



Forests For Tomorrow 2015/16 AOP and Five Year Plan

Provincial Meeting
September 17,18 2014
Matt Leroy
Monty Locke



VISION

- The impacts of catastrophic disturbances and constrained timber supplies are: (a) identified, prioritized and communicated to government to support investment decisions; and (b) consistent with those decisions, the impacts are effectively and efficiently mitigated by exemplary stand tending and reforestation activities that enhance forest values and support forest resilience.*

MISSION

- FFT optimally utilizes available funding to reforest and manage productive forest land through the use of best science, and in consideration of all forest values and changing factors.*

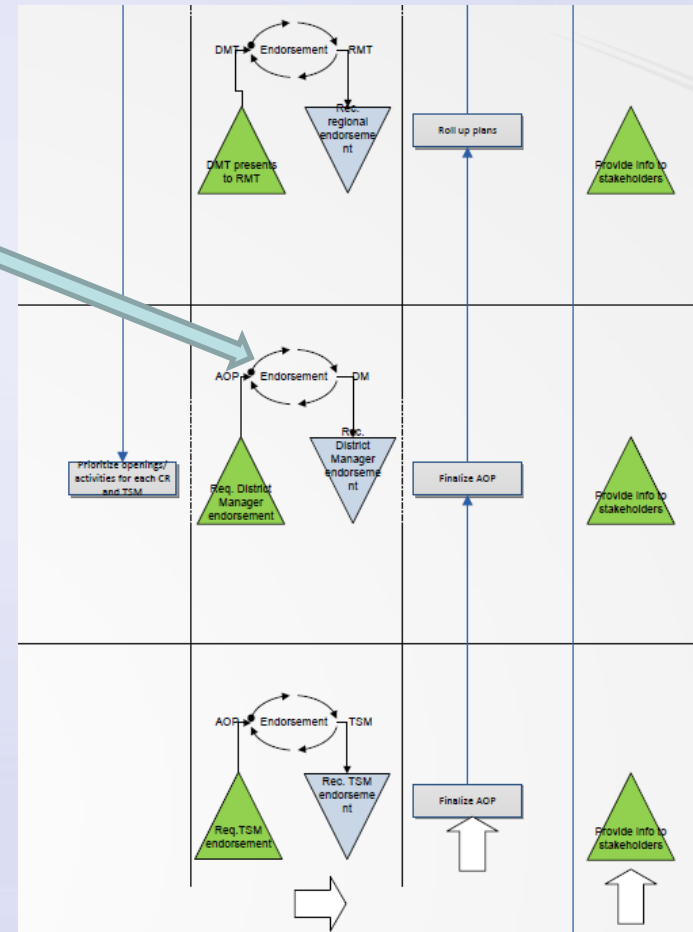
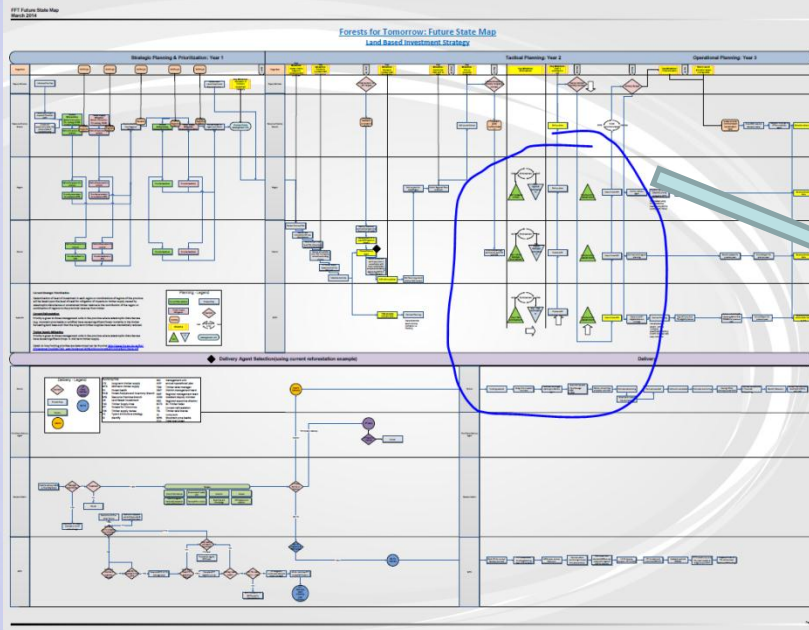


| Current Reforestation | Timber Supply Mitigation |
|---|--------------------------|
| Backlog NSR surveys/planning | Surveys |
| MPB/Wildfire surveys/planning | Conifer release |
| Defaulted obligation NSR surveys/planning | Spacing |
| Site prep | Fertilization |
| Brushing | Pruning |
| Repression Density spacing | |
| Planting | |
| Sowing | |
| Overstory Removal | |

| Eligible Investment Category | Sub-Category | Focus | Implementation Priorities |
|------------------------------|-----------------------|--|--|
| Forests for Tomorrow Program | Current reforestation | <ul style="list-style-type: none"> • Priority given to those areas throughout the province where the catastrophic disturbance has caused drops in mid- and long-term timber supply. • Eliminate backlog NSR. | <ul style="list-style-type: none"> • Maintain adequate growth rates on existing government-funded land based investments through vegetation management. • Annual reforestation level of 20 million seedlings (at least) with a variety of species, on areas where the mid- and long-term timber supply has been impacted by catastrophic disturbance. • Meet government obligations under <i>Forest and Range Practices Act section 108</i>. • Eliminate the provincial backlog (pre-1987) Not Satisfactorily Restocked (NSR) by 2015. |

