Forests for Tomorrow

Program Management Plan 2007

Forests for Tomorrow was established in February, 2005 to address the provincial government's concern with the growing area of understocked Crown forest land. The program was designed to improve the future timber supply, initially focusing on areas affected by recent wildfires and the mountain pine beetle epidemic. Forests for Tomorrow activities will also reduce risks to biodiversity, water, fish, wildlife, and habitat.

This program management plan provides guidance to ensure that Forests for Tomorrow is implemented economically, efficiently, and effectively in a results-based management framework. The program management plan:

- Clarifies the strategic context for Forests for Tomorrow;
- Sets out the program's goal, objectives, guiding principles, and priorities;
- Identifies key affiliated programs to which linkages are critical;
- Outlines program planning, evaluation, and reporting; and
- Commits to a process of ensuring an appropriate return on investment on program expenditures.

As Forests for Tomorrow enters its second full year of operation, we anticipate that the early attention to program planning will result in the efficient delivery of this important provincial program.

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1. Acknowledgements

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2. Introduction

Forests for Tomorrow was established to address the provincial government's concern with the growing area of Not Satisfactorily Restocked Crown forest land and the effects on future timber supply. The program was designed to improve the future timber supply through silviculture treatments, initially focusing on areas affected by recent wildfires and the mountain pine beetle epidemic. Forests for Tomorrow activities will also reduce risks to biodiversity, water, fish, wildlife, and habitat.

The Forests for Tomorrow program stemmed from the result of extensive wildfires in the summers of 2003 and 2004 when a total of almost half a million hectares of Crown land burned. Many of these fires covered large areas that require rapid treatments to prevent soil erosion and the establishment of invasive species, and to restore timber and non-timber values. As well, the recent mountain pine beetle epidemic throughout the BC Interior has caused widespread mortality of mature and immature lodgepole pine. Mountain pine beetles have infested 8.7 million hectares, and by the end of 2005 had killed over 400 million cubic metres of timber.

The Ministry of Forests and Range measures its success in maintaining the landbase in a productive growing state by tracking, through a five-year rolling average, the ratio of area reforested to the area harvested or lost to fire and pests. This measure is seen as a critical indicator of sustainability in forest management.

This program management plan for Forests for Tomorrow is based on higher-level government and ministry planning objectives. The program management plan provides direction for strategic plans, management unit plans, work plans, and performance planning for program staff. This planning hierarchy is described further and illustrated in Section 10 on program planning.

Forests for Tomorrow is expected to be a long-term program, with an initial approved budget of $161 million from the end of the 2004–2005 fiscal year until the end of the 2008–2009 fiscal year. Funding is focussed on areas with no licensee obligation.

Forests for Tomorrow is primarily a reforestation program for high-priority sites, but it is also strategically focused to reduce the risk to a wide range of forest values at the watershed and landscape levels. The program enables the modification of site-specific silviculture treatments to promote biodiversity, water, fish, wildlife, and habitat. Ecosystem restoration projects may also be funded under Forests for Tomorrow.

3. Program Drivers

Forests for Tomorrow addresses a variety of drivers. Many activities are planned and executed to achieve multiple objectives that may address more than one driver.

Large-scale natural disturbances are the primary drivers, as they have affected forests and forest resources on a broad, landscape level. However, the magnitude of these natural disturbances prevents reforestation of all eligible sites. The strategic approach implemented in Forests for Tomorrow planning and expenditures addresses high-priority sites and ensures that resource values other than timber are considered and enhanced to restore the productivity of various forest resources.

Secondary drivers for Forests for Tomorrow are based on predicted timber and habitat supply shortfalls, sustainable forest management, hydrological recovery, resource objectives and social values, and community stability, including for First Nations. The extent of recent natural disturbances is expected to reduce the mid- and long-term supply of timber. Climate change and its effects on future forests add further concern.

4. Government Strategic Planning

Forests for Tomorrow supports two of the provincial government's Five Great Goals. Through its reforestation initiatives, Forests for Tomorrow primarily addresses the fourth goal, "Lead the world in sustainable environmental management, with the best air and water quality, and the best fisheries management, bar none." The program also indirectly addresses the fifth goal, "Create more jobs per capita than anywhere else in Canada."

5. Ministry Service Planning

The Ministry of Forests and Range service planning links high-level government strategic planning with Forests for Tomorrow program planning and its many components. Ministry service planning begins with Goal 1: Sustainable Forest and Range Resources, under which lie eight objectives, the fourth of which is that forest resources are restored or improved. Several affiliated programs support and contribute to Forests for Tomorrow, and are described in Section 9.

5.1 Sustainable Forest and Range Resources

The Forests for Tomorrow program directly addresses the first ministry goal of sustainable forest and range resources. Appropriate practices are used to maintain and improve the long-term sustainability and health of the province's forest resources, both timber and non-timber.

5.1.1 Forest Stewardship Objective

The fourth objective for forest stewardship from the ministry service plan is that forest resources are restored or improved. Forests for Tomorrow program investments are directed towards this objective and are achieved by contributing to improved gene and seed resources, growing improved seedlings, reforesting

target areas, updating the provincial silviculture database, and other silviculture activities. The program also enables the modification of site-specific silviculture prescriptions to promote hydrological recovery or species diversity, for example, or to accommodate other high values or species at risk. All activities are supported by current inventory and data management, operational monitoring of practices, and growth and yield predictions.

5.1.2 Performance Indicators

The performance indicator for Objective 4, "forest resources are restored or improved," is the ratio of area reforested to the total area either harvested or impacted by fire or pests. The Ministry of Forests and Range maintains Internal Management Measures to track progress towards achieving this performance indicator. The three Internal Management Measures include tracking the percentage of Forests for Tomorrow project areas that are: (1) affected by fire or pests and assessed, and (2) treated compared to areas planned for treatment, as well as (3) the number of hectares declared free-growing in areas eligible for program funding. In addition, Program Management Measures for Forests for Tomorrow are established to track progress on the work plan and other key strategic planning initiatives.

