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Executive summary

The Department's 2000-01 Annual Report has improved significantly. However, the Department needs to strengthen its internal reporting, rules and procedures for payment for goods and services, and procedures for maintaining complete records of capital assets.

During the year, the Department established the Operator Certification Board. We report that the Board needs rules and procedures to ensure that it records all application fees it receives. We also report that the financial statements may not be reliable because the Board does not know whether it has recorded all application fees received.

We did an examination of the Department's systems and practices for managing forest fires at its request. The Department views its systems and practices for managing forest fires important in protecting human life, property, and natural resources. The Department spent \$41 million on forest fire management in 2001.

We worked with the Department to develop the criteria to examine the Department's systems and practices for managing forest fires.

We found the Department has adequate rules and procedures for managing forest fires. We make these recommendations to help the Department improve its rules and procedures for managing forest fires.

Introduction

The Department of Environment and Resource Management (Department) is responsible for managing, enhancing, and protecting the Province’s natural resources and sustaining them for future generations. Information about the Department’s mandate and its organizational structure are available at the Department’s website (<http://www.serm.gov.sk.ca/>).

For the year ended March 31, 2001, the Government’s summary financial statements show environment and natural resource expenditures of \$149 million. The following table shows the expenditures of government agencies for environment and natural resource.

	(in millions of dollars)
Department of Environment and Resource Management	
(Public Accounts 2000-01 – Volume 2)	\$ 129
Deduct expenditure shown as:	
Economic development related to forests	(10)
Add expenditures incurred by:	
Saskatchewan Water Corporation	23
Centenary Capital Fund	4
Department of Agriculture and Food	<u>3</u>
Environment and natural resource expenditures per the	
Government’s summary financial statements	<u>\$ 149</u>

The Department received \$129 million from the General Revenue Fund for its programs. Also, the Department collected revenue of \$40 million. In addition, the Department collected revenue and incurred expenses through its special purpose funds listed below.

The following is a list of major programs and spending reported in the *Public Accounts 2000-01: Volume 2: Details of Revenue and Expenditure* (2000-01 Public Accounts – Volume 2) (to view a copy of this report, see <http://www.gov.sk.ca/finance/paccts>).

	<u>Original Estimates</u>	<u>Actual</u>
	(In millions of dollars)	
Forest Fire Management	\$ 29	\$ 41
Field Operations and Land Management	39	40
Forestry, Fish and Wildlife	22	22
Environmental Protection	11	11
Administration	13	13
Other	<u>2</u>	<u>2</u>
	<u>\$ 116</u>	<u>\$ 129</u>

The Department is responsible for managing the following special purpose funds:

- ◆ Commercial Revolving Fund;
- ◆ Fish and Wildlife Development Fund;
- ◆ Resource Protection and Development Revolving Fund; and
- ◆ Big Game Damage Compensation Fund.

The Department is also responsible for the Operator Certification Board, a Crown agency.

Information about the Department's total revenues and expenditures is not available in any one document. The Public Accounts 2000-01 – Volume 2 contains information about some of the Department's revenues and spending. The Department plans to include the financial statements of its special purpose funds in *The Financial Statements Compendium 2000-2001*.

Our audit conclusions and findings

This chapter contains our audit conclusions and findings for the Department and its special purpose funds for the year ended March 31, 2001 and the Operator Certification Board for the nine-month period ended March 31, 2001.

Our Office worked with Mintz & Wallace, the appointed auditor of the Operator Certification Board. We used the framework recommended by the *Report of the Task Force on Roles, Responsibilities and Duties of Auditors* (to view a copy of this report, see our website at <http://www.auditor.sk.ca/rrd.html>). We formed the following opinions.

