Annual Report on Emergency Fire Expenditures

04 - 0140

FY 2003

Purpose

The purpose of this Report is to address the requirements of Minnesota Laws of 2001 First Special Session Chapter 2, Section 5, subd. 4, which states in part:

> "By November 15, each year, the commissioner of natural resources shall submit a report to the chairs of the house of representatives way and means committee, the senate finance committee, the environment and agriculture budget division of the senate finance committee, and the house of representatives environment and natural resources finance committee, identifying all firefighting costs incurred and reimbursements received in the prior fiscal year."

Funding Sources for Emergency Firefighting

Emergency Fire Fighting - Direct Appropriation: Laws of 2001 appropriated $6,000,000 for presuppression and suppression costs of emergency firefighting, and other costs related to search and rescue and natural disaster response. Of this amount $5,983,070 was expended and $16,930 balanced forward into FY 2004. The reason that this small amount was balanced forward is that, although this account was fully obligated when the Open Appropriation was entered, some obligations were cancelled after the end of the fiscal year.
(First Special Session Chapter 2, Section 5 subd. 4)

Emergency Fire Fighting – Open Appropriation: Under the authority of this appropriation, during FY 2003, $9,500,000 was drawn and $9,084,514 was expended; the unspent balance of $415,486 was cancelled.
(Laws of 2001 First Special Session Chapter 2, Section 5 subd. 4 further states in part that "If the appropriation for either year is insufficient to cover all costs of suppression, the amount necessary to pay for emergency firefighting expenses during the biennium is appropriated from the general fund.")

Uses of the Emergency Firefighting Appropriations

Attachment 1 shows the costs from the Direct and Open fire appropriations by object of expenditure.

General Operations and Management: The DNR utilized about $2.9 million of its general operations appropriation for fire suppression and preparedness. This is about 27% above the ten-year average. A primary responsibility of field foresters is fire fighting. Regular hours spent on firefighting are charged to the general operations account. Overtime is charged to the emergency fire accounts. In addition to regular hours spent on firefighting, a number of other fire activities are charged to General Operations including: Minnesota Interagency Fire Center (MIFC) operations, fire cache operations, air support operations, fire prevention, burning permits and enforcement, and rural fire department assistance programs.

Change Coming in FY 04

Beginning July 1, 2003, all fire program costs, including prevention, presuppression and suppression, are now funded exclusively from the two fire accounts. Also, preparedness costs are authorized in the open appropriation. Division of Forestry general operations funds were reduced and the fire-direct appropriation was increased to accommodate the change. This funding change, combined with mandatory cost coding should result in a clearer accounting of fire suppression costs.

Collections and Reimbursements to the General Fund: The division collects costs for certain fire related activities. These include reimbursement 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), charges against responsible parties for starting illegal or negligent fires and reimbursement for in-state cooperative use of the CL-215 air tankers, (Fire Cost Collections – authorized under M.S.§ 88.75). NOTE: The Miscellaneous category that appears below is a combination of Fire Cost Collections and Cache Sales. For a period of time last year, the division was without an accounting technician, and some deposits were not coded specifically enough to differentiate between the two categories.

Prior to FY 2002 these reimbursements were retained by Division of Forestry and expended for firefighting. This was changed starting in FY 2002. These collections are now deposited directly to the general fund and are not used by the division.

In FY 2003, collections came from the following sources:

- Cache Sales - $240,080
- Fire Cost Collections- $181,536
- Miscellaneous- $ 26,952
- **Total Collections - $448,568**

National Mobilization: The division sends firefighters out of state to respond to national wildfire emergencies. The federal government reimburses these costs. These costs are charged to the Emergency Fire Non-State account, (Special Revenue Fund 200.) Federal reimbursements are deposited to the account to cover the costs. During FY 2003 the division was reimbursed $2,962,300 for the costs incurred for national mobilizations. This is not a use of the emergency fire appropriations, but is included here due to perennial interest on this topic.

Suppression and Presuppression Costs

A primary feature of the Division's fire suppression strategy is aggressive initial attack. The goal is to keep fires small. Once a fire escapes initial attack, costs and damages increase exponentially.

There are two issues surrounding the Emergency Fire Account that have historically been the subject of ongoing discussions among the Department of Natural Resources, Department of Finance and Legislature. The intent is to insure that statutory requirements are met while implementing the Emergency Fire Appropriation Language.

The first issue is the distribution of presuppression versus suppression costs between the direct and open appropriations. There is no clear break between the two, but rather a continuum of readiness that is proportional to fire danger. Presuppression (also called preparedness) costs include activities undertaken in advance of fire occurrence to ensure more effective suppression. These 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 division to suppress wildfires during times when fires are likely to occur. As fire danger and fire occurrence increase, the resources that must be positioned for immediate response also increase. The division has updated its cost coding system to provide greater detail for emergency fire account expenditures. We have reviewed this coding system during FY 03. As a result, further changes were implemented in FY 04. At this time, a detailed project coding system is in place, and all fire account expenditures must be coded. This enables managers to identify costs charged to individual fires, and to separate fire suppression and presuppression costs in detail.

