



Land Based Investment Strategy

***2nd Quarter Report
2012-13***



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1. Overview

We are pleased to submit our report covering the operations and administration of the Land Based Investment Strategy for 2012/13.

This report reports out on the fifteen LBIS line of works being funded:

1. Current Reforestation
2. Timber Supply Mitigation
3. Tree Improvement
4. Fish Passage
5. Watershed Management
6. Inventory
7. Visuals
8. Ecosystem Based Management (EBM)
9. Forest Health
10. Invasive Plants
11. Wildfire Planning
12. Ecosystem Restoration
13. Recreation
14. Range
15. Program development, monitoring, and continuous improvement



The breakdown of the budget is as follows:

\$ Spent & Committed	\$ Planned Expenditure	\$ Not Committed	Total
\$ 45,105,045	\$ 19,243,954	\$ 7,493,925	\$ 71,832,924

Definitions:

<u>\$ Spent and Committed</u>	Funding already expended and funding committed to signed contracts
<u>\$ Planned Expenditures</u>	Remaining funding not yet committed but planned to be used by the end of the fiscal
<u>\$ Not Committed</u>	Funding which as of this reporting period is not being planned to be used

First Nation Investment by LBIS	\$ 1,166,358
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2. Progress (outputs) and Targets (outcomes)

1) Current Reforestation

Description:

Activities such as basic reforestation of wildfire and mountain pine beetle killed stands (Forests for Tomorrow), assisting in watershed management and reforestation, ensure previously sown LBIP seedlings are planted and establishing short-rotation or fibre plantations to assist with the feedstock for emerging industries.



Allocation: \$ 31,036,280

Second Quarter Adjustment: \$ 1,370,126

Current Allocation: \$ 32,406,406

Budget:

Program	\$ Spent & Committed	\$ Planned Expenditure	\$ Not Committed	Total
FIRS (Licensee Recipients)	\$ 4,012,915	\$ 0	\$ 1,676,524	\$ 5,689,439
FRPA s108 payments	\$ 0	\$ 0	\$ 841,876	\$ 841,876
PINES (FFT Recipients)	\$ 3,929,496	\$ 0	\$ 966,920	\$ 4,896,416
Regions, Districts and BCTS	\$ 7,270,489	\$ 6,255,672	\$ 2,632,404	\$ 16,158,565
Sowing	\$ 0	\$ 4,820,110	\$ 0	\$ 4,820,110
Total SUM	\$ 15,212,900	\$ 11,075,782	\$ 6,117,724	\$ 32,406,406

Targets, Activities and Outputs:

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
<ul style="list-style-type: none"> • 2.77 million m3 in 65 years • 2.8 million tonnes CO2e in 65 years • 321 million GDP in 65 years • 29,000 pd short term employment • 2,363 FTE long-term employment in 65 years 	<p>Reporting of activities in RESULTS will be complete in fourth quarter.</p>	<ul style="list-style-type: none"> • 14.5 million trees planted. • Surveys as to land status and necessary treatments in MPB impacted areas. • Maintenance of growth rates and survival on past FFT and FIA planting. • 80,000 ha of backlog (pre 87 NSR) assessed. • Fund legal liabilities associated with approved FRPA 108 applications (restoring licensee areas burned by fire).

2) Timber Supply Mitigation

Description:

The focus of the Timber Supply Mitigation investment category is to mitigate impacts on timber supply caused by catastrophic disturbance or constrained timber. Fertilization, spacing and backlog brushing in the central interior will focus on Mountain Pine beetle impacted areas and treatments on the coastal, southeast and northwest forest management units will focus on areas of constrained timber supply and where the highest return-on-investment will be achieved. Fertilization of stands increases merchantable volume and shortens time to harvest and spacing activities will make stands suitable for harvest sooner.



Investment funds cover activities such as: overview planning; surveys; current and future treatment prescriptions; and activity treatments. Delivery of activities is by Ministry staff, licensees, BCTS, Woodlots and Community Forests.

Allocation: \$ 11,837,916

Second Quarter Adjustment: \$ 1,112,084

Current Allocation: \$ 12,950,000

Budget:

Program	\$ Spent & Committed	\$ Planned Expenditure	\$ Not Committed	Total
Fertilization	\$ 4,995,413	\$ 1,296,890	\$ 0	\$ 6,292,303
Juvenile Spacing and backlog brushing	\$ 4,039,400	\$ 2,618,297	\$ 0	\$ 6,657,697
Total SUM	\$ 9,034,813	\$ 3,915,187	\$ 0	\$ 12,950,000

Targets, Activities and Outputs:

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
1. Fertilize 28,000 ha of area to produce 546,000 m3 additional wood in 10 years; 387,660 tonnes of CO2e in 10 years; \$63 million GDP in 10 years; 5040 pd short term employment; 573 FTE long-term employment in 65 years 2. 1200 ha of stand tending (juvenile spacing and backlog brushing) focusing on over dense stands in the interior, coastal, southeast, and northwest priority management units to make stands available for harvest in 10-30 years sooner; generate 4752 person days of short term employment.	Fertilization and spacing projects are underway by licensees, Ministry, and BCTS with achievements to be reported out at end of year when all projects are completed.	Reporting of accomplishments will be done at the end of the fiscal once completion information is submitted into RESULTS. Spacing and brushing projects are underway which will exceed the 1200ha target as well as develop prescriptions for future treatments. Interior fertilization treatments of approximately 21,000 ha are nearing completion and Coast projects will be starting shortly and continuing through to the end of the fiscal.

3) Tree Improvement

Description:

Through Forest Tree Genetic Resource Conservation and Management (GRM) the health, adaptability and productivity of forests are improved through the structure and dynamics of the trees genetic foundation.

Allocation: \$ 3,200,000

Second Quarter Adjustment: \$ - 200,000

Current Allocation: \$ 3,000,000



Budget:

Program	\$ Spent & Committed	\$ Planned Expenditure	\$ Not Committed	Total
Tree Improvement	\$ 2,417,000	\$ 583,000	\$ 0	\$ 3,000,000
Total SUM	\$ 2,417,000	\$ 583,000	\$ 0	\$ 3,000,000

Targets, Activities and Outputs:

Target (What we said we would do)	Achievement* (What we did)	Activities and Outputs (How we did it)
4.68 million cu metres (117,143 hectares x 0.615 cu metres/year x 65 years)	2.83 million cu metres (70,854 hectares x 0.615 cu metres/year x 65 years)	70,854 hectares using select seed

* Select seed reported at 2nd Quarter.

