

# Annual Report on Emergency Firefighting Expenditures

Fiscal Year 2024

01/15/2025

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*Figure 1: Snake Trail Fire, Waseca County, March 2024*

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As required by *Minnesota Statute*, Section 3.197: This report cost approximately \$4,900 to prepare, including staff time, printing, and mailing expenses.

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## Summary

This report details the Minnesota Department of Natural Resources' (DNR's) wildfire response activities and costs for Fiscal Year 2024 (FY2024). The DNR expended \$32,569,934 from the General Fund in FY2024 for wildfire protection and emergency response. This includes \$25,197,410 from the Emergency Firefighting Open Appropriation.

FY2024 fire expenditures exceeded the 10-year average of expenditures by 24%. This increase is attributable to the greater-than-average amount of staff time and equipment needed for fire preparedness and suppression during the very dry summer of 2023 and the early start of the 2024 wildfire season.

In FY2024, the DNR responded to 854 wildfires that burned 11,939 acres in Minnesota. This is less than the 20-year annual average of 909 fires and 19,481 acres. The first quarter of FY2024 had much greater fire activity than the previous years and severe drought conditions developed over most the entire state. Fire risk continued in the third quarter of FY2024, with much of the state receiving minimal or no snow over the winter. The fourth quarter, which is typically the period of highest wildfire activity, was tempered by mid-spring rains that ended drought conditions and brought widespread flooding across the state.

Wildfire expenditures are related to 1) the number and size of fires, 2) the level of fire potential/risk and the associated preparedness and staffing levels needed so the DNR is ready to respond to a wildfire should one start, and 3) the DNR's strategy of responding aggressively to fire starts when risk is high to quickly contain the blaze and thereby minimize the acres burned. The success of the DNR's preparedness and quick-response efforts is reflected in the number of fires and acres burned in FY2024, which were less than the 20-year annual average despite an active and prolonged fire season in the first, second, and third quarters of FY2024.

In FY2024, the DNR once again used a variety of ground and aerial resources to prepare for and suppress wildfires. The ground fleet consists of 179 firefighting engines and 57 tracked vehicles (including bulldozers) designed to access off-road and remote areas. The DNR uses a mix of state-owned and contracted aircraft plus aircraft from interagency and state partnership agreements. Firefighting aircraft responded to 160 requests on 71 wildfires where the DNR was the primary response agency.

In cooperation with partner agencies, the Minnesota Incident Command System (MNICS) rostered three Type III Incident Management Teams (IMTs) in FY2024. A MNICS Type III team responded to one incident during FY2024.

## Purpose of this Report

The costs for state-led emergency wildfire response are borne by the General Fund via both direct and open appropriations. The DNR is required by statute to submit a report to the legislature by January 15 of each year identifying all firefighting costs incurred and reimbursements received in the prior fiscal year.<sup>1</sup> This report addresses that statutory requirement.

## State Funding for Emergency Firefighting

Minnesota statutes charge the Commissioner of Natural Resources with preventing and extinguishing wildfires in the forested and prairie areas of the state. Although these statutes have been adjusted several times over the years, the initial charge adopted in 1911 remains, and current laws outline the funding sources to meet the requirements of the statutes.

### Funding Authorized

Emergency Firefighting Direct Appropriation: Laws 2023, chapter 60, article 1, section 3, subd. 4 appropriated \$7,521,000 the first year and \$7,521,000 the second year for prevention, presuppression, and suppression costs of emergency firefighting and other costs incurred under *Minnesota Statutes*, section 88.12.

Emergency Firefighting Open Appropriation: Laws 2023, chapter 60, article 1, section 3, subd. 4, further states “the amount necessary to pay for presuppression and suppression costs during the biennium is appropriated from the General Fund.”

### Expenditures

During FY2024, the DNR expended \$7,372,524 from the Direct Appropriation and \$25,197,410 under Open Appropriation authority, for a total FY2024 expenditure of \$32,569,934 for state-led wildfire response.

The greater-than-average expenditure in FY2024 was a result of the greater-than-average amount of staff time and equipment needed to provide fire suppression and preparedness during the very dry and active summer and fall of 2023 and an early start to the 2024 wildfire season from the snowless winter.

Wildfire expenditures are related to 1) the number and size of fires, 2) the level of fire potential/risk and the associated preparedness and staffing levels needed so the DNR is ready to respond to a wildfire should one start, and 3) the DNR’s strategy of responding aggressively to fire starts when risk is high to quickly contain the fire and protect life and property. The success of the DNR’s preparedness and quick-response efforts is demonstrated by the fact that the number of fires and acres burned in FY2024 were less than the 20-year average.

[Appendix 1](#), FY2024 Emergency Fire Direct and Open Appropriations/State Expenditures by Category, summarizes state firefighting expenditures by salary and operating costs.

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<sup>1</sup> See Laws of Minnesota 2023, Ch. 60, Art. 1, sect. 3, subd. 4.

