021/11/000074 11/09/2021 CRP	-18.00	REF 94342	FAIRFIELD COMPUTER S	DC-C DOG LICENSE FEE IN EXCESS		
2021/11/000074 11/09/2021 CRP	-5.70	REF 94343	FAIRFIELD COMPUTER S	DC-C DOG LICENSE MIN W/TAX-SPA		
2021/11/000074 11/09/2021 CRP	-9.00	REF 94358	OFFICE	DC-C DOG LICENSE FEE IN EXCESS		
2021/11/000074 11/09/2021 CRP	-2.85	REF 94359	OFFICE	DC-C DOG LICENSE MIN W/TAX-SPA		
2021/11/000119 11/16/2021 CRP	-9.00	REF 94582	OFFICE	DC-C DOG LICENSE FEE IN EXCESS		
2021/11/000119 11/16/2021 CRP	-2.85	REF 94583	OFFICE	DC-C DOG LICENSE MIN W/TAX-SPA		
2021/11/000173 11/19/2021 CRP	-18.00	REF 94742	SHELTER	DC-C DOG LICENSE FEE IN EXCESS		
2021/11/000173 11/19/2021 CRP	-5.70	REF 94743	SHELTER	DC-C DOG LICENSE MIN W/TAX-SPA		
14190000 442000 DC130 DOG LIC NUTERED MALE						
-24,189.00	0.00	-24,189.00	-25,942.92	0.00	1,753.92	107.3%
2021/11/000014 11/02/2021 CRP	-9.00	REF 94112	SHELTER	DC-D DOG LICENSE FEE IN EXCESS		
2021/11/000014 11/02/2021 CRP	-2.85	REF 94113	SHELTER	DC-D DOG LICENSE MIN W/TAX-NEU		
2021/11/000074 11/09/2021 CRP	-9.00	REF 94356	OFFICE	DC-D DOG LICENSE FEE IN EXCESS		
2021/11/000074 11/09/2021 CRP	-2.85	REF 94357	OFFICE	DC-D DOG LICENSE MIN W/TAX-NEU		
2021/11/000173 11/19/2021 CRP	-9.00	REF 94740	SHELTER	DC-D DOG LICENSE FEE IN EXCESS		
2021/11/000173 11/19/2021 CRP	-2.85	REF 94741	SHELTER	DC-D DOG LICENSE MIN W/TAX-NEU		
2021/11/000229 11/30/2021 CRP	-9.00	REF 94957	SHELTER	DC-D DOG LICENSE FEE IN EXCESS		
2021/11/000229 11/30/2021 CRP	-2.85	REF 94958	SHELTER	DC-D DOG LICENSE MIN W/TAX-NEU		

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14190000 442000 DC140 DOG LIC MULTIPLE	-4,410.00	0.00	-4,410.00	-6,912.05	0.00	2,502.05	156.7%
14190000 442000 DC199 DOG LIC LATE FEES	-12,176.00	0.00	-12,176.00	-14,085.00	0.00	1,909.00	115.7%

2021/11/000014	11/02/2021	CRP	-15.00	REF 94116	SHELTER	DC-G DOG LICENSE LATE FEES
2021/11/000074	11/09/2021	CRP	-15.00	REF 94344	FAIRFIELD COMPUTER S	DC-G DOG LICENSE LATE FEES
2021/11/000074	11/09/2021	CRP	-15.00	REF 94349	SHELTER	DC-G DOG LICENSE LATE FEES
2021/11/000074	11/09/2021	CRP	-30.00	REF 94360	OFFICE	DC-G DOG LICENSE LATE FEES
2021/11/000119	11/16/2021	CRP	-15.00	REF 94584	OFFICE	DC-G DOG LICENSE LATE FEES
2021/11/000173	11/19/2021	CRP	-45.00	REF 94744	SHELTER	DC-G DOG LICENSE LATE FEES
2021/11/000198	11/23/2021	CRP	-30.00	REF 94829	SHELTER	DC-G DOG LICENSE LATE FEES
2021/11/000229	11/30/2021	CRP	-15.00	REF 94959	SHELTER	DC-G DOG LICENSE LATE FEES

	ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
14190000 465180 DC500 SHELTER FEE ADOPTION	-23,400.00	0.00	-23,400.00	-12,729.94	0.00	-10,670.06	54.4%

2021/11/000014	11/02/2021	CRP	-142.18	REF 94117	SHELTER	DC-SHELTER FEES-ADOPTION-$150
2021/11/000014	11/02/2021	CRP	-341.24	REF 94119	SHELTER	DC-SHELTER FEES-ADOPTION-$180
2021/11/000074	11/09/2021	CRP	-142.18	REF 94350	SHELTER	DC-SHELTER FEES-ADOPTION-$150
2021/11/000119	11/16/2021	CRP	-511.86	REF 94576	SHELTER	DC-SHELTER FEES-ADOPTION-$180
2021/11/000173	11/19/2021	CRP	-284.36	REF 94745	SHELTER	DC-SHELTER FEES-ADOPTION-$150
2021/11/000198	11/23/2021	CRP	-142.18	REF 94830	SHELTER	DC-SHELTER FEES-ADOPTION-$150
2021/11/000198	11/23/2021	CRP	-170.62	REF 94832	SHELTER	DC-SHELTER FEES-ADOPTION-$180
2021/11/000229	11/30/2021	CRP	-142.18	REF 94960	SHELTER	DC-SHELTER FEES-ADOPTION-$150

	ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
14190000 465180 DC510 SHELTER FEE REDEMPTION	-5,040.00	0.00	-5,040.00	-4,735.00	0.00	-305.00	93.9%

2021/11/000074	11/09/2021	CRP	-40.00	REF 94353	SHELTER	DC-SHELTER FEES-REDEMPTION
2021/11/000119	11/16/2021	CRP	-40.00	REF 94579	SHELTER	DC-SHELTER FEES-REDEMPTION
2021/11/000173	11/19/2021	CRP	-40.00	REF 94748	SHELTER	DC-SHELTER FEES-REDEMPTION
2021/11/000229	11/30/2021	CRP	-80.00	REF 94963	SHELTER	DC-SHELTER FEES-REDEMPTION

	ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
14190000 465180 DC520 SHELTER FEE MEDICAL COSTS	-2,520.00	0.00	-2,520.00	-2,615.00	0.00	95.00	103.8%

2021/11/000074	11/09/2021	CRP	-55.00	REF 94355	SHELTER	DC-SHELTER FEES-MEDICAL COSTS
2021/11/000119	11/16/2021	CRP	-20.00	REF 94581	SHELTER	DC-SHELTER FEES-MEDICAL COSTS
2021/11/000173	11/19/2021	CRP	-20.00	REF 94750	SHELTER	DC-SHELTER FEES-MEDICAL COSTS
2021/11/000229	11/30/2021	CRP	-75.00	REF 94967	SHELTER	DC-SHELTER FEES-MEDICAL COSTS

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14190000 465180 DC530 SHELTER FEE BOARDING						
-1,425.00	0.00	-1,425.00	-1,294.02	0.00	-130.98	90.8%
2021/11/000229 11/30/2021 CRP	-14.22 REF 94964	SHELTER	DC-SHELTER FEES-BOARDING-$15			
14190000 465180 DC560 SHELTER FEE OTHER REV						
0.00	0.00	0.00	-25.00	0.00	25.00	100.0%
2021/11/000173 11/19/2021 CRP	-25.00 REF 94751	KEVIN M. HUFF	DC-SHELTER FEES-OTHER MISC DOG			
14190000 465180 DC590 SURRENDER						
-810.00	0.00	-810.00	-690.00	0.00	-120.00	85.2%
2021/11/000074 11/09/2021 CRP	-15.00 REF 94352	SHELTER	DC-SHELTER FEES-SURRENDER			
2021/11/000119 11/16/2021 CRP	-30.00 REF 94578	SHELTER	DC-SHELTER FEES-SURRENDER			
2021/11/000173 11/19/2021 CRP	-30.00 REF 94747	SHELTER	DC-SHELTER FEES-SURRENDER			
2021/11/000198 11/23/2021 CRP	-15.00 REF 94834	SHELTER	DC-SHELTER FEES-SURRENDER			
2021/11/000229 11/30/2021 CRP	-30.00 REF 94962	SHELTER	DC-SHELTER FEES-SURRENDER			
TOTAL UNDEFINED ROLLUP CODE						
-131,000.00	0.00	-131,000.00	-125,655.53	0.00	-5,344.47	95.9%
DC100 SALARIES & FRINGE BENEFITS						
14190000 511000 SALARIES						
105,463.00	101.00	105,564.00	88,388.11	0.00	17,175.89	83.7%
2021/11/000027 11/05/2021 PRJ	4,304.76 REF 211105	WARRANT=211105	RUN=1 BI-WEEKL			
2021/11/000134 11/19/2021 PRJ	3,884.28 REF 211119	WARRANT=211119	RUN=1 BI-WEEKL			
14190000 511200 OVERTIME						
1,015.00	0.00	1,015.00	819.38	0.00	195.62	80.7%
2021/11/000027 11/05/2021 PRJ	123.78 REF 211105	WARRANT=211105	RUN=1 BI-WEEKL			
2021/11/000134 11/19/2021 PRJ	15.47 REF 211119	WARRANT=211119	RUN=1 BI-WEEKL			
14190000 515005 RETIREMENT						
3,241.00	15.00	3,256.00	2,998.30	0.00	257.70	92.1%
2021/11/000027 11/05/2021 PRJ	177.95 REF 211105	WARRANT=211105	RUN=1 BI-WEEKL			
2021/11/000134 11/19/2021 PRJ	138.45 REF 211119	WARRANT=211119	RUN=1 BI-WEEKL			

