



**STATE OF MAINE
131st LEGISLATURE
SECOND REGULAR SESSION**

**REPORT OF THE STATE FIRE MARSHAL'S OFFICE ON THE SALE AND USE OF CONSUMER
FIREWORKS IN MAINE FOR 2023**

Joint Standing Committee on Criminal Justice and Public Safety

March 1, 2024

Staff:

Joseph Greene, OPLA Analyst
Sophia Paddon, OPLA Analyst
Suzanne Voynik, OPLR Analyst
Jasmine Bocanegra, Committee Clerk

Committee on Criminal Justice and Public Safety
c/o Legislative Information
100 State House Station
Augusta, Maine 04333

MEMBERS:

SEN. Anne Beebe-Center, Chair
SEN. Matthew Harrington
SEN. David LaFountain
REP. Suzanne Salisbury, Chair
Rep. Donald Ardell
Rep. Tavis Hasenfus
Rep. Michael Lajoie
Rep. Grayson Lookner
Rep. Kristi Mathieson
Rep. Nina Milliken
Rep. Daniel Newman
Rep. Robert Nutting
Rep. Chad Perkins

**Prepared by Richard E. Taylor, Senior Planning and Research Analyst
Office of the Maine State Fire Marshal**

Table of Contents

	Page
Executive Summary	1
Licensing	1
Town Ordinances.....	1
Consumer Fireworks-Related Injuries and Fires	1-2
Regulating Fireworks	2-3
Consumer Fireworks and Animals	3
Summary and Recommendations	4
Appendix A: NFIRS Fireworks Fire Data for 2023	
Appendix B: EMS Fireworks Injury Data for 2023	
Appendix C: Maine Forest Service Fireworks Fire Reports for 2023	
Appendix D: Seasonality of Fireworks Fires and Injuries 2023	
Appendix E: Medical Form for Fireworks Injuries (Hospital Form)	

EXECUTIVE SUMMARY

The use, possession or sale of consumer fireworks became legal with the passage of Chapter 416, LD 83 “An Act to Legalize the Sale, Possession and Use of Fireworks” during the first session of the 125th Maine Legislature. The law took effect on January 1, 2012. Plantations could adopt consumer fireworks ordinances with the passage of LD 3 “An Act to Grant Plantations the Power to Control Consumer Fireworks” during the first session of the 128th Maine Legislature in 2017. That law took effect on March 24, 2017.

Each year in Maine several individuals are injured using consumer fireworks. The last known fatality occurred in 2015.¹ Each year the Office of State Fire Marshal (FMO) gathers data on fireworks-related injuries and burns by working with the Bureau of Emergency Medical Services (EMS), Maine Forestry and data drawn from Maine’s Fire Incident Reporting System (NFIRS). Each year the NFIRS system records numerous incidents of fires where the heat source was identified as a firework. On January 22, 2014, EMS began sending data on fireworks related injuries to the FMO. Any EMS reports that are entered with a code involving fireworks are now automatically sent to the FMO. However, the drawback to this data source is that the EMS data only records those injured people that are transported by an ambulance.

LICENSING

The number of licensed businesses selling consumer fireworks has declined since legalization in 2012. As of January 8, 2024 there are seventeen licensed and operating consumer fireworks retail stores in Maine. Totaling \$27,000 in license fees. The number of licensed consumer sales outlets has declined from a high of twenty-seven stores to the current seventeen. In 2023 the seventeen stores earned \$5,941,824 million in taxable sales and paid \$326,800 in sales tax. Down 20% percent from 2022.

TOWN ORDINANCES

As required in statute, Maine municipalities choosing to restrict or prohibit the sale and or use of consumer fireworks, or those permitting the sale of consumer fireworks, must provide the FMO with a copy of the ordinance. Currently 119 towns have an ordinance. Some municipalities prohibit use and sale of consumer fireworks, while some just prohibit use. Other municipalities have modified state statutes to restrict use and sale. There were no new ordinances or towns added in 2023. Documents are available from the FMO website on this webpage: <https://www.maine.gov/dps/fmo/inspections/fireworks/ordinances>

CONSUMER FIREWORKS-RELATED FIRES AND INJURIES

The Fire Marshal’s Office collected fireworks related fire and injury data through its National Fire Incident Reporting System (NFIRS), the Maine Emergency Medical Management system (EMS) and Maine’s Forest Service.