## Reimbursements to the General Fund

### Payments and Collections

The DNR receives payments for certain fire-related activities. These receipts are from supplies sold to local government units (e.g., fire departments) through the Interagency Fire Cache (cache sales are authorized under *Minnesota Statutes*, section 88.065), and collections from parties responsible for starting illegal or negligent fires (reimbursement for suppression costs is mandated under *Minnesota Statutes*, section 88.75). These receipts are deposited directly into the General Fund.

| <b><u>FY2024 Receipts</u></b> |                  |
|-------------------------------|------------------|
| Cache Sales                   | \$95,103         |
| Fire Cost Collections*        | \$827,571        |
| <b>Total</b>                  | <b>\$922,674</b> |

\* Fire Cost Collections in FY2024 included \$535,000 collected from a FY2021 billing.

### Emergency Fire Special Revenue Fund

This fund provides an avenue for reimbursement for expenditures related to fulfilling interagency agreements regarding wildfire suppression. The DNR provides firefighters, equipment, and aircraft to help federal partners within Minnesota; mobilizes firefighters to assist national wildfire emergencies in other states; and aids Great Lakes Forest Fire Compact (GLFFC) partners (adjoining states and Canadian provinces). These costs are charged to the Emergency Fire Special Revenue Fund, and partners are invoiced for reimbursement as soon as practical. The federal government reimburses federal costs and GLFFC partners reimburse their costs. During FY2024, the DNR expended \$2,903,092 from the Emergency Fire Special Revenue Fund on reimbursable costs for national mobilizations and GLFFC support.

Reimbursements to the Special Revenue Fund include the actual costs of out-of-state deployments; a portion of the fixed costs associated with any mobilized equipment, such as wildland fire engines and aircraft; and costs associated with operational and administrative staff time. Reimbursements related to resources originally funded from the Open Appropriation for in-state mobilization are transferred to the General Fund annually. In FY2024, the DNR transferred \$345,031 from the Emergency Fire Special Revenue Fund to the General Fund.

### Total Reimbursements

Total reimbursements include payments and collections as well as transfer of cost recovery. As indicated in the table below, the total reimbursements to the General Fund in FY2024 were \$1,267,705.

| <b><u>Total FY2024 Reimbursements to the General Fund</u></b> |                    |
|---|--------------------|
| Cache Sales   | \$95,103           |
| Fire Cost Collections   | \$827,571          |
| Special Revenue Fund  | \$345,031          |
| <b>Total</b>  | <b>\$1,267,705</b> |

## Planning and Readiness

Weather patterns, fuel conditions, and actual fire occurrence affect wildfire preparedness and response costs. Before each wildfire season, the DNR trains firefighters, maintains and secures equipment, establishes contracts for aerial detection and suppression, supports rural fire departments in securing equipment, and engages in fire prevention efforts. Together, all these efforts encompass preparedness activities.

To guide its level of readiness from week to week, the DNR uses a tiered system to determine potential wildfire risks and establish fire-planning levels. [Appendix 2](#), A Guideline for Statewide Planning Level Determination, shows the criteria and planning levels currently in use. These guidelines are used to determine the current planning levels statewide and by DNR Region, on conference calls with fire managers from all cooperating agencies that suppress Minnesota wildfires. Conference call frequency is dependent on fire conditions and ranges from daily to weekly.

The planning level, in combination with daily fire danger indices, establishes the staffing level necessary to effectively respond to wildfires. Historically, about 80% of the state's wildfires happen during Planning Level III. Major fires can and do occur at Planning Level III.

FY2024 had 208 days of possible wildfire danger (i.e., at least one DNR Region at Planning Level II or higher). Of those days, 115 were at statewide Planning Level II, 15 were at Planning Level IIE (Emergency Declaration for flooding), and 78 days were at a statewide Planning Level III.

Each Region and Area needs to have equipment and staffing available that is sufficient to respond to wildfires based on the likelihood of occurrence (planning level). Thus, some Regions and Areas may be at a higher staffing level than others and require presuppression expenditures when the overall state is not anticipating high fire activity.

Various factors and requirements affected Area staffing needs in FY2024, with local weather conditions (e.g., precipitation, temperature, wind speed, and relative humidity) influencing each Area's planning and staffing levels.

## Fire Suppression and Presuppression

The success of the DNR's fire suppression program is largely due to aggressive initial attack to keep fires small. Once a wildfire escalates beyond initial attack, risk of the fire spreading, risk to firefighter safety, damages to property, and overall costs all increase significantly.

Preparedness (prevention and presuppression) and suppression activities work together to reduce the number of wildfires and potential damages. Presuppression actions are those taken before a wildfire starts to ensure the safest, most effective, and efficient direct suppression response. These activities include overall planning, recruitment and training of personnel, procurement of firefighting equipment and contracts, and maintenance of equipment and supplies. Suppression activities directly support and enable the DNR to suppress wildfires, including the prepositioning of staff and resources. As fire danger and occurrence increase, the number of resources positioned for immediate response also increases.

Presuppression costs were \$14,736,212 or approximately 45% of expenditures from the Direct and Open fire appropriations in FY2024. Suppression costs were \$17,495,025 or approximately 54% of FY2024 expenditures

from the Direct and Open fire appropriations. One percent of expenditures were dedicated to wildfire prevention efforts throughout the state. The DNR cost-coding structure provides accountability for wildfire related costs. The fiscal system tracks expenditures by both the type of activity and location (down to the Area level).