| Eligible Investment Category | Sub-Category | Focus | Implementation Priorities |
|------------------------------|--------------------------|--|--|
| Forests for Tomorrow Program | Timber Supply Mitigation | <ul style="list-style-type: none"> Mitigate impacts on timber supply caused by catastrophic disturbance or constrained timber | <p>MPB impacted areas</p> <ul style="list-style-type: none"> Fertilization, spacing, and conifer release in the central Interior will focus on mitigating the reduction in the mid-term timber supply by targeting these activities within the “economic fibre-baskets” associated with the priority areas: Spacing treatments should be focused on managing density of repressed, or potentially repressed, stands with low forest health risks. Stands and spacing densities should be targeted for future fertilization treatments and value improvement. <p>Coast, NW, SE</p> <ul style="list-style-type: none"> Fertilization , spacing, and conifer release on coastal, southeast, and northwest forest management units with constrained timber supply and where highest return-on-investment will be achieved to improve timber availability and value. Focus on establishing stands suitable for future fertilization and value improvement. |

Consulting on the AOP



FFT Investment principles

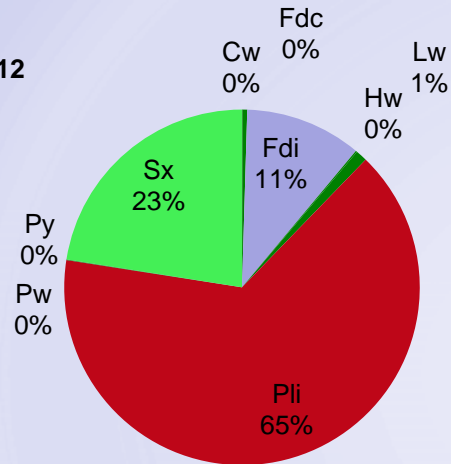
•Funds will be allocated to activities based on their potential contribution to the goals, strategic objectives, and priorities outlined in the Land Based Investment Strategy.

- A. Allocation of investments will be based on consideration of the following factors^[1] (in order):
- i. magnitude of the impact in addressing the goals, strategic objectives, and priorities resulting from the activity;
 - ii. activities that address timber supply;
 - a) Maintain adequate growth rates on existing government funded land based investments^[2].
 - b) address critical mid-term time periods when second growth timber must be available in sufficient quantities and size to meet supply demands,
 - c) reforest catastrophic disturbance where mid and long-term timber supply has been impacted
 - iii. activities that are dependent on a specific biological window where delays could result in lost opportunities;
 - iv. the ability to leverage funding from other sources;
 - v. additional benefits that can be achieved from the activity
- B. Each activity must consider how climate change has affected, or will affect, resource values and their associated goals, objectives and targets.

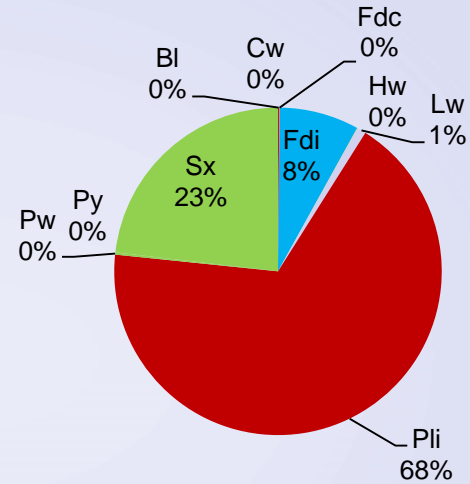
- If FFT funding requests exceed the available budget, then all attempts will be made to fund projects in priority 1 units followed by those in priority 2 and then priority 3 units. Some FFT funding, however, will also be provided to reforest burnt, other NSR non-obligation areas, and constrained timber in other parts of the province.



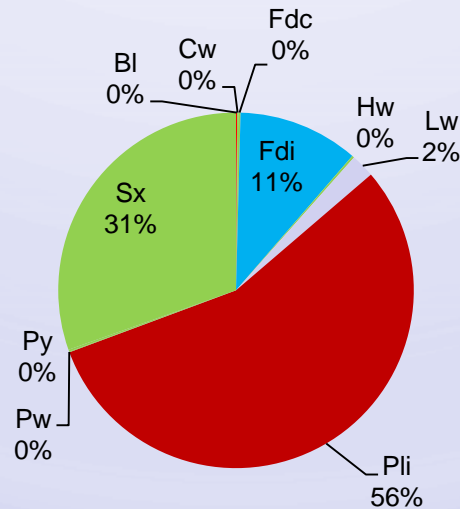
Prov 2012



Prov 2013



Prov 2014



| | | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|-------------------|---|---------|---------|---------|----------|---------|---------|---------|
| MFR | Planting (000 ha) | 12 | 12.7 | 9.8 | 12.1 | 16.2 | 17.8 | 12.9 |
| | seedlings (M) | 13.80 | 17.47 | 14.02 | 14.71 | | | |
| | RESULTS | | | | | | | |
| | Seedlings (M) | 13.8 | 17.5 | 13.9 | 14.5 | 22.7 | 24.9 | 18 |
| | Surveys (000 ha) excluding File Review but inc. Air (FG) | 80 | 40 | 40 | 150 | 150 | 150 | 150 |
| | Surveys (000 ha) excluding File Review but inc. Air (FG) RESULTS | 273.93 | 197.95 | 209.37 | 163.73 | | | |
| | Funding (M) | \$42.40 | \$42.23 | \$34.50 | \$32.55 | \$23.50 | \$29.70 | \$41.00 |
| FRPA s 108 | Seedlings RESULTS | 1.10 | 1.17 | 6.40 | 11.69 | 1 | 1 | 1 |
| | Approved pay-out (M) | 2.39 | 9.88 | 5.79 | 10.54088 | | | |

From the service plan

Performance Measure 7: Timber volume gain from silviculture investments.

| Performance Measure | 2012/13 Forecast | 2013/14 Target ² | 2014/15 Target | 2015/16 Target |
|--|---------------------|--------------------------------|-------------------|-------------------|
| Timber volume gain (millions of cubic metres) expected in 65 years from silviculture treatments completed ¹ | 7.7 | 8.3 | 8.3 | 8.3 |

Discussion

This measure compliments attainment of the provincial sustainable harvest level targets: 57 million cubic metres per year during the mid-term, and 65 million cubic metres per year for the long-term.