In our opinion, for the year ended March 31, 2001 (Operator Certification Board for the nine-month period ended March 31, 2001):

- ◆ **the Department and its agency had adequate rules and procedures to safeguard and control their assets except for the matters described in this chapter;**
- ◆ **the Department and its agency complied with authorities governing their activities relating to financial reporting, safeguarding assets, revenue raising, spending, borrowing, and investing except for the matter described in this chapter relating to the Department's capital assets; and**
- ◆ **the financial statements of the Department's special purpose funds are reliable. The Operator Certification Board's financial statements may not be reliable as explained on page 265.**

In this chapter, we also include the results of our audit of the Department's rules and procedures to manage forest fires.

Internal reporting needs improvement

The Department needs better internal reports to monitor its activities.

The Department has established adequate rules and procedures to prepare internal financial reports. However, employees did not always follow the established rules and procedures to prepare internal financial reports. For example, reports did not include, even though it is required, a comparison of planned and actual results for the current period and year to date including an explanation of significant differences.

Operational reports would show the effectiveness of programs (i.e., what the Department expected to accomplish and its progress towards those

expectations). Compliance reports would describe the Department's compliance with its legislative and related authorities (e.g., the law and policy manuals). The Department needs to define and document its operational and compliance reporting requirements.

We reported this matter in our 2000 Fall Report – Volume 3 and previous reports. The Standing Committee on Public Accounts (PAC) considered this matter most recently in January 1999. It concurred with our recommendations.

We continue to recommend:

- ◆ The Department should define and document its operational and compliance reporting requirements.
- ◆ The Department should follow its established rules and procedures for preparing all of its internal financial reports.

The Department told us it continues to work on defining its operational and compliance reporting needs. The Department also told us it continues to work towards preparing required internal financial reports in accordance with its established rules and procedures. In addition, the Department told us it has undertaken a project to improve its budgeting and forecasting model and that its internal staff training plans now include the importance of internal reporting and the procedures for preparing those reports.

Rules and procedures for payments need improvement

The Department needs to improve its rules and procedures to ensure that it does not pay for goods and services that it did not receive.

The Department has rules and procedures to reduce the risk of paying for goods and services that it did not receive.

The Department's rules and procedures require that the person approving the payment be different than the person purchasing or receiving the goods or services. However, employees do not always follow these directives because the Department's new financial system allows the same person to purchase, receive, and approve payment. The

Department should change its new financial management system to ensure that the new system complies with the Department's rules and procedures.

We reported this matter in our 2000 Fall Report – Volume 3. PAC considered this matter in September 2001 and concurred with our recommendation.

We continue to recommend the Department should improve its rules and procedures to ensure that it pays only for goods and services received.

The Department told us it is implementing changes to its financial management system to ensure appropriate separation between purchasing, receiving, and approving payments for goods and services received. The Department expects to implement these changes by March 31, 2002.

Complete capital assets records needed

The Department needs better rules and procedures to safeguard and control its capital assets (equipment, furniture, and fixtures) and to report on them publicly.

Section 640 of the Provincial Comptroller's Financial Administration Manual provides guidance to departments regarding capital assets. The manual includes guidance on how to maintain complete records of capital assets.

The Department has capital assets totalling approximately \$12.2 million. The Department reconciles capital asset additions in its capital asset records to its financial records. However, the Department does not reconcile its capital asset disposals to its financial records. Also it does not reconcile its financial records in total to its capital asset records. These reconciliations are needed to ensure that all capital assets are recorded in the financial records.

The Department provides information about its capital purchases in its 2000-2001 Annual Report. However, the Annual Report does not provide any information about its total capital assets or how the Department uses its capital assets to deliver its programs.

The Department established procedures to help ensure the accuracy and completeness of its capital asset records. The Department now selects a sample of capital assets from its capital assets records and inspects those assets to ensure they exist. The Department also selects a sample of capital assets in use and agrees those assets to its capital assets records to ensure its records are complete. However, the Department does not reconcile its capital assets records to its financial records.

We reported this matter in our 2000 Fall Report – Volume 3 and previous reports. PAC considered this matter most recently in January 1999. It concurred with our recommendations.

We continue to recommend:

- ◆ The Department should keep complete records of its capital assets.
- ◆ The Department should also:
 - periodically reconcile its capital assets records to its financial records; and
 - include additional information about its capital assets in its annual report.