As of February 23, 2023, there were eleven fires in 2023 reported by Maine’s fire departments that were determined to be caused by fireworks (Appendix A). This was a decrease of seven incidents from 2022.² These fires required the attention of an average of ten first responders working a total of 223 hours. In addition to property losses, an average of seven personnel and 4 apparatus responded to these incidents to put out the fire. A final summary of fire causes will be published in the 2023 Annual Report of the Maine State Fire Marshal in the spring of 2024. At the time of this report, seventy-three percent of these fires were determined to be unintentional. The fires cost an estimated \$152,315 in property and contents loss.

¹ “Maine Man Killed After Trying to Launch Firework from Top of His Head” *The Guardian*, July 5, 2015
<https://www.theguardian.com/us-news/2015/jul/05/maine-firework-kills-man-head>

² Fire department reports for 2023 can continue to be submitted to the Fire Marshal’s Office until July of 2023.

Most fireworks related fires occur in and around someone's home or in residential areas. Homes in residential areas pose a high risk of fire spread to other homes and subsequently higher risks of injury and death.

Fireworks related fires and injuries are seasonal with July accounting for fifty-four percent of fires and fifty percent of injuries in 2023. Additional data on the distribution of fireworks related emergency incidents including type of incident, items ignited, and the actions taken to extinguish the fires can be found in Appendix D.

The Maine Forest Service reported three fires destroying .40 acres in 2023 costing \$300.00 in natural resource property damage and another \$1,249 in costs to extinguish the fires (see Appendix C). In the last nine years the Maine Forest Service has recorded seventy-eight fires caused by fireworks. An average of nine each year.

EMS reported ten individuals injured from fireworks. There were seven males and four females ranging in age from two to forty-nine for an average age of thirty-two. Because the EMS data only provides the count of individuals injured and transported to a hospital for fireworks related injuries, the data is considered baseline data. This is more likely to be an undercount of actual injuries. (See Appendix B)

Maine's hospitals reported two fireworks related injuries in 2023.

REGULATING FIREWORKS

Since the use and sale of fireworks were legalized in 2012, there has been little change in the basic structure of the law and how consumer fireworks are regulated. The most significant change of law was a 2017 law granting Maine Plantations permission to adopt consumer fireworks regulations.³

There have been several attempts, to rectify perceived problems with the use of consumer fireworks. A number of efforts to legalize consumer fireworks prior to the passage of Chapter 416 failed in committee. Since legalization, successful efforts have focused largely on safe disposal, items to include/exclude within the definition of consumer fireworks, adjusting times of use and location. There have been recurring and unsuccessful efforts to address the impact of consumer fireworks on animals.

In Maine, as in most states, commercial (display) and consumer fireworks are regulated in different ways. The biggest difference in the regulatory scheme is that display fireworks require the licensing of those conducting the display and transporting the fireworks in addition to a permitting process for putting on the display. Within that framework are numerous rules focused on containers, distance, and other requirements necessary to put on a large show safely. Display fireworks are much larger and more dangerous than consumer fireworks. Though still very dangerous, use and possession of consumer fireworks is granted to most individuals over the age of eighteen without any restrictions or requirements to be trained or licensed to use them.

Maine's Chapter 416 provides Maine municipalities the option to choose to restrict or prohibit the sale and/or use of consumer fireworks. Municipalities can require a permit for the sale of consumer fireworks. Those municipalities making their own regulations must provide the FMO with a copy of the ordinance. There were no new ordinances or towns added in 2023. All town ordinances are made available to the public on the FMO website. Sellers of consumer fireworks are required to provide customers a copy of a given towns consumer fireworks ordinance at the point of sale if one exists.

At present there are only two municipalities with ordinances that prohibit just the use of consumer fireworks. Fifty municipalities prohibit both the use and sale in the given community. Sixty-five municipalities restrict use and/or sale in various ways. Such restrictions include limiting the time and area in which fireworks can be

³ 30-A §7501, Chapter 141

used. Ordinances focused on area of use generally forbid the use of consumer fireworks in areas zoned residential, public lands, on the street and other areas identifiable by borders, or as described within that communities' incorporated area. The town of Calais has included in its ordinance a clause referencing animals. The Calais ordinance reads as follows: "The use of Consumer Fireworks outside of the Urban Area shall follow the laws of the State of Maine-except that the use of consumer fireworks in any livestock zone shall be prohibited." The Calais ordinance defines a livestock zone as, "...any area within 1,500 feet of a facility where livestock is being raised or boarded."