6. Goal

The general goal of Forests for Tomorrow is to reduce the amount of Not Satisfactorily Restocked (NSR) Crown forest land and address the ratio of area reforested to the total area either harvested or impacted by fire or pests. The immediate goal is to improve the future timber supply following the impacts of recent wildfires and the mountain pine beetle epidemic and to reduce risks to biodiversity, water, fish, wildlife, and habitat.

7. Objectives

The objectives of Forests for Tomorrow are linked to the program's principles, and are:

1. Accelerate the recovery of the timber supply, and biodiversity and other non-timber forest values, in forest management units affected by catastrophic mountain pine beetle infestations and recent large fires, through strategically planned reforestation and restoration activities. The ways in which this will be done are to:
   - Revise silviculture strategies in impacted management units, and survey, assess, and plan the high-priority silviculture work not legally required of licensees;
   - Update information that supports accurate timber supply forecasts and silviculture planning, reporting, and decision-making; and
   - Build a sound scientific and technical foundation by incorporating research, effectiveness evaluation, monitoring, and timber supply analysis into the program decision-making framework and treatments.
2. Ensure that young stands established under Forests for Tomorrow outside licensee obligations achieve free-growing status.
3. Ensure that licensees restore plantations burned by wildfire or destroyed by *Dothistroma* needle blight to the free-growing stage, by funding reforestation under Section 108 of the *Forest and Range Practices Act*.

Chief Forester Guidance

The Chief Forester has provided guidance to forest professionals on landscape- and stand-level structural retention in large-scale mountain pine beetle salvage operations. The guidance document recognizes the importance of recovering the economic value from deteriorating pine stands while ensuring that the planning and practices associated with protecting biodiversity are in step with the increased rate of salvage logging.

8. Guiding Principles

The Forests for Tomorrow program is based on 10 guiding principles that provide statements of policy intent.

1. **Principles of Sustainable Forest Management will guide all planning and treatments.**
   Forests for Tomorrow supports the fundamental stewardship responsibility to maintain the basic productivity of the land for all forest values. This principle links to the government's Great Goal of leading the world in sustainable environmental management.

2. **The provisions of the First Nations and Ministry of Forests and Range Mountain Pine Beetle Commitments Document apply.**
   First Nations will be invited to participate in strategic planning with the goal that they become one of the key delivery agents for the Forests for Tomorrow program.

3. **Silviculture worker safety is paramount.**
   Forests for Tomorrow activities will only be carried out by companies registered with SAFE Companies under the BC Forest Safety Council.

4. **The *Forest and Range Practices Act* and other relevant legislation and standards will be followed.**
   The program work will be conducted following the legislative standards for forest stewardship, consultation, and practices.

5. **Approved land use plans and land management objectives will provide direction to treatment priorities and site prescriptions.**
   Important plans to consult for landscape and local level reforestation and restoration planning include Land and Resource Management Plans (LRMPs), Sustainable Resource Management Plans (SRMPs), and other government-approved land use plans. Objectives identified in these plans, such as for recreation, range, water, traditional use and non-timber forest products, fish, and wildlife, will help to set priorities for treating sites.

6. **Landscape- and stand-level biodiversity will be emphasized, and corresponding objectives reflected in site prescriptions.**
   Species selection, inter-tree spacing, target stand structure, and ecosystem-based management decisions contribute to meeting biodiversity objectives. Where other resource values are high, site prescriptions will specifically reference biodiversity and non-timber objectives, and recommend treatments that contribute to meeting the objectives at the stand and landscape level. Activities funded by Forests for Tomorrow can help to achieve biodiversity objectives that would not otherwise be met.

7. **Species diversification and planting genetically desirable seedlings are reforestation and restoration objectives.**
   Future-oriented species composition planning will anticipate economic diversification, climate change vulnerabilities, and potential adaptations, and risk reduction for future catastrophic, large-scale wildfires and pest epidemics. Tree seed with superior growth, form, fibre quality, pest resistance, and other desirable characteristics is preferred for reforestation.

8. **Adaptive management, effectiveness evaluation, and extension of knowledge will be actively practised.**
   Science-based information is important in light of the non-traditional approaches to mitigation of the extensive reforestation and restoration after mountain pine beetle infestations and wildfires. Both research and the results of feedback from planned effectiveness evaluations will improve the selection of treatments, risk analyses, and implementation of Forests for Tomorrow projects.

9. **A results-based management framework drives decision-making at all levels.**
   Maximum flexibility and sensitivity to local issues means ensuring that criteria for priorities, eligible activities, and costs are clear. Program audits and evaluations are conducted in a continuous learning framework to ensure the best overall Return on Investment.

10. **Return on Investment is evaluated through the assessment of financial, timber supply, and non-timber values.**
    Silviculture financial analysis evaluates the Return on Investment relative to all benefits gained, to determine the financial viability of a proposed project. Other relevant factors include increases in the value of benefits at the forest estate level and the consideration of benefits that are difficult or impossible to quantify, such as visual quality, hydrologic green-up, and improved habitat.

9. Affiliated Programs

Several programs support, are supported by, or are affiliated with Forests for Tomorrow in different ways. Five key programs are described below.

9.1 Forest Worker Safety

The forest industry's Health and Safety Accord was established to prevent fatalities and injuries. The safety of silviculture workers has overriding priority in the Forests for Tomorrow program, making the BC Forest Safety Council and WorkSafe BC two important affiliations to Forests for Tomorrow. As well, only companies registered with SAFE Companies (when it is implemented) under the BC Forest Safety Council will be eligible to bid on Forests for Tomorrow activities.