The Department told us it plans to complete the reconciliation of its capital assets records to the financial records by March 2002.

Annual report needs improvement

We reviewed the Department's 2000-01 Annual Report. We assessed the adequacy of the information in the report against the following criteria.

To assess performance of public sector agencies, Members of the Assembly and the public need adequate summary information about public agencies' plans and about the achievement of those plans. Annual reports can provide this information. To be good accountability documents, annual reports should describe what the public agency is all about, what it has done, where it is now, and what it plans to do. In addition, to ensure the information in the report is relevant and

understandable, the annual report should be written clearly and be available promptly after the agency's year-end.

We found that the Department improved its 2000-01 Annual Report significantly. The Department's 2000-01 Annual Report clearly outlines the Department's vision, mandate, goals, objectives, and its activities to achieve its objectives. The 2000-01 Annual Report also describes the risks the Department must manage to be successful and some of the strategies it uses to do so. We think this is good step forward.

However, the Department's Annual Report needs further improvement. The Department's Annual Report needs to include key performance targets and information on whether it achieved those targets. A discussion and analysis about its performance targets would help readers assess the Department's success in achieving its objectives.

The Department's 2000-01 Annual Report provides some information about the future intentions or outlook for the Department. We think future annual reports should also include a more complete discussion of the direction the Department plans to take. Such a discussion would help readers understand how the Department intends to achieve its goals and objectives.

The Annual Report includes some financial information on the special purpose funds the Department manages. The Annual Report should include complete audited financial statements of those special purpose funds for which the Department does not prepare separate annual reports. The Annual Report should also include a discussion of the goals, key performance targets, and progress towards achieving the targets for each of these special purpose funds.

We reported this matter in our 1999 Fall Report – Volume 2. The Standing Committee on Public Accounts (PAC) considered this matter in September 2001 and concurred with our recommendation.

We continue to recommend the Department should continue to improve its annual report.

Operator Certification Board

The Operator Certification Board (Board) was established in June 2000 under *The Water Pollution Control and Water Works Regulations* (Regulations). The Board's purpose is to certify operators of water and sewage works. The Minister of Environment and Resource Management appointed three directors to operate the Board. The Board began operations on July 21, 2000.

For the nine-month period ending March 31, 2001, the Board's financial statements show revenues of \$24,000 and net income of \$9,000. The Board held assets of \$10,000 at March 31, 2001.

Board needs adequate rules and procedures over revenue

The Board needs to establish rules and procedures to ensure that it records all the revenue it receives.

The Board does not have adequate rules and procedures to ensure that it records all the revenue it receives. The Board employs only one person to keep its financial books and records. In a small organization, it is often impossible to have adequate segregation of incompatible functions. Segregation of functions helps to ensure that no one person is in a position to perpetrate and conceal errors or frauds. To reduce the risk of errors and frauds occurring without timely detection, small organizations often establish other control procedures to compensate for the lack of segregation of functions.

Currently, the Board receives and records application fees from waterworks operators applying for certification. The Board's administrator receives the operators' applications with the appropriate application fees, records the application fees, deposits the fees, reconciles the bank account, and prepares financial reports. We think the Board should also have other rules and procedures, e.g., pre-numbered application forms and/or certificates, or a written contract with the Department, to receive and record all revenue to compensate for the lack of segregation of functions in its financial management system.

The Board recorded application fees of \$9,000 from operators. However, we are unable to determine whether the Board recorded all application fees it received.

- We recommend that the Board establish adequate rules and procedures to ensure it records all the revenue it receives.**

The Board told us it plans to develop appropriate procedures to ensure that it records all revenue that it receives.

Reliability of the financial statements

The Board's financial statements for the nine-month period ended March 31, 2001 may not be reliable.

As explained above, the Board did not have adequate rules and procedures to ensure that it records all the revenue it receives. As a result, we could not determine whether the Board had recorded all revenue in its financial statements for the period ended March 31, 2001.