In general, legislation, rules, and ordinances in Maine and across the nation vary regarding what types of consumer fireworks are permitted for use. Today, consumer fireworks are legal in forty-six states. Washington, D.C., Ohio, Vermont and Illinois only allow the purchase of sparklers and novelty-type fireworks. Massachusetts bans the sale of all consumer fireworks. States also vary in terms of the age at which an individual can use fireworks. Age requirements range from sixteen to twenty-one and older. Details regarding what type can be used are guided by definitions established by organizations such as the National Fire Protection Association, the Consumer Products Safety Commission, and the American Pyrotechnics Association Standards.

CONSUMER FIREWORKS AND ANIMALS

In 2022, L.D. 1348 "An Act to Limit the Decibel Level of Fireworks Near Working Farms" was introduced that would have prohibited the user from discharging "...fireworks or consumer fireworks that results in a noise that exceeds 75 decibels at a boundary of a farm actively engaged in agricultural production and containing livestock." Testimony in support of the bill cited incidents of consumer fireworks causing stress and panic to animals and even costs to first responders responding to animals running loose because of consumer fireworks being discharged. Those opposing the bill, primarily from the firework industry, cited the difficulty enforcing such a bill, as well as previous failed attempts to pass such a law. Chief among the difficulties mentioned, would be how to measure decibels and distance. They also cited potential unemployment and revenue losses.

Discussion over enforcement difficulties resulted in amendments to the original bill. The amendments recognized the complexities of enforcing distances and decibels requirements and sought to remedy the problem by removing references to decibel levels in the title. Another amendment, worked out between the sponsor of the bill and the fireworks industry, would require an individual using the fireworks "within 250 feet of neighboring property owners' livestock pen...to notify the owner...no less than five days in advance.." of that use, which would allow owners a chance to prepare. Other potential changes would allow only the use, of lower noise fireworks within certain distances from animals. It was also mentioned that absent the capacity of local law enforcement to enforce such laws, a state level approach would be necessary.

Faced with such uncertainties the Committee replaced the original bill with a resolve directing the State Fire Marshal to convene a stakeholder group to review matters relating to the impacts of consumer fireworks use and provide the Committee with the findings, recommendations, and any proposed legislation of this review. This report is the result. Testimony provided to the committee during hearings are in Appendix E at the end of this report.

The legislative Committee was convened to examine the use of consumer fireworks on animals proposed the following recommendations were presented to the Criminal Justice and Public Safety Committee in the spring of 2023. The recommendations included:

1. Create a report form for law enforcement officers to report violations of local and state ordinances and laws including incidents involving animals. This will provide documentation of incidents involving animals.
2. Designate livestock zones where consumer fireworks use is prohibited.

As of the writing of this report, the legislature has not acted on the issue of animals and consumer fireworks any further.

SUMMARY AND RECOMMENDATIONS

RECOMMENDATIONS

1. Mandate that all hospital staff complete the medical form to enable an accurate count of fireworks related incidents and costs of those injuries as well the details set out in Appendix E.
2. Require decibel levels be posted on every fireworks product package.

Appendix A

Fires

NFIRS 5.0 National Reporting System: Fireworks 2023

Manpower and Equipment Used to Fight Fireworks Related Fire Incidents 2023

Code	Description	Frequency		Average Number							Total Man Hours	Average Response Time (min)
				Personnel			Apparatus			Man Hours		
		#	%	Suppression	EMS	Other	Suppression	EMS	Other			
54	Fireworks	11	0.43%	5.27	1.36	1.36	2.18	0.73	1.55	14.18	155.97	6.18