[Appendix 3](#), FY2024 State Fire Cost Summary, illustrates the percentages of fire expenditures allocated to prevention, presuppression, and suppression activities. [Appendix 4](#), Wildfire Activities 10-Year Expenditure History, summarizes expenditures over a decade.

### Fire Occurrence and Causes

In FY2024, the DNR responded to 854 wildfires within our jurisdiction that burned 11,939 acres. The number of fires was less than the 20-year annual average of 909 fires. Additionally, acres burned were less than the 20-year average of 19,481 acres burned.

#### Number of Wildfires by Cause

| Cause type         | FY 2024 | %    | 20-Year Average | %    |
|--------------------|---------|------|-----------------|------|
| Debris Burning     | 329     | 39   | 320             | 35   |
| Incendiary / Arson | 15      | 2    | 190             | 21   |
| Misc. / Unknown*   | 333     | 39   | 188             | 21   |
| Equipment Use      | 98      | 11   | 113             | 12   |
| Campfires          | 45      | 5    | 44              | 5    |
| Lightning          | 26      | 3    | 19              | 2    |
| Smoking            | 8       | 1    | 16              | 2    |
| Railroad           | 0       | 0    | 19              | 2    |
| Total              | 854     | 100% | 909             | 100% |

\*Misc./Unknown includes items that usually do not account for a major percentage on their own such as electric fences, power lines, fireworks, fires started within a structure, prescribed fires, other sources like hot ashes, spontaneous combustion, and cause unknown.

[Appendix 5](#), Minnesota Fires, Numbers and Acres Burned and [Appendix 6](#), FY2024 Wildfires by Cause graphically illustrate fire history and causes.

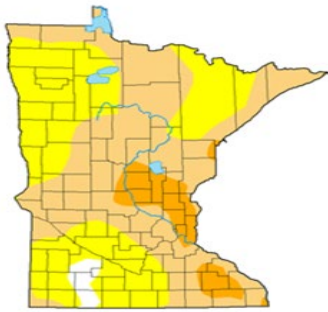
### Weather Summary

The beginning of FY2024 (July 1, 2023) found most of the state experiencing abnormally dry to severe drought conditions. Drought continued to develop through the summer peaking in late September with 26% of the state covered by extreme drought and 3% in exceptional drought. The remainder of the state was covered by lesser drought categories. Wet conditions during September, October, and December provided protective soil and root moisture, but record winter warmth coupled with little snow cover brought an unseasonably early start to the 2024 fire season. More consistent precipitation began to fall by late March and drought conditions began steadily improving for the remainder of the spring. A very wet June removed the last of the drought from the state and even led to some precipitation surpluses. Due to these abnormally wet conditions fire activity was minimal for the remainder FY2024.



## US Drought Monitor

July 4<sup>th</sup> 2023



June 25<sup>th</sup> 2024



### Drought Classification



Figure 2: U.S. Drought Monitor Maps

## Fire Response

### Cooperative Fire Response

In-state cooperative fire response was active in all of FY2024. In cooperation with partner agencies, MNICS rostered three Type III IMTs, which all remained in active rotation through the fall of 2023 and were reactivated in the spring of 2024. One MNICS Type III IMT was mobilized to a Minnesota incident during the fiscal year.

The DNR provided staff to fill one roster of the Type II IMT within the U.S. Forest Service Eastern Area (EA). In FY2024 the DNR provided 192 personnel to assist with wildfire response in the following states: Arizona, California, Colorado, Idaho, Louisiana, Montana, Nebraska, New Mexico, North Dakota, Oregon, Pennsylvania, South Dakota, Texas, Washington, and Wyoming.

The DNR also requested and received mutual aid support from federal agencies and other states during the first quarter of FY2024 due to the high fire risk and activity and the increasing drought conditions in Minnesota.

The assistance summarized above reflects the support and cooperation outlined in mutual aid agreements with federal agencies, other states, and adjacent Canadian provinces. These mutual aid agreements helped Minnesota meet its fire suppression needs. These agreements also allow the DNR to respond to out-of-state requests for mutual aid when wildfire activity and risk is low in Minnesota, provide training opportunities, help maintain the DNR's response capabilities, and can help offset state costs.

### Interagency All Hazard Response

Minnesota trains firefighters to national standards for wildfire and incident management response. DNR wildfire qualifications meet both federal wildfire standards and those of the Federal Emergency Management Agency (FEMA). As a result, Minnesota wildland firefighters can respond to and manage incidents regardless of the cause (i.e., "all hazard").

In FY2024, there was one in-state all-hazard response event that the DNR supported with personnel. This was the June flooding event that received an emergency declaration on June 22, 2024. A variety of staff were involved supporting roads recovery, dam monitoring, and pumping/de-watering operations at the Soudan Mine in Lake Vermilion-Soudan Underground Mine State Park.

## In-state Wildfire Response

In FY2024, Minnesota experienced 854 wildfires that burned 11,939 acres. Significant fire staffing needs resulted from a dry and active fire season that extended into winter and an early spring season that emerged in February 2024.

## Firefighting Ground Fleet

The DNR firefighting fleet includes fire engines and tracked vehicles. Fire engines are medium- to large-sized pickup trucks, customized for wildland firefighting. Fire engines are deployed for firefighting on mostly dry, upland sites.