4) Fish Passage

Description:

Fish passage failure at road crossing constitutes a major loss of freshwater habitat for both migratory and resident fish populations in BC. Continued investment in the systematic assessment of closed bottom structures and remediation of high priority sites will contribute to the restoration of fish habitat connectivity in BC and will significantly improve fish populations and aquatic health.



Allocation: \$ 2,000,000

Second Quarter Adjustment: \$ 0

Current Allocation: \$2,000,000

Budget:

Program	\$ Spent & Committed	\$ Planned Expenditure	\$ Not Committed	Total
Remediation and Assessment	\$ 1,800,000	\$ 0	\$ 0	\$1,800,000
Technical Working Group projects	\$ 170,000	\$ 30,000	\$ 0	\$ 200,000
Total SUM	\$ 1,970,000	\$ 30,000	\$ 0	\$ 2,000,000

Targets, Activities and Outputs:

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
Remediate 15 high priority fish stream crossings to increase fish habitat Complete assessments in 75 priority third order watersheds Complete Fish-Stream Crossing Guidebook	Have remediated 17 high priority fish stream crossings and will remediate 18 (one more) by end of fiscal year On track to assess fish stream crossings in 75 third order watersheds Fish-Stream Crossing Guidebook completed	Habitat confirmations and design work completed in support of remediation projects Crossings have been remediated via installation of 6 new bridges or culverts and the deactivation of 11 crossings Draft Fish-Stream Crossing Guidebook was circulated widely to government agencies and stakeholders for final review and comment

5) Watershed Management

Description:

The process of creating and implementing plans, programs, and projects to sustain and enhance watershed functions that affect flora, fauna and human communities within a watershed boundary.

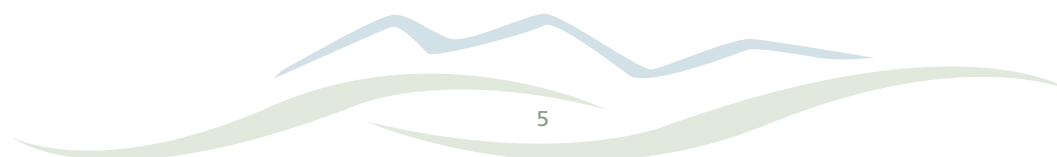
Allocation: \$ 520,000

Second Quarter Adjustment: \$ 3,000

Current Allocation: \$ 523,000

Budget:

Program	\$ Spent & Committed	\$ Planned Expenditure	\$ Not Committed	Total
Water	\$ 139,500	\$ 383,500	\$ 0	\$ 523,000
Total SUM	\$ 139,500	\$ 383,500	\$ 0	\$ 523,000



Targets, Activities and Outputs:

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
Assessments to identify and/or mitigate risk to water quality: - community / watersheds where water is diverted for human consumption; - fisheries sensitive watersheds and; - watersheds at by MPB, wildfire or range activities is identified	Assessments to identify or mitigate risk are underway in: • Community watersheds – 2 • Fisheries Sensitive Watersheds (FSW's) – 6 • watersheds impacted by MPB, fire and/or range activities - 9	Contracts have been completed for most projects - projects are underway

6) Inventory

Description:

Spatial and non-spatial forest inventory information is used to support many operational and strategic planning exercises (mid-term timber supply reviews, wildlife and habitat mapping, etc). Forest inventory information is also used to support investment decisions for other LBI programs. Higher risk management units require current and reliable data. Site productivity data are used to support TSR and silviculture investment planning



Allocation: \$ 7,500,000

Second Quarter Adjustment: \$ -78,769

Current Allocation: \$ 7,421,231

Budget:

Program	\$ Spent & Committed	\$ Planned Expenditure	\$ Not Committed	Total	Notes
Inventory Analyses	\$ 108,310	\$ 10,000	\$ 0	\$ 118,310	
Inventory Ground Sampling (VRI, NVA, YSM, PSP)	\$ 1,202,674	\$ 16,686	\$ 11,900	\$ 1,231,260	
Likely Surplus	\$ 0	\$ 0	\$ 188,193	\$ 188,193	That portion of the Total Not Committed potentially surplus (adjusted to reflect 2nd quarter return of \$78,769)

Photo Interpreted Inventory Activities (incl air photo acquisition)	\$ 3,731,065	\$ 12,562	\$ 20,934	\$ 3,764,561	
Program Support (contracts, auxilliary staff, etc)	\$ 231,131	\$ 300,000	\$ 50,000	\$ 581,131	
Remote Sensing/ Innovative Inventory Activities	\$ 329,600	\$ 134,000	\$ 27,175	\$ 490,775	
Site Productivity	\$ 916,001	\$ 1,000	\$ 0	\$ 917,001	
Systems Support	\$ 130,000	\$ 0	\$ 0	\$ 130,000	
Total SUM	\$ 6,648,781	\$ 474,248	\$ 298,202	\$ 7,421,231	

Targets, Activities and Outputs:

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
<ul style="list-style-type: none"> * Improved information for decision making by natural resource sector managers including AAC determinations and strategic analyses, in addition to addressing emerging mid-term timber supply questions; First Nations Treaty negotiations; carbon estimation. * Enhanced ability to address licensees issues and concerns, help focus land based investments to the highest priorities and returns, inform those pursuing emerging opportunities; and better assist in government policy development. * Inventory information is current and complete for high risk management units. * Forecasts of the productivity on existing and future second growth stands are improved. Complete full draft PEM, develop AA Sample plan * Preliminary sampling plan for PEM and SIBEC 	<ul style="list-style-type: none"> * Photo interpretation of 100 Mile House TSA on schedule for a 2013/14 completion. * TFL 14 photo interpretation on schedule for 2012/13 completion. * Mackenzie TSA audit sampling complete and inventory analysis ongoing. * Completion of northern central interior regional net volume adjustment factor (NVAF) sampling (area approximates Mackenzie and Prince George TSAs, Kootenay Lake TSA, and coast Region) near complete. * Mid Coast TSA, Haida Gwaii TSA photo interpretation on schedule for a 2013/14 completion. * TFL 23 completion delayed until 2013/14 due to contractor capacity. * Vegetation Resources Inventory activities initiated and continuing in Kamloops Forest District, TFL 35, Pacific TSA (photo interpretation), Kootenay Lake and Morice TSA (audit, young stand monitoring, and analyses). Kamloops and TFL 35 on schedule to be completed over two years, Kootenay Lake and Morice to be completed 2012/13. * Photo acquisition successfully completed in the Lakes, Vanderhoof, and the southern Ft St James and PG TSAs. 	<ul style="list-style-type: none"> * Continuing completion of new photo interpreted inventory data in the Mid Coast TSA, Haida Gwaii TSA, 100 Mile House TSA, TFL 14, TFL 23, Pacific TSA, and Kamloops TSA. Delivery of map inventories ongoing. * Completed NVAF ground sample data collection in the Mackenzie, Prince George TSA and the Coast Region. * Completed Young Stand Monitoring sample data collection in the Quesnel TSA. * Completed of audit and Young Stand Monitoring ground sample data collection in the Morice and Kootenay Lake TSAs. * Photo acquisition successfully completed in the Lakes, Vanderhoof, and the southern Ft St James and PG TSAs. * Ongoing development and implementation of innovative, non-standard VRI inventory processes and activities.