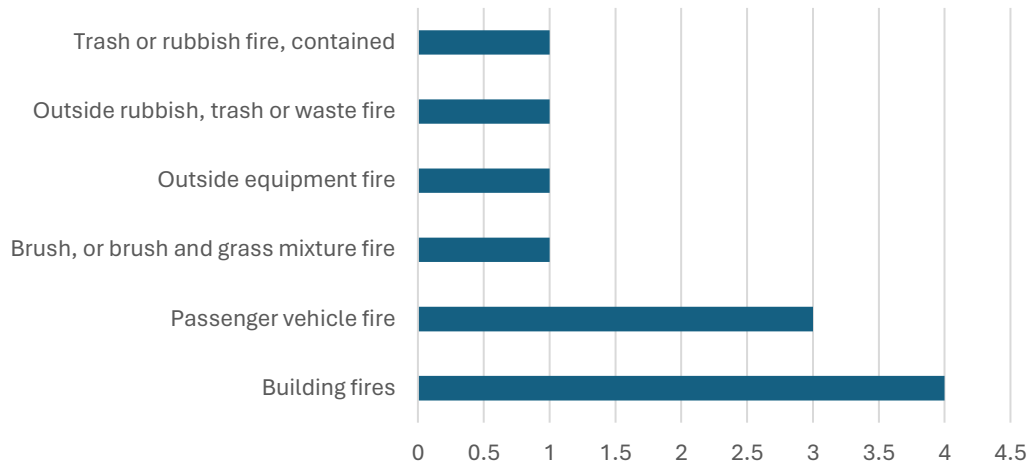
Selected Coded Field: Fire: Heat Source Fireworks

Report Period: From 01/01/2023 to 12/31/2023

Property and Contents Dollar Losses from Fireworks Related Fires 2023

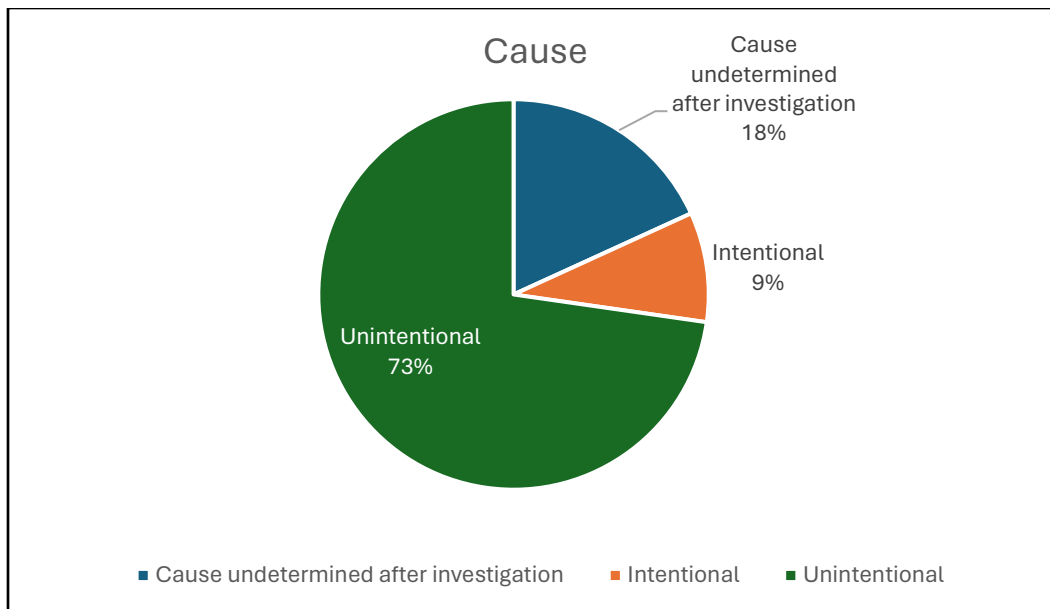
Code	Description	Frequency		Property Loss		Contents Loss		Total Loss	
		#	%	#	%	#	%	#	%
000	Property Use, other	1	9.1%	\$0	0.0%	\$0	0.0%	\$0	0.0%
419	1 or 2 family dwelling	4	36.4%	\$7,000	6.5%	\$5,015	11.1%	\$12,015	7.9%
429	Multifamily dwellings	1	9.1%	\$100,000	93.2%	\$35,000	77.8%	\$135,000	88.6%
807	Outside material storage area	1	9.1%	\$0	0.0%	\$0	0.0%	\$0	0.0%
936	Vacant lot	1	9.1%	\$0	0.0%	\$0	0.0%	\$0	0.0%
962	Residential street, road or residential driveway	2	18.2%	\$0	0.0%	\$5,000	11.1%	\$5,000	3.3%
965	Vehicle parking area	1	9.1%	\$300	0.3%	\$0	0.0%	\$300	0.2%
Totals		11	100.0%	107,300	100.0%	\$45,015	100.0%	\$152,315	100.0%