Tracked vehicles are custom-built firefighting units driven by two endless metal belts, or tracks. They are designed to fight fires on wet and difficult-to-access sites. The DNR uses two basic models of tracked vehicles: the J-5 and the Muskeg. These tracked vehicles are transported on trailers to active wildfires.

The complement of equipment varies among DNR Areas depending on vegetation type, topography, and soil conditions. The DNR strives to have reliable and efficient fire engines and tracked vehicles that meet the needs of the firefighters. This requires an annual investment to specify, test, and secure equipment before older units become inoperable.

## Engines

DNR engines vary in size and capacity. In general, a lighter vehicle is more maneuverable, but cannot haul as much water and as many firefighters. Each DNR Forestry Area has a mix of engine types best suited to its location.

The most common fire vehicle is a one-ton pickup; these trucks haul 200 gallons of water. Service body pickups are 1½-ton medium pickups. They are fitted with storage compartments that provide room for an assortment of firefighting equipment. Three-ton fire engines carry more than 750 gallons of water and are capable of towing large equipment, such as bulldozers, to a fire.

### MN DNR Forestry Engines

| Type              | Size     | Number (total for all DNR Forestry Areas) |
|-------------------|----------|---|
| T7                | ½ ton HD | 30  |
| T6                | 1 ton    | 92  |
| T6 – Service Body | 1 ¼ ton  | 12  |
| T6 – Service Body | 1 ½ ton  | 31  |
| T4                | 3 ton    | 14  |
| Total Engines     | -        | 179                                       |

## Tracked Vehicles

The DNR fleet includes 60 firefighting tracked vehicles. Tracked vehicles can access areas that would be difficult to reach with our normal engine fleet. Maintaining these aging machines is costly and time-consuming as replacement parts are getting hard to find. The DNR tracked vehicle fleet includes seven smaller units, known as J-5s, that were manufactured in 1988. These smaller units are designed to get into forested areas that larger units cannot reach and have limited water carrying capacity. The DNR is in the process of transitioning to AT-20 units as replacements for the aging J-5s based on a successful pilot of the AT-20s that began in FY2021. The DNR plans to order multiple AT-20 units each year until all the J-5s have been replaced.

A similar situation of aging equipment exists in the Muskeg fleet, the DNR’s larger tracked vehicles. All of our Muskeg units were manufactured before 2006. Pilot testing of a newer model -- the AT-50 – has proven it to be a good replacement for the older Muskegs. The DNR plans to order one AT-50 each year until all the Muskegs have been replaced.

In addition, the DNR has eight Caterpillar dozers. These earthmoving machines have a powerful front blade or bucket, as well as continuous tracks for stability that minimize pressure on the ground. Dozers are widely used in construction, mining, forestry, and various other industries to move large quantities of earth and materials efficiently. The DNR dozers are equipped with a Fesco-Mathis fire plow so they can quickly create fire lines, or firebreaks, which are cleared areas that serve as a defensible barrier to prevent the spread of a wildfire.

### MN DNR Forestry Tracked Vehicles

| Type                   | Model             | Number in all DNR Forestry Areas |
|------------------------|-------------------|----------------------------------|
| CT                     | Cross tracker     | 3                                |
| LT-5                   | Lite Tech         | 3                                |
| J-5                    | Bombardier (1988) | 7                                |
| J-5                    | Camoplast         | 21                               |
| AT-20                  | All Track         | 9                                |
| Muskeg                 | Bomabardier       | 5                                |
| Muskeg                 | Camoplast         | 1                                |
| AT-50                  | All Track         | 3                                |
| Dozer                  | Caterpillar       | 8                                |
| Total Tracked Vehicles | -                 | 60                               |

## Firefighting Aircraft



Figure 3: Fire Boss at Brainerd Air Tanker Base.

The DNR uses several types of aircraft to provide tactical aerial firefighting suppression and real time fire information to firefighters on the ground. In FY2024, the DNR filled 160 aircraft requests on 71 state-led wildfire responses. DNR-owned and contracted aircraft were also deployed to wildfires in other jurisdictions; the cost of those deployments is reimbursable.

In FY2024 the DNR Division of Forestry owned and operated two Kodiak 100 airplanes, which are used for fire detection, transportation, aerial photography, and logistical and tactical aerial supervision. During FY2024 the DNR relied on a mix of aircraft procured under Exclusive Use and Call-When- Needed contracts, aircraft owned

and operated by the DNR, and aircraft obtained through interagency and partnership agreements for fire detection and suppression efforts. Through exclusive use contracts in place for FY2024, the DNR had four Fire Boss airtankers (800-gallon, single engine, water-scooping airplanes), two single engine air tankers (SEATs, ground-based airtankers on wheels), seven helicopters with water buckets, one light airplane used for aerial supervision, and 22 light airplanes available for fire detection and tactical intelligence. Call-When-Needed aircraft included two SEATS and two helicopters.

Additionally, the DNR Division of Enforcement provided aerial fire detection support with an agency-owned light airplane. Interagency partnerships continued to be a key part of the DNR's aerial firefighting program in FY2024. The Red Lake Nation, Bureau of Indian Affairs (BIA), the U.S. Forest Service (USFS), and the province of Ontario provided detection aircraft, aerial supervision planes, helicopters, Fire Bosses, SEATs, and large airtanker and CL-415 water-scooping air tanker support. The DNR supported the state of Wisconsin and the Canadian province of Ontario through the GLFFC by sending aerial supervision airplanes and four airtankers to assist with wildfire suppression.