Government Commitments

Current reforestation

- Plant at least 20 million seedlings per year
- Eliminate the backlog NSR by 2015
- Increase funding by \$10 million starting in 2015/16

Timber Supply Mitigation

- Continue developing Type 4 Silviculture strategies
- Ongoing focus on fertilization
- FFT support for projects in Community Forests and Woodlots

| Fire Centres/Zones | Total THLB_AREA | TOTAL HECTARES |
|----------------------------------|-----------------|----------------|
| 100 Mile House Fire Zone | 0 | 18 |
| Arrow Fire Zone | 76 | 214 |
| Boundary Fire Zone | 2 | 4 |
| Bulkley Fire Zone | 0 | 17 |
| Cariboo Chilcotin Fire Zone | 963 | 1731 |
| Cassiar Fire Zone | 0 | 51 |
| Clearwater Fire Zone | 40 | 101 |
| Columbia Fire Zone | 53 | 98 |
| Cranbrook Fire Zone | 122 | 909 |
| Dawson Creek Fire Zone | 0 | 56010 |
| Fort Nelson Fire Zone | 2 | 1802 |
| Fort St. John Fire Zone | 2832 | 13177 |
| Fraser Fire Zone | 166 | 969 |
| Invermere Fire Zone | 1887 | 5287 |
| Kamloops Fire Zone | 16 | 78 |
| Kootenay Lake Fire Zone | 20 | 215 |
| Lillooet Fire Zone | 379 | 1267 |
| Mackenzie Fire Zone | 63173 | 111614 |
| Merritt Fire Zone | 659 | 794 |
| Mid Island Fire Zone | 0 | 1 |
| Nadina Fire Zone | 24091 | 93559 |
| North Island Mid Coast Fire Zone | 0 | 190 |
| Pemberton Fire Zone | 1 | 398 |
| Penticton Fire Zone | 181 | 1021 |
| Prince George Fire Zone | 72 | 100 |
| Quesnel Fire Zone | 10495 | 14908 |
| Robson Valley Fire Zone | 0 | 63 |
| Salmon Arm Fire Zone | 1 | 2 |
| Skeena Fire Zone | 0 | 36 |
| South Island Fire Zone | 0 | 3 |
| Sunshine Coast Fire Zone | 1 | 1 |
| VanJam Fire Zone | 13590 | 53665 |
| Vernon Fire Zone | 1 | 116 |
| Grand Total | 118824 | 358419 |

| Sum of HECTARES Row Labels | Cutblock Status FG | NSR | RG | TOTAL |
|----------------------------------|-----------------------|-----------|-------------|--------------|
| Cariboo Chilcotin Fire Zone | 7 | | | 7 |
| Clearwater Fire Zone | | 2 | 6 | 7 |
| Columbia Fire Zone | | | 8 | 8 |
| Cranbrook Fire Zone | | | 31 | 31 |
| Dawson Creek Fire Zone | 3530 | 41 | 169 | 3740 |
| Fort St. John Fire Zone | 13 | 0 | 48 | 61 |
| Invermere Fire Zone | 33 | 0 | 518 | 551 |
| Kamloops Fire Zone | | | 0 | 0 |
| Kootenay Lake Fire Zone | | | 0 | 0 |
| Lillooet Fire Zone | 17 | | 34 | 51 |
| Mackenzie Fire Zone | 337 | 10 | 918 | 1265 |
| Merritt Fire Zone | | 0 | 232 | 232 |
| Mid Island Fire Zone | | | 1 | 1 |
| Nadina Fire Zone | 685 | | 310 | 995 |
| North Island Mid Coast Fire Zone | 37 | | 56 | 92 |
| Pemberton Fire Zone | | | 33 | 33 |
| Penticton Fire Zone | 1 | | 12 | 13 |
| Prince George Fire Zone | | | 17 | 17 |
| Quesnel Fire Zone | | 3 | 3185 | 3188 |
| Skeena Fire Zone | | | 30 | 30 |
| VanJam Fire Zone | 327 | 0 | 2657 | 2984 |
| TOTAL | 4986 | 56 | 8266 | 13309 |