Fireworks Fire by Incident Type 2023



Area of Origin

Area of Origin	Count	Percent
Bathroom, checkroom, lavatory, locker room	1	9.1%
Cargo/trunk area - all vehicles	3	27.3%
Chute/container - trash, rubbish, waste	1	9.1%
Exterior balcony, unenclosed porch	1	9.1%
Open area - outside; included are farmland, field	1	9.1%
Outside area, other	1	9.1%
Vehicle storage area; garage, carport	1	9.1%
Wall surface: exterior	1	9.1%
Wildland, woods	1	9.1%



Appendix B

EMS Fireworks Injury Reports for 2023

incident_date_time	patient_gender	Patient_Age_In_Years	Injury_Cause_of_Injury
4/10/2023	Male	73	Fire/Explosion - Firework(W39)
5/7/2023	Male	2	Fire/Explosion - Firework(W39)
7/4/2023	Male	37	Fire/Explosion - Firework(W39)
7/4/2023	Male	7	Fire/Explosion - Firework(W39)
7/4/2023	Female	24	Fire/Explosion - Firework(W39)
7/4/2023	Male	41	Fire/Explosion - Firework(W39)
7/4/2023	Male	43	Fire/Explosion - Firework(W39)
7/5/2023	Female	24	Fire/Explosion - Firework(W39)
8/3/2023	Male	49	Fire/Explosion - Firework(W39)
12/31/2023	Female	27	Fire/Explosion - Firework(W39)

Appendix C

Maine Forest Service Fireworks Fire Reports for 2023

Count by Region and Acres Destroyed

	Southern Region		Central Region		Northern Region		Statewide	
CAUSE	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres
Fireworks	2	0.2	1	0.2	0	0	3	0.4

Damages

Natural Resource Property Damage (damage to wildlands)	Real Property Damage (homes, sheds, automobiles)	Total Cost of Extinguishing Fires
\$300.00	0	\$1,249.65

Appendix D

Seasonality of Fireworks Fire's and Injuries 2023

Data from EMS and NFIRS

Month	Fires	Injuries	% Fires	% Injuries
January	2	0	18.2%	0.0%
February	0	0	0.0%	0.0%
March	0	0	0.0%	0.0%
April	0	1	0.0%	10.0%
May	2	0	18.2%	0.0%
June	0	2	0.0%	20.0%
July	6	5	54.5%	50.0%
August	0	1	0.0%	10.0%
September	0	0	0.0%	0.0%
October	0	0	0.0%	0.0%
November	0	0	0.0%	0.0%
December	1	1	9.1%	10.0%
Totals	11	10		

Appendix E

MAINE FIRE MARSHAL'S OFFICE CONSUMER FIREWORKS INJURY REPORT



The Office of the Fire Marshal would greatly appreciate the assistance of Maine's medical community in tracking consumer fireworks related injuries. The purpose of reporting these injuries is to assist the Fire Marshal in developing any necessary statutory, rule, or policy changes essential to minimizing the frequency of fireworks injuries in Maine. For more information call (207) 626-3873. Thank you.

Demographic Information:

Hospital/Clinic Name: _____

Date of Injury (month/day/year): _____

Municipality in which the injury occurred: _____

Age

☐ 0 – 4 ☐ 5 – 14 ☐ 15 – 20 ☐ 21 - 25 ☐ 26 – 44 45 and older

Type of Device:

- ☐ Hand- held (sparkler, firecracker, roman candle, smoke bomb, ground spinner)
- ☐ Display (stationary mortar, wheel, missile rocket, fountain)
- ☐ Other _____

Reason for Injury:

- ☐ Bystander (not involved with igniting device)
- ☐ User error (mishandled, relit fuse, device not set up correctly, throwing, etc.)
- ☐ Device malfunctioned (errant flight pattern, uncontained explosion)
- ☐ Other _____

Severity of Injury (circle one only)

1. No injury
2. Minor (1st degree burn, minor cut (no stitches), bruising)
3. Moderate (2nd degree burn, laceration (stitches), broken bone)
4. Significant injury (3rd degree burn, partial or total loss of digit, hearing or sight)
5. Fatality

Body Part Injured (check one):

- ☐ Head/face
- ☐ Extremity
- ☐ Torso

Comments

MAIL/FAX COMPLETED FORMS TO:

Richard E. Taylor, Senior Research and Planning Analyst
Office of the Maine State Fire Marshal
52 State House Station
Augusta, Maine 04333-0052
Phone: (207) 626-3873 Fax: (207) 287-6251
Richard.e.taylor@maine.gov

FOR AN ONLINE POSTING OF THIS FORM AND MORE INFORMATION ON CONSUMER