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14190000 515010	SOCIAL SECURITY						
	6,609.00	-48.00	6,561.00	5,520.36	0.00	1,040.64	84.1%
2021/11/000027	11/05/2021 PRJ		274.12 REF	211105 WARRANT=211105	RUN=1 BI-WEEKL		
2021/11/000134	11/19/2021 PRJ		241.32 REF	211119 WARRANT=211119	RUN=1 BI-WEEKL		
14190000 515015	MEDICARE						
	1,548.00	-13.00	1,535.00	1,291.10	0.00	243.90	84.1%
2021/11/000027	11/05/2021 PRJ		64.11 REF	211105 WARRANT=211105	RUN=1 BI-WEEKL		
2021/11/000134	11/19/2021 PRJ		56.44 REF	211119 WARRANT=211119	RUN=1 BI-WEEKL		
14190000 515020	HEALTH INSURANCE						
	19,858.00	0.00	19,858.00	17,281.74	0.00	2,576.26	87.0%
2021/11/000027	11/05/2021 PRJ		422.02 REF	211105 WARRANT=211105	RUN=1 BI-WEEKL		
2021/11/000046	11/05/2021 GEN		-54.89 REF	ZEBELL CORRECTION			
2021/11/000134	11/19/2021 PRJ		394.62 REF	211119 WARRANT=211119	RUN=1 BI-WEEKL		
2021/11/000146	11/19/2021 GEN		-27.49 REF	ZEBELL CORRECTION			
14190000 515025	DENTAL INSURANCE						
	828.00	0.00	828.00	758.89	0.00	69.11	91.7%
2021/11/000027	11/05/2021 PRJ		73.57 REF	211105 WARRANT=211105	RUN=1 BI-WEEKL		
2021/11/000046	11/05/2021 GEN		-4.58 REF	ZEBELL CORRECTION			
14190000 515030	LIFE INSURANCE						
	20.00	0.00	20.00	17.38	0.00	2.62	86.9%
2021/11/000027	11/05/2021 PRJ		1.69 REF	211105 WARRANT=211105	RUN=1 BI-WEEKL		
2021/11/000046	11/05/2021 GEN		-0.11 REF	ZEBELL CORRECTION			
14190000 515040	WORKERS COMP						
	774.00	1.00	775.00	938.46	0.00	-163.46	121.1%
2021/11/000027	11/05/2021 PRJ		31.51 REF	211105 WARRANT=211105	RUN=1 BI-WEEKL		
2021/11/000046	11/05/2021 GEN		-0.06 REF	ZEBELL CORRECTION			
2021/11/000134	11/19/2021 PRJ		28.49 REF	211119 WARRANT=211119	RUN=1 BI-WEEKL		
TOTAL SALARIES & FRINGE BENEFITS							
	139,356.00	56.00	139,412.00	118,013.72	0.00	21,398.28	84.7%
DC200 OFFICE ADMINISTRATIVE COSTS							
14190000 531000	OFFICE SUPPLIES						
	1,758.00	0.00	1,758.00	1,723.83	0.00	34.17	98.1%

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2021/11/000095 11/12/2021 API		24.50 VND 006821 IN 176482 / 2109047			RIPP DISTRIBUTING CO ACCT # 3201949		1057701
2021/11/000095 11/12/2021 API		30.00 VND 006821 IN 79057/2004791/103121			RIPP DISTRIBUTING CO INVOICE # 2004		1057701
14190000 531050 POSTAGE	1,600.00	0.00	1,600.00	1,440.97	0.00	159.03	90.1%
14190000 531060 PRINTING	200.00	0.00	200.00	126.04	0.00	73.96	63.0%
TOTAL OFFICE ADMINISTRATIVE COSTS	3,558.00	0.00	3,558.00	3,290.84	0.00	267.16	92.5%
DC300 TECHNOLOGY & EQUIPMENT							
14190000 522025 TELEPHONE	2,832.00	0.00	2,832.00	2,212.54	0.00	619.46	78.1%
2021/11/000045 11/05/2021 API		83.20 VND 002393 IN 9891332876			VERIZON LLC	VERIZON CELL P	1057600
2021/11/000049 11/05/2021 API		136.83 VND 016567 IN 757600 OCT. 2021			LVT CORP	ACCT #8100 11/	1057623
2021/11/000166 11/19/2021 API		0.16 VND 002764 IN 250410063			CENTURYLINK COMMUNIC	SHORETEL INTEG	1057749
14190000 553100 EQUIPMENT SERVICE CONTRACT	1,185.00	0.00	1,185.00	1,052.70	0.00	132.30	88.8%
2021/11/000092 11/05/2021 API		84.35 VND 002162 IN 27607451			CANON FINANCIAL SERV	LEASE 001-0140	6796
TOTAL TECHNOLOGY & EQUIPMENT	4,017.00	0.00	4,017.00	3,265.24	0.00	751.76	81.3%
DC350 IT POOL							
14190000 599000 TECHNOLOGY POOL	262.00	0.00	262.00	262.00	0.00	0.00	100.0%

