



**Minnesota Department of Natural Resources**  
**OFFICE OF THE COMMISSIONER**  
**500 Lafayette Road**  
**St. Paul, MN 55155-4037**

January 4, 2012

The Honorable Clair Robling, Chair  
 Senate Finance Committee  
 Capitol Building, Room 226  
 St. Paul, MN 55155

The Honorable Mary Liz Holberg, Chair  
 House Ways and Means Committee  
 453 State Office Building  
 St. Paul, MN 55155

The Honorable Bill Ingebritsen, Chair  
 Senate Environment and  
 Natural Resources Committee  
 Capitol Building, Room 303  
 St. Paul, MN 55155

The Honorable Denny McNamara, Chair  
 House Environment & Natural Resources  
 Policy and Finance Committee  
 375 State Office Building  
 St. Paul, MN 55155

The Honorable Richard Cohen  
 Ranking DFL Member  
 Senate Finance Committee  
 109 State Office Building  
 St. Paul, MN 55155

The Honorable Lyndon Carlson, Sr., Lead-DFL  
 House Ways and Means Committee  
 283 State Office Building  
 St. Paul, MN 55155

The Honorable Bill Hilty, Lead-DFL  
 House Environment & Natural Resources  
 Policy and Finance Committee  
 207 State Office Building  
 St. Paul MN 55155

Dear Senators and Representatives:

Attached is the Annual Report on Emergency Fire Account Expenditures directed by Minnesota Laws of 2009, Chapter 37, Article 1, Section 4, Subd. 4. This report provides information that helps the Administration and the Legislature to review and evaluate expenditures from the Emergency Fire Account Direct and Open Appropriations.

The report describes firefighting expenditures and provides information related to the fire danger and fire occurrences that made these expenditures necessary during fiscal year 2011.

Please feel free to contact Olin Phillips, Fire Management Section Manager, at 651-259-5282, Denise Anderson, Administrator, Office of Management and Budget Services, at 651-259-5561, or me with any questions or concerns regarding this report.

Sincerely,

A handwritten signature in black ink, appearing to read "Tom Landwehr".

Tom Landwehr  
 Commissioner

DNR Information: 651-296-6157, 1-800-766-6000 - TTY:612-296-5484, 1-800-657-3929



cc: Dan Mueller, Senate Fiscal Analyst  
Jim Reinholdz, House Fiscal Analyst  
Mike Roelofs, MMB  
Legislative Library(6)

cc: Laurie Martinson      Denise Anderson  
Larry Kramka            Dave Epperly  
Olin Phillips            Bob Meier  
Janet Cherney           DNR Library

DATE: 11/21/11

**LEGISLATIVE REPORT – Cost of Preparation**

NAME OF LEGISLATIVE REPORT – Annual Fire Report

Based on: \_\_\_\_\_

Minnesota Statute Reference: MN Laws of 2009, Chapter 37, Art. 1, Sec. 4, Subd. 4 4

Prepared by: Steve Simmer, Department of Natural Resources

Phone: (651) 259-5288

E-Mail: steve.simmer@state.mn.us

Description of Cost	Further explanation if necessary	Amount
Staff Time	70 hours @ \$51/hr, incl fringe	\$3,570
Duplication Cost (includes paper)	nominal	
Other:		
<b>TOTAL TO PREPARE REPORT</b>		
<i>(Note: Right click on amount cell and choose update to complete)</i>		<b>\$3,570</b>

## **Department of Natural Resources Annual Report on Emergency Fire Expenditures**

**FY 2011**

### **Purpose**

The purpose of this Report is to address the requirements of Minnesota Laws of 2009, Chapter 37, Article 1, Section 4, subd. 4, which states in part:

“By January 15, of each year, the commissioner of natural resources shall submit a report to the chairs and ranking minority members of the house and senate committees and divisions having jurisdiction over environment and natural resources finance, identifying all firefighting costs incurred and reimbursements received in the prior fiscal year.”

### **State Funding for Emergency Firefighting**

Emergency Fire Fighting - Direct Appropriation: Laws of 2009 appropriated \$7,217,000 the first year and \$7,217,000 the second year for prevention, presuppression and suppression costs of emergency firefighting, and other costs incurred under Minnesota Statutes, section 88.12. <sup>(1)</sup> Laws of 2010, Chapter 215, Article 3, Section 4, Subd. 4 states in part: “\$72,000 in 2010 and \$72,000 in 2011 are reductions in the appropriations for prevention costs of emergency firefighting.”

