Appendix 2 - Land Base Investment Strategy Operational Budget (salaries excluded)*

Key Objective	Key Activities	$ M	Outputs 2010/11	Key Outcomes 2010/11	Key Outcomes 2011/12	Key Outcomes for 2012/13
Investment Category: Current reforestation (Forests for Tomorrow)		**40.226**				
Achieve best return from land based investments and activities by maximizing timber volume and growing more timber to offset impacts in midterm timber supply while increasing ecosystem resilience to adapt to changing climate.	Deployment of government funded silviculture in basic reforestation of wildfire, MPB killed areas. On the ground surveys to update forest inventory and land status (eg NSR) in key units.	*39.225*	18 million trees planted and brushed. surveys as to land status and necessary treatments in MPB impacted areas. Brushing for maintenance of growth rates and survival on past FFT and FIA planting. Assess 40,000 ha of backlog (pre 87 NSR). Fund legal liabilities associated with approved FRPA 108 applications (restoring licensee areas burned by fire).	2.64 million m^3 in 65 years Strategic information to support decision making and improve mid-term timber supply forecasting. Plans in place for future stand tending operations.	2.61 million m^3 in 65 years. Strategic information to support decision making and improve mid-term timber supply forecasting. Plans in place for future stand tending operations.	2.61 million m^3 in 65 years Strategic information to support decision making and improve mid-term timber supply forecasting. Plans in place for future stand tending operations.
Silviculture activities assist in watershed management and restoration.	Assessments in community watersheds and fisheries sensitive watersheds impacted by MPB and wildfire.	*0.400*	Assessments in 4 critical watersheds to determine where silviculture treatments can help mitigate risk and to work with delivery agents to focus treatments in high risk areas. Working with delivery agents to focus silviculture activities in high risk watersheds.	Information is provided to assist in strategic watershed management activities and restoration activities. Appropriate silviculture treatments are executed to help high risk watersheds to recover from MPB and Wildfire. Maintain watershed function above critical levels and restore watershed condition in 30-50 years to pre-MPB levels.	Information is provided to assist in strategic watershed management activities and restoration activities. Appropriate silviculture treatments are executed to help high risk watersheds to recover from MPB and Wildfire. Maintain watershed function above critical levels and restore watershed condition in 30-50 years to pre-MPB levels.	Information is provided to assist in strategic watershed management activities and restoration activities. Appropriate silviculture treatments are executed to help high risk watersheds to recover from MPB and Wildfire. Maintain watershed function above critical levels and restore watershed condition in 30-50 years to pre-MPB levels.
Ensure previously sown FIA-LBIP seedlings are planted.	Plant previously sown seedling for backlog reforestation and wildfire rehabilitation on woodlots.	*0.101*	Plant seedlings previously sown for current fire and pest under FIA-LBIP.	Previously sown seedlings are planted.	N/A	N/A
Short-rotation or fibre plantations to assist with the feedstock for emerging industries.	Establish pilots to test feasibility and economics .	*0.500*	6 short rotation or fibre pilots to test the operational issues associated with different species, stock type, planting densities, range of products etc.	Establish the potential for economically viable alternate management regimes in the vicinity of the pilots and the potential for expansion to other areas.	Establish the potential for economically viable alternate management regimes in the vicinity of the pilots and the potential for expansion to other areas.	Establish the potential for economically viable alternate management regimes in the vicinity of the pilots and the potential for expansion to other areas.
Investment Category: Mid-Term Timber Supply		**11.570**				
Improve the midterm timber supply in Mountain Pine Beetle Impacted Forest management Units. Improve timber availability and value on key FMU's on the Coast.	Fertilization, Spacing, and backlog brushing in priority interior forest management units for midterm timber supply mitigation. Fertilization and juvenile spacing on key forest management units on the coast.	*11.570*	21,000 ha fertilized. (Approximately 50% of area fertilized to be within Prince George, Lakes, Quesnel, and Williams Lake FMU's and 50% of area fertilized to be within the Strathcona, Kingcome, Fraser, and Arrowsmith FMUs) . 650 ha of stand tending (70% interior priority units and 30% Coastal key FMUs) focusing on the priority units for interior mid-term timber supply mitigation and to improve coastal timber availability and value.	472,500 m^3 in 10 years. In addition ensure 650 ha of over dense stands are available 10-30 years sooner to make available for harvest 200,000 m^3.	Achieve 472,000 m^3 of additional wood in 10 years time. In addition ensure that 6500 ha of over dense stands are available for harvest 10-30 years sooner to make available for harvest 2 million m^3.	Achieve 472,000 m^3 of additional wood in 10 years time. In addition ensure that 6500 ha of over dense stands are available for harvest 10-30 years sooner to make available for harvest 2 million m^3. 1,500 ha of Stand tending activities on the Coast to improve timber value.