9.2 Mountain Pine Beetle Action Plan

The Mountain Pine Beetle Action Plan describes the provincial government's response to the mountain pine beetle epidemic and provides guidance to all groups involved in mitigation efforts for forest values, communities, and the provincial economy in the short term, and in ensuring sustainability in the long term. The Forests for Tomorrow program supports Objective 6 of the action plan: Restore the forest resources in areas affected by the epidemic.

Five-year actions to address this objective include:
1. Restore forest ecosystem productivity.
2. Restore the productivity of areas not reforested as a part of normal post-harvesting activities on a priority basis, which may include important areas for the protection of water resources or wildlife.

3. Reforest on a priority basis to return the best sites to timber productivity quickly.
4. Recognizing impacts of this epidemic on future timber supply, identify the most productive growing sites and ensure they are restored to fully stocked, free-growing stands as quickly as possible. This activity will be planned in conjunction with timber salvage planning. Reforestation will consider methods to prevent future widespread epidemics by managing species, age, and other parameters.

9.3 First Nations Mountain Pine Beetle Working Group

The impact of the mountain pine beetle is expected to affect First Nations communities and culture. The primary goal of the First Nations Mountain Pine Beetle Working Group is healing the land and sustaining First Nations cultures. Forests for Tomorrow supports this working group in the spirit of the New Relationship to achieve strong governments, social justice, and economic self-sufficiency for First Nations. Forests for Tomorrow provides an opportunity for First Nations businesses and employees to build capacity and develop expertise as the reforestation program expands to meet the replanting needs resulting from the mountain pine beetle epidemic.

9.4 Future Forest Ecosystems

Forests for Tomorrow will incorporate recommendations from the Future Forest Ecosystems initiative which is exploring opportunities to adjust approaches to forest management in response to rapidly changing conditions that affect the distribution, composition and productivity of ecosystems. The goal is to respond effectively to current and future changes in environment (climate) and ecology (fire and biotic agents) by adapting the current forest management framework in BC to achieve resilient forest ecosystems.

9.5 Climate Change

The uncertainty of climate change and its impacts on forests and rangelands is a growing concern for resource managers and land users. The Chief Forester's task team of staff from the ministries of Forests and Range, and Environment released its draft report in May, 2006 suggesting how the Ministry of Forests and Range should strategically position itself in response to changes to forest and range resources. Forests for Tomorrow is involved in preparing for climate change by funding the analysis of alternative species that can accommodate different growing regimes.

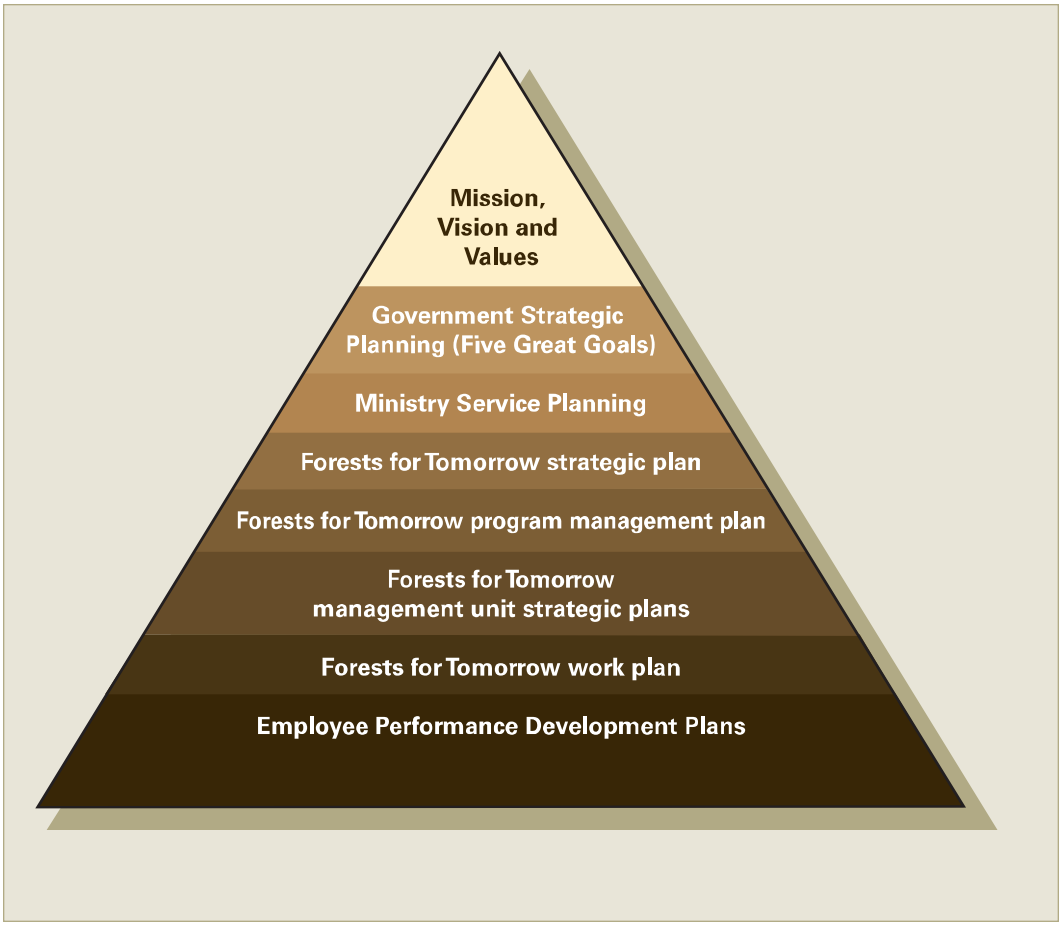
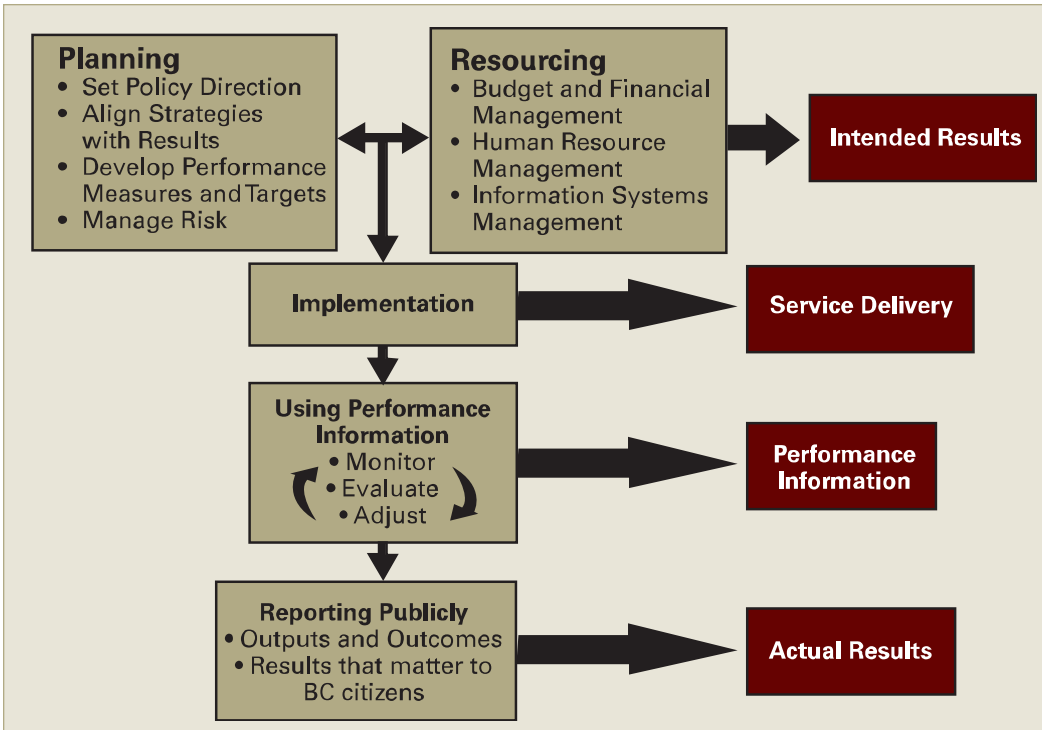