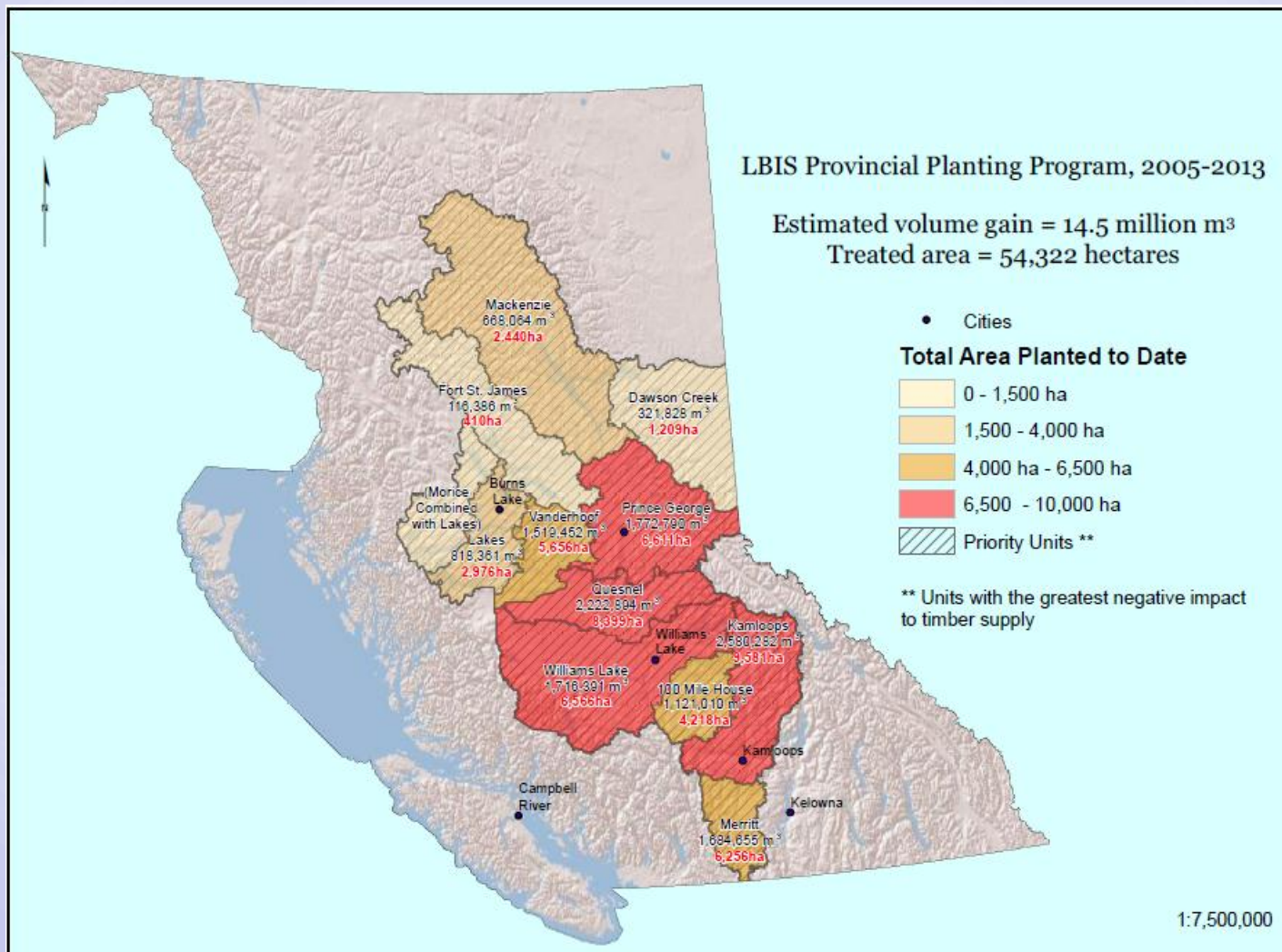
S.108

- 2003 fire season was in excess of \$10M and the two big fire years of 2009 and 2010 are estimated to have cost FRPA s108 claims totaling \$21M.
- All other years have come in at under \$1M. Last year there were some blocks in the Peace but it was under 100K.



Finding treatable areas

- FFT potential opportunity maps (Wildfire)
 - Areas that might be not sufficiently stocked were determined using the vegetation resource inventory, provincial overview surveys for forest health, perimeters of wildfires since 1999, current harvested stand updates, and the mapped boundaries of the timber harvesting land base.
- Digital Camera and other high resolution imagery availability.
 - Available from FAIB and GeoBC





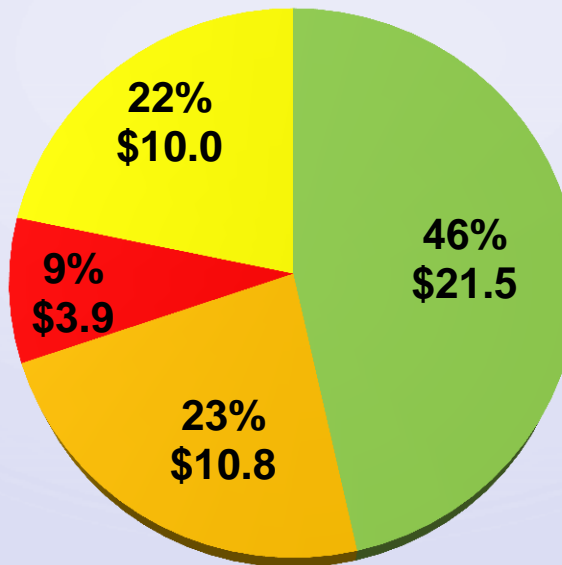
Priority ranking for current reforestation treatment as 2013

(indication of TSA name includes all management unit types – tree farm licences, Community Forests, and woodlots - encompassed by that broader area in priority ranking)

| ranking | TSA/District Name | Pre-uplift AAC (m3) | AAC (as of Feb 10, 2012) | Mid-term MoFR | LRSY | future Volume loss without treatment (m3/yr) | Future % loss in relation to LRSY without treatment |
|---------|--------------------------|---------------------------|-----------------------------|------------------|-----------|---|--|
| 1 | Lakes | 1,500,000 | 2,000,000 | 500,000 | 1,200,000 | 310,975 | 26% |
| 1 | Quesnel | 3,248,000 | 4,000,000 | 1,110,000 | 2,200,000 | 486,567 | 22% |
| 1 | Williams Lake | 3,807,000 | 5,770,000 | 1,840,000 | 1,900,000 | 406,165 | 21% |
| 2 | 100 Mile House | 1,334,000 | 2,000,000 | 855,000 | 1,300,000 | 203,158 | 16% |
| 2 | Vanderhoof (District) | 9,313,000 | 12,500,000 | 6,400,000 | 9,500,000 | 589,400 | 13% |
| 2 | Ft. St. James (District) | | | | | 442,176 | |
| 2 | Prince George (District) | | | | | 248,276 | |
| 2 | Morice | | 2,165,000 | 1,200,000 | 1,600,000 | 208,726 | 13% |
| 3 | Mackenzie | | 3,050,000 | 2,880,000 | 3,300,000 | 285,957 | 9% |
| 3 | Kamloops | 2,682,000 | 4,000,000 | 1,830,000 | 2,300,000 | 181,447 | 8% |
| 3 | Dawson Creek | | 1,860,000 | 1,180,000 | 1,800,000 | 124,359 | 7% |
| 3 | Merritt | 1,508,000 | 2,400,000 | 1,600,000 | 1,700,000 | 94,861 | 6% |