Forest Fire Management

Background

Under *The Prairie and Forest Fire Act, 1982*, the Department is responsible for controlling and extinguishing fires that originate in a burning permit area, provincial forest, provincial park, recreation site, or vacant crown land. Burning permit areas are the provincial forest and every quarter section of land lying wholly or partly within 4.5 kilometres of the boundaries of the provincial forest including any other areas the Minister may designate. The Department is also responsible for controlling and extinguishing fires on Indian reserves pursuant to the Department of Indian Affairs and Northern Development Agreement and on the Primrose Air Weapons Range. The Department provides and coordinates forest fire management activities and policies through its Fire Management and Forest Protection Branch (FMFP) and its five EcoRegions. The Department's EcoRegion boundaries reflect the natural association of plants, humans, and other organisms together with the non-living component of the environment that are unique to the region. Three of the five EcoRegions are in the provincial forest: the West Boreal,

the East Boreal and the Shield. The staff of the EcoRegions provide the day-to-day fire management activities. The FMFP provides and coordinates forest fire management activities and policies for the Department.

The Department carries out a fire prevention program. The Department detects fires through its tower system, by aircraft patrol, and through public input. The Department has 51 towers in the Saskatchewan forest. Once the Department is aware of a fire and its location, it determines what action to take. For example if a fire threatens a community, the Department dispatches an initial attack team of five trained firefighters to fight the fire. The Department has 50 initial attack teams. The EcoRegions decide whether to use water bombers, helicopters bucketing water, or aircraft dispersing fire retardant. The Department has six water bombers, six bird-dog aircraft (aircraft that lead water bombers and trackers to fire location), and six trackers that disperse fire retardant.

Most forest fires result from extremely dry conditions, lightning and/or from human actions.

The Department's meteorologist group monitors the current weather and forecasts the weather. The weather plays an important role in fire suppression. For example, wind direction and speed affect the size and intensity of fire. The meteorologist group uses the Department's 31 weather stations and 18 Environment Canada weather stations to obtain daily weather information. Fire staff use current weather information and forecast information to determine how it will fight the fire.

Significance of the audit

Forest fires are a significant risk the Department must manage. Forest fires pose a risk to human life, property, and natural resources (collectively referred to as values). Values will continue to increase in the forest with the expansion of the forest industry and with increases in the number and size of communities in the forest. The fire suppression industry acknowledges that with fire suppression success comes a further build-up of forest fuels and the risk of catastrophic forest fires. The Department is responsible for preventing, detecting, attacking, suppressing, and investigating forest fires. Without adequate rules and

procedures for managing forest fires, the results can be disastrous with significant loss of values.

The Canadian provinces and territories collectively spent annually \$468 million to fight 7,300 fires on average based on the last five years (1996-2000). The Department spent annually \$51 million to fight 668 fires on average over each of the last five years. In 2000, the Department spent \$38 million to fight 419 fires. The Department considers 2000 to be a below average year for fires.

Forest fires could also have a significant affect on the forestry industry and northern communities. Annually, forestry in Saskatchewan provides approximately 5,600 jobs and generates \$888 million in exports. There are 46 northern communities in Saskatchewan with a total approximate population of 40,000.

The Department asked us to examine its systems and practices for managing forest fires. The Department views its systems and practices for managing forest fires important. Inadequate systems and practices can result in the loss of life, property, and natural resources, collectively referred to as values. Inadequate systems can also lead to unnecessary costs. We agreed to do the examination because of its significance.

Our audit objective

The objective of our audit was to determine whether the Department has appropriate rules and procedures to manage forest fires. Our audit covered the Department's rules and procedures from April 1, 2000 to August 31, 2001.

Our audit criteria

Auditors need criteria to evaluate matters they audit. Criteria are reasonable and attainable standards of performance and control against which auditors can assess the adequacy of systems and practices. The audit criteria selected are those that management can realistically expect to meet.