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
	<ul style="list-style-type: none"> * Installation of young stand monitoring samples in the Quesnel TSA and complete, analysis to be completed 2012/13. * Develop and implement innovative, non-standard VRI inventory processes and activities. This includes (1) completion of Landscape Vegetation Inventory for priority MPB-impacted west Williams Lake TSA (1.7 million ha) using semi-automated classification of satellite imagery and MPB specific photo/ground sampling; (2) test Lidar technology, in conjunction with BCTS and licensees, to produce inventory information. These projects are progressing as planned, other than the ground sampling component of the Williams Lake project which has been delayed until 2013 due to lack of contractor capacity. * Initiation of SIBEC sampling in the Arrow/Boundary TSA * Initiation of PEM in the Cranbrook, initiate BEC sample plan. * Completion of PEM in the Kootenay lake and Accuracy Assessment in the Merritt TSA. * Completion of outstanding SIBEC sampling in priority LBIS management units ** In response to immediate information requirements in the Lakes TSA, initiated and completed unscheduled sampling project in the Lakes TSA. Inventory analysis to be completed 2012/13. 	<p>This includes (1) completion of Landscape Vegetation Inventory for priority MPB-impacted west Williams Lake TSA (1.7 million ha) using semi-automated classification of satellite imagery and MPB specific photo/ground sampling; (2) test Lidar technology, in conjunction with BCTS and licensees, to produce inventory information. These projects are progressing as planned, other than the ground sampling component of the Williams Lake project which has been delayed until 2013 due to lack of contractor capacity.</p> <ul style="list-style-type: none"> * Initiated SIBEC sampling in the Arrow/Boundary TSA * Initiated SIBEC sampling in the Cranbrook select PEM including sample plan. * Initiated PEM and preliminary field sampling in Robson Valley. * Concluded outstanding SIBEC sampling in priority LBIS management units

7) Visuals

Description:

Ensuring that the levels of Visual Quality desired by society are achieved on all crown land in Scenic Areas in keeping with the concepts and principles of integrated resource management.

Allocation: \$ 200,000

Second Quarter Adjustment: \$ 0

Current Allocation: \$ 200,000



Budget:

Program	\$ Spent & Committed	\$ Planned Expenditure	\$ Not Committed	Total
Visuals	\$ 0	\$ 200,000	\$ 0	\$ 200,000
Total SUM	\$ 0	\$ 200,000	\$ 0	\$ 200,000

Targets, Activities and Outputs:

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
<ul style="list-style-type: none"> Complete re-inventory in those areas with significant past investment. Direct new inventory work to occur in priority units. 	To be reported in the 4th quarter	To be reported in the 4th quarter

8) Ecosystem-Based Management

Description:

Mapping support for (1) implementation of old growth retention targets at the site series level; (2) application of improved SIBEC estimates for assessment of timber supply; (3) SLR design

Allocation: \$ 1,000,000

Second Quarter Adjustment: \$ 0

Current Allocation: \$1,000,000

Budget:

Program	\$ Spent & Committed	\$ Planned Expenditure	\$ Not Committed	Total	Notes
R level TEM mapping. PEM TEM hybrid assessment.	\$ 987,637	\$ 12,363	\$ 0	\$ 1,000,000	The uncommitted funds (\$12,363) were designated for unexpected expenditures such as remapping and increased fuel costs etc. Depending on the outcome of ongoing discussions between the NGOS and the forest industry there is a high likelihood that the funds will be spent on a layers development contract to support new site series mapping.
Total SUM	\$ 987,637	\$ 12,363	\$ 0	\$ 1,000,000	

Targets, Activities and Outputs:

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
<ul style="list-style-type: none"> Field data and completed spatial mapping for approximately 1 million ha; including 4 LUs in Kingcome TSA1; 8 LUs in MidCoast TSA2, and 13 LUs in the NorthCoast TSA3 primarily at level R - on target for completion March 2013 Completion of TEM-PEM hybrid assessment and extension of mapping model to priority LUs dependent on QA results and relative cost analysis - final report expected Nov 30, 2012. Independent AA to contribute to cost:benefit analysis of level4 vs. Level R vs. PEM/TEM hybrid mapping in plan area - field work completed internally; report planned by Jan 30, 2013 	<p>Preliminary polygon delineation and attribution for all LUs completed; field sampling completed in Kingcome TSA, MidCoast TSA, and 7 LUs in North Coast TSA. Initial report and layers received, knowledge tables updated to reflect new plot information; awaiting final comparative report and output layers. New test methodology developed and field work completed by MFLNRO and MoE staff (report in process) Initial seamless layer derived; evaluation by stakeholders and updates of layer ongoing. Initial joint meetings held onsite with Heiltsuk representatives including joint TEM flight; partnership meetings held with additional partners (Hakai Institute, SFU) and mapping consultants (Blackwell).</p>	<p>Preliminary polygon delineation and attribution for all LUs completed; field sampling completed by helicopter in Kingcome TSA, MidCoast TSA, and 7 LUs in North Coast TSA. Initial report and layers received, knowledge tables updated to reflect new plot information; New test methodology developed and field work completed by MFLNRO and MoE staff (report in process) Initial seamless layer derived; evaluation by stakeholders Initial joint meetings held onsite with Heiltsuk representatives including joint TEM flight; partnership meetings held with additional partners (Hakai Institute, SFU) and mapping consultants (Blackwell).</p>

9) Forest Health

Description:

Forest Health, a component of the Silviculture Program, is responsible for the detection and quantification of forest health problems, and, where necessary, the prescription and implementation of protective or suppressive treatments to prevent insect, disease and mammal damage to reforested areas and old growth stands. The forest health program also evaluates the effect of forest practices on forest health as these occasionally increase the risk of damage from insects, diseases and mammals. Funding for forest health increased by 1 million dollars to support Mountain Pine Beetle treatments in south east part of the province.