Attachment 2a shows the cost code structure in use during FY 03. Activity codes that are considered "presuppression" are marked with a "P" and those that are considered "suppression" are marked with an "S."

Presuppression costs amounted to only 7% of the direct and open fire appropriations. In FY 2003 presuppression costs amounted to 15% of the three accounts that support fire (general operations, fire-direct, fire-open). Historically, presuppression has composed 25% or less of fire account expenditures.

Attachment 2b shows the percentages of fire expenditures spent on presuppression and suppression.

The second issue involves funding arrangements. As stated above, the direct appropriation can be used for both suppression and presuppression and must be utilized before going to the open appropriation. Because the Minnesota fire season occurs both in the fall and in the spring, suppression costs may be incurred that use up the presuppression funds that are needed in the spring. This means that some presuppression costs hit the open appropriation in FY 2003. A strictly legal remedy would be to back-code some presuppression costs from the open to the direct, and transfer an equal amount of suppression costs from the direct to the open, after the fact. This is an expensive and time-consuming process and has not been done in the past. As mentioned on page one, the appropriation language for FY 2004 addresses this issue.

Planning

An additional effort to clarify base costs for wildfire response was the development of criteria to guide the determination of fire planning (or readiness) levels.

Attachment 3 shows the criteria and planning levels that were used in FY 2003.

These planning levels are reviewed at a weekly conference call by fire managers from all the agencies that cooperate in Minnesota wildfire suppression efforts. Planning levels are set for each region of the state, and for the state as a whole. The planning level, combined with daily fire danger indices, establish the preparedness level needed to effectively respond to wildfires. About 80% of wildfires in

the state occur during planning level 2. Major fires also can and do occur at this level.

In FY 2003 there were 266 days of possible wildfire. (i.e. at least one region at planning level 1 or higher). On 128 days, at least one region was at a higher level than the rest of the state due to local conditions. Of the possible wildfire days, 186 were at Planning Level 1, 63 were at Planning level 2, and 17 days were at Planning Level 3 or higher.
Historically, for the five years that the planning level system has been in use, the average number of days at Planning Level 1 or higher is 224.

Attachment 4 shows the ten-year fire expenditure history.

FY 2003 Fire Season

General Activity: In FY 2003, 2004 fires occurred burning 81,227 acres. Historically, the state experiences an average of about 1600 fires per year burning just over 42,000 acres. However, weather patterns from year to year lead to highly variable numbers among the years. For example, "arson" fires are much higher in FY 2003. Arson is categorized as fires that appear to be deliberately set, and for which no responsible party can be determined. In dry years, deliberate wildfire starters have a higher rate of success due to the tinderous condition of fine fuels.

# Fires By Cause				
	FY 2003	**%**	**20 Yr. Ave.**	**%**
Lightning	21	1	25	2
Campfires	71	4	40	3
Smoking	58	3	58	4
Debris Burning	606	30	612	38
Arson	799	40	464	29
Equipment Use	177	9	113	7
Railroad	83	4	79	5
Misc./Unknown	189	9	203	13
Total	2004		1594	

See **Attachments 5a and 5b** for a graphical representation of fire history and causes.

Fire Behavior and Danger Levels: After heavy rains in June and early July of 2002 the state launched into a dry spell that persisted into the fall and winter months. The Arrowhead region of the state remained dry until mid-July. The **Tuesday Fire,** near Grand Marais, started on July 2nd proving that this portion of the state was still dry. By mid July statewide rainfall had diminished the fire potential. Although we experienced a dry spell from late July that persisted into the fall months in many areas of the state, wildfires in the fall were routine with only occasional windy days causing control problems.

Spring fire season started out almost a month earlier than usual in 2003 and intensified rapidly. The dry spell that began in late fall of 2002 continued into 2003. A dry, open winter with little or no snow allowed flashy grass fuels to remain standing. This produced fast moving wildfires, which exhibited extreme fire behavior and were hard to control. The lack of winter moisture also

allowed larger fuels (trees and downed logs) to burn much earlier in the season than normal, and caused firefighters to expend extra effort controlling them. Spring burning permit restrictions were put into effect on April 1st, for most of the state. A snowstorm in early April quieted the wildfire danger in the southern 1/3 of MN, but the northern 2/3's, although cool, remained dry and fire crews were busy there.