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TOTAL IT POOL	262.00	0.00	262.00	262.00	0.00	0.00	100.0%
DC400 CONF / EDUCATION & TRAVEL							
14190000 533010 CONFERENCE/SEMINARS	2,014.00	0.00	2,014.00	1,926.86	35.00	52.14	97.4%
2021/11/000191 11/02/2021 API		185.00	VND 000001 IN 145681	ONE TIME PAY			
2021/11/000191 11/02/2021 API		30.00	VND 004156 IN 145680	LAW ENFORCEMENT TRAI			
14190000 533200 MILEAGE	864.00	0.00	864.00	531.44	0.00	332.56	61.5%
2021/11/000027 11/05/2021 PRJ		106.60	REF 211105 WARRANT=211105 RUN=1 BI-WEEKL				
TOTAL CONF / EDUCATION & TRAVEL	2,878.00	0.00	2,878.00	2,458.30	35.00	384.70	86.6%
DC600 PROGRAM COSTS							
14190000 521130 INVESTIGATIVE EXPENSE	1,000.00	0.00	1,000.00	853.23	182.99	-36.22	103.6%
2021/11/000095 11/12/2021 API		52.77	VND 015514 IN 1R6W-CM9H-J419	AMAZON	AMAZON ORDER F	1057637	
2021/11/000095 11/12/2021 API		179.99	VND 015514 IN 1LV7-479L-GYXQ	AMAZON	AMAZON ORDER F	1057637	
2021/11/000095 11/12/2021 API		129.99	VND 015514 IN 1YM4-YFKN-J41T	AMAZON	AMAZON ORDER F	1057637	
14190000 521430 EUTHANIZATIONS	675.00	0.00	675.00	96.00	0.00	579.00	14.2%
14190000 521433 RABIES VACCINATIONS	500.00	0.00	500.00	70.50	0.00	429.50	14.1%
14190000 534130 DOG SUPPLIES	100.00	0.00	100.00	129.92	0.00	-29.92	129.9%

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14190000 534250 MEDICAL SUPPLIES	3,000.00	0.00	3,000.00	1,726.99	0.00	1,273.01	57.6%
14190000 534705 DOG LICENSES	715.00	0.00	715.00	779.50	0.00	-64.50	109.0%
14190000 534750 SHELTER FOOD	50.00	0.00	50.00	57.98	0.00	-7.98	116.0%
TOTAL PROGRAM COSTS	6,040.00	0.00	6,040.00	3,714.12	182.99	2,142.89	64.5%

DC613 PROFESSIONAL SERVICES

14190000 521340 CONTRACTED SERVICES	1,620.00	0.00	1,620.00	1,485.00	0.00	135.00	91.7%
2021/11/000045 11/05/2021 API	135.00 VND 004590 IN 2021-806			FAIRFIELD COMPUTER S INVOICE# 2021-			1057560
TOTAL PROFESSIONAL SERVICES	1,620.00	0.00	1,620.00	1,485.00	0.00	135.00	91.7%

DC616 VEHICLE OPS & MAINTENANCE

14190000 524510 MOTOR VEHICLE - OPER & MAINT	2,265.00	450.00	2,715.00	2,070.55	0.00	644.45	76.3%
2021/11/000095 11/12/2021 API	194.75 VND 004972 IN 00362338 211031			KWIK TRIP		ACCT# 00362338	1057673
2021/11/000143 11/18/2021 BUA	450.00 REF			MOTOR VEHICLE - OPER & MAINT			
TOTAL VEHICLE OPS & MAINTENANCE	2,265.00	450.00	2,715.00	2,070.55	0.00	644.45	76.3%

DC617 REPAIR & MAINTENANCE

14190000 524505 BLDG REPAIRS & MAINTENANCE	2,291.00	-450.00	1,841.00	1,400.02	0.00	440.98	76.0%

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ACCOUNTS FOR: 14190 DOG CONTROL

ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
2021/11/000143 11/18/2021 BUA	-450.00 REF	BLDG REPAIRS & MAINTENANCE				
2021/11/000165 11/17/2021 API	88.44 VND 002958 IN 850009-00	NETWORK SERVICES COM	DOG SHELTER TO	1057807		
2021/11/000166 11/19/2021 API	42.99 VND 015514 IN 1HNM-VCHG-G1LP	AMAZON	AMAZON ORDER-D	1057733		
2021/11/000191 11/02/2021 API	10.54 VND 003366 IN 145682	WAL-MART STORES INC				
TOTAL REPAIR & MAINTENANCE						
2,291.00	-450.00	1,841.00	1,400.02	0.00	440.98	76.0%
DC700 UTILITIES						
14190000 522010 ELECTRICITY						
3,048.00	0.00	3,048.00	2,580.77	0.00	467.23	84.7%
2021/11/000045 11/05/2021 API	171.71 VND 009405 IN 754192395 211029	XCEL ENERGY	STATEMENT #754	1057611		
14190000 522015 FUEL & GAS						
1,500.00	0.00	1,500.00	623.91	0.00	876.09	41.6%
2021/11/000045 11/05/2021 API	44.33 VND 003983 IN 709060424-00001 2110	WE ENERGIES	ACT # 07090604	6782		
TOTAL UTILITIES						
4,548.00	0.00	4,548.00	3,204.68	0.00	1,343.32	70.5%
TOTAL DOG CONTROL						
35,835.00	56.00	35,891.00	13,508.94	217.99	22,164.07	38.2%
TOTAL DOG CONTROL						
35,835.00	56.00	35,891.00	13,508.94	217.99	22,164.07	38.2%
TOTAL REVENUES						
-131,000.00	0.00	-131,000.00	-125,655.53	0.00	-5,344.47	
TOTAL EXPENSES						
166,835.00	56.00	166,891.00	139,164.47	217.99	27,508.54	