Figure 1. The Forests for Tomorrow program planning hierarchy.

10. Program Planning

Based on higher-level government objectives, the Forests for Tomorrow planning hierarchy begins with government strategic planning and ministry service planning (Figure 1). Then the **Forests for Tomorrow Strategic Plan** (to be completed in 2007) will set out a framework for the next 5 to 10 years consistent with the planning hierarchy. This **Program Management Plan** communicates the high-level goals and key objectives that drive the program and establishes the results-based management framework, including alignment with the government strategic and service planning layers. **Management Unit Strategic Plans** provide the Forests for Tomorrow program with information to rationally and strategically allocate and deploy silviculture investments. These plans may be higher-level plans or Type 1 or 2 silviculture strategies. The outputs include an updated and fully analyzed provincial incremental silviculture strategy and an investment plan.

The **Work Plan** outlines the suite of funded projects for a given fiscal year and provides the basis for annual budget allocations. Finally, **Employee Performance Development Plans** for program staff establish a link between individual staff and planning levels.



Note: Adapted from the Office of the Auditor General of British Columbia, 2004, *Building Momentum for Results-Based Management, A Study About Managing for Results in British Columbia, Part 1: Managing for Results in British Columbia's Public Sector.*

Figure 2. Results-based management framework.

11. Results-Based Management Framework

Forests for Tomorrow is implemented through a results-based management framework (Figure 2). This program management plan is part of the results-based management process, which is a continuous cycle of:

- Clear objectives;
- Effective strategies;
- A delivery model aligned within the planning hierarchy;
- Performance measurement, risk management, evaluation, and reporting; and
- Policy and management adjustments.

11.1 Strategies

Silviculture strategies provide updated forest-level analyses for silviculture investments in management units across BC. The overall objective of the strategies is to provide program staff with information to enable rational and strategic allocation and deployment of silviculture investments.

The outputs from this strategic planning initiative include:

- an updated and fully analyzed provincial discretionary silviculture strategy;
- a rational investment plan for future funds (both Forests for Tomorrow and other programs, such as the Forest Investment Account);
- a series of detailed objectives and performance indicators at three levels: management unit, regional, and provincial;
- a measure of the social benefits, in the short term from silviculture jobs and in the long term from an improved timber supply; and
- standardized analysis output to evaluate and compare budget allocations on a consistent basis.

11.2 Risk Management

As part of the continuous improvement framework of the Ministry of Forests and Range, assumptions and risks are identified and monitored and, where appropriate, acted upon through program adjustments or other corrective means. The types of assumptions and risks that could impact the intended program outcomes include external, management, administration, technical, and uncertainty in scientific or resource information.