The early spring season also meant that intense fires began to occur before the State's lakes were ice-free. Because of this the Minnesota Incident Command System (MNICS), an organization comprised of all of the agencies responsible for wildfire suppression in the state, determined that air resources were needed. A P-3 Orion large air tanker was ordered. The cost was split between the United States Forest Service (USFS) and the MN DNR on a 50/50 basis. It arrived on April 9th and was put to use on the 11th. An additional P-3 Orion was ordered on April 13th and used immediately, saving a housing sub-division on the outskirts of Detroit Lakes. The cost for this tanker was also split between the MN DNR and USFS. The tankers were released after lakes became ice-free and the state's own CL-215's could be used.
Wildfire danger continued to be very high though the entire month of April into May. In mid-May some areas of the state began to receive much needed rain and by mid to late June almost all of Minnesota had received adequate rainfall to alleviate wildfire danger.

The protection of homes and lives remains a major factor in fire suppression tactics and suppression costs. Housing development in the rural environment continues to present significant fire suppression problems. The federally funded Fire Wise program is helping communities and individual homeowners to reduce the hazard of property damage from wildfires.

Major Incidents in FY 03

Two major incidents occurred early in FY 2003. The **Tuesday Fire** began on July 2nd and burned 450 acres. This lightning caused fire started in remote forestland north of Grand Marais and took considerable effort to contain and mop up. Resources used included an interagency incident management team, four twenty-person fire crews, air tankers, Air National Guard helicopters and much ground-based equipment. The **Pincherry Oil Spill** occurred on July 4th. The division assisted the pipeline company to burn off the spilled fuel, using CL-215 airtankers to spread foam prior to igniting the fuel for burn-off, thus averting a pollution disaster in the Mississippi River. The pipeline company reimbursed costs to the state for this incident.

Other major incidents occurring this past spring included an unusual fire in **Chippewa County**, which burned 3,000 acres of prairie/forest. It is unusual because wildfire is not often much of a concern in that part of the state. However, the unusually dry spring (which has since evolved into a full fledged drought) caused wildfire problems in unexpected areas. Finally, in a spectacular finish to the shipping of taconite from Eveleth Taconite, the last train leaving the facility started the **Fen Fire** south of Eveleth. Sparks from the train's engines started three separate fires along the tracks, which consumed a total of 1,050 acres. The railroad has been billed for the costs of fighting these fires.

CL - 215 Aircraft

The division purchased two CL-215 aircraft in FY 2001. The cost for both aircraft was $6,390,000. The purchase was financed by borrowing at the direction of the Department of Finance. Annual payments for the two aircraft are $1,528,991 for five years. We are in the third year of payments and will own the aircraft at the end of 2005.

The Canadian built CL-215 is especially suited for Minnesota in that it is a water scooping aircraft. The short turn around time for delivering water on a wildfire can be as little as 5 minutes. Whereas land based tankers, which have to return to an airport for reloading, can take 30 - 60 minutes or more to return. This short turn around time for the CL-215's has saved buildings and resources. An additional benefit to the State owning vs. renting these aircraft, is that they are available for the entire fire season. In FY 2003 these aircraft made 662 water drops, delivering 926,800 gallons of water on 53 wildfires in Minnesota. During times of low fire danger the tankers may be temporarily sent to other states under cooperative contracts. FY 2003, they were sent to Michigan and Ontario for a total of 46 days. Reimbursement back to Minnesota for these federal mobilizations was $183,742. This helps to offset the State's cost of the air tankers.

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

Land based air tankers are still occasionally used in the state. In the spring of 2003, a relatively snowless winter led to early spring fires that occurred prior to ice melting out of the lakes. To fill the gap until the state's own water scooping aircraft could operate, the DNR and U.S. Forest Service shared the cost of importing two P3 Orion airtankers. However, catastrophic wing failures of certain heavy airtankers working in the western states and the subsequent grounding of much of the fleet, has created a national shortage of heavy airtankers. This increases the importance of having exclusive use aircraft for the state's needs.

Attachment 7 illustrates where CL-215's fought fire in 2003

Attachments

Attachment 1 - Fire Expenditures by Object Category for Emergency Fire Direct and Open Appropriations

Attachment 2a - FY 2003 Cost Code Structure

Attachment 2b – Percentage of fire costs in presuppression vs. suppression

Attachment 3 - Guideline for Statewide Planning Level Determination

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

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

Attachment 6 - Summary of costs for CL-215 Air Tankers

Attachment 7 – CL-215 dispatches in 2003

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Emergency Fire Direct and Open Appropriations
Expenditures by Category
FY 2003

Fund 100 Appropriation 320 - EMERGENCY FIRE - DIRECT

Salary Costs	1,887,139
Operating Costs	2,566,940
Debt Service	1,528,991
Total	5,983,070