Allocation: \$ 6,877,286

Second Quarter Adjustment: \$ 0

Current Allocation: \$ 6,877,286

Budget:

Program	\$ Spent & Committed	\$ Planned Expenditure	\$ Not Committed	Total	Notes
Forest Health - All	\$ 5,298,067	\$ 1,200,000	\$ 389,220	\$ 6,887,287	Encumbered funds not accurate so the total committed was estimated. Spent and Committed includes the \$400K administered by PwC.
Total SUM	\$ 5,298,067	\$ 1,200,000	\$ 389,220	\$ 6,887,287	

Targets, Activities and Outputs:

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
<ul style="list-style-type: none"> - Conduct an aerial overview survey on 80% of the province - Conduct 10% quality checks of the aerial overview survey - Treat 100,000 ha of high value interior Douglas-fir to reduce impacts caused by Western Spruce Budworm - Update all TSA/District forest health strategies - Conduct detailed aerial surveys on all high priority Douglas-fir and Spruce Beetle infestations - Manage all high priority mountain pine beetle infestations - Deploy gypsy moth eradication program 	<ul style="list-style-type: none"> - Over 80% of the province was surveyed - 10% quality checks of the aerial overview survey completed - Over 100,000 ha of interior Douglas-fir were protected using aerial spray applications - Forest health strategy updates are on track for completion by year end - All high priority Douglas-fir and Spruce Beetle infestations detected - Mountain pine beetle management ongoing and on track - gypsy moth monitoring completed 	<ul style="list-style-type: none"> - all regions participated in administering aerial overview survey contract in their areas. HQ is coordinating and summarizing the provincial data and producing an annual forest health conditions report in March 2013. - HQ administers the quality control contract to ensure the aerial overview survey is deployed to provincial standards - Cariboo, TOR and KBR regions conducted aerial applications of Btk to treat high value budworm stands. In addition, stands critical for caribou habitat were also treated to prevent stand mortality by defoliation by western hemlock looper. A small operational trial to test treatment timing for 2 year cycle budworm was conducted near Quesnel. - Forest health strategies will be updated with the latest AOS results. Climate change and FSP stocking standards recommendations will be added where the information is available. - detailed aerial surveys were conducted to identify new Douglas-fir and spruce beetle infestations that will be managed mainly through harvesting - Mountain pine beetle detailed aerial surveys have been completed in suppression BMUs in SE BC. Ground detection and single tree treatments will be completed this winter. - Gypsy moth traps were deployed by the province in FS recreation sites and provincial parks by regional FH staff/contractors. No male GM were found in these traps this year.

10) Invasive Plants

Description:

Invasive plants threaten healthy forest and rangeland ecosystems by displacing native species and disrupting natural ecosystem processes. They can also seriously affect wildlife habitat and forage availability, forest regeneration, water quality, and natural disturbance regimes. The Invasive Plant Program works collaboratively and often in partnership with other land management



agencies, First Nations, and regional weed committees to detect and eradicate new incursions, contain the spread of priority invasive plant populations through treatment programs, and reduce existing impacts through best management practices and applied biological control activities. (<http://www.for.gov.bc.ca/hra/plants/index.htm>)

Allocation: \$ 480,000

Second Quarter Adjustment: \$ 120,000

Current Allocation: \$ 600,000

Budget:

Program	\$ Spent & Committed	\$ Plannded Expenditure	\$ Not Committed	Total
Early Detection and Rapid Response to new invaders, Inventory, Containment of priority species, FN IP Partnerships, Monitoring	\$ 408,335	\$ 191,665	\$ 0	\$ 600,000
Total SUM	\$ 408,335	\$ 191,665	\$ 0	\$ 600,000

Targets, Activities and Outputs:

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
<ul style="list-style-type: none"> • 12 historic candidate EDRR invasive plant species reviewed; control or containment action determined and implemented. • No new invasive plant species established in the province. • Some expansion of highest provincial priority invasive plant species beyond established containment lines • 600 priority invasive plant sites inspected and/or treated • 12% of highest provincial priority invasive plant species treatment sites are eradicated. • Infestations of Dalmatian toadflax, hound's-tongue, and diffuse knapweed are under biological control. 	<ul style="list-style-type: none"> • Provincial EDRR plan updated and implemented on 12 invasive plant species with historic accounts; no new incursions reported this year • Inventory and incursion surveys completed on FSRs West of Revelstoke; East of Vernon (Monashee); North of Sparwood; Bummer's Flats WMA and Cariboo east for Marsh Plume thistle. • %* of highest provincial priority invasive plant species (i.e. IPP Goal 3 species) sites on Crown land are inspected and/or treated outside containment lines is unknown at this time. Data will be entered and available for 3rd/4th quarter reporting. (* achievement dependent upon partnership delivery funding level). • Available operational biological control agents distributed to fill gaps 	<p>Analysis and field verification of 12 historic candidate prohibited invasive plant species records; Invasive Plant Early Detection and Rapid Response (EDRR) treatment actions on 7 species; Invasive Plant Multi-Stakeholder Partnerships maintained with 13 invasive species/plant committees and 15 local governments; Invasive Plant Inventory completed on 60% of planned areas; Invasive Plant Surveys/ and Treatments completed (total # available 3rd/4th quarter) Invasive Plant Sites Extirpated (% available 4th quarter)</p>

11) Wildfire Planning

Description:

Planning to: reduce fire hazards and risks (particularly in and around communities and other high-value areas); carefully use controlled burning where the benefits are clearly defined and the risks can be cost-effectively managed; monitor and manage, rather than suppress, fires that are of minimal risk to communities, infrastructure or resource values; implement land, natural resource and community planning that incorporates management of wildland fire at all appropriate scales; and develop a high level of public awareness and support for wildland fire management.