12. Priorities for Eligible Work

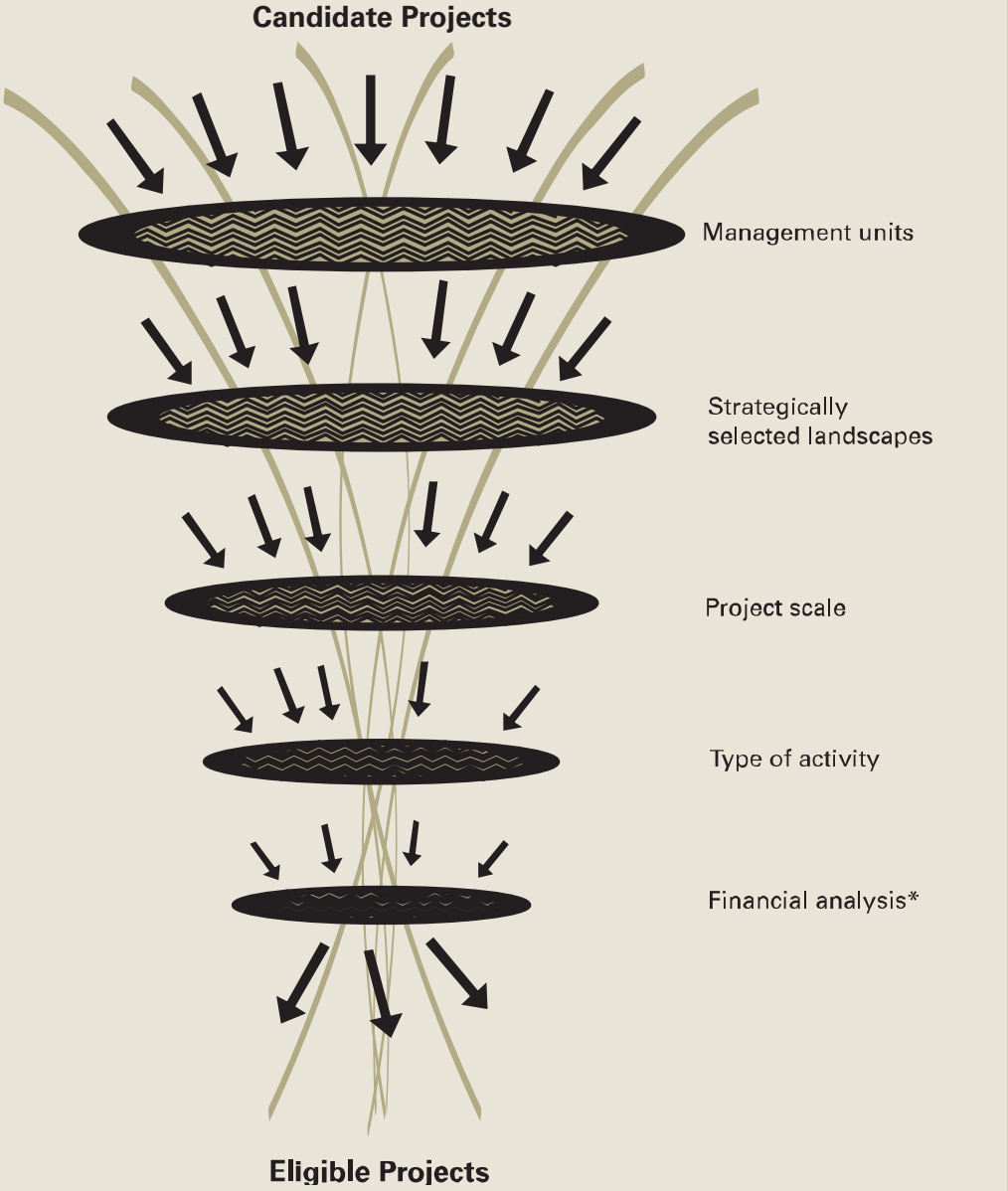
Proposed activities must meet various criteria to be eligible for funding under Forests for Tomorrow. The process to determine eligibility is shown as a sequence in Figure 3.

12.1 Management Units

Proposed activities must be on provincial Crown land, primarily within the Timber Harvesting Land Base, and impacted by recent wildfire or the mountain pine beetle. Those Timber Supply Areas, followed in priority by Tree Farm Licences, most in need of long-term timber supply mitigation have been identified from silviculture strategies. Then, watersheds or wildfire-affected areas greater than 250 hectares within these management units will be selected as large project areas for an effective and efficient scale of operations, and specific project areas determined based on the program eligibility criteria. Table 1 lists the eligible Timber Supply Areas and Tree Farm Licences based on the level of impact and percentage of mature lodgepole pine. Additional management units will be identified if appropriate.

12.2 Project Scale

Large project areas—watersheds and wildfire-affected areas greater than 250 hectares—enable an effective and efficient scale of operations and a measurable impact on timber supply. Treatment blocks within large project areas are stratified by priority. Ranking criteria for eligible treatment areas include the financial return-on-investment and risks to non-timber values as identified from land use plans and higher level plans.



*Note: Projects with an internal rate of return below 2% may be eligible if benefits to timber supply or non-timber resource values reflect a higher social priority.

Figure 3. Eligibility determination filter for Forests for Tomorrow projects.

12.3 Activities

12.3.1 Silviculture Strategies

All management units will be eligible for the development of silviculture strategies under Forests for Tomorrow, but the management units most affected by recent wildfires and mountain pine beetle (Table 1) are considered the highest priority. The revision of silviculture strategies will be used to plan and prioritize the opportunity for mid- and long-term timber supply mitigation through silviculture and other means.

Table 1. Eligible management units, in descending order of priority

Timber Supply Area	Tree Farm Licence
Quesnel	52 (West Fraser Mills)
Lakes	53 (Dunkley)
Williams Lake	5 (West Fraser Mills)
100 Mile House	35 (Weyerhaeuser, Kamloops)
Merritt	42 (Tanizul)
Prince George	49 (Tolko)
Cranbrook	18 (Canfor)
Morice	30 (Canfor)
Kamloops	
Lillooet	
Arrow	
Invermere	
Mackenzie	

12.3.2 Reforestation

Reforestation may be proposed to restore timber resource values, alone or combined with non-timber forest values, on sites within the Timber Harvesting Land Base. Eligible activities include planning, surveys, prescriptions, site preparation, seed and seedling planning and procurement, danger tree assessments and felling, planting, follow-up brushing, and other work to meet free-growing standards.