Emergency Fire Fighting – Open Appropriation: Laws of 2009 further state in part that “If the appropriation for either year is insufficient to cover all costs of presuppression and suppression, the amount necessary to pay for emergency firefighting expenses during the biennium is appropriated from the general fund.”)

Under the authority of the Open Appropriation during FY 2011, \$8,558,008 was expended.

*Attachment 1 shows state fire fighting costs by object of expenditure.*

<sup>(1)</sup> Actual expenditure as of August 30, 2011 is \$6,928,432.

## Reimbursements to the General Fund

Payments and Collections: The DNR receives payments for certain fire related activities. These include payments for supplies sold to local government units (e.g. fire departments) from the Inter-agency Fire Cache (Cache Sales – authorized under M.S§ 88.065), and collections from responsible parties for starting illegal or negligent fires, (Fire Cost Collections – authorized under M.S. §88.75). These receipts are deposited directly to the general fund and are not used by the DNR.

In FY 2011, receipts came from the following sources:

- Cache Sales - \$ 183,110
- Fire Cost Collections- \$ 236,160

Protection Services: School Trust Lands: The Permanent School Trust Fund forest suspense account makes an annual transfer to the general fund for services provided by the DNR. The FY 2011 transfer was based on the 2010 Forest Certification Report. Certified fire protection costs transferred to the general fund in FY 2011 were:

- Fire Protection Services - \$1,999,635

Special Revenue Fund: This is not a use of the state emergency fire appropriations, direct or open, but is included due to perennial interest. The DNR provides firefighters and CL-215 air tankers to assist federal partners in-state, send resources out-of-state to mobilize on national wildfire emergencies, and assist Compact partners. These costs are initially charged to the Emergency Fire Special Revenue Fund. **During FY 2011 the DNR expended \$2,204,635 in reimbursable costs for national mobilizations and Compact support.** Approximately \$1.5mm is due to firefighter mobilizations and \$0.7mm is due to CL-215 mobilizations. The federal government reimburses federal costs and Compact partners (adjoining states and provinces) reimburse their costs.

**The Special Revenue Fund may over-recover costs** reimbursed from out-of-state deployments, mostly from use of the CL-215 airtankers, but also from other equipment such as wildland engines. This is because the state adds a portion of the fixed costs associated with this equipment, which have already been paid out of the emergency firefighting appropriation. This excess recovery is periodically transferred to the General Fund. In FY 2011, excess recovery transferred to the general fund was:

- Excess Recovery from FY 2010 activity - \$191,794

### **Total Reimbursement to the general fund in FY 2011 from all sources:**

- Cache Sales - \$ 183,110
- Fire Cost Collections- \$ 236,160
- School Trust, Fire Protection Services \$1,999,635
- Special Revenue, Excess Recovery \$ 191,794
- Total \$2,610,699**

It is estimated that approximately \$ 416,200 will be transferred to the general fund from FY 2011 reimbursements.

## Fire Suppression and Presuppression

The success of the DNR's fire suppression strategy is largely due to aggressive initial attack. The goal is to keep fires small. Once a fire escapes initial attack, costs and damages increase exponentially.

The following discussion is offered to explain how preparedness and suppression activities work together to reduce wildfire damages. Presuppression levels move on a continuum that is proportional to fire danger. Presuppression costs include activities undertaken in advance of fire occurrence to ensure more effective suppression. These activities include overall planning, recruitment and training of personnel, procurement of firefighting equipment and contracts, and maintenance of equipment and supplies. Suppression costs include activities that directly support and enable the DNR to suppress wildfires during times when fires are likely to occur, including the pre-positioning of resources. As fire danger and fire occurrence increase, the resources that must be positioned for immediate response also increase. **Presuppression costs amounted to 21% of the direct and open fire appropriations in FY 2011. Historically, presuppression has composed 25% or less of the fire account.**

The DNR cost coding system provides accountability for fire expenditures. This detailed system captures all fire expenditures and tracks costs charged to individual administrative areas.

*Attachment 2 shows the percentages of fire expenditures allocated to prevention, presuppression and suppression activities.*

## Planning and Readiness

Base costs for wildfire response are affected by general weather and precipitation patterns, in addition to actual fire occurrence. A system for determining potential wildfire risks and establishing fire planning levels is used to guide the level of readiness week to week.

*Attachment 3 shows the criteria and planning levels currently in use.*

These planning level guidelines are reviewed and implemented at weekly conference calls with fire managers from all of the agencies that cooperate in Minnesota wildfire suppression efforts. The planning level, combined with daily fire danger indices, establish the preparedness level needed to effectively respond to wildfires. Historically, about 80% of wildfires in the state occur during planning level 3. Major fires also can and do occur at this level.