We developed criteria after reviewing relevant literature on managing forest fires. We discussed the criteria with the Department's

management, made necessary changes, and obtained management's agreement that the criteria are reasonable and attainable.

The agreed upon criteria are that the Department should have systems and practices to ensure that:

- ◆ An adequate fire prevention program exists with clear targets for prevention (e.g. to reduce the number of human-caused fires by a specific percentage).
- ◆ Forest fire suppression including detection, initial attack, and containment of fires is focused on human life at risk, property, such as public and private properties, and natural resources (collectively referred to as values).
- ◆ Resources required for forest fire suppression reflect human life at risk and the values identified.
- ◆ Timely and effective investigation of the causes of each major fire.

Our audit work

We did our work in accordance with the standards for assurance engagements established by The Canadian Institute of Chartered Accountants. We did the procedures and tests we considered necessary to meet those standards. We also compared the Department's rules and procedures with those recommended by other forest fire protection agencies in North America and Australia.

Our audit conclusions

Overall, the Department's rules and procedures to manage forest fires are adequate.

Adequate rules and procedures for managing forest fires are important because they enable the Department to provide an appropriate level of protection for values. They also enable the Department to provide protection in a cost effective manner. The recommendations we provide below are intended to help the Department improve its rules and

procedures for managing forest fires and to keep pace with changes in values, fire risks, weather, equipment, and technological changes.

Detailed audit findings

Criterion 1: The Department should have adequate systems and practices to ensure that an adequate fire prevention program exists with clear targets for prevention (e.g. to reduce the number of human-caused fires by a specific percentage).

Fires are caused by either actions of humans or lightning. Fires caused by people account for about 50% of all forest fires. People cause fires when they do not properly manage fires used to burn debris, do not extinguish campfires, or they start fires intentionally. Department statistics show that 80% of fires caused by people result from people trying to use fire to burn debris and by campfires. Knowing the cause of fires helps direct the type of prevention activities taken. Prevention activities can be public awareness through media, publications, informational meetings, and fuel treatment. Fuel treatment activities include reducing the underbrush, thinning the tree stands, and replanting trees that are more fire resistant.

We expected that the Department would have:

- ◆ documented its forest fire prevention program that includes a fuel treatment plan for areas of high values and high risks;
- ◆ established prevention targets and systems to monitor those targets;
- ◆ prevention programs targeted to those groups causing fires or are at risk of doing so;
- ◆ a system to coordinate fire prevention and fire suppression; and
- ◆ a communication strategy for educating the public about costs, lost resources, human suffering, and the number of preventable fires and what the Department is doing to lessen the effects from fire. Also, the communication strategy would include how the

public can help to prevent fires and its policy for prosecuting those responsible for fires.

The Department does not have a complete documented forest fire prevention program. The Department determines the cause of all forest fires. It uses this information to determine its prevention activities. However, the Department did not document its fuel treatment plans or targets. Other forest fire protection agencies in North America recognize the need to identify the areas of high values and high risk and establish a fuel treatment plan as part of its fire prevention program. To improve its prevention program, the Department should include a fuel treatment plan as part of its prevention program. The Department does some fuel treatment of forest areas, such as, working with communities to thin trees around a community. However, the Department did not have rules and procedures to determine when and where to use fuel treatment activities.

The Department did not always establish prevention targets and monitor those targets. The Department documents the focus of its prevention activities and general expectations for all its activities. However, the Department does not document clear measurable targets and monitor them. For example, the Department does not determine measurable targets for its advertising campaigns and if the targets were achieved. We think establishing measurable targets and monitoring them would help the Department assess its prevention activities.

The Department does not have cost-benefit analysis for all prevention activities. For example, the Department did a cost-benefit analysis for some tree-thinning projects. The Department should document costs for all prevention programs and analyze the impact on fire suppression costs. A prevention program supported by a cost-benefit analysis will help management to evaluate the success of the program. Also, the Department did not compare its planned performance with actual performance and explain significant differences. We think this comparison is important to assess the Department's prevention program.