Surveys will be used to identify treatment opportunities, make cost estimates, and enable the planning of treatments at the landscape level. Non-timber values can be incorporated into the prescription based on existing guidelines and best management practices.

12.3.3 Restoration

Restoration encompasses the treatment of areas for non-timber values, within the Timber Harvesting Land Base, that are not expected to contribute to the current analysis of future timber supply (such as riparian reserve zones and sensitive slopes). Treatment of large areas for non-timber values that lie outside the Timber Harvesting Land Base will depend on the overall benefits and costs. Potential contribution to future access to timber is the likely objective for such treatments. For instance, a treatment that speeds up hydrological recovery in the non-contributing land base might free up an area in the Timber Harvesting Land Base for harvesting significantly earlier than if no treatment were done.

12.3.4 Fertilization

Fertilization is an eligible activity to address mid-term timber supply issues in target management units. Fertilization of suitable stands will help them become merchantable sooner to ameliorate the anticipated timber supply gap.

12.3.5 Other Activities

Forests for Tomorrow provides funding for analyses of the implications of the mountain pine beetle infestation and the development of associated silviculture, harvesting, and other management strategies to mitigate its impacts. Additionally, for projects that directly align with or support Forests for Tomorrow objectives, the program may fund projects in the Mountain Pine Beetle Inventory and Monitoring Action Plan, and support tree improvement and research.

12.4 Funding Commitments

12.4.1 Payment of FRPA Section 108 Claims

Forests for Tomorrow is the funding source for Section 108 of the *Forest and Range Practices Act*, which provides for forest licensees to re-establish young forests burned by wildfire or destroyed by *Dothistroma* needle blight before the attainment of free-growing status, by reimbursing the eligible expenses for this work.

12.4.2 Completion of Reforestation Requirements on Timber Agreement Lands

Forests for Tomorrow also funds surveys, planting, and brushing of plantations not under obligation on the Timber Agreement Lands (an expired tenure form without reforestation obligations in the Kootenay-Boundary Timber Supply Area).

12.5 Priorities

The initial priority for government agency planning and for industry and silviculture contractor reforestation work is as follows:

First Priority: Aggressively Reforest Recent Wildfire-Affected Areas
Areas affected by recent wildfires are the highest priority for reforestation because of the short window of opportunity to reforest them before they brush in. For cost efficiency and the greatest impact, the initial preference is to survey, plan, and treat fires greater than 250 hectares.

Second Priority: Enhance Long-Term Timber Supply of Areas Impacted by the Mountain Pine Beetle
The types of areas that are eligible for reforestation and restoration within the eligible management units are lodgepole pine stands impacted by the mountain pine beetle that are not under licensee obligation, and backlog NSR and post-1987 current fire and pest openings.

Third Priority: Enhance Long-Term Timber Supply of Other Areas
Reforestation not within areas affected by recent wildfires or the priority management units listed in Table 1 is case-specific and limited to situations of high Return on Investment for timber supply, either or both timber and non-timber values, and where no other funding options are available.

12.6 Financial Analysis

At the treatment block level, financial analysis tools for program-funded activities provide an important filter for decision making based on treatment costs and expected benefits. Consistent with the sixth objective in the Mountain Pine Beetle Action Plan (reforest on a priority basis to return the best sites to timber productivity quickly), eligibility for funding requires that the prescribed regime of treatments meets the Return on Investment criteria. A 2% Internal Rate of Return is required to balance the economic return of reforestation investments with future timber supply and other resource values and objectives. However, projects with an Internal Rate of Return below 2 % may be eligible when benefits to timber supply or non-timber resource values reflect a higher social priority.

13. Program Governance

13.1 Overview

The Minister of Forests and Range has decision-making authority for the Forests for Tomorrow program. The Chief Forester, Assistant Deputy Minister of Operations, and Assistant Deputy Minister of the Mountain Pine Beetle Emergency Response Team provide and confirm executive direction to staff and committees, and jointly endorse the Program Management Plan and the annual work plan. The program is administered by government or by a third-party delivery agent acting on behalf of government.

Staff in the Ministry of Forests and Range, with assistance and input from staff in the Ministry of Environment, are responsible for establishing program objectives, conducting strategic and program planning, and establishing delivery standards. In addition to establishing the operating criteria, government staff also identify recipients through tendering processes, set out activity priorities, and verify fieldwork.

13.2 Delivery Model

The Forests for Tomorrow delivery model enables the participation of existing recipient agreement holders for Tree Farm Licences, First Nations, and research forests. Field activities on Timber Supply Area lands will be through competitive tendering of recipient agreements, with a goal that 90 percent of the program be delivered through competitively awarded recipient agreements after 2007.

Policy encourages direct awards to qualified First Nations contractors. As well, bidders on tendered recipient agreements will be favoured if they commit to developing partnerships with First Nations.

Project eligibility by woodlot licensees and community forests requires inclusion in larger projects on neighbouring managing units under a partnership arrangement with the leading recipient.

A third-party administrator financially manages the funds for field goals and administers the recipients, who implement field activities in accordance with plans, guidelines, and standards approved by the ministry and other agencies. The private sector will be invited to bid on multi-year contracts tendered for priority areas.

13.3 First Nations Participation

First Nations participation is important to the Forests for Tomorrow program. First Nations people will be engaged through the Ministry of Forests and Range regional strategic planning teams to provide guidance on Forests for Tomorrow plans.

First Nations participation follows the New Relationship between government and aboriginal communities. In particular, Forests for Tomorrow will help to promote the mutual development of processes with First Nations. This will contribute to the first principle of the New Relationship, which includes practical and workable arrangements for land and resource decision-making and sustainable development.

13.4 Committees

Six core topic committees oversee the key program management functions.