Fund 100 Appropriation 321 - EMERGENCY FIRE - OPEN

Salary Costs	3,910,739
Operating Costs	5,173,775
Debt Service	0
Total	9,084,514

Attachment 2a

DIVISION OF FORESTRY
ACTIVITY CODES
ISSUED FOR USE BEGINNING JULY 4, 2001

Forestry Activity	General Forestry		State Land Forestry		Cooperative Forestry		
	Regular Duties	Fire Standby*	Trust Lands	All/Other Lands	County & Local	PFM Rural	Urban Forests
Excess Property Program	3101 Pre-suppr.						
Rural Fire Department Program	3191 P						
Center for Excellence Program	~~3104~~						
Fire Prevention	3111 P						
Burning Permit System	3112 P						
Detection and Monitoring	3113 S						
Prescribed Burning	3114 P						
Fuels Management	3115 P						
Fire Weather, Behavior & Intelligence	3116 P						
Radio Systems	3119 P						
Fire Presuppression (Pre-season Equipment Readiness) (Pre-season Training)	Level 0 3121 P		Level 1 - 2 3122 P	Level 3 - 4 3123 P			
Fire Suppression – Direct (ALL SMOKECHASER Regular, OT and STB Time AND All SEASONAL FIRE POSITIONS Regular and OT –Ground Resources)	3131 Suppr.						
Fire Suppression – Indirect All ON CALL for Permanent Personnel, All Seasonal and Casual Dispatcher Time	Agency 3141 S		IMT 3142 S	MAC & EOC 3143 S			
Fire Interagency Assignment	3151 S						
MIFC Operations	Level 0 3161 P		Level 1 - 2 3162 S	Level 3 - 4 3163 S			
Fire Cache Operations	Level 0 3171 P		Level 1 - 2 3172	Level 3 - 4 3173			
Air Operations All permanent, seasonal and smokechaser time spent dedicated to an aircraft resource.	Support 3181 S		Tankers 3182 S	Helitack 3183 S	SEATS 3185 S	CL215's 3186 S	
Law Enforcement & Public Safety	Fire 3201 S			Recreation 3203	Search 3205	Disaster 3206	
Insects & Disease Mgmt	3211	3218 S	3212	3213		3216	3217
Soil, Water or Air Related	3221		3222	3223		3226	
Cultural and Aesthetic	3231		3232	3233			
Forest Resource Assessment	3261	3268 S	3262	3263		3266	
Subsection Planning (SFRMP)	3271	3278 S					
Planning, Analysis & Review	3281	3288 S		3283		3286	
Timber Sale Preparation & Admin.		3308 S		3303	3305	3306	
Site Preparation & Reforestation			3322	3323		3326	
Timber Stand Improvement		3328 S	3332	3333		3336	
Fish & Wildlife Habitat		3348 S	3342	3343		3346	
Roads & Bridges		3358 S		3353	3355	3356	
Campgrounds & Day Use Areas			3362	3363			
Trails, Waterways & Accesses	3371	3368 S					
Land Leases & Permits			3382	3383			
Land Ownership & Classification		3388 S	3392	3393	3395		
Forest Nursery Operations	3401						
Forest Tree Improvement	3411	3408 S					
Utilization & Marketing	3421	3428 S					
Grant & Contract Assistance	3431				3435	3436	3437
	General Forestry		State Land Forestry		Cooperative Forestry		

Forestry Activity	Regular Duties	Fire Standby*	Trust Lands	All/Other Lands	County & Local	PFM Rural	Urban Forests
Misc. Forestry Assistance, NEC	3441	3448 S			3445	3446	3447
PLT & School Forests	3451						
Community Forest Mgmt Assistance		3468 S					3467
Information & Education	9750						
Legislative Affairs	9507						
Training Given	9658						
Training Received	9659						
Fiscal & Personnel Management	9608						
Facilities, Fleet & Equipment	9854						
Information Systems (HW/SW)	9802						
General Office & Clerical	9501						
General Meetings & Reports	9513						
Program Supervision	9702						
Leave / Time Off	9655						
Misc. Payroll / Multi-Purpose Purchase	3999						
Error Override	9999						

DIVISION OF FORESTRY
INSTRUCTIONS FOR PROJECT CODE NUMBERS
ISSUED FOR USE BEGINNING JULY 4, 2001

Project Codes are required for reporting all time worked and all expenses incurred for fire protection and natural disasters. Project Codes are always eight (8) digit numbers which always begin with three (3) and end with zero (0) - e.g., 3xxxxxx0, where x denotes variable digits as explained below.

1. For all Fire Protection Activity time or costs which are not directly related to a specific fire or natural disaster, use the following Project Code number:

   3 r a n 9990 where" r a n" is the RAN (Region Area Number) for the RAN in which the work took place or where the costs were incurred.

2. For State of Minnesota Fires that are less than 100 acres in size, and for fires which are fully controlled within one burning period, use the following Project Code number:

   3 r a n 0000 where "r a n" is the RAN (Region Area Number) for the RAN in which the fire took place or where the work or costs were incurred.

3. For State of Minnesota Fires that are 100 acres in size or larger, and for fires that are not fully controlled within one burning period, use the following Project Code format:

   3 r a n f f f 0 where "r a n" is the RAN (Region Area Number) for the Area in which the fire took place and "f f f" is the Area Fire Number for the fire.