Key Objective	Key Activities	$ M	Outputs 2010/11	Key Outcomes 2010/11	Key Outcomes 2011/12	Key Outcomes for 2012/13
Investment Category: Tree Improvement		**3.530**				
Growing bigger, more valuable and more resilient trees that are available to harvest sooner.	Provincial tree improvement program: breeding and seed production to establish fast growing forests better adapted to climate change. Tree Improvement Branch leads delivery.	*3.530*	108,000 ha reforested with "select seed" with an average genetic improvement over wild seed of 15%.	4.3 million m^3 in 65 years.	4.528 million m^3 in 65 years.	4.528 million m^3 in 65 years.
Investment Category: Inventory		**6.607**				
Update inventories of key forest attributes and site productivity estimates to improve strategic decision making (eg. mid-term harvest levels) and facilitate land based investments to achieve the highest returns.	Complete key Forest Inventories with significant past investments and direct all new inventory activities to the highest risk management units. Activities to improve estimates of Site productivity and growth expectations on existing and future managed stands in high risk management units.	*6.607*	• Photo acquisition in two MPB impacted management units. • Completion of eleven ongoing Inventory (VRI) projects: Kootenay Lake TSA ,TFL 46, TFL 47, Strathcona TSA, Soo TSA, Sunshine Coast, Revelstoke TSA, Robson TSA. - Initiation of seven new VRI's in highest priority management units: Williams Lake TSA (east) , Quesnel TSA (east), Fort Nelson TSA, Mackenzie TSA, 100 Mile House TSA (north), TFL 53, Haida Gwaii, Quesnel TSA (west). • Development of a new, lower cost inventory standard to address lower valued stands. • Continuation of ongoing VRI project in EBM management unit: Mid Coast TSA. • Initiate site productivity projects in four MPB-impacted management units. • Develop a Site Productivity Strategy and annual investment plans to guide future investment. - finalization of 2009/10 FIA carry-over projects.	• Improved decision making by ministry & licensees for AAC determinations, carbon sequestration estimation, forest management strategies and enhanced ability to focus land based investments to the highest priorities and returns on investment. • Inventories on key impacted units are not older than 10 years. • Forecasts of the productivity on existing and future second growth stands are improved.	• Improved decision making by ministry & licensees for AAC determinations, carbon sequestration estimation, forest management strategies and enhanced ability to focus land based investments to the highest priorities and returns on investment. • Inventories on key impacted units are not older than 10 years. • Forecasts of the productivity on existing and future second growth stands are improved.	• Improved decision making by ministry & licensees for AAC determinations, carbon sequestration estimation, forest management strategies and enhanced ability to focus land based investments to the highest priorities and returns on investment. • Inventories on key impacted units are not older than 10 years. • Forecasts of the productivity on existing and future second growth stands are improved.
Investment Category: Forest and Range Health		**6.415**				
Support improved tree growth and ensure public trust in forest management by monitoring and managing the impacts on the forest from pests .	Annually update forest health conditions to implement cost effective treatments and update timber supply impacts.	*1.008*	80% of the province is flown with qualified surveyors.	Strategic information available for cost effective decision making in harvesting and treatments to protect stand inventory.	Strategic information available for cost effective decision making in harvesting and treatments to protect stand inventory.	Strategic information available for cost effective decision making in harvesting and treatments to protect stand inventory.
Ensure efficient and effective delivery of Forest Health Key Objectives.	Survey training, quality control and provincial contract oversight and coordination.	*0.200*	10% quality check, coordinated and streamlined delivery, and provincial forest health conditions report. Updated training package.	Informed program planning, decision making, secure and accessible data and informed resource professionals.	Informed program planning, decision making, secure and accessible data and informed resource professionals.	Informed program planning, decision making, secure and accessible data and informed resource professionals.
Protect the midterm timber supply in Williams Lake, 100 mile, Kamloops, Merritt TSA.	Strategic deployment of spruce budworm control.	*1.900*	52,000 ha of Spruce Budworm sprayed.	1 million m^3 of mid-term timber supply saved.	2 million m^3 of mid term timber supply saved.	2 million m^3 of mid term timber supply saved.
Protect the midterm timber supply in Lakes, Prince George, Williams Lake, Quesnel, 100 Mile house TSA's.	Management activities to identify, map and treat spruce and douglas-fir bark beetle infestations to stop spread and protect surrounding forests from loss.	*1.022*	Areas with trees infected with spruce and douglas fir beetle are identified and mapped for treatment. Identified areas are treated by small scale salvage program and other licensees.	Spread of spruce and Douglas-fir beetle maintained below critical spread thresholds in units with critical mid term timber supply issues.	Spread of spruce and Douglas-fir beetle maintained below critical spread thresholds in units with critical mid term timber supply issues.	Spread of spruce and Douglas-fir beetle maintained below critical spread thresholds in units with critical mid term timber supply issues.