In FY 2011 there were 230 days of possible wildfire danger. (i.e. at least one region at planning level 2 or higher). Of the possible wildfire days, 170 were at Planning Level 2, 60 were at Planning Level 3, 0 were at Planning Level 4 and 0 were at Planning Level 5. On 3 days, at least one area was at Planning Level 4 while the rest of the state was at Planning Level 3.

*Attachment 4 shows the ten-year fire expenditure history.*

## Fire Occurrence and Causes

**General Activity:** In FY 2011, 479 fires occurred, burning 5174 acres. Historically, the state has experienced a 20-year average of about 1468 fires burning about 31,894 acres.

# Fires By Cause				
	FY 2011	%	20 Yr. Ave.	%
Lightning	3	1	23	2
Campfires	20	4	48	3
Smoking	5	1	42	3
Debris Burning	156	33	567	39
Incendiary/Arson	143	30	424	29
Equipment Use	65	13	131	9
Railroad	15	3	67	4
Misc./Unknown	72	15	166	11
Total	479		1468	

Overall, FY 2011 turned out to have higher than average percentages of, equipment and unknown causes, and lower than average debris burning causes.

*Attachments 5a and 5b graphically illustrate fire history and causes.*

## Fire Behavior and Climatology

The summer of 2010 was very wet across much of Minnesota with the exception of localized dry areas over Cook and Lake Counties, and over the far northwest near the Manitoba border. Fire occurrence remained very low through the summer months with only 68 fires reported by the DNR for 91 acres.

A rainy pattern continued into September, especially over the southern third of the state where widespread flooding occurred due to heavy rainfall on September 22 and 23. On a statewide average, this was the wettest September on record going back to 1891.

Conditions changed dramatically the first three weeks of October with exceptionally dry conditions and above average temperature across Minnesota. At the Twin Cities International Airport, no rain was measured from September 26 to October 22. After three weeks with no rain, even larger sized fuels had dried considerably. The Canadian Buildup Index (BUI) rose into the 'High' category across the state, an indicator that large amounts of fuel were available for ignition. During this short dry spell, the DNR responded to 83 fires burning over 1200 acres. This was followed by a major storm on October 26-27 which brought two to four inches of precipitation across portions of the state, including three to six inches of snow across much of the northern third of the state. During the storm, the lowest atmospheric pressure value ever recorded in Minnesota occurred at the Bigfork airport.<sup>1</sup>

Snow cover persisted from mid-November into April over northern Minnesota, but the spring fire season began on March 27 with a 20 acre grass fire burning around patches of remaining snow near Grygla. However, cool and moist conditions prevailed for most of April and May, the time of year when most fires occur in Minnesota. There were a few days of elevated fire danger, but overall occurrence was well below average with 302 fires reported for 3700 acres through the end of May. Over the previous 10-year period, an average of 870 fires occurred during the April-May season, burning an average of 26,000 acres.

Drier than usual conditions returned in June 2011, but plentiful soil moisture and lush vegetation from spring rains helped to keep fire occurrence minimal. By mid-June medium term fire danger indices had risen to the 'High' level over a widespread area, leading to concern for possible fire problems later in the summer, especially in the Arrowhead region.

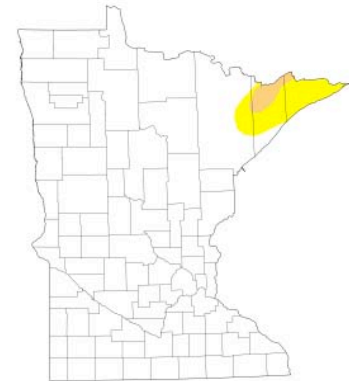
At right, The Drought Monitor issued June 21, 2011 depicts the area of concern.

## U.S. Drought Monitor Minnesota

June 21, 2011  
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	95.08	4.92	1.02	0.00	0.00	0.00
Last Week (06/14/2011 map)	95.08	4.92	0.00	0.00	0.00	0.00
3 Months Ago (03/22/2011 map)	95.24	4.76	1.76	0.00	0.00	0.00
Start of Calendar Year (12/28/2010 map)	95.24	4.76	1.76	0.00	0.00	0.00
Start of Water Year (09/28/2010 map)	93.06	6.94	4.80	3.18	0.00	0.00
One Year Ago (06/15/2010 map)	57.36	42.64	16.24	3.78	0.00	0.00

Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



Released Thursday, June 23, 2011  
Brian Fuchs, National Drought Mitigation Center

<sup>1</sup> State Climatology Office - DNR Division of Ecological and Water Resources, University of Minnesota

### Response Activity in FY 2011

After a busy spring fire season the previous fiscal year, wildfire occurrence in Minnesota moderated. Adequate rainfall left much of the state in low to moderate fire danger for the entire summer. The bulk of activity from July through October centered on sending aid to other parts of the country and to Canada.