The **Strategic Planning Advisory Group**, the senior management committee, is chaired by the manager of timber harvesting and silviculture practices. The advisory group provides strategic program oversight and direction, reviews significant program documents, makes decisions on unique project proposals, and ensures effective linkages with other government initiatives.

The **Operations Division Advisory Committee** is the program watchdog, advising ministry executive and staff on how to improve program delivery, value for money, stakeholder relations, and overall effectiveness. The committee reviews the annual work plan, Program Management Measures, and matters concerning program evaluation and audits.

The **Operational Planning Working Group** is the central planning and co-ordination committee, consisting of Forests for Tomorrow staff from the Forest Practices Branch and regions. The committee informs the Strategic Planning Advisory Group of key developments and communicates the decisions required by senior management.

The **Inventory and Timber Supply Analysis Working Group** manages inventory information for Forests for Tomorrow in response to the Mountain Pine Beetle Action Plan and Forests for Tomorrow work plan, and coordinated with the strategic framework developed in the *Strategies for Forest Inventory and Monitoring in Mountain Pine Beetle Areas*. The committee also ensures due diligence for inventory and timber supply projects funded by Forests for Tomorrow.

The **Seed Planning Working Group** conducts analysis of seed needs and availability for Forests for Tomorrow priority areas, develops seed mitigation strategies, identifies opportunities and priority for use of select seed, and develops land-based seed plans.

The **Effectiveness Evaluation and Research Working Group** develops the framework and strategy for adaptive management and continuous improvement, and coordinates effectiveness evaluations to provide guidance to Forests for Tomorrow activities on areas impacted by fire and the mountain pine beetle.

13.5 Agencies and Partners

Different agencies and partners are essential to the effective execution of Forests for Tomorrow. Within the **Ministry of Forests and Range** is the **Forest Practices Branch** which oversees the direction, leadership, strategic planning, and delivery of Forests for Tomorrow. Three ministry Branches—**Forest Analysis and Inventory, Tree Improvement,** and **Research**—provide specialized services relating to forest inventory and timber supply options, seed strategies and improved seed for reforestation, and implementation of the Forests for Tomorrow Research Strategy, respectively, all of which are essential to Forests for Tomorrow.

Staff in the **Northern Interior and Southern Interior forest regions** provide leadership, strategic planning, and silviculture expertise, along with budgeting, activity prioritization, delivery of annual work plan goals, and management of the execution from strategic planning to field delivery through the third-party administrator. Districts support the regions by providing local expertise and knowledge, contributing to silviculture strategies, reviewing operational plans, and assisting with First Nations information sharing and consultation.

The **First Nations Mountain Pine Beetle Response** staff contribute to Forests for Tomorrow program oversight and governance with respect to First Nations interests. They assist in ensuring that First Nations interests and values are advanced within the Forests for Tomorrow program and incorporated into planning, as well as increasing the comprehension level of First Nations issues and incorporating the New Relationship principles.

Ministry of Environment staff participate in working groups associated with program and operational planning and provide input to effectiveness monitoring, silviculture strategies, and information collection and management. The ministry develops standards, guidance, and policies for restoration activities, and identifies non-timber values documented in higher level and other plans for consideration in landscape- and stand-level silviculture prescriptions. The Ministry of Environment is also responsible for integrating the restoration conducted under Forests for Tomorrow with that by other funding sources, collectively identified as the Ecosystem Restoration Program.

The third-party administrator manages the delivery of field activities, and the **private sector** delivers field activities for Forests for Tomorrow through the forest industry, professional consultants, and silviculture contractors.

13.6 Budget

The Forests for Tomorrow budget is subject to annual appropriations approved by Treasury Board. Forests for Tomorrow funding priorities and allocations are determined by ministry staff. The annual work plan, developed in February, sets out the projects to be funded in the following fiscal year.

13.7 Annual Planning

Annual planning for Forests for Tomorrow is conducted around three important milestones.

Milestone #1 of the annual planning cycle is the approval of the annual work plan. At each quarter, financial reviews are important to ensure that funding and projects are on track. Monthly financial reporting begins after the first quarter.

Milestone #2 is the Six Month Performance Review, a face-to face joint planning session of the committee chair and program staff. The six-month review occurs in the third week of October, two weeks after the second quarter financial report is due. Program issues and challenges and progress on projects are discussed. Financial reallocations are made depending on project progress and program needs.

Milestone #3 is the start of the fourth quarter. In January, any new management direction for the next fiscal year is communicated, the program plan is amended if required, and the work plan for the next fiscal year is developed.

13.8 Quality Assurance

Quality assurance under Forests for Tomorrow uses standard quality assurance methods. Agencies are responsible for quality assurance on the projects they lead, whereas projects delivered by the third-party administrator require that the recipient be responsible for quality assurance, with the requirement for professional sign-off of required documents. Agency staff have the option to inspect this recipient work. The third-party administrator is responsible for the performance and financial audits of recipient work and enforcing standards, terms, and conditions, and is subject to auditing by the Internal Audit Branch of the Ministry of Finance.

13.9 Evaluation

Evaluation of Forests for Tomorrow is conducted at three levels. First, from a technical perspective, effectiveness evaluations of field activities and adaptive management will be used to develop a knowledge base related to issues affecting candidate forest stands. The knowledge obtained will help the reforestation program restore timber, biodiversity, soils, hydrology, and other forest values. Forests for Tomorrow effectiveness evaluation includes the concept of continuous improvement through adaptive management and the incorporation of new research and operational trials.

The Forests for Tomorrow effectiveness evaluation committee has surveyed stakeholders and compiled a list of priority evaluation questions. Evaluation projects are being designed and implemented, with the planning process

repeated to select new projects for future evaluation. The information obtained through monitoring and evaluation projects will be shared among many stakeholders and interested groups, and used in future management decisions.