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ACCOUNTS FOR: 14195 DOG CONTROL DONATIONS

	ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
14195000 DOG CONTROL DONATIONS							
14195000 485000 DC900 DOG CONTROL DONATIONS	0.00	-22,607.74	-22,607.74	-25,257.24	0.00	2,649.50	111.7%
2021/11/000014 11/02/2021 CRP		-473.50	REF 94121	SHELTER	DC-SHELTER FEES-DONATIONS		
2021/11/000074 11/09/2021 CRP		-215.00	REF 94354	SHELTER	DC-SHELTER FEES-DONATIONS		
2021/11/000119 11/16/2021 CRP		-40.00	REF 94580	SHELTER	DC-SHELTER FEES-DONATIONS		
2021/11/000154 11/17/2021 BUA		-6,585.10	REF	DOG CONTROL DONATIONS REV			
2021/11/000173 11/19/2021 CRP		-6.00	REF 94749	SHELTER	DC-SHELTER FEES-DONATIONS		
2021/11/000198 11/23/2021 CRP		-1,735.00	REF 94835	SHELTER	DC-SHELTER FEES-DONATIONS		
2021/11/000229 11/30/2021 CRP		-180.00	REF 94966	SHELTER	DC-SHELTER FEES-DONATIONS		
TOTAL UNDEFINED ROLLUP CODE	0.00	-22,607.74	-22,607.74	-25,257.24	0.00	2,649.50	111.7%
DC950 GRANTS & CONTRIBUTIONS							
14195000 579200 DC900 DOG CONTROL DONATIONS	0.00	66,686.89	66,686.89	18,180.10	0.00	48,506.79	27.3%
2021/11/000095 11/12/2021 API		49.25	VND 003795 IN 175861	MORGANSIDE VETERINAR	INVOICE # 1758	1057688	
2021/11/000154 11/17/2021 BUA		6,585.10	REF	DOG CONTROL DONATIONS EXP			
2021/11/000166 11/19/2021 API		208.00	VND 017074 IN B077133	FUN FUR PETS	INVOICE #B0771	1057765	
2021/11/000191 11/02/2021 API		103.35	VND 003366 IN 145682	WAL-MART STORES INC			
2021/11/000191 11/02/2021 API		257.44	VND 017349 IN 145626	ON DECK SPORTS			
TOTAL GRANTS & CONTRIBUTIONS	0.00	66,686.89	66,686.89	18,180.10	0.00	48,506.79	27.3%
TOTAL DOG CONTROL DONATIONS	0.00	44,079.15	44,079.15	-7,077.14	0.00	51,156.29	-16.1%
TOTAL DOG CONTROL DONATIONS	0.00	44,079.15	44,079.15	-7,077.14	0.00	51,156.29	-16.1%
TOTAL REVENUES	0.00	-22,607.74	-22,607.74	-25,257.24	0.00	2,649.50	
TOTAL EXPENSES	0.00	66,686.89	66,686.89	18,180.10	0.00	48,506.79	

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ACCOUNTS FOR: 16980 ZONING

ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
16980000 ZONING						
16980000 432180 FEDERAL EMERG MANAGEMENT AGENC						
-1,865,545.00	0.00	-1,865,545.00	-712,760.31	0.00	-1,152,784.69	38.2%
16980000 444000 ZONING PERMITS & FEES						
-18,000.00	-1,000.00	-19,000.00	-23,554.57	0.00	4,554.57	124.0%