Allocation: \$ 40,000

Second Quarter Adjustment: \$ 160,000

Current Allocation: \$ 200,000



Budget:

Program	\$ Spent & Committed	\$ Plannded Expenditure	\$ Not Committed	Total
Wildfire Planning	\$ 115,000	\$ 85,000	\$ 0	\$ 200,000
Total SUM	\$ 115,000	\$ 85,000	\$ 0	\$ 200,000

Targets, Activities and Outputs:

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
<ul style="list-style-type: none"> • Development of a hazard/risk analysis methodology • Test Pilot hazard risk analysis methodology in key districts • Provincial scale Hazard/Risk Mapping • Development of a system/Protocol for development of landscape fire management plans and integration of fire management into other resource management activities including training 	To be reported in the 4th quarter	To be reported in the 4th quarter

12) Ecosystem Restoration

Description:

The process of assisting the recovery of resilience and adaptive capacity of ecosystems that have been degraded, damaged, or destroyed. Restoration focuses on establishing the composition, structure, pattern, and ecological processes necessary to make terrestrial and aquatic ecosystems sustainable, resilient, and healthy under current and future conditions. British Columbia's current priority is the restoration of ingrown open forests and native grassland ecosystems to create landscapes more resilient to climate change while providing sustainable goods and services.

Allocation: \$ 800,000

Second Quarter Adjustment: \$ 200,000

Current Allocation: \$ 1,000,000



Budget:

Program	\$ Spent & Committed	\$ Planned Expenditure	\$ Not Committed	Total	Notes
Ecosystem Restoration	\$ 626,592	\$ 373,408	\$ 0	\$ 1,000,000	1.3 M in Leveraged funding reported in thus far.
Total SUM	\$ 626,592	\$ 373,408	\$ 0	\$ 1,000,000	

Targets, Activities and Outputs:

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
<ul style="list-style-type: none"> • Restoration treatments applied to 4000 ha of key ecosystems to create landscapes more resilient to climate change. • Contribute 175,000 m3 annually throughout the short and mid-term timber supply, and create other potential biomass opportunities. • Reducing excessive fuel loads, through spacing and prescribed fire, helps to mitigate wildfire risks, maintain community water supplies, protect air quality, endangered species and ecosystems, enhance First Nations values, and increase fibre availability. 	<p>3651 ha of mechanical Treatments applied. 2426 ha of applied ER Prescribed fire treatments applied. (200 ha is pile burning). 4 District Strategic Plans updated</p>	<ul style="list-style-type: none"> • 2,000 ha mechanical ER spacing/thinning. • 2,000 ha of applied ER prescribed fire treatments. • Update three district 5-year Strategic ER Plans.

13) Recreation

Description:

Conduct maintenance and rehabilitation efforts to extend the life of existing recreation sites and trails; develop new sites and trails where the opportunity, demand and community support is high; lower operating costs and increase service capacity and the quality of outdoor recreation experiences through effective partnerships.



Allocation: \$ 1,000,000

Second Quarter Adjustment: \$ 0

Current Allocation: \$ 1,000,000

Budget:

Program	\$ Spent & Committed	\$ Planned Expenditure	\$ Not Committed	Total
Recreation Site and Trail Maintenance and Repair	\$ 800,000	\$ 200,000	\$ 0	\$ 1,000,000
Total SUM	\$ 800,000	\$ 200,000	\$ 0	\$ 1,000,000

Targets, Activities and Outputs:

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
<ul style="list-style-type: none"> On target for a 5% increase in use at recreation sites and trails (over previous year). Extended the life of recreation sites and trails. Provide communities safe, healthy and sustainable outdoor recreation opportunities. 	Approximately 60% of recreation sites and trails have been successfully maintained or rehabilitated in partnership with local community groups, 1st Nations and Forest Licensee's.	<ul style="list-style-type: none"> Maintain and as necessary rehabilitate 790 recreation sites and 490 trails. Leverage 198 partnership agreements in place for managing and maintaining recreation sites and trails essential to communities. - Maintain partnership delivery of Rec Site/Trail program; including support from First Nations, Forest Industry and community groups

14) Range

Description:

Program activities focus on ensuring healthy and sustainably managed rangelands which are capable of supporting the interests and activities of clients, stakeholders and partners.

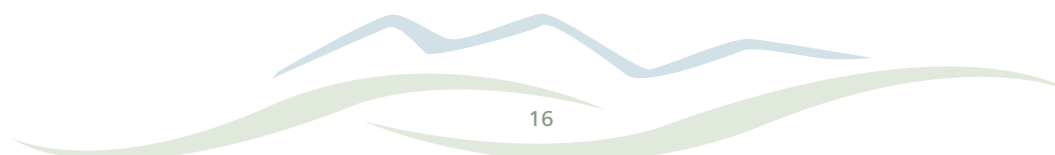
Allocation: \$ 800,000

Second Quarter Adjustment: \$ 0

Current Allocation: \$ 800,000

Budget:

Program	\$ Spent & Committed	\$ Planned Expenditure	\$ Not Committed	Total	Notes
Range	\$ 270,199	\$ 529,801	\$ 0	\$ 800,000	NOTE: Contracts going forward for ADM Approvals (There have been some contracts NOT Approved by ADMs - Total amounts not yet confirmed).
Total SUM	\$ 270,199	\$ 529,801	\$ 0	\$ 800,000	



Targets, Activities and Outputs:

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
14,500 ha	Currently gathering data from district. (NOTE: Some Contracts currently going forward for ADM Approval. Some contracts have NOT Been Approved).	<ul style="list-style-type: none"> • Fence reconstruction. • Livestock watering facilities constructed and rehabilitated. • Damaged or degraded rangeland rehabilitation seeding.

15) LBI (Land Based Investment) Development

Description:

In order to develop a continuous improvement capability, the Resource Practices Branch needs to deploy and communicate its strategic goals in a way where improvement is guided by a process of monitoring and measurement against these strategic objectives. The Resource Practices Branch is also responsible for effective and efficient delivery of land base activities to meet provincial goals, priorities and outcomes identified in the LBIS through implementation and delivery agents.