The DNR operates three primary airtanker bases and two SEAT bases that accommodate dispatchers, aircraft loaders and ramp personnel, flight crews, helicopters, and crew members, as well as equipment for loading water and fire chemicals. Minnesota's 2023 Capital Investment bonding package included a \$6.36 million appropriation to DNR to support Wildfire Aviation Infrastructure. This funding will be used to replace the ramp (the area where aircraft park and are loaded) and the operations buildings at the Hibbing tanker base. To accomplish this project, an updated long-term lease will be executed in FY2025 that will then allow the work to take place. An estimated additional \$15 million (in 2024 dollars) is needed to replace the infrastructure at the tanker base in Brainerd that is used for aerial fire operations and retardant loading.

## Rural Fire Department Program

The DNR Rural Fire Program objectives are to obtain low-cost firefighting equipment, manage cost-share grants, and provide technical expertise for Minnesota fire departments.



*Figure 4: Refurbished federal excess property engine for the City of Ada.*

### **Federal Excess Property Program**

The Federal Excess Property Program obtains surplus equipment and supplies from military bases across the country; the equipment and supplies are refurbished and made available to rural fire departments in Minnesota. The Federal Excess Property Program allows rural Minnesota fire departments to secure items to support their emergency response efforts, including items they are less likely to acquire on their own. In FY2024, 29 pieces of equipment were provided to Minnesota fire departments. This equipment included heavy-duty pickup trucks, Type 6 engines, water tenders, generators, all-terrain vehicles, and shipping containers used for live-fire training.

### **State Surplus Engines**

The Rural Fire Program purchased 14 pick-up trucks and three type-6 fire engine from the State of Minnesota Fleet Program and sold them to rural fire departments at low cost. Although these trucks have met the criteria for replacement by state agency fleet managers, they still have service life and can be fitted with a pump and tank and used as a grass/brush truck to extinguish small fires. Demand from rural Minnesota communities far exceeds the availability of these trucks.

### **Volunteer Fire Assistance Grant Program**

The Volunteer Fire Assistance (VFA) 50/50 cost-share program is available to Minnesota fire departments that protect communities with populations of 10,000 or less. The VFA grant program received 359 applications for the FY2024 grant cycle and awarded 183 grants to Minnesota communities to complete projects or secure emergency response equipment. A total of \$663,381 in federal and state funds was granted to provide cost share for radios, pagers, wildland firefighting gear, personal protective gear, and water movement equipment. Funding from a portion of Minnesota's fireworks sales tax provided an additional \$176,515 to support 47 grants to rural communities.



## Training

With the cooperation of MNICS and GLFFC, the DNR offered 111 courses in FY2024 to GLFFC partner agencies, fire departments, and affiliates. Courses ranged from basic firefighting to advanced leadership and reached more than 2,300 students.

The 22nd Annual Wildland Fire Academy, held in June 2024, featured 19 nationally certified courses related to basic wildland firefighting, wildland fire planning, operations, and leadership. A total of 440 students registered for these courses. More than 90 instructors from MNICS agencies were also involved.

The DNR and partners offered an additional 51 fire-related training courses to 960 personnel. Courses ranged in topic from basic wildfire suppression to leadership and dispatch. Also, in FY2024 the DNR delivered 31 fire line refresher courses to 1,016 personnel from federal, state, and local agencies.

## Fire Prevention

The DNR has long recognized the importance of providing consistent, statewide wildfire prevention messaging to reduce wildfire starts and improve Minnesotans' fire safety awareness and conduct. Delivering fire prevention and safety tips with current wildfire weather information helps Minnesotans avoid burning in unsafe conditions. Minnesota uses a variety of methods to reach residents, including news releases, social media, community events, workshops, classroom visits, parades, and the State Fair. Each activity seeks to provide targeted information to a given audience.

### Prevention Activities

The DNR had a full suite of wildfire prevention activities and displays at the 2023 Minnesota State Fair. During the 12 days of the fair, the wildfire prevention building was open to the public to advance wildfire and safety knowledge. DNR staff participated in the annual Governor's Fire Prevention Day at the fair by hosting family activities, games, and engaging stage presentations on the DNR grounds. A large type-6 fire engine and J-5 tracked vehicle were on display, along with a historic Model AA truck. Smokey Bear made multiple appearances each day and we welcomed over 17,000 visitors up the State Fair Interpretive Fire Tower.

With the onset of the spring wildfire season, prevention efforts shifted to communicating wildfire risk through radio ads, news releases, television and radio interviews, and social media. Radio ads were used across a broad area in northwest, northeast, and west central Minnesota; a total of 1,331 prevention ads ran on local stations throughout the year. During Minnesota Wildfire Prevention Week, which is the third week of April, social media was used to educate Minnesotans about wildfire prevention, promote safe behaviors, increase awareness of wildfire danger, and help reduce wildfire starts. Daily tweets were shared on the X platform, along with several Facebook and Instagram posts during the week.