Three MN DNR crews (60 personnel) wrapped up an assignment to Manitoba that started in late June of 2010. The crews were responding to a request from Manitoba through the Great Lakes Forest Fire Compact.

MIFC Dispatch, which serves as the expanded dispatch for all agencies mobilizing resources throughout the MN DNR mobilized 474 overhead and crew resources to over 63 incidents. These resources included 10 crews of 20 firefighters, 398 individual overhead and 76 equipment operators (dozers and engines).

### ALL Hazard Activity



Although there was a significant reduction in wildfire activity during the year, there were some unusual incidents that commanded the attention of DNR wildfire resources. The most unusual was the response to a fire in the mine shaft at Tower Soudan State Park in mid-March. This fire started in the lower levels of the mine shaft, which is the primary attraction for Park visitors. In addition, the University of Minnesota in conjunction with Fermilab of Chicago, IL operates a physics lab at the bottom of the mine that houses over \$100,000,000 worth of equipment and experiments. The fire shut down power to the mine shaft and lab, jeopardizing the equipment and experiments due to flooding from underground water that constantly flows into the mine.

Park personnel and the local volunteer fire department responded rapidly to the fire and began emergency procedures related to the fire. The loss of electricity to the mine was a major issue as the pumps that keep the groundwater from flooding the mine were now working. Park staff initially requested aid from MNICS for Public Information Services, as they were being inundated with requests from the media. At the prompting of the MN DNR Emergency Manager, Olin Phillips, they requested a modified Type 2 Incident Management Team to aid in organizing and managing the response. The management of the incident was turned over to a Unified Command Structure with DNR Parks and the U of MN.

The initial action centered on making sure the fire was out. The Incident Commander, in conjunction with the agency representatives, determined that the best option would be to apply fire suppressant foam into the shaft to control the fire. This was accomplished with the help of the local fire department. 70,000 gallons of foam were sent down the shaft in two applications. The applications were successful in suppressing the fire.

Mine re-entry strategies were then developed between the team and agency personnel. Trained Park and U of MN staff were able to enter the mine. A short time later, on March 22<sup>nd</sup>, power was restored to the 27<sup>th</sup> level and excess water was pumped out of the mine in time to prevent any harm to the lab or equipment. U of MN and Fermilab personnel were able to power-up their equipment and resume operation a short time later.

MN DNR aided local units of government and the MN Division of Homeland Security (HSEM) in response to the floods in the spring of 2011 in three major MN river systems. Personnel were deployed to monitor and evaluate debris and ice jams near several bridges and flood monitoring crews were also deployed in all three major watersheds.

### **Wildfire Response**

As stated above, wildfire activity and occurrence was low through the end of the fiscal year in Minnesota. Arson activity in northwest MN continued, and MN DNR stationed several reconnaissance and investigation personnel in the area to assist the local fire organization. Most of the rest of the state experienced minimal wildfire activity due to above average rainfall and a cool spring. Minnesota DNR firefighters responded to 479 fires totaling 5,174 acres in FY 2011. This is well below the 20 year average of 1,468 fires for 31,894 acres.

Other portions of the country were not so fortunate. MN DNR personnel were sent to several assignments out of the state. Two crews of 20 personnel (over half of which were MN DNR) were sent to Texas in May. Shortly thereafter, in mid-June, three crews of 20 were sent to New Mexico to aid in wildfire response there. All of the above assignments were for 14 days.

### CL - 215 Water Scooping Air Tankers

CL-215's are twin engine, amphibious water scooping air-tankers purposely built for the suppression of wildfires. Minnesota owns two CL-215's. These are managed by the DNR under a contract with an experienced air-tanker base owner/operator.

The state-owned CL-215 water scooping air-tankers are each capable of dropping 1,400 gallons of water per pass over a wildland fire. Scoopable lakes are plentiful in Minnesota. Aircraft turnaround times between a water source and the wildfire can be as short as three minutes, enabling each aircraft to deliver up to 28,000 gallons of water every hour.

Minnesota CL-215's have also assisted the states of Alaska, California, Michigan, Montana, North Carolina, Washington and Wisconsin, as well as the provinces of Manitoba and Ontario.