2021/11/000014	11/02/2021	CRP	-170.00	REF 94105	MOSES BORNTREGER	ZN - CONDITIONAL USE PERMITS
2021/11/000014	11/02/2021	CRP	-261.15	REF 94106	FLETCHER CONSTRUCTIO	ZN - ZONING PERMITS & FEES
2021/11/000074	11/09/2021	CRP	-18.75	REF 94362	HEWUSE FAMILY HOMES	ZN - ZONING PERMITS & FEES
2021/11/000074	11/09/2021	CRP	-42.00	REF 94366	JOHN B BUCKUN	ZN - ZONING PERMITS & FEES
2021/11/000074	11/09/2021	CRP	-162.00	REF 94367	DAVID HOTTENSTINER S	ZN - ZONING PERMITS & FEES
2021/11/000074	11/09/2021	CRP	-25.20	REF 94368	SETH CROUCH	ZN - ZONING PERMITS & FEES
2021/11/000074	11/09/2021	CRP	-40.74	REF 94369	ANDY BORNTREGER	ZN - ZONING PERMITS & FEES
2021/11/000105	11/12/2021	CRP	-59.22	REF 94496	BRAD TODD	ZN - ZONING PERMITS & FEES
2021/11/000105	11/12/2021	CRP	-30.24	REF 94497	DELMAR KLUBALL	ZN - ZONING PERMITS & FEES
2021/11/000105	11/12/2021	CRP	-115.50	REF 94498	HHJ PROPERTIES (NICK	ZN - ZONING PERMITS & FEES
2021/11/000105	11/12/2021	CRP	-138.00	REF 94499	LEVI YUTZY	ZN - ZONING PERMITS & FEES
2021/11/000105	11/12/2021	CRP	-77.52	REF 94501	JOHN MAST	ZN - ZONING PERMITS & FEES
2021/11/000119	11/16/2021	CRP	-18.75	REF 94595	JANE OR LARRY FRISKE	ZN - ZONING PERMITS & FEES
2021/11/000119	11/16/2021	CRP	-170.00	REF 94596	KATHY VONHADEN	ZN - CONDITIONAL USE PERMITS
2021/11/000119	11/16/2021	CRP	-178.44	REF 94597	YODER CONSTRUCTION	ZN - ZONING PERMITS & FEES
2021/11/000119	11/16/2021	CRP	-18.75	REF 94599	CLEMENS BORNTREGER	ZN - ZONING PERMITS & FEES
2021/11/000119	11/16/2021	CRP	-170.00	REF 94600	TRACY SCHAITEL	ZN - CONDITIONAL USE PERMITS
2021/11/000173	11/19/2021	CRP	-94.50	REF 94734	STEVE DOLLAR	ZN - ZONING PERMITS & FEES
2021/11/000173	11/19/2021	CRP	-64.68	REF 94735	HEATHER CLEVELAND	ZN - ZONING PERMITS & FEES
2021/11/000173	11/19/2021	CRP	-18.90	REF 94736	SHERI MARSH	ZN - ZONING PERMITS & FEES
2021/11/000173	11/19/2021	CRP	-75.60	REF 94737	JARED GRUEN	ZN - ZONING PERMITS & FEES
2021/11/000198	11/23/2021	CRP	-100.80	REF 94838	EZRA BORNTREGER	ZN - ZONING PERMITS & FEES
2021/11/000198	11/23/2021	CRP	-40.32	REF 94839	WILLIAM FORD	ZN - ZONING PERMITS & FEES
2021/11/000221	11/29/2021	BUA	-1,000.00	REF	ZONING PERMITS & FEES	
2021/11/000229	11/30/2021	CRP	-21.00	REF 94950	MICHAEL RUMPPE	ZN - ZONING PERMITS & FEES

16980000 461381 SURVEY MAP REVIEW						
-1,000.00	0.00	-1,000.00	0.00	0.00	-1,000.00	.0%
16980000 468800 OTHER ZONING REVENUE						
0.00	0.00	0.00	-1,300.00	0.00	1,300.00	100.0%

2021/11/000074	11/09/2021	CRP	-20.00	REF 94363	EAGLE RIDGE SURVEYIN	ZN - CERTIFIED SURVEY MAP REVI
2021/11/000074	11/09/2021	CRP	-20.00	REF 94364	EAGLE RIDGE SURVEYIN	ZN - CERTIFIED SURVEY MAP REVI
2021/11/000074	11/09/2021	CRP	-20.00	REF 94365	EAGLE RIDGE SURVEYIN	ZN - CERTIFIED SURVEY MAP REVI
2021/11/000119	11/16/2021	CRP	-20.00	REF 94598	H.A. SIME & ASSOCIAT	ZN - CERTIFIED SURVEY MAP REVI
2021/11/000173	11/19/2021	CRP	-60.00	REF 94757	JONATHAN SCHMITZ	ZN - CERTIFIED SURVEY MAP REVI