4. For all Non-DNR fires and all natural disasters contact MIFC Dispatch for a project code. MIFC Project Code will use the following format:

   3711 x x x 0 where "x x x " is the Statewide Incident Number assigned by MIFC to the fire or natural disaster.

5. For all COMP TIME TAKEN when it was earned on a fire activity and is to be charged against one of the fire funds, use the following Project Code number: 3LEAVE00.

NOTE: Payroll and vendor payment entries into the statewide systems for the Emergency Fire Fund, the Fire Open Appropriation, and the "Out-of-State" Fire Account absolutely require the entry of a Project Code. If a specific project code is unknown or unavailable at the time an entry must be made into the statewide systems, enter a default code of 30000000 and corrections will be made at a later time.

- **Fire Standby codes should only be used by permanent personnel.**
  P= Pre-suppression S=Suppression

Attachment 2b

FY 2003 Fire Cost Summary

By Type of Activity and Appropriation

	Division of Forestry General	Emergency Firefighting Direct & Open	Total
Fire Presuppression	9%	7%	**15%**
Fire Suppression	8%	77%	**85%**
Total	**16.2%**	**83.8%**	**100.0%**

1. Includes an insignificant amount of mis-coded activity which may be presuppression or suppression.

ATTACHMENT 3 A GUIDELINE FOR STATEWIDE PLANNING LEVEL DETERMININATION

	PLANNING LEVEL 0	PLANNING LEVEL I	PLANNING LEVEL II	PLANNING LEVEL III	PLANNING LEVEL IV
BI (Q) spring, pre-green, floating 5 day average	Not applicable	0-45	46-70	71-95	96+
BUI (after June 1, floating 5 day average)	Not applicable	0-25	26-50	51-67	68+
ERC (Q) (alternate summer/fall indicator, after June 1, floating 5 day average)	Not applicable	0-15	16-29	30-36	37+
8-14 day Weather Forecast	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.
MN Regional Planning Levels	All Regions/Agencies at P.L. 0	One or more Regions/Agencies at P.L. I	Two 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
Eastern Area Planning Level	0-I	0-II	0-III	0-IV	0-IV
National Planning Level	0-II	0-III	0-IV	0-IV	0-IV
Fire Occurrence (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.
Fire Occurrence (Escaped fires)	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
Sociopolitical Considerations	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.				
Resource Availability	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.
In-State Mobilization	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.
Out of State Mobilization	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 II in spring, preparedness will not drop below P.L. II until May 31 or later.

Attachment 4

Department of Natural Resources, Division of Forestry
Wildfire Activities Ten Year Expenditure History

Nominal Dollars By Source of Funds	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000(b)	FY 2001(c)	FY 2002	FY 2003	10 Year Average
Forestry General	$1,897,453	$1,374,870	$1,667,949	$1,912,828	$2,325,257	$2,559,669	$2,658,615	$2,640,289	$2,748,183	$2,884,809	$2,266,992
Emergency Fire-Direct	$735,000	$735,000	$2,736,000	$2,552,980	$3,470,065	$3,522,870	$2,822,957	$4,412,245	$5,998,430	$5,983,070	$3,296,862
Cost Recovery(a)	$276,260	$281,132	$155,105	$283,494	$269,728	$486,253	$777,690	$952,255	n.a.	n.a.	$348,192
Emergency Fire-Open	$2,361,526	$3,122,822	$1,347,211	$2,981,529	$4,554,168	$2,945,915	$7,768,174	$9,435,941	$8,870,452	$9,084,514	$5,247,225
Fire Program Total	$5,270,239	$5,513,824	$5,906,265	$7,730,831	$10,619,219	$9,514,707	$14,027,436	$17,440,730	$17,617,065	$17,952,393	$11,159,271
Cost Recovery(a)	$276,260	$281,132	$155,105	$283,494	$269,728	$486,253	$777,690	$952,255	$391,698 (d)	$448,568	$432,218
Net Cost to State	$4,993,979	$5,232,692	$5,751,160	$7,447,337	$10,349,490	$9,028,454	$13,249,746	$16,488,475	$17,225,367	$17,503,825	$10,727,053
Out of State Fire Costs (Reimbursed by the federal government)	$303,836	$2,188,512	$1,176,091	$1,410,139	$302,889	$299,106	$1,028,550	$2,604,290	$2,876,747	$2,962,300	$1,515,246