In FY 2011 these aircraft made 266 water drops in Minnesota, delivering approximately 372,400 gallons of water on 18 missions flown. During times of low fire danger in Minnesota, the air tankers are often sent to other states under cooperative agreements. During the summer of 2010, both aircraft spent 7 days in the province of Manitoba flying 15.8 hours. During the fall of 2010, five days of availability were utilized by the US Forest Service in support of fall prescribed burning projects. In the summer of 2011 one CL-215 supported the state of Alaska for 20 days and flew 24 hours. The second CL-215 supported the state of North Carolina for 25 days flying 45.1 hours. Costs incurred as a result of assisting cooperating agencies are reimbursed to the state.

Land-based air-tankers, both large and small, supplement Minnesota's CL-215's. In the spring of 2011, the DNR utilized a **Fire Boss** water scooping, single-engine air tanker and five aerial supervision airplanes in addition to the CL-215's.

*Attachment 6 summarizes the ownership costs for the CL-215's*

## Attachments

**Attachment 1** – State Fire Expenditures by Object Category for Emergency Fire Appropriations

**Attachment 2** – Percentage of State Fire Costs in Prevention, Presuppression and Suppression

**Attachment 3** - Guideline for Statewide Planning Level Determination

**Attachment 4** - Ten Year Expenditure History of State Fire Fighting Costs.

**Attachments 5a and 5b** – Graphical Representation of Wildfire History and Causes.

**Attachment 6** - Summary of Costs for CL-215 Air Tankers

For further information, contact:

S. Olin Phillips, Forest Management and Protection Section Manager

DNR Division of Forestry

500 Lafayette Road, Box 44

St Paul, MN 55155

651-259-5281

sjs

Attachment 1

**Emergency Fire Direct and Open Appropriations  
State Expenditures by Category  
FY 2011**

Direct Appropriation	6,928,432
Open Appropriation	8,558,008
Total	15,486,440
Salary Costs	9,696,808
Operating Costs	5,789,632
Total	<u>15,486,440</u> *

\* Actual expenditure as of August 30, 2011.

# FY 2011 State Fire Cost Summary

By Type of Activity and Appropriation

	<b>Emergency Firefighting Direct</b>	<b>Emergency Firefighting Open</b>	<b>Total Open and Direct Combined</b>		
<b>Fire Prevention*</b>	5%	0%	2%		
<b>Fire Presuppression</b>	12%	28%	21%		
<b>Fire Suppression</b>	83%	72%	77%		
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>		

\*Fire prevention activities are supplemented by annual grants from the USDA Forest Service as follows:

- State Fire Assistance – approx. \$550m (supports fire prevention and readiness).
- Volunteer Fire Assistance – approx. \$300m (supports Rural Fire Department readiness).
- Cooperative Fire Assistance – approx. \$300m (supports Firewise – Community Fire Protection activities)

	PLANNING LEVEL I	PLANNING LEVEL II	PLANNING LEVEL III	PLANNING LEVEL IV	PLANNING LEVEL V
<b>BI (Q) spring</b> , pre-green, floating 5 day average	Not applicable	0-45	46-70	71-95	96+
<b>BUI</b> (after June 1, 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 Regional Planning Levels</b>	All Regions/Agencies at P.L. I	One or more Regions/Agencies at P.L. II	Two or more Regions/Agencies at P.L. III	Two or more Regions/Agencies at P.L. IV	Two or more 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 (Initial Attack)</b>	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 (Escaped fires)</b>	None	None	1-2 fires requiring extended attack Statewide (more than mop-up)	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 has reached level III in spring, preparedness will not drop below P.L. III until May 31 or later.
- Terms used above, which are calculated daily from weather and fuel measurements:
  - 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.
  - BUI = **Build Up Index**: An indication of the dryness of larger sized woody fuels, which becomes a significant factor during a drought.
  - 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 fireline.