Draft 2015/16 FFT AOP

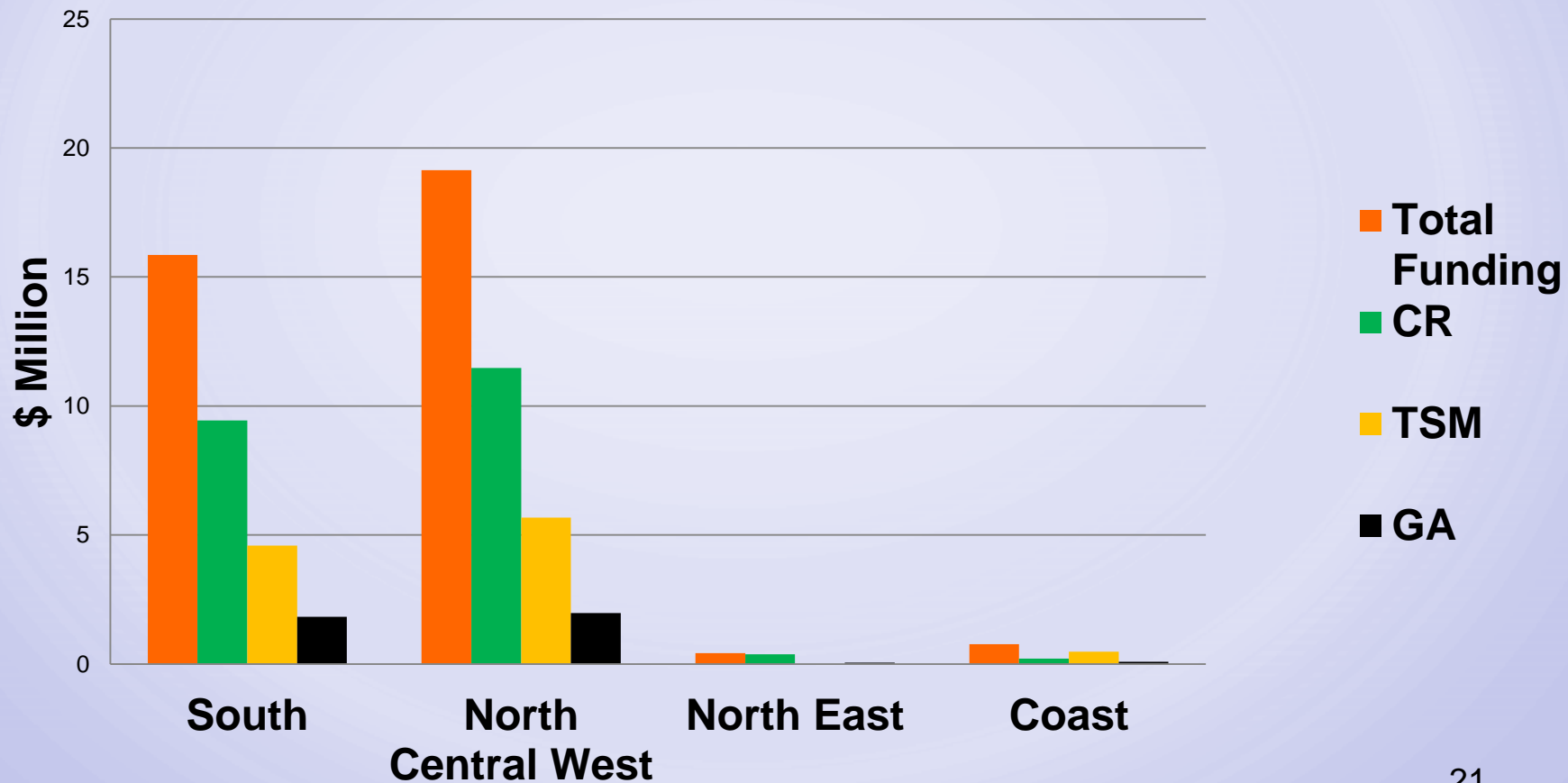
■ CR ■ TSM ■ General Activities ■ Prov.