(a)Fire Cache Sales, Fire Cost Collections

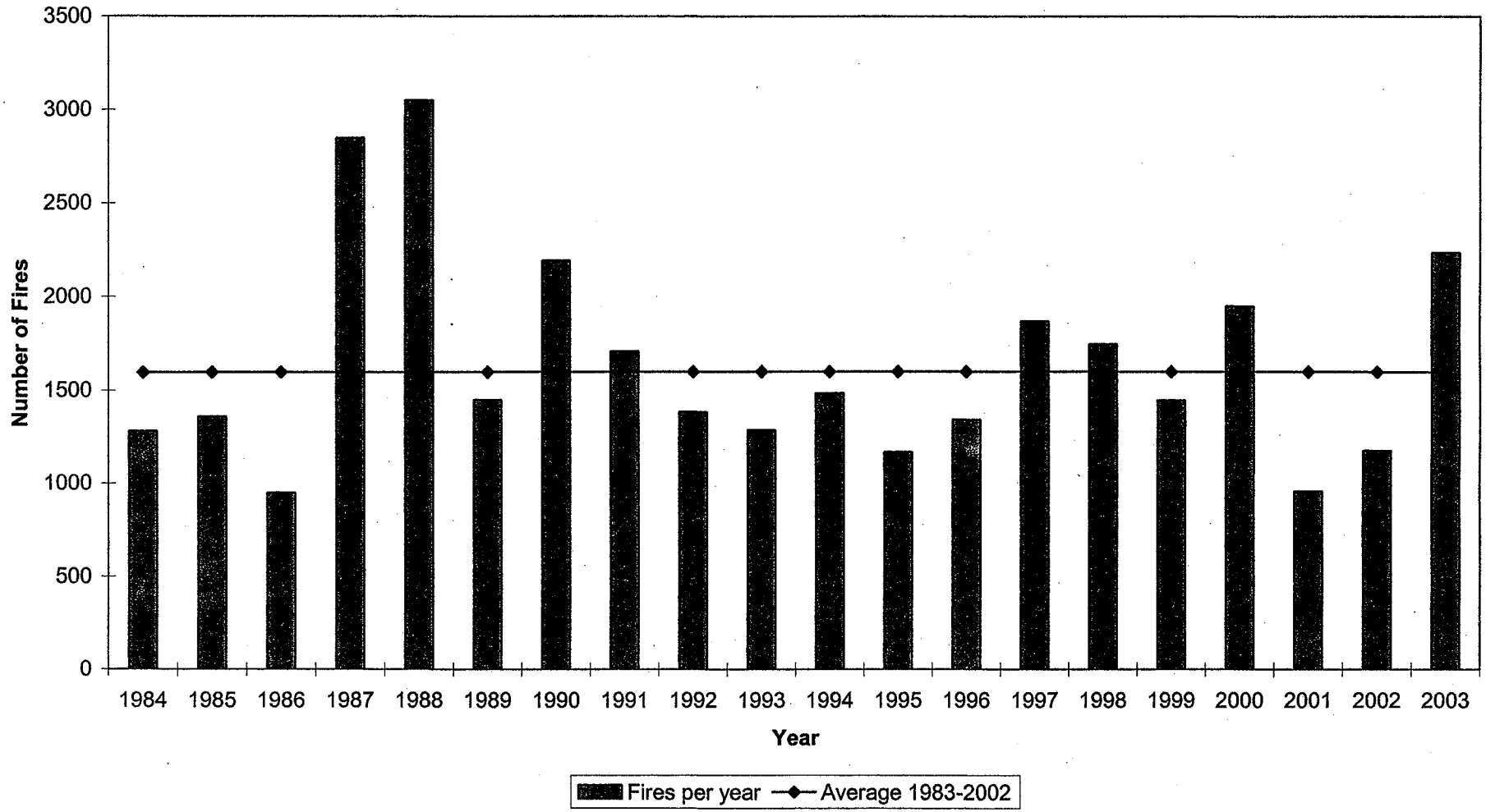
(b) $1.9mm NE MN preparedness initiative (Blowdown)