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16980000 ZONING						
16980000 468800 OTHER ZONING REVENUE						
2021/11/000229 11/30/2021 CRP	-40.00 REF 94952	JONATHAN SCHMITZ	ZN - CERTIFIED SURVEY MAP REVI			
TOTAL UNDEFINED ROLLUP CODE						
-1,884,545.00	-1,000.00	-1,885,545.00	-737,614.88	0.00	-1,147,930.12	39.1%
ZN100 SALARIES & FRINGE BENEFITS						
16980000 511000 SALARIES						
73,120.00	231.00	73,351.00	63,571.11	0.00	9,779.89	86.7%
2021/11/000027 11/05/2021 PRJ	2,809.49 REF 211105	WARRANT=211105	RUN=1 BI-WEEKL			
2021/11/000134 11/19/2021 PRJ	2,782.65 REF 211119	WARRANT=211119	RUN=1 BI-WEEKL			
16980000 515005 RETIREMENT						
4,728.00	18.00	4,746.00	4,108.75	0.00	637.25	86.6%
2021/11/000027 11/05/2021 PRJ	183.00 REF 211105	WARRANT=211105	RUN=1 BI-WEEKL			
2021/11/000134 11/19/2021 PRJ	186.29 REF 211119	WARRANT=211119	RUN=1 BI-WEEKL			
16980000 515010 SOCIAL SECURITY						
4,536.00	14.00	4,550.00	3,855.29	0.00	694.71	84.7%
2021/11/000027 11/05/2021 PRJ	170.37 REF 211105	WARRANT=211105	RUN=1 BI-WEEKL			
2021/11/000134 11/19/2021 PRJ	168.71 REF 211119	WARRANT=211119	RUN=1 BI-WEEKL			
16980000 515015 MEDICARE						
1,063.00	3.00	1,066.00	901.72	0.00	164.28	84.6%
2021/11/000027 11/05/2021 PRJ	39.85 REF 211105	WARRANT=211105	RUN=1 BI-WEEKL			
2021/11/000134 11/19/2021 PRJ	39.47 REF 211119	WARRANT=211119	RUN=1 BI-WEEKL			
16980000 515020 HEALTH INSURANCE						
8,556.00	0.00	8,556.00	12,073.67	0.00	-3,517.67	141.1%
2021/11/000027 11/05/2021 PRJ	709.08 REF 211105	WARRANT=211105	RUN=1 BI-WEEKL			
2021/11/000134 11/19/2021 PRJ	709.07 REF 211119	WARRANT=211119	RUN=1 BI-WEEKL			

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ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
16980000 515025 DENTAL INSURANCE						
710.00	0.00	710.00	650.36	0.00	59.64	91.6%
2021/11/000027 11/05/2021 PRJ	59.13 REF 211105 WARRANT=211105 RUN=1 BI-WEEKL					
16980000 515030 LIFE INSURANCE						
24.00	0.00	24.00	19.89	0.00	4.11	82.9%
2021/11/000027 11/05/2021 PRJ	1.82 REF 211105 WARRANT=211105 RUN=1 BI-WEEKL					
16980000 515040 WORKERS COMP						
422.00	-1.00	421.00	379.92	0.00	41.08	90.2%
2021/11/000027 11/05/2021 PRJ	16.17 REF 211105 WARRANT=211105 RUN=1 BI-WEEKL					
2021/11/000134 11/19/2021 PRJ	16.17 REF 211119 WARRANT=211119 RUN=1 BI-WEEKL					
TOTAL SALARIES & FRINGE BENEFITS						
93,159.00	265.00	93,424.00	85,560.71	0.00	7,863.29	91.6%
ZN200 OFFICE ADMINISTRATIVE COSTS						
16980000 531000 OFFICE SUPPLIES						
366.00	0.00	366.00	305.67	0.00	60.33	83.5%
16980000 531050 POSTAGE						
900.00	0.00	900.00	499.88	0.00	400.12	55.5%
2021/11/000191 11/02/2021 API	37.88 VND 015513 IN 145625 PCARD: USPS					
16980000 531060 PRINTING						
1,920.00	1,480.00	3,400.00	2,837.37	0.00	562.63	83.5%
2021/11/000094 11/19/2021 API	47.82 VND 006499 IN 88430 211105	RIVER VALLEY NEWSPAP PUBLIC HEARING				1057702
2021/11/000094 11/19/2021 API	64.99 VND 006499 IN 88433 211105	RIVER VALLEY NEWSPAP PUBLIC HEARING				1057702
2021/11/000094 11/19/2021 API	55.63 VND 006499 IN 88438 211105	RIVER VALLEY NEWSPAP PUBLIC HEARING				1057702
2021/11/000094 11/19/2021 API	46.27 VND 006499 IN 88435 211105	RIVER VALLEY NEWSPAP PUBLIC HEARING				1057702
2021/11/000095 11/12/2021 API	122.69 VND 004796 IN 69710	EVANS PRINT & MEDIA INVOICE # 3227				6802
2021/11/000095 11/12/2021 API	46.01 VND 004796 IN 71557	EVANS PRINT & MEDIA INVOICE # 7155				6802
2021/11/000095 11/12/2021 API	69.67 VND 006499 IN 86577 211008	RIVER VALLEY NEWSPAP INVOICE # 8657				1057702
2021/11/000221 11/29/2021 BUA	1,000.00 REF PRINTING					

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ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
16980000 532000 BOOKS/PUBLICAT/SUBSCRIPT						
55.00	0.00	55.00	49.00	0.00	6.00	89.1%
TOTAL OFFICE ADMINISTRATIVE COSTS						
3,241.00	1,480.00	4,721.00	3,691.92	0.00	1,029.08	78.2%
ZN300 TECHNOLOGY & EQUIPMENT						
16980000 522025 TELEPHONE						
1,008.00	0.00	1,008.00	807.34	0.00	200.66	80.1%
2021/11/000045 11/05/2021 API	80.92 VND 002393 IN 9891332876		VERIZON LLC	VERIZON CELL P	1057600	
16980000 553100 EQUIPMENT SERVICE CONTRACT						
312.00	0.00	312.00	265.83	0.00	46.17	85.2%
2021/11/000092 11/05/2021 API	15.78 VND 002162 IN 27607451		CANON FINANCIAL SERV	LEASE 001-0140	6796	
TOTAL TECHNOLOGY & EQUIPMENT						
1,320.00	0.00	1,320.00	1,073.17	0.00	246.83	81.3%
ZN350 IT POOL						
16980000 599000 TECHNOLOGY POOL						
875.00	0.00	875.00	875.00	0.00	0.00	100.0%
TOTAL IT POOL						
875.00	0.00	875.00	875.00	0.00	0.00	100.0%
ZN400 CONF / EDUCATION & TRAVEL						
16980000 533010 CONFERENCE/SEMINARS						
480.00	-480.00	0.00	0.00	0.00	0.00	.0%