# MINNESOTA EMERGENCY FIRE ACCOUNT EXPENDITURES

10/31/2011											
<b>Attachment 4</b>											
<b>Nominal Dollars</b>											<b>10 Year</b>
<b>By Source of Funds</b>	<b>FY 2002</b>	<b>FY 2003</b>	<b>FY 2004</b>	<b>FY 2005</b>	<b>FY 2006</b>	<b>FY 2007</b>	<b>FY 2008 (g)</b>	<b>FY 2009(h)</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>Average</b>
Forestry General	\$2,748,183	\$2,884,809	\$0 (e)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$563,299 (f)
Emergency Fire-Direct	\$5,998,430	\$5,983,070	\$7,650,000	\$7,136,680	\$7,084,432	\$7,319,596	\$6,938,928	\$7,388,440	\$7,109,695	\$6,928,432	\$6,953,770
Cost Recovery(a)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	\$0
Emergency Fire-Open	\$8,870,452	\$9,084,514	\$9,560,026	\$6,934,419	\$8,424,271	\$16,518,294	\$12,221,642	\$11,695,791	\$13,873,176	\$8,558,008	\$10,574,059
<b>Fire Activity Total</b>	<b>\$17,617,065</b>	<b>\$17,952,393</b>	<b>\$17,210,026</b>	<b>\$14,071,099</b>	<b>\$15,508,703</b>	<b>\$23,837,890</b>	<b>\$19,160,570</b>	<b>\$19,084,231</b>	<b>\$20,982,871</b>	<b>\$15,486,440</b>	<b>\$18,091,129</b>
Cost Recovery(a)	\$2,174,734 (d)	\$2,380,108	\$2,525,917	\$2,538,675	\$2,090,598	\$1,893,112	\$3,636,908	\$3,058,986	\$3,007,734	\$2,610,699	\$2,591,747
<b>Net Cost to General Fund</b>	<b>\$15,442,331</b>	<b>\$15,572,285</b>	<b>\$14,684,109</b>	<b>\$11,532,424</b>	<b>\$13,418,105</b>	<b>\$21,944,778</b>	<b>\$15,523,662</b>	<b>\$16,025,245</b>	<b>\$17,975,137</b>	<b>\$12,875,741</b>	<b>\$15,499,382</b>
Reimbursable Mobilization Fire Costs (i)	\$2,876,747	\$2,962,300	\$4,440,968	\$3,384,226	\$3,997,899	\$4,317,572	\$2,442,486	\$2,014,520	\$2,125,711	\$2,204,635	\$3,076,706

(a) Fire Cache Sales, Fire Cost Collections, Permanent School Trust Fund - protection services reimbursement, excess recovery from Special Revenue Fund. Beginning in FY 02, Cost Recoveries were deposited to the general fund. In FY 10, School Trust Fund protection services were included retroactive to FY 2001.

(b) \$1.9mm NEMN preparedness initiative (Blowdown) in FY 2000

(c) Purchase of CL-215's in FY 2001

(d) Does not include a one-time Fed Disaster (FEMA) payment of \$1.7mm for the Carlos Edge Fire of 1999 in FY 2001

(e) Beginning in FY 2004, all firefighting costs are paid by the emergency fire appropriations.

(f) Fire costs are no longer paid from the Forestry division's general appropriation. In FY 03, just prior to this change, the 10 year average was \$2,266,992