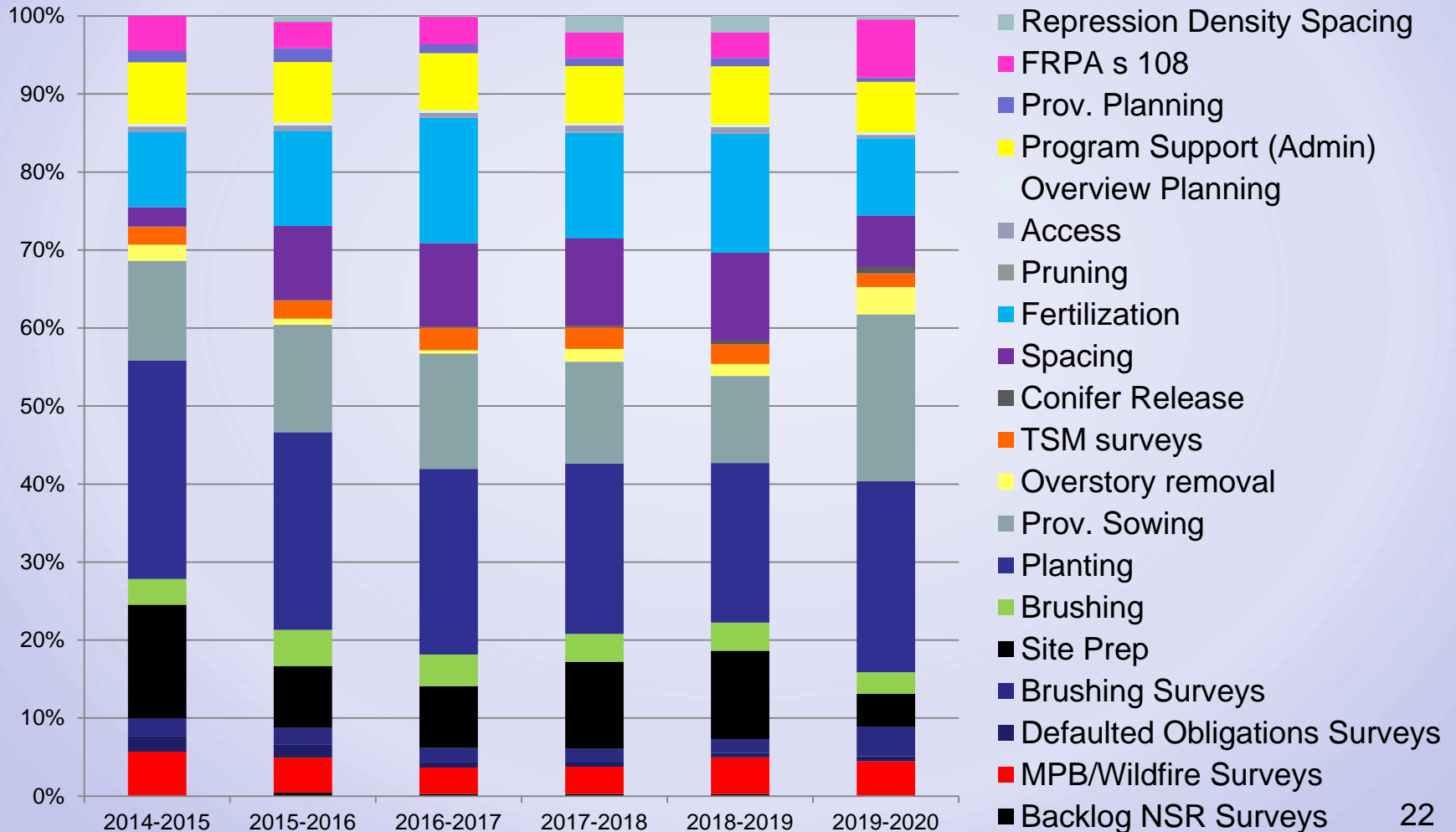
AOP Funding Need \$46.2 million



2015/16 AOP - Funding Request by Area



Provincial Summary



Select Activities

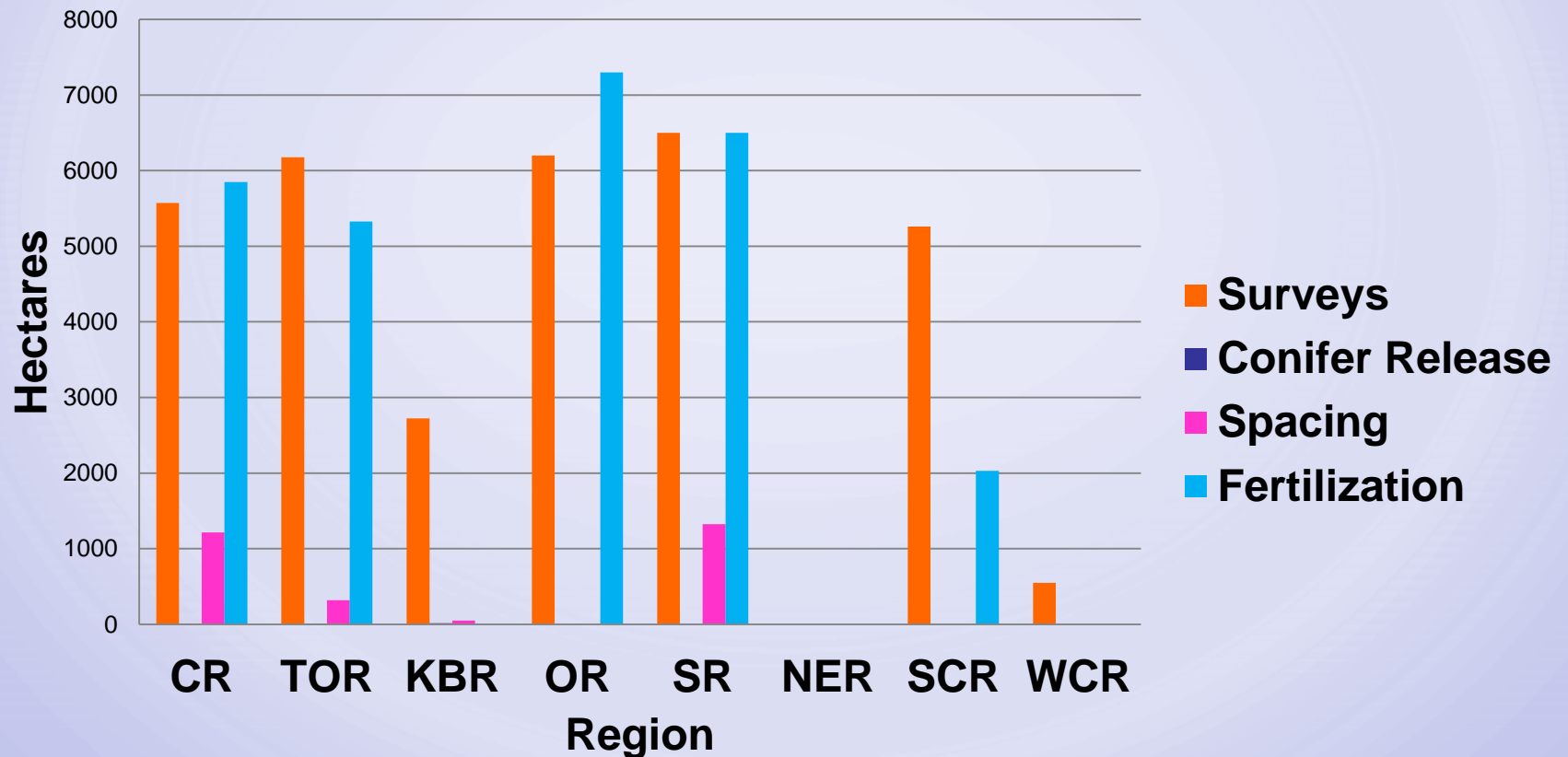
| Activity | | 2014-2015 | 2015-2016 | 2016-2017 |
|----------------------|-------|------------|------------|------------|
| Site Prep. | Ha | 15,570 | 7,210 | 6,620 |
| Brushing | Ha | 1,737 | 3,151 | 2,712 |
| Repression | | | | |
| Density Spacing | Ha | 0 | 224 | 35 |
| Planting | Trees | 25,219,382 | 23,641,145 | 20,482,209 |
| Sowing | Trees | 20,337,800 | 20,912,600 | 21,088,520 |
| Overstory removal | Ha | 688 | 350 | 715 |
| Spacing | Ha | 660 | 2,903 | 3,177 |
| Fertilization | Ha | 15,700 | 27,008 | 32,954 |