The Department's prevention program targets human actions that cause fires. Public awareness campaigns of the Department focus on people camping in the forest or burning debris in the forest. The Department also works closely with communities experiencing a high rate of fires caused by people to prevent future fires.

The Department's communication strategy included public awareness campaigns through local newspapers, radio, and television. The campaign included how the public can help in preventing fires and who and where to call if they see a fire. Children often cause fire by playing with matches. The Department's prevention program addresses this through its Smokey the Bear program, which is an education and awareness program for school children. Also, the Department works closely with industry and communities to communicate and coordinate fire prevention activities. For example, the Department works with forest companies in developing cutting plans as part of their annual operating plan that will help to reduce the risk of fire. However, the Department's communication strategy did not include information about its policy on prosecuting those responsible for starting forest fires, information on lost resources, and human suffering. We think this information is important for the public to understand the need to prevent fires.

2. We recommend that the Department should improve its rules and procedures for preparing and reporting on its prevention program.

Criterion 2: The Department should have systems and practices to ensure that forest fire suppression is focused on values at risk.

The first step in forest fire management is the prevention of fires. Once fires occur, detecting, attacking and suppressing them becomes important. When and how the fires are suppressed depends on the values at risk.

We expected the Department would have:

- ◆ a comprehensive fire management policy setting out when, why and how to suppress fire; and
- ◆ rules and procedures to regularly determine the number and value of public and private properties (e.g. industrial sites, homes, mines), natural resources (e.g. forests, natural habitat), and human life at risk (collectively referred to as values at risk).

The Department has a comprehensive fire management policy. The Department has broken the forest into three protection zones: primary zone, green space zone, and a modified response zone. The protection zones are based on values at risk. For example, the Department includes all communities, mine sites, and commercially viable forest in the primary and green space zones. In these zones, the Department acts immediately to control fires during the first burning period (10:00 am on the day following detection). If the fire is not under control in the first burning period, the Department assesses the values at risk before taking further action. In the modified response zone, the Department acts only if it is possible to contain the fire within the first two burning periods. If fires are beyond control and later encroach a primary zone or green space, the Department will try to suppress the fire only if the fire poses a threat to values within the primary or green space zones. When fires are not extinguished within one or two burning periods, the Department's staff prepare a written analysis of the values at risk and the estimated costs of continuing to fight the fire. In this case, fire-fighting activities continue only if management instructs staff to continue to fight the fire. We examined the written analysis for a sample of fires and found the written analysis was appropriately completed and approved.

The Department communicates its fire management policy internally through its Fire Management and Forest Protection Branch guidelines. These guidelines describe when, why, and how to suppress fires. The guidelines are based on the protection zones listed above. The Department communicates its policy externally by providing a map of the protection zones to communities and members of the forest industry. The Department also communicates its fire management policy at meetings it holds with communities and members of the forest industry.

The Department had adequate rules and procedures for reviewing values in each of the EcoRegions. However, the Department needs to identify and record all values in the EcoRegions and rank them. For example, the Department does not identify and record all heritage sites. The Department annually updates its record of values by EcoRegion. The Department consults with forest companies to obtain their input as to the priority of the values in the forest areas under forest companies' management. Some forest fire agencies in North America do identify values at risk and maintain these values on a geographic information system (GIS). The system allows the fire-fighting staff ready access to the

values in the forest along with the risks of fire in that area. These agencies then confirm the identified values with stakeholders such as communities and forest companies. GIS can help facilitate a quick review of the values at risk and the risk of fire in a specific area of the forest. A quick review helps fire-fighting agencies determine what preventive and suppression action they should take in case of fire in any specific area.

The Department has started to prepare a complete record of the values at risk.

3. We recommend that the Department prepare a complete record of the values at risk in the forest and update that record regularly.

The Department told us it plans to include a complete record of values at risk in a GIS model that it plans to develop in time for the 2002 fire season. The Department also told us that it plans to improve its guidelines for protecting areas with the highest values in case of multiple fires.