Throughout the state, DNR Forestry Area and program staff attended dozens of fire department open houses and community events. At these events, wildfire prevention messaging and Firewise concepts were communicated to thousands of Minnesota residents. Partners, such as the DNR Division of Parks and Trails, U.S. Forest Service, and MNICS, continued to amplify wildfire prevention messaging.

Late in FY2024, DNR staff from the Wildfire Prevention program and the Parks and Trails Division collaborated to promote a Fire Tower Club celebrating Smokey Bear's 80th birthday, featuring six climbable DNR fire towers

throughout the state. After finding a code word, participants received a stamp in their fire tower booklet and a unique Smokey Bear item at each location. The program ran from mid-June through Labor Day 2024 and was a success.

## **Firewise Program**

The Minnesota Firewise Program supports Minnesota communities through a combination of grants and technical assistance. This combination helps communities reduce their risk and prepare for wildfires and mitigate potential damage. The program assists with wildfire assessment and planning, resulting in the establishment of a Community Wildfire Protection Plan. When implemented, this plan reduces fire risk by addressing known hazards or problems. Each plan identifies issues or areas on which the community should focus its fire prevention and mitigation efforts.

The Minnesota Firewise Program also supports home risk evaluations and trains local emergency response staff to conduct evaluations. In FY2024, Firewise Program staff trained partners in the use of a newly developed Northeast/Midwest state's Wildfire Risk Assessment Portal (WRAP) that illustrates spatial wildfire risk data to inform public and professional audiences of local wildfire risk factors. Through WRAP's Community Assessment Tool, 16 communities were assessed and achieved Firewise community recognition through the Firewise USA program.

Firewise Community Grants were awarded to St Louis County, Eagle's Nest Community near Ely, and Pathfinder Village near Hinckley in FY2024. These U.S. Forest Service grants funded Firewise assessments, hazardous fuel reduction, and bolstered emergency response. Firewise Homeowner Kits were distributed upon request to residents throughout the state to increase risk awareness and empower homeowner implementation to achieve a Firewise property. Minnesota Firewise continued to support high school teachers and students with fire ecology, wildfire risk, and GIS lessons from the Firewise in the Classroom Program.

## **Fire Wardens and Burning Permits**

The DNR manages the open burning permit system based on current conditions and the potential for wildfires. To ensure easy access, the DNR uses a combination of an electronic permit system and volunteer fire wardens. Individuals may obtain a permit in person from a fire warden, or online in the electronic system.

When fire activity in Minnesota necessitates action, the DNR restricts open burning in the affected counties. If conditions worsen, additional restrictions (e.g., restriction of campfires) can be implemented through DNR Commissioner's Orders in counties of greatest concern. Each expansion or elevation of the restriction level is communicated through news releases, media interviews, and the [DNR's Fire Danger and Burning Restriction](#) web page. When conditions improve, restrictions are reduced or lifted, and those changes are communicated.

## Conclusion

FY2024 began with most of the state experiencing abnormally dry to severe drought conditions resulting in high wildfire risk. The heightened risk remained throughout the year and only subsided when heavy rains came in the fourth quarter of FY2024. Extended periods of wildfire staffing, resources, and contracts were needed to address these conditions. Despite elevated wildfire risk for much of FY2024, the number of wildfires and acres burned were less than the 20-year average.

The DNR remains committed to protecting life, property, and natural resources for all Minnesotans. Strong relationships with local fire departments, MNICS partners, and communities in fire suppression efforts is key to overall success, along with promoting wildfire prevention and raising public awareness as the first line of defense.



# Appendix 1: 2024 Emergency Fire Direct and Open Appropriations / State Expenditures by Category

| <b>Appropriations</b>            |                      |
|----------------------------------|----------------------|
| Direct Appropriation             | \$ 7,372,524         |
| Open Appropriation               | \$ 25,197,410        |
| <b>Total Expenditures</b>        | <b>\$32,569,934</b>  |
| <b>Expenditures, by Category</b> |                      |
| Salary Costs                     | \$ 17,117,164        |
| Non-salary Operating Costs       | \$15,452,770         |
| <b>Total Expenditures</b>        | <b>\$ 32,569,934</b> |