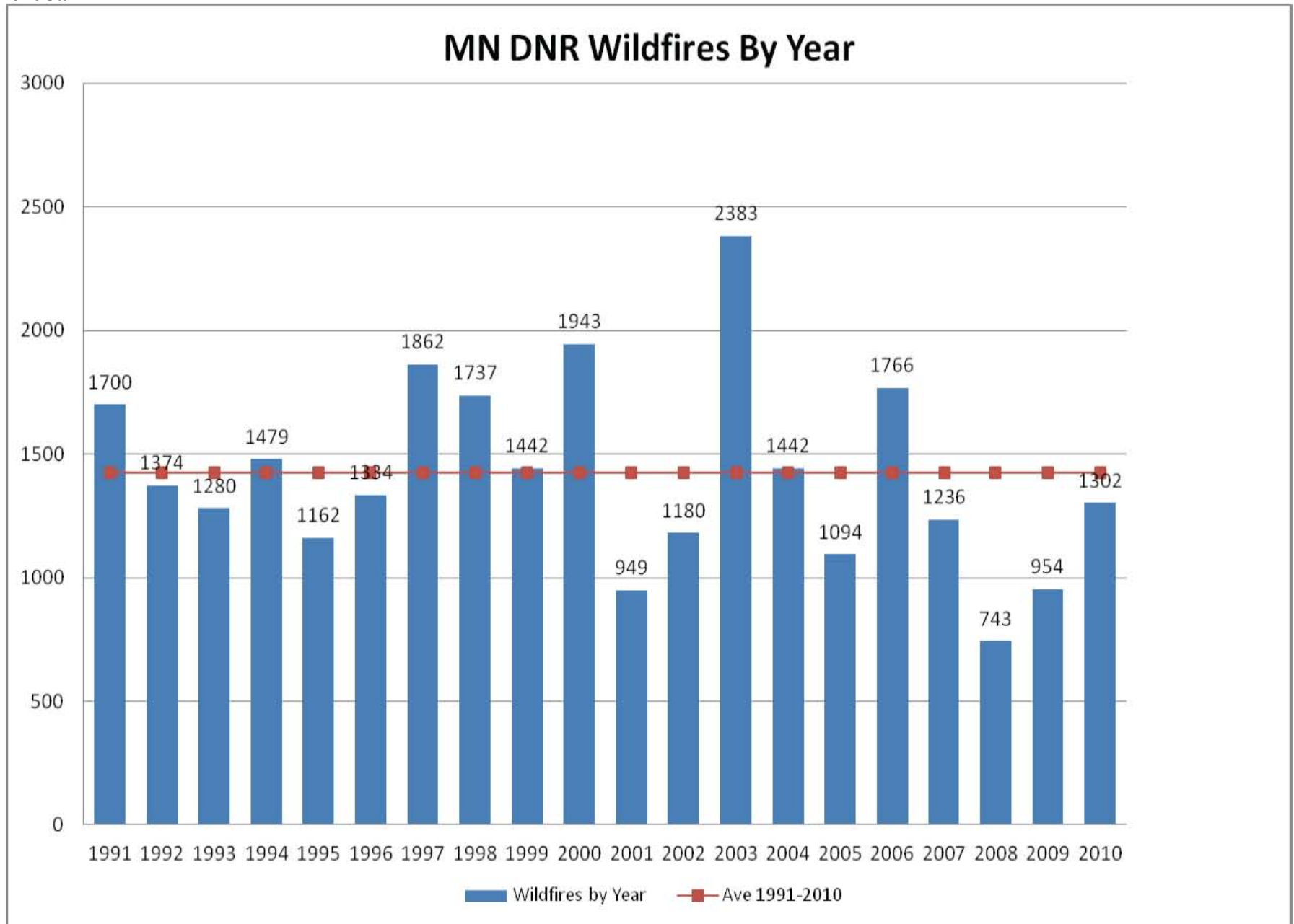
(g) \$600m direct fire support that had been funded through the forest management account, moved to the emergency fire appropriation in FY 08

(h) \$600m leave time (vacation, sick leave) attributable to fire activity that had been funded through the forest management account, moved to the emergency fire appropriation in FY 09.

(i) Fire assistance to federal partners and other states that is reimbursed to the state. (This is not a state expenditure)