Key Objective	Key Activities	$ M	Outputs 2010/11	Key Outcomes 2010/11	Key Outcomes 2011/12	Key Outcomes for 2012/13
Protect the midterm timber supply in Rocky Mountain, Arrow-Boundary, and Kootenay Lakes TSAs.	Management activities to identify, map and treat mountain pine beetle infestations to stop spread and protect surrounding forests from loss.	0.550	Critical mountain pine beetle infection centers are identified and treated	Spread of mountain pine beetle are maintained below critical thresholds (units will remain classed as suppression units).	Spread of mountain pine beetle are maintained below critical thresholds (units will remain classed as suppression units).	Spread of mountain pine beetle are maintained below critical thresholds (units will remain classed as suppression units).
Protect the short and long term timber supply through appropriate harvesting and stand management practices and standards.	Develop and deploy best management practices to ensure the protection and production of healthy mid term and long term timber supply.	0.050	Forest Health Strategies updated to address the top 5 forest health pests on second growth stands.	Minimizing the risks of forest health losses through the application of best management practices. All new or extended Forest stewardship plans have stocking standards adjusted to reflect forest health conditions.	Minimizing the risks of forest health losses through the application of best management practices. All new or extended Forest stewardship plans have stocking standards adjusted to reflect forest health conditions.	Minimizing the risks of forest health losses through the application of best management practices. All new or extended Forest stewardship plans have stocking standards adjusted to reflect forest health conditions.
International Market Access, competiveness maintained, and forests, farms and urban areas protected.	Deploy Gypsy Moth control program in the Lower mainland.	0.550	Gypsy Moth populations in Richmond and Harrison Hot Springs are eliminated. Includes Btk purchase for 2011/12.	Protection of forests, farms and Richmond residents' trees and continued access to international forest product markets with no quarantine.	Protection of forests, farms and urban residents' trees and continued access to international forest product markets with no quarantine.	Protection of forests, farms and urban residents' trees and continued access to international forest product markets with no quarantine.
Protect human health and safety and ensuring public and consumer trust in forest management .	Deploy controls for Douglas-fir Tussock moth.	0.550	9500 ha of Douglas-fir Tussock moth treated. Includes Btk purchase for 2011/12.	Urban Douglas-fir protected and public health issues (asthma and severe allergies) avoided.	Urban Douglas-fir protected and public health issues (asthma and severe allergies) avoided.	Urban Douglas-fir protected and public health issues (asthma and severe allergies) avoided.
Protect critical habitats and prevent additional economic, ecologic and social impacts from invasive plant infestations on Crown land.	Undertake invasive plant management activities to identify, survey and treat priority species to prevent establishment of new invasive plants, and minimize the spread of others.	0.180	900 sites treated.	No new invasive plant species establishment and associated impacts; containment of marsh plume thistle, field scabious, and hoary alyssum populations; expansion of hawkweed and oxeye daisy in the Peace reduced.	No new invasive plant species establishment and associated impacts; containment of marsh plume thistle, field scabious, and hoary alyssum populations; expansion of hawkweed and oxeye daisy in the Peace reduced.	No new invasive plant species establishment and associated impacts; containment of marsh plume thistle, field scabious, and hoary alyssum populations; expansion of hawkweed and oxeye daisy in the Peace reduced.
Reduced presence and associated economic and environmental harm caused by invasive plants.	Partnership delivery of invasive plant measures to mitigate economic and environmental risk from invasive plants.	0.405	Partnership delivery of invasive plant management activities with regional weed committees or Regional Districts where appropriate. Support for established First Nations Invasive Plant Partnership projects. Complete treatment on 20% of critical invasive.	Spread of highest priority invasive plants is reduced; some are maintained below critical thresholds. Most of the collaborative, multi-agency/stakeholder partnerships maintained.	Spread of highest priority invasive plants is reduced; some are maintained below critical thresholds. Most of the collaborative, multi-agency/stakeholder partnerships maintained.	Spread of highest priority invasive plants is reduced; some are maintained below critical thresholds. Most of the collaborative, multi-agency/stakeholder partnerships maintained.
Investment Category: Fish Passage		**4.000**				
Lead the world in sustainable environmental management, with the best air and water quality, and the best fisheries management.	Includes assessment of culverts for fish passage, data analysis and priority remediation actions.	3.710	Perform 1500 assessments and rank priorities. Install 30 crossings and select and design another 30 crossings.[2]	High priority watersheds are assessed, 30 priority crossings are identified and remediated, approximately 200 km of fish habitat made accessible.	High priority watersheds are assessed, 30 priority crossings are identified and remediated, approximately 200 km of fish habitat made accessible.	High priority watersheds are assessed, 30 priority crossings are identified and remediated, approximately 200 km of fish habitat made accessible.
Ensure efficient and effective delivery of Fish Passage Key Objectives.	Deliver guidance, training, data collection and reporting.	0.290	Publish fish stream crossing guidance, improve the fish habitat model, implement training modules.	Informed program planning, decision making, secure and accessible data and informed resource professionals.	Informed program planning, decision making, secure and accessible data and informed resource professionals.	Informed program planning, decision making, secure and accessible data and informed resource professionals.