(c) Purchase of CL-215's

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

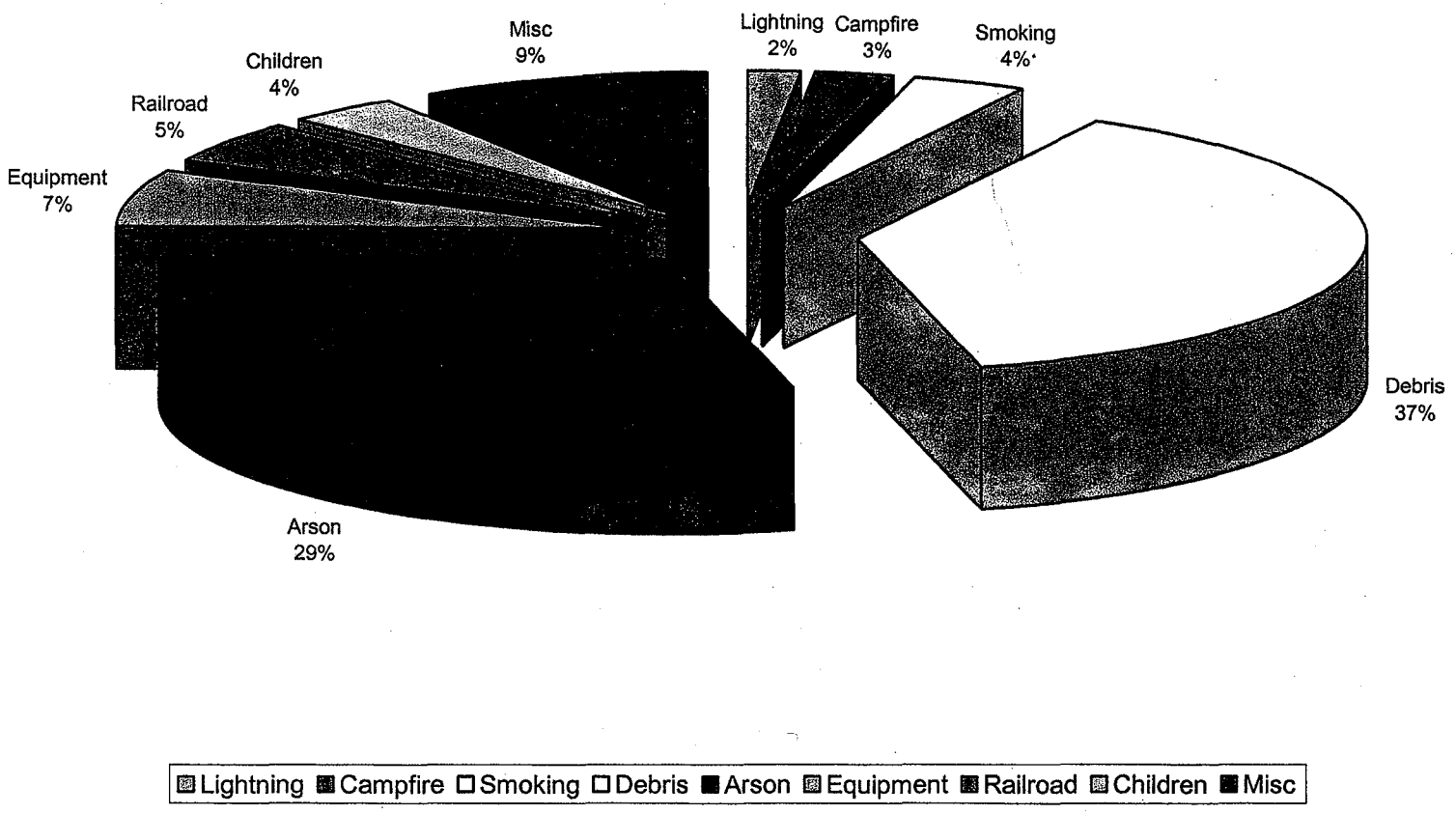
Attachment 5a

MN DNR Wildfires by Year 1984-2003



Attachment 5b

MN DNR Average Wildfires by Cause 1983 - 2002



Attachment 6 **CL – 215 AIR TANKER OWNERSHIP vs. RENTAL COSTS**
FY 2003

State Owned (2 aircraft):

Availability Cost: (246 days) @ $3562.00	=	$876,252	
Availability Cost: (154 days) @ $4,225.00	=	$650,650	
(rate change 4/15/2003)			
400 days availability total	=		$1,526,902.00
Flight time cost: (61.4 hrs) @ $2,063.00	=	$126,668.20	
Flight time cost: (126.13 hrs) @ $2,710.00	=	$341,812.30	
Total flight time cost	=		$ 468,480.50
Annual liability insurance policy			$ 258,400.00
Annual loan payment: (five year term)			$1,528,991.00
Ownership cost:			**$3,782,773.50**
Savings from out-of-state use in support of federal mobilizations			$ 183,742.00
Net Ownership Cost:			**$3,599,031.50**

Alternative: Renting "Call When Needed"(CWN)(2 aircraft):

Availability Cost: (400 days) @ $7150.00	=	$2,860,000
Flight time Cost: (187.53 hrs.) @ $ 5175.00	=	$ 970,468
Total estimated rental cost:		**$3,830,468.00**

Result of Ownership vs CWN Aircraft: (savings for the state) **$231,436.5**

Due to a national shortage of conventional air tankers in the United States, Minnesota cannot be guaranteed an air tanker upon request; it would depend upon national availability.
The above numbers show there is a net savings to the state owning air tankers versus renting on a call-when-needed basis.

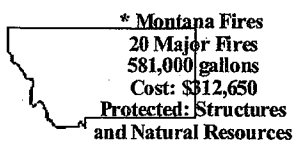
Discussion:
Components of ownership costs include the Loan Payment, Liability Insurance, and a contract to operate, maintain, and repair the aircraft. Contract costs comprise Flight Time and Availability amounts paid to the contractor.