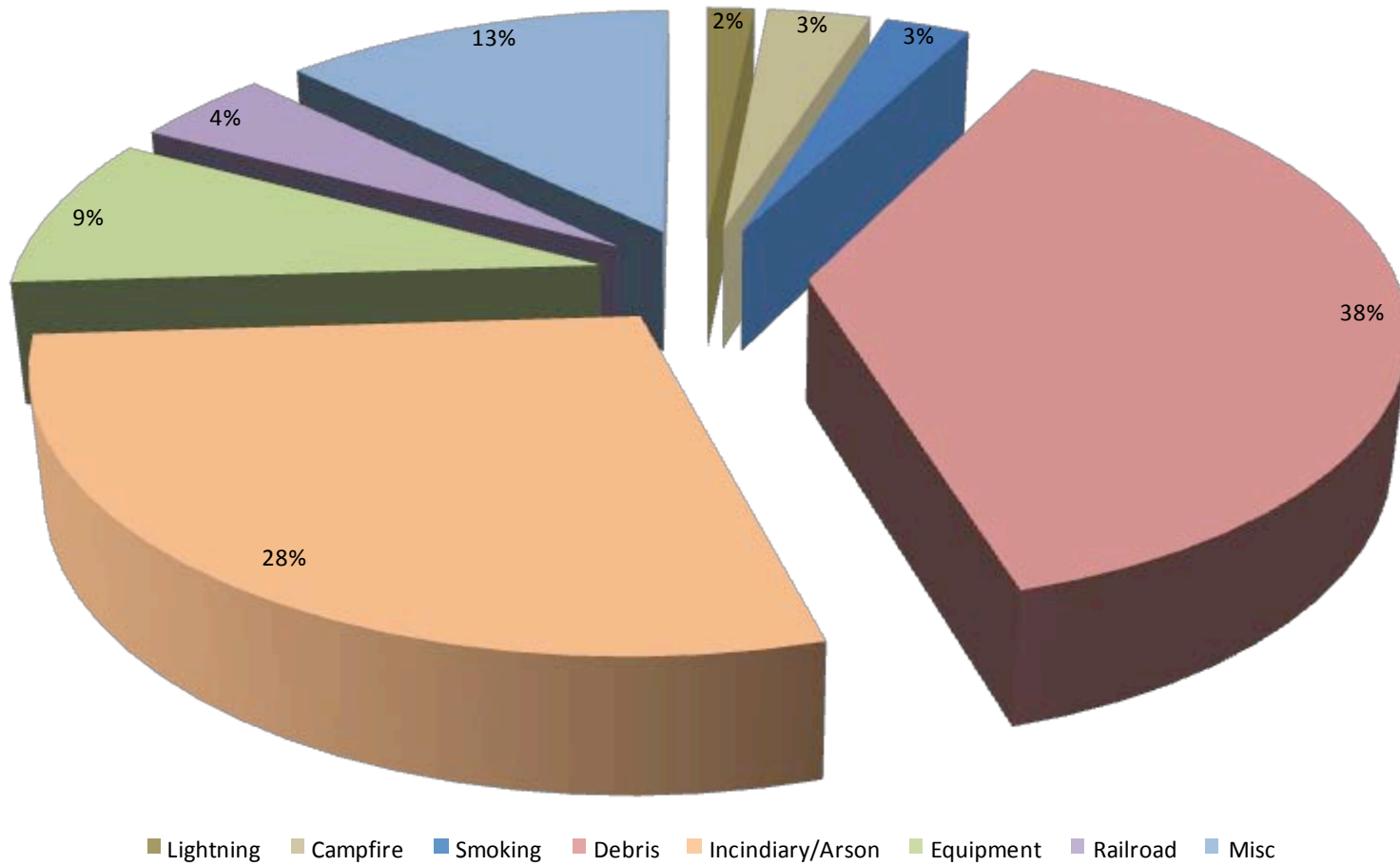
(a) Cost Recovery Breakout: \$2,610,699

Fire Cost Collections -	\$ 236,160
Fire Cache Sales -	\$ 183,110
School Trust Fund -	\$1,999,635
Excess Recovery, Sp. Rev. \$	191,794





**MN DNR Fires by Cause  
20 year average  
1991-2010**



## Attachment 6

### CL – 215 AIR TANKER OPERATION COSTS FY 2011

#### State Owned (2 aircraft):

Availability Cost: 400 days @ \$6,208.00	=	\$2,483,200.00	
(200 days per aircraft)			
<b>Total availability cost:</b>	=	<b>\$2,483,200.00</b>	
Flight time: 52.94 hrs @ \$3,781.00	=	\$237,976.14	
Flight time: 51.07 hrs @ \$4,173.00 (contract adjustment)	=	\$213,115.11	
Flight time 23.73 hrs @ \$4,232.00 (Alaska Rate)	=	\$100,425.36	
<b>Total flight time = 127.74 hrs / cost:</b>	=	<b>\$ 551,516.61</b>	
(Flight rate change due to fuel price adjustments)			
Annual liability insurance policy	=	<b>\$ 32,250.00</b>	
<b>FY 2011 All Costs:</b>	=	<b>\$ 3,066,966.61</b>	
Reimbursements via MNICS/GLFFC partners flight time (15.8 hrs)	=	\$ 59,739.80	
Reimbursements for daily availability: Manitoba (7 days x 2 aircraft)	=	\$ 86,912.00	
Reimbursements for daily availability, 5 days Rx Burn (SUF)	=	\$ 31,040.00	
Reimbursements for flight time in Alaska (23.73 hrs)	=	\$100,425.36	
Reimbursements for daily availability, 20 days in Alaska	=	\$144,160.00	
Reimbursements for flight time in North Carolina (45.1 hrs)	=	\$188,202.30	
Reimbursements for daily availability, 25 days in North Carolina	=	\$155,200.00	
Total reimbursements for off unit assignments	=	<b>\$ 765,679.46</b>	
<b>FY 2011 State Net Costs:</b>	=	<b><u>\$2,301,287.15</u></b>	

#### **Discussion:**

Components of ownership costs include liability insurance and a contract to operate, maintain, and repair the aircraft. Contract costs comprise flight time and availability amounts paid to the contractor.

- 1) Liability Insurance - protects the state from the loss of the aircraft.
- 2) Flight time - is an hourly rate paid to the contractor to perform required maintenance on the aircraft for hours actually flown on firefighting missions.
- 3) Availability is a daily rate paid to the contractor that operates the aircraft. This covers the annual costs of having the aircraft "ready to fly" for the required 200 days per year (which is the anticipated season of need in Minnesota).
- 4) When the aircraft are mobilized to assist federal and other-state agencies that are not in-state or partners through co-op agreements, a premium is charged on availability and operating costs to help recover overhead not directly included in the operating contract.