Key Objective	Key Activities	$ M	Outputs 2010/11	Key Outcomes 2010/11	Key Outcomes 2011/12	Key Outcomes for 2012/13
Investment Category: Fuel management		**				
Improve public safety and reduce wildfire suppression costs to government and wildfire impact costs to society through reduced wildfire risk to communities, critical infrastructure, critical habitats and timber values.	Completion of fuel modification in high wildfire threat rated areas in/adjacent to the wildland urban interface (WUI) by utilizing a suite of treatment options (harvesting, spacing/thinning, pruning, reduction of surface fuel, prescribed burning, chipping.		Community Wildfire Protection Plans (CWPP's) completed for at risk communities Forest fuel management prescriptions & treatments completed in/adjacent to WUI - 2,500 ha.	CWPP's are completed for at risk communities Reduction of wildfire threat to interface areas by treating the forest fuel on 2,500 ha. Implementation of ecosystem based prescriptions will lessen potential detrimental effect.	CWPP's are completed for at risk communities Reduction of wildfire threat to interface areas by treating the forest fuel on 2,500 ha. Implementation of ecosystem based prescriptions will lessen potential detrimental effect.	CWPP's are completed for at risk communities Reduction of wildfire threat to interface areas by treating the forest fuel on 2,500 ha. Implementation of ecosystem based prescriptions will lessen potential detrimental effect.
Investment Category: Ecosystem Restoration		**1.040**				
Restoration of ingrown open forests and disappearing native grassland ecosystems to create landscapes more resilient to climate change.	Undertake ecosystem restoration treatments in key priority areas by applying various combinations of harvesting, spacing/thinning and prescribed fire.	*1.040*	Complete mechanical spacing/thinning ER treatments on - 3,000 ha, prescribed fire treatments on - 3,000 ha, and update five district 5-year Strategic ER Plans.	• Reducing excessive fuel loads through spacing and prescribed fire, a total of 6000 ha, helps to mitigate catastrophic wildfire risks, maintain water supplies of community watersheds and protect air quality.	• Reducing excessive fuel loads through spacing and prescribed fire, a total of 6000 ha, helps to mitigate catastrophic wildfire risks, maintain water supplies of community watersheds and protect air quality.	• Reducing excessive fuel loads through spacing and prescribed fire, a total of 6000 ha, helps to mitigate catastrophic wildfire risks, maintain water supplies of community watersheds and protect air quality.
IC: LBI development, monitoring, and continuous improvement		**2.171**				
To Achieve government goals in an efficient and timely manner.	Program implementation and identification of future strategic priorities.	*1.425*	Derivation of detailed objectives and performance indicators at the management unit, regional, and provincial levels. Expenditures related to tactical costs for program delivery.	Forest and Range Resources Investment Program delivered efficiently.	Forest and Range Resources Investment Program delivered efficiently.	Forest and Range Resources Investment Program delivered efficiently.
Protocols that enable carbon credits through forest management.	Collaborative development of strategies and tactics to take advantage of emerging Carbon economy.	*0.250*	Develop a provincial standard forest management protocol to quantify and verify carbon sequestration at the forest level.	Carbon credits can be applied for carbon sequestration at the forest level.	Carbon credits can be applied for carbon sequestration at the forest level.	Carbon credits can be applied for carbon sequestration at the forest level.
Ensure efficient and effective delivery of the Land Base Investment Strategy.	Funding for FPIB for strategic planning, performance measure development, reporting and program support.	*0.496*	Develop, refine and monitor the strategic plan, provide support for field operations division, creation of standards and development best management practices.	Investment strategy delivered.	Investment strategy delivered.	Investment strategy delivered.
	Total	**75.559**				

** 2010/11 funding and outputs tied to Union of BC Municipalities, Community Adjustment Fund, and the Job Opportunities Fund and not tied to the LBIS.

1 - Specific inventory projects will be identified within the Vegetation Resource Inventory investment schedule 2010/11

2 - Specific locations of treatment will focus on the top 10% treatment priority options that enable 70% habitat recovery