Allocation: \$ 1,865,000

Second Quarter Adjustment:

Current Allocation: \$ 1,865,000

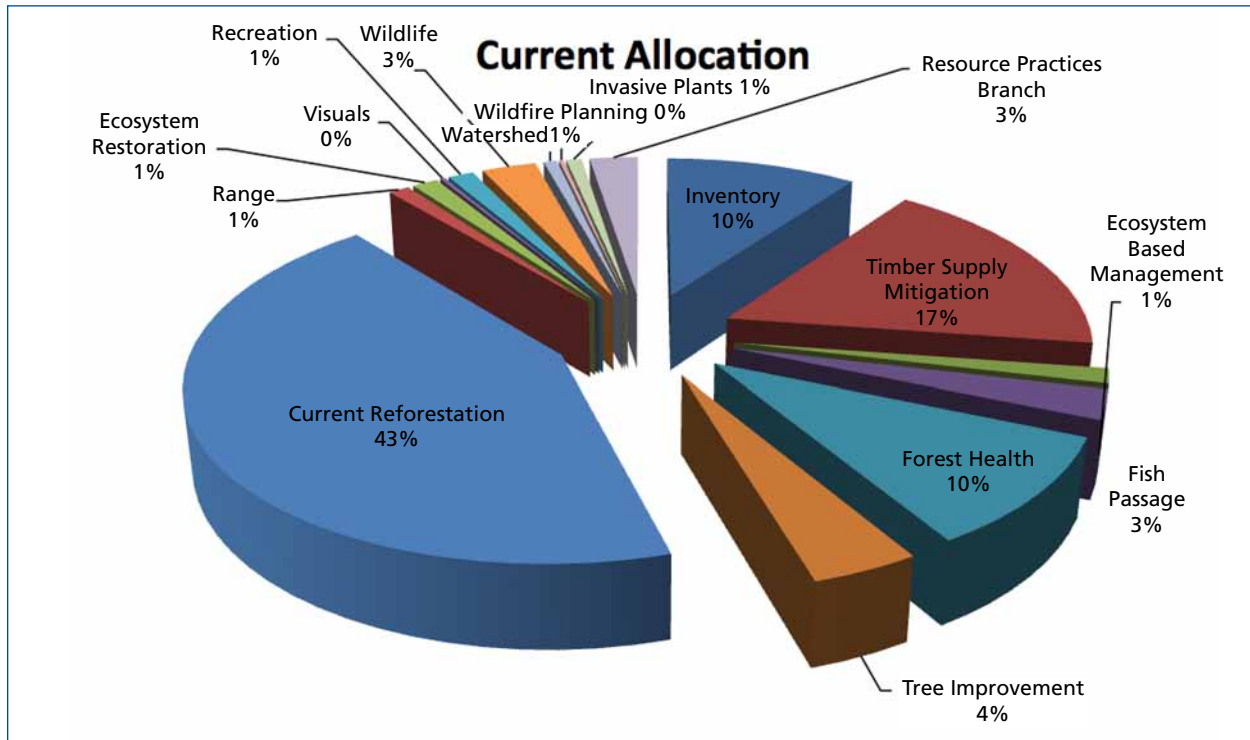
Budget:

Program	\$ Spent & Committed	\$ Planned Expenditure	\$ Not Committed	Total
LBIP Delivery	\$ 1,176,221	\$ 0	\$ 688,779	\$ 1,865,000
Total SUM	\$ 1,176,221	\$ 0	\$ 688,779	\$ 1,865,000

Targets, Activities and Outputs:

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
Funding for RPB for strategic planning, performance measure development, reporting and program support.	Develop, refine and monitor the strategic plan, provide support for field operations, creation of standards and development best management practices.	GIS and Program Support, Standards Development, Assessments, Communication, Training Materials

3. Distribution of Funds



Category	Current Allocation
Inventory	\$ 7,421,231
Timber Supply Mitigation	\$ 12,950,000
Ecosystem-Based Management	\$ 1,000,000
Fish Passage	\$ 2,000,000
Forest Health	\$ 6,877,286
Tree Improvement	\$ 3,000,000
Current Reforestation	\$ 32,406,406
Range	\$ 800,000
Ecosystem Restoration	\$ 1,000,000
Visuals	\$ 200,000
Recreation	\$ 1,000,000
Wildlife	\$ 2,120,000
Watershed	\$ 523,000
Wildfire Planning	\$ 200,000
Invasive Plants	\$ 600,000
Resource Practices Branch	\$ 1,865,000
Total SUM	\$ 71,842,924

Appendix A - Summary of Activities

Targets, Activities and Outputs:

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
<ul style="list-style-type: none"> * Improved information for decision making by natural resource sector managers including AAC determinations and strategic analyses, in addition to addressing emerging mid-term timber supply questions; First Nations Treaty negotiations; carbon estimation. * Enhanced ability to address licensee issues and concerns, help focus land based investments to the highest priorities and returns, inform those pursuing emerging opportunities; and better assist in government policy development. * Inventory information is current and complete for high risk management units. * Forecasts of the productivity on existing and future second growth stands are improved. Complete full draft PEM, develop AA Sample plan * Preliminary sampling plan for PEM and SIBEC 	<ul style="list-style-type: none"> * Photo interpretation of 100 Mile House TSA on schedule for a 2013/14 completion. * TFL 14 photo interpretation on schedule for 2012/13 completion. * Mackenzie TSA audit sampling complete and inventory analysis ongoing. * Completion of northern central interior regional net volume adjustment factor (NVAF) sampling (area approximates Mackenzie and Prince George TSAs, Kootenay Lake TSA, and coast Region) near complete. * Mid Coast TSA, Haida Gwaii TSA photo interpretation on schedule for a 2013/14 completion. * TFL 23 completion delayed until 2013/14 due to contractor capacity. * Vegetation Resources Inventory activities initiated and continuing in Kamloops Forest District, TFL 35, Pacific TSA (photo interpretation), Kootenay Lake and Morice TSA (audit, young stand monitoring, and analyses). Kamloops and TFL 35 on schedule to be completed over two years, Kootenay Lake and Morice to be completed 2012/13. * Photo acquisition successfully completed in the Lakes, Vanderhoof, and the southern Ft St James and PG TSAs. * Installation of young stand monitoring samples in the Quesnel TSA and complete, analysis to be completed 2012/13. 	<ul style="list-style-type: none"> * Continuing completion of new photo interpreted inventory data in the Mid Coast TSA, Haida Gwaii TSA, 100 Mile House TSA, TFL 14, TFL 23, Pacific TSA, and Kamloops TSA. Delivery of map inventories ongoing. * Completed NVAF ground sample data collection in the Mackenzie, Prince George TSA and the Coast Region. * Completed Young Stand Monitoring sample data collection in the Quesnel TSA. * Completed of audit and Young Stand Monitoring ground sample data collection in the Morice and Kootenay Lake TSAs. * Photo acquisition successfully completed in the Lakes, Vanderhoof, and the southern Ft St James and PG TSAs. * Ongoing development and implementation of innovative, non-standard VRI inventory processes and activities. This includes (1) completion of Landscape Vegetation Inventory for priority MPB-impacted west Williams Lake TSA (1.7 million ha) using semi-automated classification of satellite imagery and MPB specific photo/ground sampling; (2) test Lidar technology, in conjunction with BCTS and licensees, to produce inventory information. These projects are progressing as planned, other than the ground sampling component of the Williams Lake project which has been delayed until 2013 due to lack of contractor capacity.