Timber Supply Mitigation 2015/16

- 2015/16 Budget for TSM is \$3.0 million
- Focus on fertilization with spacing and conifer release projects only being delivered by woodlots and community forests.
- Funding covers approximately 6000 ha of fertilization application including cost of fertilizer purchase – 4000 ha interior priority 1 areas and 2000 ha for MUs outside of the interior impacted areas (e.g. Coast)
- Funding for woodlots and community forests will be managed in addition to the \$ 3 million TSM budget.
- TSM planning for years 2016/17 onwards should be based on an annual provincial TSM budget of \$9 million.

TSM - Area Identified for Treatment



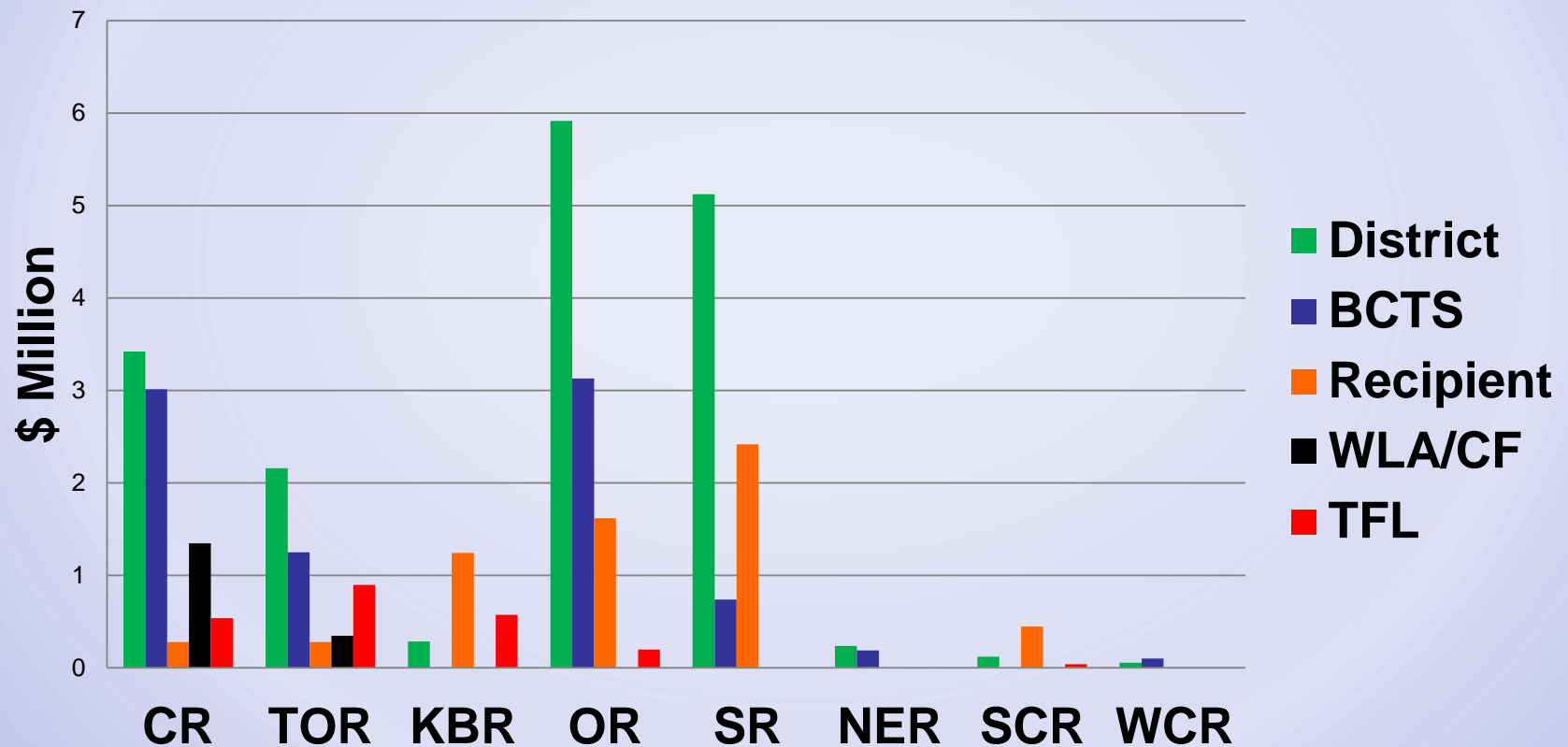
Fertilization

- Initial discussion with Interior Regional Priority 1 leads
- Agreement on focusing 4000 ha interior program in one area to maximize efficiency and effectiveness
- Follow-up discussion needed to confirm area. Consider:
 - Type 4 targets