Evaluation of the program's planning, administration, and delivery effectiveness and efficiency forms the second level. The Forest Practices Branch and parties external to the program will assess whether the program's goals and objectives have been met in an efficient and effective manner, with good return on investment for silviculture expenditures and other forest values.

The third level of evaluation is monitoring the effects of natural disturbances on non-timber values and ecological functioning. Results of this type of monitoring are essential input to silviculture planning and decisions at the landscape and stand levels, to help evaluate the achievement of sustainable forest management.

14. Reporting

Forests for Tomorrow uses seven reporting systems to ensure aligned, accurate, and useful program information and evaluation. These systems are summarized in Figure 4.

1. **CAS,** Oracle Financials Corporate Accounting System, is the suite of financial applications used by the Government of British Columbia.
2. **MAX,** the Ministry of Forests and Range financial system, is used for Service and Business Planning and reporting selected performance measures and targets and budget tracking tied to deliverables.
3. **FIRS,** the Forest Investment Reporting System, is used by PricewaterhouseCoopers to report Forests for Tomorrow treatment outputs and cost of projects.
4. **SPAR,** the Seed Planning and Registry System, is used to identify Forests for Tomorrow seed inventories and to enter sowing requests.
5. **NSA,** the Nursery and Shipping Administration system, is used to maintain information about ministry-contracted seedlings while they are being grown in forest seedling nurseries for reforestation.
6. **RESULTS**, the Reporting Silviculture Updates and Land Status Tracking System, is used for silviculture updates and conversion to vegetation inventory.
7. **LRDW,** the Land and Resource Data Warehouse, is a corporate repository managed by the Ministry of Agriculture and Lands for integrated land, resource, and geographic data that support a variety of business requirements for the natural resource sector, other government agencies, industry, and the public. Information from RESULTS is inputted to LRDW.

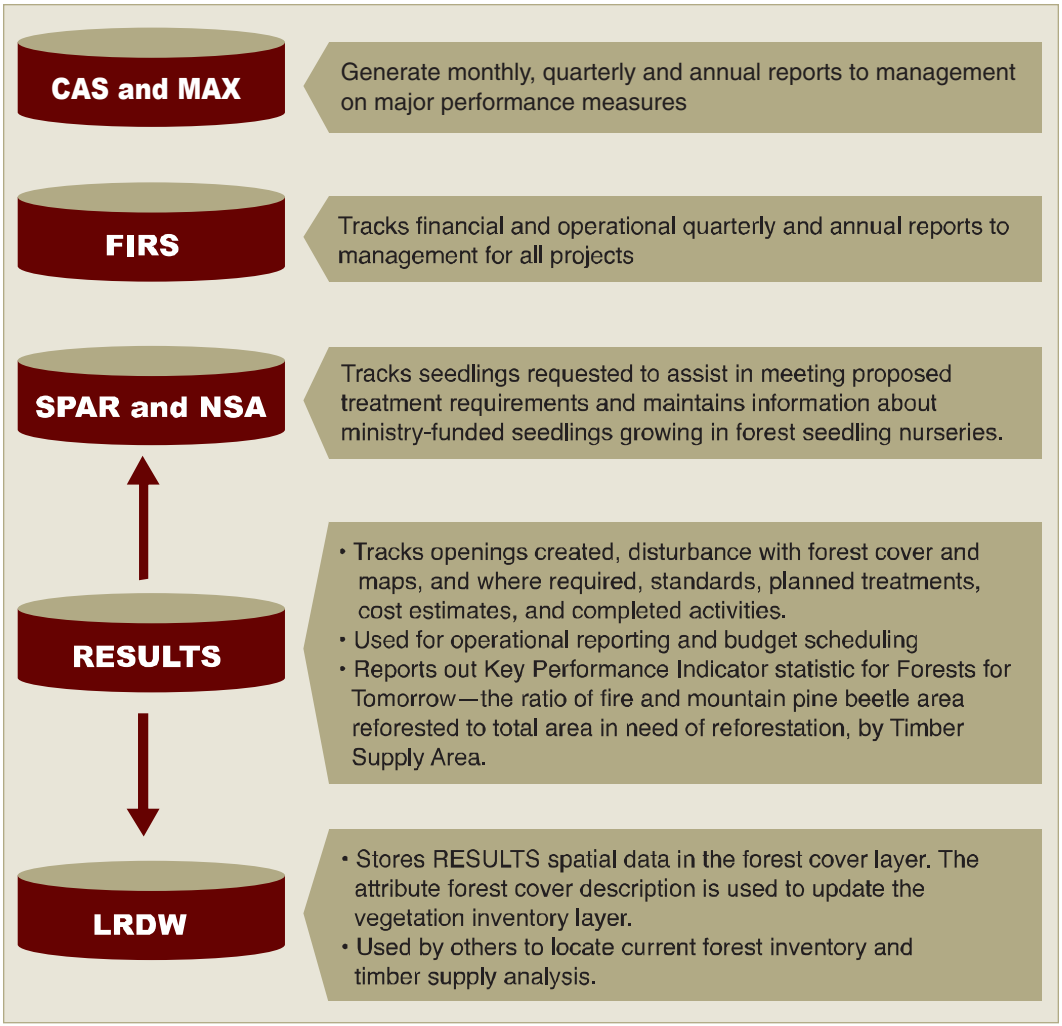


Figure 4. Forests for Tomorrow reporting system

15. Summary

Forests for Tomorrow is a long-term program to reforest and restore Crown forest land affected by recent wildfires and the mountain pine beetle epidemic. Higher-level government and ministry planning objectives have been used to direct the program and the development of this program management plan. The Forests for Tomorrow program follows a results-based management framework, is based on a strategic context, and applies financial analysis to allocate program funds. The program's implementation relies on related provincial programs and First Nations participation. Governance of Forests for Tomorrow also includes annual planning, quality assurance, and evaluation.