## Appendix 2: Guideline for Statewide Wildfire Planning Level Determination

|  | PLANNING LEVEL<br>I  | PLANNING LEVEL<br>II   | PLANNING LEVEL<br>III   | PLANNING LEVEL<br>IV  | PLANNING LEVEL<br>V  |
|--|--|--|---|---|--|
| <b>BI (Q) spring</b> , pre-green, floating 5 day average                               | Not applicable   | 0-45   | 46-70   | 71-95   | 96+  |
| <b>BUI (after June 1)</b> , floating 5 day average                                     | Not applicable   | 0-25   | 26-50   | 51-67   | 68+  |
| <b>ERC (Q)</b> (alternate summer/fall indicator, after June 1, floating 5 day average) | Not applicable   | 0-15   | 16-29   | 30-36   | 37+  |
| <b>8-14 day Weather Forecast</b>   | Winter conditions, most of state snow covered, temps below freezing.   | Normal conditions for season, adequate precip. expected                        | Less than normal precip. and RH, higher than normal temps forecast                          | Dry weather patterns persisting, no change forecast                   | Dry pattern intensifying. Unstable weather forecast leading to extreme fire behavior conditions. |
| <b>MN DNR Regional Planning Levels</b>   | All DNR Regions/Agencies at P.L. I   | One or more DNR Regions/Agencies at P.L. II                                    | Two or more DNR Regions/Agencies at P.L. III  | Two or more DNR Regions/Agencies at P.L. IV                           | Two or more DNR Regions/Agencies at P.L. V   |
| <b>Eastern Area Planning Level</b>   | I  | I - II   | I - III   | I - IV  | I - IV   |
| <b>National Planning Level</b>   | I - II   | I - III  | I - IV  | I - V   | I - V  |
| <b>Fire Occurrence</b> (Initial Attack)  | Rare, infrequent fire occurrence   | Fires reported in scattered Areas. Generally less than 10 fires/day statewide. | Multiple Areas/Agencies reporting fires. 10 to 20 fires/day statewide                       | Multiple Areas/Agencies reporting fires. 20 to 30 fires/day statewide | Multiple Areas/Agencies reporting fires. 30+ fires/day statewide.                                |
| <b>Fire Occurrence</b> (Escaped fires)   | None   | None   | 1-2 fires requiring extended attack statewide (with active fire)                            | 3-5 fires requiring extended attack statewide                         | 5+ fires requiring extended attack statewide   |
| <b>Sociopolitical Considerations</b>   | Statewide or Regional events such as fishing opener or the Fourth of July; natural events such as floods or windstorms; other unexpected or unusual events that may have large scale impacts should be considered. |  |   |   |  |
| <b>Resource Availability</b>   | Normal complement of personnel.  | No shortages expected.   | Moderate demand for some in-state resource types expected                                   | Shortage of certain in-state resource types                           | Most in-state resources committed. Out-of-State assistance necessary.                            |
| <b>In-State Mobilization</b>   | None   | Less than 5% of statewide resources assigned out of home unit.                 | Some short term movement occurring, 5-10% of statewide resources assigned out of home unit. | 10-20% of statewide resources assigned out of home unit.              | 20%+ of statewide resources assigned out of home unit.   |
| <b>Out-of-State Mobilization</b>   | If out-of-state mobilization is occurring or anticipated to occur, an 'A' designator will be applied at the current Planning Level.  |  |   |   |  |

- Once Planning Level III has been reached in the spring, preparedness will not drop below that level until May 31 or later.
- Terms used above, which are calculated daily from weather and fuel measurements:
  - o **BI (Q) = Burning Index**, fuel model Q: A measure of fire danger based on the probability of ignition and fire spread in a specified forest type.
  - o **BUI = Build Up Index**: An indication of the dryness of larger-sized woody fuels, which becomes a significant factor during a drought.
  - o **ERC (Q) = Energy Release Component**, fuel model Q: A measure of the expected heat release from a fire, which will be experienced by firefighters on the fire line

## Appendix 3: FY2024 State Fire Cost Summary

### FY2024 - State Fire Cost Summary by Type of Activity and Appropriation

| Activity            | Emergency Firefighting Direct Appropriation | Emergency Firefighting Open Appropriation | Total Open and Direct Combined |
|---------------------|---|---|--------------------------------|
| Fire Prevention     | 4.1%  | 0%  | 1.1%                           |
| Fire Presuppression | 84%   | 34%                                       | 45.2%                          |
| Fire Suppression    | 11.9%                                       | 66%                                       | 53.7%                          |
| <b>Total</b>        | <b>100%</b>                                 | <b>100%</b>                               | <b>100%</b>                    |

**Fire Prevention** activities include public information and education, fire permitting, and operation of the Township Fire Warden system, as well as advice and assistance to communities and homeowners about protecting their property in the event of a wildfire (Firewise).

State fire prevention activities are supplemented by annual grants from the U.S. Forest Service as follows:

- State Fire Assistance – approximately \$650,000 (supports fire prevention and readiness).
- Volunteer Fire Assistance – approximately \$460,000 federal support and \$8,000 state support through sales tax on fireworks (supports Rural Fire Department readiness).
- Cooperative Fire Assistance – approximately \$300,000 (Wildfire Risk Reduction grants support Firewise – Community Fire Protection activities).

**Fire Presuppression** includes activities undertaken before a fire happens to ensure more effective suppression. These activities include: overall planning, recruitment and training, procurement of firefighting equipment and contracts, and maintenance of equipment and supplies.

**Fire Suppression** includes direct action to suppress wildfires and other activities that support and enable the DNR to suppress wildfires, including the repositioning of firefighting resources.