Criterion 3: The Department should have documented policies and procedures for determining the resources required for forest fire suppression based on the values identified.

Fire-fighting agencies' success in suppressing fires depends on the resources available and their location. To be useful, those resources must be appropriate and located near the expected fires.

We expected the Department would have an adequate system:

- ◆ to determine its fire detection and suppression capacity and would regularly assess its capacity against the needs for fire suppression;
- ◆ to determine the most cost-effective combination of resources and organizational structure for fire suppression needs;
- ◆ for identifying and managing any shortage of resources and would partner with those who have an interest in the identified values;

- ◆ to ensure it has experienced and trained senior staff to manage forest fires and appropriately trained firefighters to fight fires;
- ◆ to determine the quantity and location of initial attack resources; and
- ◆ of resource tracking to maximize the use of people and equipment.

The Department follows a fire preparedness approach. This approach allocates a predetermined level of resources to forest areas with high values and a high risk of fire. The resources include initial attack firefighters, helicopters, and fire-fighting equipment. When fires occur, these resources can attack the fire in an efficient and effective manner. The sooner a fire is attacked, the smaller the fire and the more likely it will be extinguished quickly. For major fires, the Department needs more firefighters, equipment, supplies, and aircraft.

The Department has an adequate process to determine its detection and suppression capacity. The Fire Management and Forest Protection Branch (FMFP) reviews the results of the fire season, in particular, the number of fires that are greater than 100 hectares, escaped fires, and the reason for their escape. The branch also reviews the number of escaped fires and related costs that occurred over the past few years. The branch documents its analysis of annual fire performance, which serves as the Department's support for the capacity level it needs. Some forest fire agencies in North America use computer systems to help project the most cost-effective method of fire-fighting resources needed in future fire seasons. The Department should consider using such a system to better determine its fire suppression capacity.

Also, the Department uses the annual fire review to support its requirements for resources and the organizational structure needed to suppress fires in future years. The Department's EcoRegions provide day-to-day management activities and the FMFP provides and coordinates forest fire management activities and policies. These two branches worked together effectively.

In 2000-01, the Department reviewed its fire suppression approach. This review identified that the Department's capacity to suppress fires is at risk

of deteriorating rapidly because of its aging aircraft fleet. This review also identified that the Department's infrastructure (fire towers, firebases, weather stations, etc.) is not adequate and needs repair. Also, recently, structural engineers told the Department that most of the fire towers are not safe. The Department is currently reviewing its aircraft needs and alternatives for upgrading its aircraft capacity. The Department is also working on ensuring that it maintains its existing capacity to suppress fire and to ensure, if needed, it has access to additional resources to suppress fire.

The Department monitors its resource needs daily, and during the fire season, twice daily. Also, the Department has arrangements with the other provinces and the United States of America for resource sharing. The Department is a member of the Canadian Interagency Forest Fire Centre (CIFFC), a private non-profit corporation. CIFFC provides operational fire-control services, coordinates the sharing of resources within Canada, and worldwide, as well as provides management and information services to its member agencies. The Department notifies CIFFC when it has excess resources and when it needs resources. The Department also has written guidelines for obtaining additional resources locally, for example, heavy equipment, emergency firefighters, and aircraft rental.

The Department partners with others who have an interest in protecting values. For example, the Department has agreements with northern communities and the First Nations. Under those agreements, the Department provides fire-fighting training to members of those groups and can use them as firefighters when needed.

The Department adequately trains its firefighters and senior fire staff. The Department documents skills and abilities for firefighters in its guidelines and in work plans for senior fire staff. The Department requires firefighters to complete a certification program, take fire-fighting update training, and annually pass physical tests. The Department maintains a database of all training received by all firefighters, senior fire staff and management. Also, the Department is developing a succession plan for all senior fire staff and management. The Department's skills and abilities requirements, and training requirements are consistent with other fire-fighting agencies in North America.

The Department's fire experience and the existing location of infrastructures determine the location of initial attack resources. Other forest fire-fighting agencies in North America follow similar practices.