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
	<ul style="list-style-type: none"> * Develop and implement innovative, non-standard VRI inventory processes and activities. This includes (1) completion of Landscape Vegetation Inventory for priority MPB-impacted west Williams Lake TSA (1.7 million ha) using semi-automated classification of satellite imagery and MPB specific photo/ground sampling; (2) test Lidar technology, in conjunction with BCTS and licensees, to produce inventory information. These projects are progressing as planned, other than the ground sampling component of the Williams Lake project which has been delayed until 2013 due to lack of contractor capacity. * Initiation of SIBEC sampling in the Arrow/Boundary TSA * Initiation of PEM in the Cranbrook, initiate BEC sample plan. * Completion of PEM in the Kootenay lake and Accuracy Assessment in the Merritt TSA. * Completion of outstanding SIBEC sampling in priority LBIS management units ** In response to immediate information requirements in the Lakes TSA, initiated and completed unscheduled sampling project in the Lakes TSA. Inventory analysis to be completed 2012/13. 	<ul style="list-style-type: none"> * Initiated SIBEC sampling in the Arrow/Boundary TSA * Initiated SIBEC sampling in the Cranbrook select PEM including sample plan. * Initiated PEM and preliminary field sampling in Robson Valley. * Concluded outstanding SIBEC sampling in priority LBIS management units

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
Fertilize 28,000 ha of area to produce 546,000 m3 additional wood in 10 years; 387,660 tonnes of CO2e in 10 years; \$63 million GDP in 10 years; 5040 pd short term employment; 573 FTE long-term employment in 65 years 2. 1200 ha of stand tending (juvenile spacing and backlog brushing) focusing on over dense stands in the interior, coastal, southeast, and northwest priority management units to make stands available for harvest in 10-30 years sooner; generate 4752 person days of short term employment.	Fertilization and spacing projects are underway by licensees, Ministry, and BCTS with achievements to be reported out at end of year when all projects are completed.	Reporting of accomplishments will be done at the end of the fiscal once completion information is submitted into RESULTS. Spacing and brushing projects are underway which will exceed the 1200ha target as well as develop prescriptions for future treatments. Interior fertilization treatments of approximately 21,000 ha are nearing completion and Coast projects will be starting shortly and continuing through to the end of the fiscal.

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
<ul style="list-style-type: none"> • Field data and completed spatial mapping for approximately 1 million ha; including 4 LUs in Kingcome TSA1; 8 LUs in MidCoast TSA2, and 13 LUs in the NorthCoast TSA3 primarily at level R - on target for completion March 2013 • Completion of TEM-PEM hybrid assessment and extension of mapping model to priority LUs dependent on QA results and relative cost analysis - final report expected Nov 30, 2012 • Independent AA to contribute to cost:benefit analysis of level4 vs. Level R vs. PEM/TEM hybrid mapping in plan area - field work completed internally; report planned by Jan 30, 2013 	<p>Preliminary polygon delineation and attribution for all LUs completed; field sampling completed in Kingcome TSA, MidCoast TSA, and 7 LUs in North Coast TSA. Initial report and layers received, knowledge tables updated to reflect new plot information; awaiting final comparative report and output layers. New test methodology developed and field work completed by MFLNRO and MoE staff (report in process) Initial seamless layer derived; evaluation by stakeholders and updates of layer ongoing. Initial joint meetings held onsite with Heiltsuk representatives including joint TEM flight; partnership meetings held with additional partners (Hakai Institute, SFU) and mapping consultants (Blackwell).</p>	<p>Preliminary polygon delineation and attribution for all LUs completed; field sampling completed by helicopter in Kingcome TSA, MidCoast TSA, and 7 LUs in North Coast TSA. Initial report and layers received, knowledge tables updated to reflect new plot information; New test methodology developed and field work completed by MFLNRO and MoE staff (report in process) Initial seamless layer derived; evaluation by stakeholders Initial joint meetings held onsite with Heiltsuk representatives including joint TEM flight; partnership meetings held with additional partners (Hakai Institute, SFU) and mapping consultants (Blackwell).</p>
<p>Remediate 15 high priority fish stream crossings to increase fish habitat Complete assessments in 75 priority third order watersheds Complete Fish-Stream Crossing Guidebook</p>	<p>Have remediated 17 high priority fish stream crossings and will remediate 18 (one more) by end of fiscal year On track to assess fish stream crossings in 75 third order watersheds Fish-Stream Crossing Guidebook completed</p>	<p>Habitat confirmations and design work completed in support of remediation projects Crossings have been remediated via installation of 6 new bridges or culverts and the deactivation of 11 crossings Draft Fish-Stream Crossing Guidebook was circulated widely to government agencies and stakeholders for final review and comment</p>
<ul style="list-style-type: none"> • Restoration treatments applied to 4000 ha of key ecosystems to create landscapes more resilient to climate change. • Contribute 175,000 m3 annually throughout the short and mid-term timber supply, and create other potential biomass opportunities. • Reducing excessive fuel loads, through spacing and prescribed fire, helps to mitigate wildfire risks, maintain community water supplies, protect air quality, endangered species and ecosystems, enhance First Nations values, and increase fibre availability. 	<p>3651 ha of mechanical Treatments applied. 2426 ha of applied ER Prescribed fire treatments applied. (200 ha is pile burning). 4 District Strategic Plans updated</p>	<ul style="list-style-type: none"> • 2,000 ha mechanical ER spacing/thinning. • 2,000 ha of applied ER prescribed fire treatments. • Update three district 5-year Strategic ER Plans.