1) Loan Payment – completes purchase of the aircraft over a five-year term. The final scheduled payment will be made in 2005.
2) Liability Insurance - protects the state from the loss of the aircraft.
3) Flight time - is an hourly rate paid to the contractor that operates the aircraft for hours actually flown on firefighting missions.
4) 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 this state).

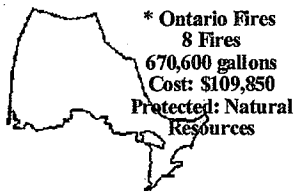
CL-215 Dispatches in 2003

(* = reimbursed costs)

(Total gross expenses that were reimbursed to the emergency fire fund were $464,750)

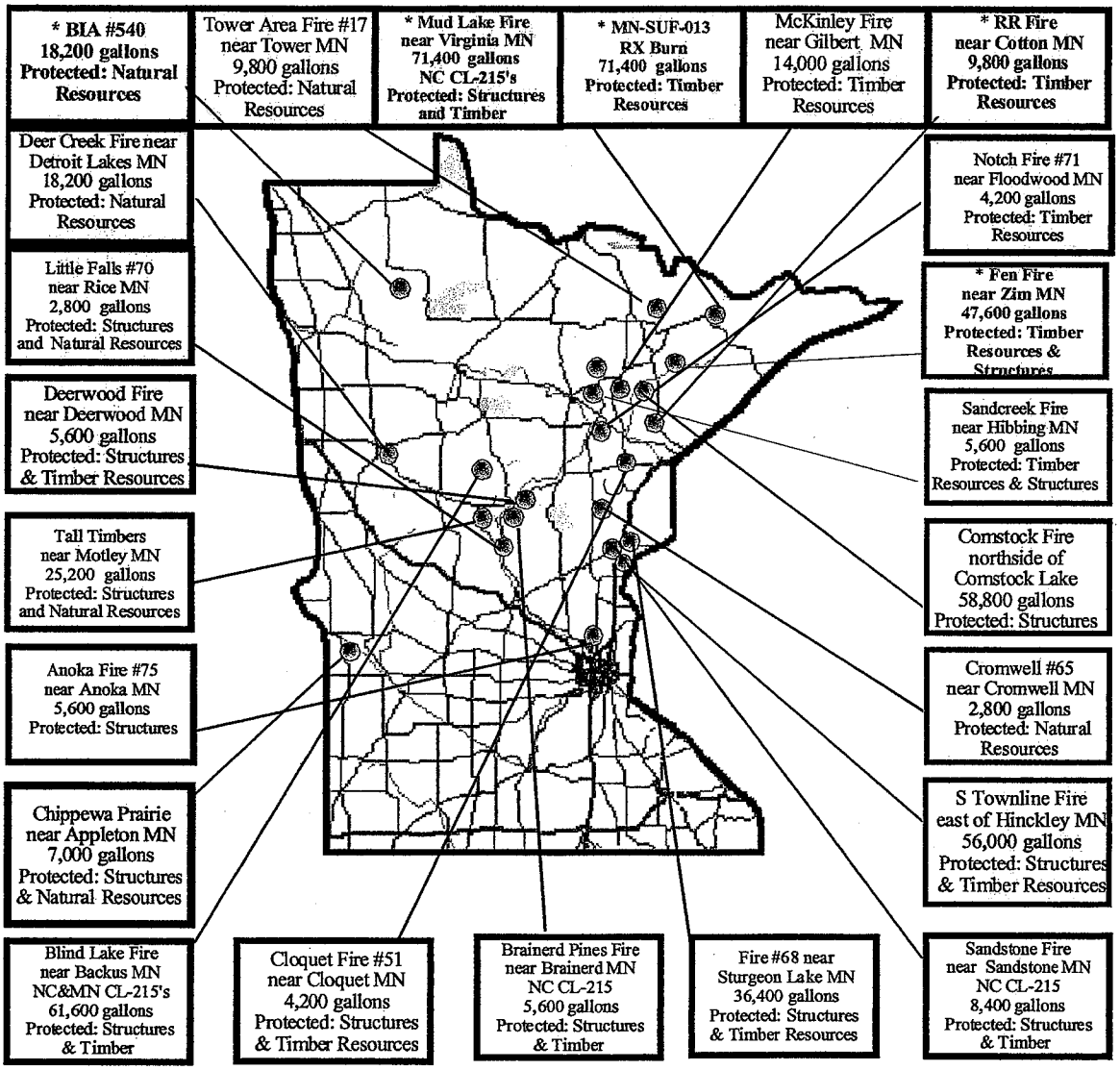


*** Montana Fires**
20 Major Fires
581,000 gallons
Cost: $312,650
Protected: Structures and Natural Resources



*** Ontario Fires**
8 Fires
670,600 gallons
Cost: $109,850
Protected: Natural Resources

*** Michigan Fire**
5,600 gallons
Cost: $16,900
Protected: Structures



Attachment 7