The Department has an adequate system for tracking personnel, equipment, and tools. The Department tracks all aircraft it uses constantly. Also, the Department tracks other equipment and firefighters at least twice daily during the fire season.

The Department has an adequate fire management system. The system compares actual fire management expenditures to planned expenditures with explanation of significant differences. The system also provides information on the number of fires, cost of fire-fighting to date, weather conditions and projected number of fires, and expected costs for the remainder of the fire season. At the end of the fire season, management prepares a performance report. The report provides a comparison of planned targets for fire suppression and targets achieved with reasons for significant differences.

4. We recommend that the Department should ensure it has suitable infrastructure for detection and suppression of forest fires.

The Department told us it is participating in a national process to develop a computer system to better determine fire suppression capacity. The Department expects the development process will take until 2003 because it needs to resolve differences in geography, fuel type, and type of aerial resources that exist in each province.

Criterion 4: The Department should have systems and practices to ensure a timely and effective investigation of the causes of each major fire.

Lightning and human actions cause fires. When fires are caused by human actions, the Department can pursue those responsible for causing the fire, seek recovery of fire-fighting costs, and target prevention activities to reduce fires caused by people in the future.

We expected the Department to have adequate systems to:

- ◆ promptly and effectively investigate all fires;
- ◆ prosecute those responsible for forest fires and recover costs of fire-fighting; and
- ◆ determine the cost of fighting each fire.

Firefighters are the first staff to reach a fire. Therefore, it is important that they preserve the site of ignition and gather evidence before the site is contaminated. The Department provides training to firefighters to identify the cause of fire, preserve the point of ignition, collect evidence, and record the evidence on the fire report. The Department refers all major fires to investigators. Based on the fire report, the regional fire manager determines whether further investigation is needed. However, the Department does not have documented guidelines describing when to do further investigations and who has the responsibility to do so.

The Department's conservation officers investigate fires. Conservation officers are trained in wildfire investigation. However, the Department does not have documented guidelines for the investigators to follow in their investigations. The investigators use material they received during training courses to do their work. When guidelines for an assignment are not documented, staff completing those assignments may use inconsistent or even inaccurate methods to arrive at their conclusions. The Department needs to establish documented guidelines for investigators to ensure that fire reports are always complete and accurate. Other fire-fighting agencies in North America have guidelines for investigators to follow when investigating fires.

The Department has the following options when it determines a person caused a fire. The Department can: charge the person under *The Prairie and Forest Fires Act, 1982 (Act)* with an offence, charge the person with arson under the criminal code, seek cost recovery under the Act, issue a warning, or do nothing. The Department can also ask the accused to admit responsibility, do community service, and pay some of the costs of fighting the fire. The Department considers the facts of each investigation and decides how to deal with those responsible for the forest fire.

The Department has adequate rules and procedures for recording the costs of each fire. The Act requires that those held responsible for causing a fire shall pay the costs of controlling and extinguishing that fire. However, the Department does not have written guidance on when and how much of the cost of fire-fighting the staff should recover. The Department uses discretion in cost recovery when it determines that the person did not intentionally start the fire.

5. We recommend that the Department should establish written guidelines for:

- ◆ **referring forest fires to investigators;**
- ◆ **investigators to follow in their investigation; and**
- ◆ **when and how much of the cost to fight fire staff should recover.**

The Department told us it has assigned one of its experienced investigators to coordinate all fire investigation. The experienced investigator will prepare written guidelines for referring forest fires to investigators, investigating fires, and for recovering fire-fighting costs. The Department also told us it expects this written guidance to be prepared before the 2002 fire season. In addition, the Department told us the experienced investigator will be responsible for providing training to fire investigators and will represent Saskatchewan on a North American Committee. The Committee is responsible to develop standards for forest fire investigation and training in North America.

Co-operation

The Department's management and staff fully co-operated with us throughout the audit. We appreciate their support and thank them.

Our plan

We will monitor the Department's actions to address our recommendations. We will report our findings in a future report.