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ACCOUNTS FOR: 16980 ZONING

ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
TOTAL CONF / EDUCATION & TRAVEL						
480.00	-480.00	0.00	0.00	0.00	0.00	.0%
ZN950 GRANTS & CONTRIBUTIONS						
16980000 579180 FEDERAL EMERG MANAGEMENT AGENC						
1,865,545.00	0.00	1,865,545.00	738,964.02	0.00	1,126,580.98	39.6%
TOTAL GRANTS & CONTRIBUTIONS						
1,865,545.00	0.00	1,865,545.00	738,964.02	0.00	1,126,580.98	39.6%
TOTAL ZONING						
80,075.00	265.00	80,340.00	92,549.94	0.00	-12,209.94	115.2%
TOTAL ZONING						
80,075.00	265.00	80,340.00	92,549.94	0.00	-12,209.94	115.2%
TOTAL REVENUES						
-1,884,545.00	-1,000.00	-1,885,545.00	-737,614.88	0.00	-1,147,930.12	
TOTAL EXPENSES						
1,964,620.00	1,265.00	1,965,885.00	830,164.82	0.00	1,135,720.18	

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ACCOUNTS FOR: 16983 ZONING BRD OF ADJUSTMENTS

ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
16983000 ZONING BOARD OF ADJUSTMENTS						
16983000 468800 ZONING BOARD OF ADJUSTMENTS						
-3,128.00	0.00	-3,128.00	-1,870.00	0.00	-1,258.00	59.8%
TOTAL UNDEFINED ROLLUP CODE						
-3,128.00	0.00	-3,128.00	-1,870.00	0.00	-1,258.00	59.8%
BA100 SALARIES & FRINGE BENEFITS						
16983000 511000 SALARIES						
1,750.00	0.00	1,750.00	480.00	0.00	1,270.00	27.4%
16983000 515010 SOCIAL SECURITY						
109.00	0.00	109.00	29.76	0.00	79.24	27.3%
16983000 515015 MEDICARE						
26.00	0.00	26.00	6.96	0.00	19.04	26.8%
16983000 515040 WORKERS COMP						
1.00	0.00	1.00	0.24	0.00	0.76	24.0%
TOTAL SALARIES & FRINGE BENEFITS						
1,886.00	0.00	1,886.00	516.96	0.00	1,369.04	27.4%
BA200 OFFICE ADMINISTRATIVE COSTS						
16983000 531060 PRINTING						
360.00	0.00	360.00	254.05	0.00	105.95	70.6%
2021/11/000095 11/12/2021 API		28.32 VND 004796 IN 69710		EVANS PRINT & MEDIA	INVOICE # 3227	6802

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ACCOUNTS FOR: 16983 ZONING BRD OF ADJUSTMENTS

	ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
16983000 532000	BOOKS/PUBLICAT/SUBSCRIPT						
	150.00	0.00	150.00	0.00	0.00	150.00	.0%
TOTAL OFFICE ADMINISTRATIVE COSTS							
	510.00	0.00	510.00	254.05	0.00	255.95	49.8%
BA400 CONF / EDUCATION & TRAVEL							
16983000 533010	CONFERENCE/SEMINARS						
	150.00	0.00	150.00	0.00	0.00	150.00	.0%
16983000 533200	MILEAGE						
	582.00	0.00	582.00	278.10	0.00	303.90	47.8%
TOTAL CONF / EDUCATION & TRAVEL							
	732.00	0.00	732.00	278.10	0.00	453.90	38.0%
TOTAL ZONING BOARD OF ADJUSTMENTS							
	0.00	0.00	0.00	-820.89	0.00	820.89	100.0%
TOTAL ZONING BRD OF ADJUSTMENTS							
	0.00	0.00	0.00	-820.89	0.00	820.89	100.0%
TOTAL REVENUES							
	-3,128.00	0.00	-3,128.00	-1,870.00	0.00	-1,258.00	
TOTAL EXPENSES							
	3,128.00	0.00	3,128.00	1,049.11	0.00	2,078.89	

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	ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD ACTUAL	ENCUMBRANCES	AVAILABLE BUDGET	% USED
GRAND TOTAL	157,316.00	44,781.15	202,097.15	116,295.67	217.99	85,583.49	57.7%

** END OF REPORT - Generated by ADRIAN LOCKINGTON **