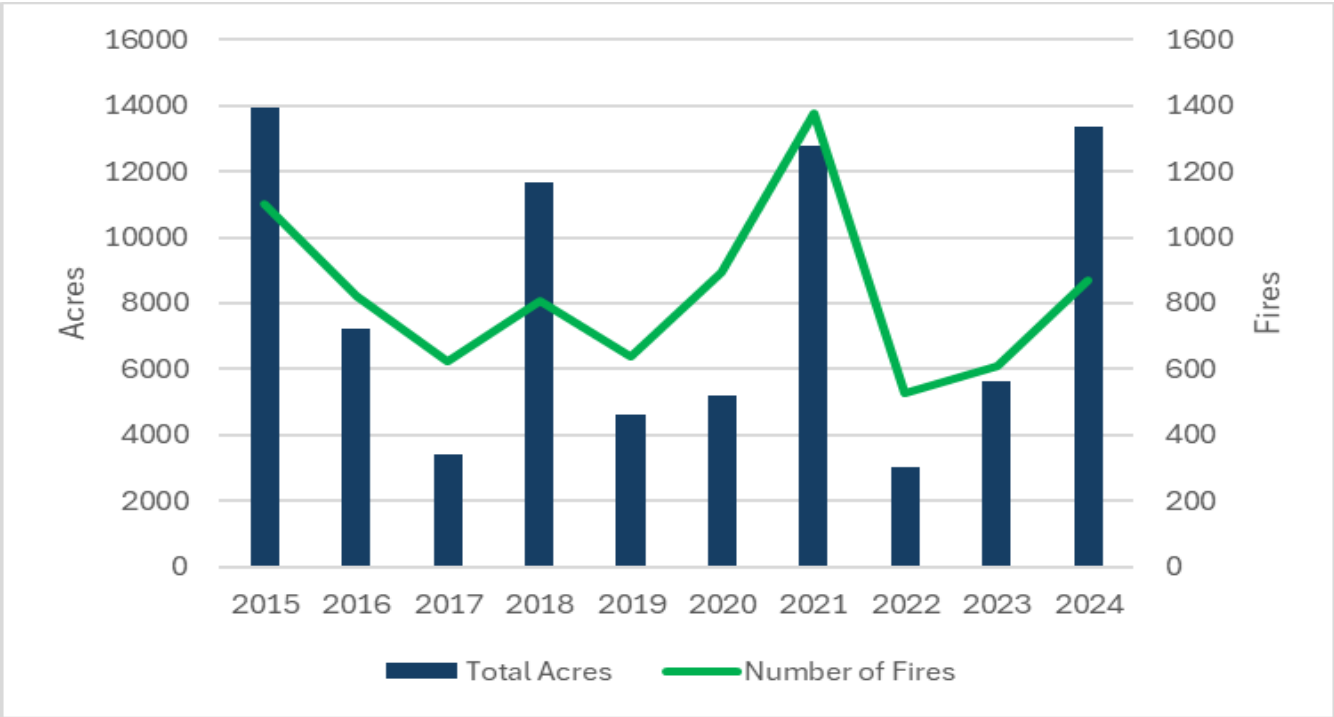
## Appendix 4: Wildfire Activities 10-Year Expenditure History

| Fire Fund Source                           | FY2015              | FY2016              | FY2017              | FY2018              | FY2019              | FY2020              | FY2021              | FY2022              | FY2023              | FY2024              | 10 Year average     |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| <b>Emergency Fire -Direct</b>              | \$7,363,656         | \$6,739,596         | \$7,160,792         | \$6,939,074         | \$7,840,566         | \$7,018,468         | \$8,023,145         | \$7,317,387         | \$7,564,293         | \$7,333,950         | \$7,333,950         |
| <b>Emergency Fire- Open</b>                | \$18,971,895        | \$17,709,549        | \$16,271,730        | \$16,487,420        | \$15,312,697        | \$16,811,184        | \$22,659,658        | \$30,562,459        | \$20,450,933        | \$25,197,410        | \$19,024,644        |
| <b>Fire Funds Total</b>                    | <b>\$26,355,551</b> | <b>\$24,449,145</b> | <b>\$23,432,522</b> | <b>\$23,426,494</b> | <b>\$23,153,263</b> | <b>\$23,829,652</b> | <b>\$30,682,803</b> | <b>\$37,879,846</b> | <b>\$28,015,226</b> | <b>\$32,569,934</b> | <b>\$26,311,221</b> |
| <b>Reimbursement to general fund (a)</b>   | \$(1,032,502)       | \$(628,660)         | \$(262,871)         | \$(1,626,745)       | \$(1,458,506)       | \$(467,535)         | \$(231,512)         | \$(155,116)         | \$(313,736)         | \$(1,267,705)       | \$(677,981)         |
| <b>Net cost to general fund</b>            | <b>\$25,303,049</b> | <b>\$23,820,485</b> | <b>\$23,169,651</b> | <b>\$21,799,749</b> | <b>\$21,694,757</b> | <b>\$23,362,117</b> | <b>\$30,682,803</b> | <b>\$37,724,730</b> | <b>\$27,701,490</b> | <b>\$31,302,229</b> | <b>\$25,635,240</b> |
| <b>Reimbursable mobilization costs (b)</b> | \$2,106,920         | \$4,370,469         | \$3,423,285         | \$4,558,888         | \$3,722,193         | \$1,701,859         | \$1,401,104         | \$7,227,090         | \$3,344,322         | \$2,903,092         | \$3,366,190         |

(a) Reimbursement includes fire cost collections, fire cache sales and the special revenue fund.

(b) This is not a state expenditure. Costs are initially expended for the fire fund for assistance to federal partners and other states. Minnesota is reimbursed for all these costs.

### Appendix 5: Minnesota Fires, Numbers and Acres Burned 2014 – 2024



# Appendix 6: FY2024 Wildfires by Cause