 - Maximize volume growth
 - Minimize costs
- Coast Area already on target of 2000 ha

Spacing

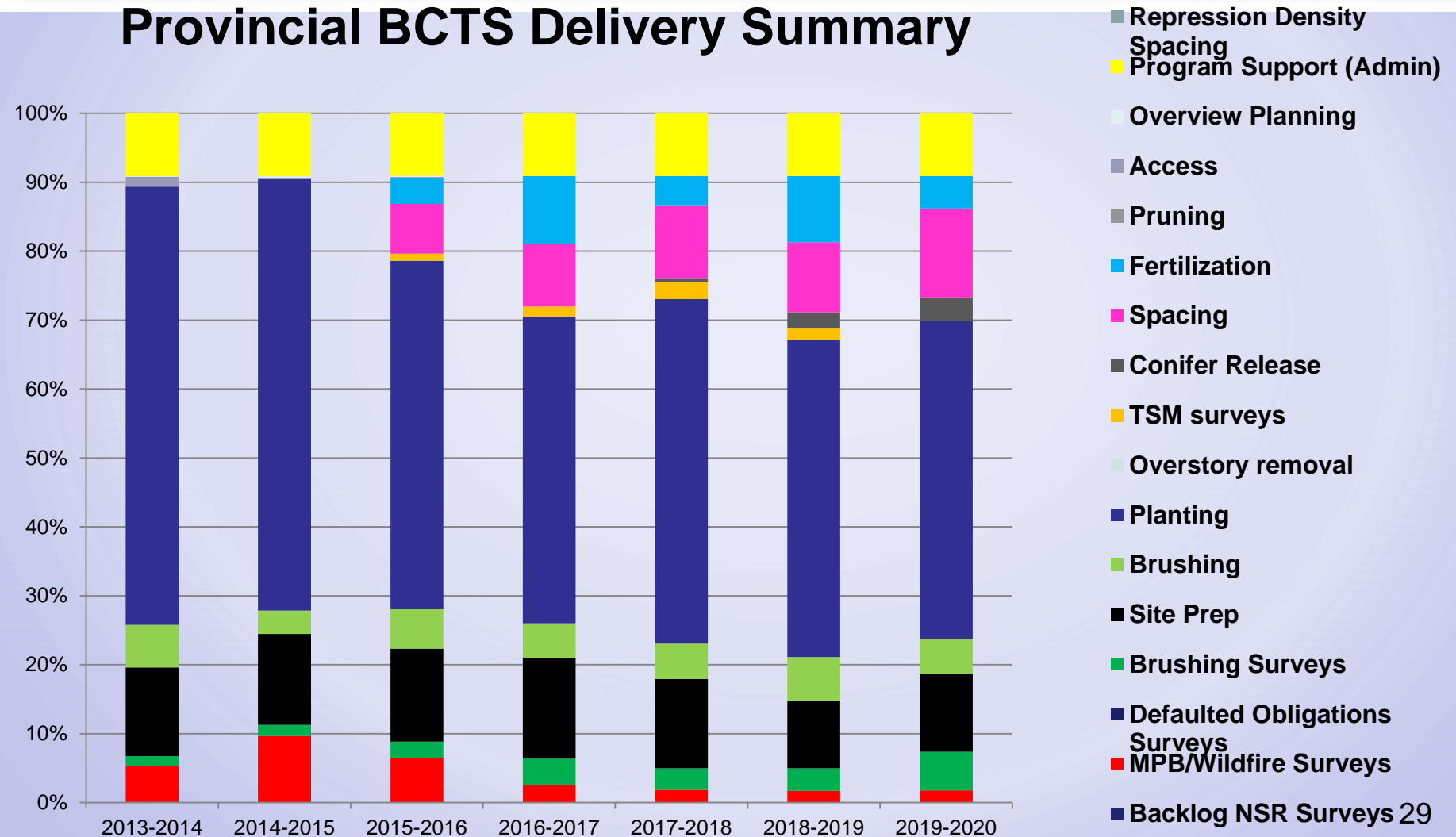
- TSM funds focused on fertilization in 2015/16
- Only spacing projects delivered by CF and WL can be funded in 2015/16
- Corporate support for CF and WL projects with an approximate target of \$1 million for FFT (CR and TSM).
- Prioritize focusing on priority one areas

2015/16 Delivery by Region





Provincial BCTS Delivery Summary



Next steps:

- September 30th- Budget submitted as part of LBIS
- November 1st - LBIS budget submitted to Deputy
- December 31st - 2015/16 AOP 2nd draft firm based on projected budget endorsed by DM
- January - March - 2015/16 AOP finalized based on received budget
- April 1st – 2015/16 AOP actioned

Questions?

- Info: FFT web-page
<http://lbis.forestpracticesbranch.com/LBIS/node/1059>
- Contacts: Matt Leroy Matthew.LeRoy@gov.bc.ca
- Monty Locke Monty.Locke@gov.bc.ca