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
Funding for RPB for strategic planning, performance measure development, reporting and program support.	Develop, refine and monitor the strategic plan, provide support for field operations, creation of standards and development best management practices.	GIS and Program Support, Standards Development, Assessments, Communication, Training Materials
Assessments to identify and/or mitigate risk to water quality: - community / watersheds where water is diverted for human consumption; - fisheries sensitive watersheds and; - watersheds at by MPB, wildfire or range activities is identified	Assessments to identify or mitigate risk are underway in: • Community watersheds – 2 • Fisheries Sensitive Watersheds (FSW's) – 6 • Watersheds impacted by MPB, fire and/or range activities - 9	Contracts have been completed for most projects - projects are underway
14,500 ha	Currently gathering data from district. (NOTE: Some Contracts currently going forward for ADM Approval. Some contracts have NOT Been Approved).	<ul style="list-style-type: none"> • Fence reconstruction. • Livestock watering facilities constructed and rehabilitated. • Damaged or degraded rangeland rehabilitation seeding.
<ul style="list-style-type: none"> • 2.77 million m3 in 65 years • 2.8 million tonnes CO2e in 65 years • 321 million GDP in 65 years • 29,000 pd short term employment • 2,363 FTE long-term employment in 65 years 	Reporting of activities in RESULTS will be complete in fourth quarter.	<ul style="list-style-type: none"> • 14.5 million trees planted. • Surveys as to land status and necessary treatments in MPB impacted areas. • Maintenance of growth rates and survival on past FFT and FIA planting. • 80,000 ha of backlog (pre 87 NSR) assessed. • Fund legal liabilities associated with approved FRPA 108 applications (restoring licensee areas burned by fire).
<ul style="list-style-type: none"> • On target for a 5% increase in use at recreation sites and trails (over previous year). • Extended the life of recreation sites and trails. • Provide communities safe, healthy and sustainable outdoor recreation opportunities. 	Approximately 60% of recreation sites and trails have been successfully maintained or rehabilitated in partnership with local community groups, 1st Nations and Forest Licensee's.	<ul style="list-style-type: none"> • Maintain and as necessary rehabilitate 790 recreation sites and 490 trails. • Leverage 198 partnership agreements in place for managing and maintaining recreation sites and trails essential to communities. - Maintain partnership delivery of Rec Site/Trail program; including support from First Nations, Forest Industry and community groups

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
<ul style="list-style-type: none"> • 12 historic candidate EDRR invasive plant species reviewed; control or containment action determined and implemented. • No new invasive plant species established in the province. • Some expansion of highest provincial priority invasive plant species beyond established containment lines • 600 priority invasive plant sites inspected and/or treated • 12% of highest provincial priority invasive plant species treatment sites are eradicated. • Infestations of Dalmatian toadflax, hound's-tongue, and diffuse knapweed are under biological control. 	<ul style="list-style-type: none"> • Provincial EDRR plan updated and implemented on 12 invasive plant species with historic accounts; no new incursions reported this year • Inventory and incursion surveys completed on FSRs West of Revelstoke; East of Vernon (Monashee); North of Sparwood; Bummer's Flats WMA and Cariboo east for Marsh Plume thistle. • %* of highest provincial priority invasive plant species (i.e. IPP Goal 3 species) sites on Crown land are inspected and/or treated outside containment lines is unknown at this time. Data will be entered and available for 3rd/4th quarter reporting. (* achievement dependent upon partnership delivery funding level). • Available operational biological control agents distributed to fill gaps 	<p>Analysis and field verification of 12 historic candidate prohibited invasive plant species records; Invasive Plant Early Detection and Rapid Resonse (EDRR) treatment actions on 7 species; Invasive Plant Multi-Stakeholder Partnerships maintained with 13 invasive species/plant committees and 15 local governments; Invasive Plant Inventory completed on 60% of planned areas; Invasive Plant Surveys/ and Treatments completed (total # available 3rd/4th quarter) Invasive Plant Sites Extirpated (% available 4th quarter)</p>
4.68 million cu metres (117,143 hectares x 0.615 cu metres/year x 65 years)	2.83 million cu metres (70,854 hectares x 0.615 cu metres/year x 65 years)	70,854 hectares using select seed
<ul style="list-style-type: none"> • Development of a hazard/risk analysis methodology • Test Pilot hazard risk analysis methodology in key districts • Provincial scale Hazard/Risk Mapping • Development of a system/ Protocol for development of landscape fire management plans and integration of fire management into other resource management activities including training 	To be reported in the 4th quarter	To be reported in the 4th quarter
<ul style="list-style-type: none"> • Complete re-inventory in those areas with significant past investment. • Direct new inventory work to occur in priority units. 	To be reported in the 4th quarter	To be reported in the 4th quarter

Target (What we said we would do)	Achievement (What we did)	Activities and Outputs (How we did it)
<ul style="list-style-type: none"> - Conduct an aerial overview survey on 80% of the province - Conduct 10% quality checks of the aerial overview survey - Treat 100,000 ha of high value interior Douglas-fir to reduce impacts caused by Western Spruce Budworm - Update all TSA/District forest health strategies - Conduct detailed aerial surveys on all high priority Douglas-fir and Spruce Beetle infestations - Manage all high priority mountain pine beetle infestations - Deploy gypsy moth eradication program 	<ul style="list-style-type: none"> - Over 80% of the province was surveyed - 10% quality checks of the aerial overview survey completed - Over 100,000 ha of interior Douglas-fir were protected using aerial spray applications - Forest health strategy updates are on track for completion by year end - All high priority Douglas-fir and Spruce Beetle infestations detected - Mountain pine beetle management ongoing and on track - gypsy moth monitoring completed 	<ul style="list-style-type: none"> - all regions participated in administering aerial overview survey contract in their areas. HQ is coordinating and summarizing the provincial data and producing an annual forest health conditions report in March 2013. - HQ administers the quality control contract to ensure the aerial overview survey is deployed to provincial standards - Cariboo, TOR and KBR regions conducted aerial applications of Btk to treat high value budworm stands. In addition, stands critical for caribou habitat were also treated to prevent stand mortality by defoliation by western hemlock looper. A small operational trial to test treatment timing for 2 year cycle budworm was conducted near Quesnel. - Forest health strategies will be updated with the latest AOS results. Climate change and FSP stocking standards recommendations will be added where the information is available. - detailed aerial surveys were conducted to identify new Douglas-fir and spruce beetle infestations that will be managed mainly through harvesting - Mountain pine beetle detailed aerial surveys have been completed in suppression BMUs in SE BC. Ground detection and single tree treatments will be completed this winter. - Gypsy moth traps were deployed by the province in FS recreation sites and provincial parks by regional FH staff/contractors. No male GM were found in these traps this year.

Appendix B - First Nation Investment by Category

Category	First Nation Investment
Ecosystem-Based Management	\$ 0
Fish Passage	\$ 0
Range	\$ 0
Ecosystem Restoration	\$ 137,000
Ecosystem Restoration	\$ 137,000
Tree Improvement	\$ 0
Recreation	\$ 236,000
Invasive Plants	\$ 24,000
Forest Health	\$ 0
Current Reforestation	\$ 632,358
Total SUM	\$ 1,166,358

