

# **Table of Contents**

Introduction	3
Forest Management Agreements (FMA), Quota (CTQ) and other Tenure	3
The Facilities	
Forest Management Planning	4
Applications of Operating Ground Rules (OGR)	5
Environmental Stewardship	
First Nations Consultation	
Historical Resources and Unique Features	6
Watershed Protection	6
Wildlife	7
Forest Insects and Diseases	7
Weed Control	7
Forest Protection	8
Slash Disposal	8
Reforestation Program	8
Log Haul	9
Oil and Gas	9
Access Management	9
Public Involvement Process	9
Public Land Use Zones	10
Grazing Timber Agreements	11
Emergency Response Plan	11
Timber Harvesting Systems and Harvest Design	12
Harvest Plans	12
Grease Creek	12
Burnt Timber Creek	14
Atkinson Creek	15
Jumpingpound Creek	16
Highwood River	17
Savanna Creek	18
Upper Livingstone	18
Lower Livingstone	
West Chain Lakes	20
Regal Creek	20
Vicary Creek	21
FMA 0100038 2022/23 AOP Block List	
FMA 2100047 2022/23 A OP Block List	23

#### Introduction

This document addresses the proposed and forecasted operations of Spray Lake Sawmills (1980) Ltd. (SLS) and Crowsnest Forest Products (CFP) for the period from May 1, 2022, to April 30, 2027. It contains broad information regarding the Companies' anticipated fibre supply, proposed harvest areas, and the access construction and maintenance activities necessary to support these harvesting plans. CFP relies on SLS to deliver key components of plan development, operations, and reporting. Work completed or submitted by Spray Lake Sawmills on behalf of Crowsnest Forest Products is synonymous with information prepared by Crowsnest Forest Products.

#### Forest Management Agreements (FMA), Quota (CTQ) and other Tenure

The Honorable Minister of Environment and Sustainable Resource Development, pursuant to section 16 of the Forests Act, entered a 20-year renewable FMA with SLS, issued as FMA0100038, commencing May 1, 2015. This FMA was a renewal of the 2001 FMA which itself was a conversion of long-term quotas previously held by Spray Lake Sawmills. CTQB120001 and DTAB120001 are included in the FMA planning and approvals.

The Honorable Minister of Agriculture and Forestry, pursuant to section 16 of the Forests Act, entered a 20-year renewable FMA with CFP, issued as FMA2100047, commencing May 1, 2021. This FMA was a conversion of long-term quotas previously held by SLS/CFP.

For more information on the FMA visit http://www.spraylakesawmills.com/woodlands/forest-management-agreement.

#### **The Facilities**

SLS is an Alberta based, family owned and operated company. Founded in 1943, SLS remains a family company with Mjolsness family involved in its operation. The company has evolved from a portable bush mill to a state-of-the-art, high technology mill with a wood supply that is primarily sourced from crown lands under two approved FMAs and a CTQ. The mill is located within the Town of Cochrane and draws its wood supply from crown land along the eastern slopes of the Rocky Mountains; from the Crowsnest Pass area in the south to the Sundre area in the north.

As the company name suggests, dimensional lumber is the primary product. However, SLS has expanded its product base to include a broad mix of secondary and value-added opportunities including agricultural fence posts, treated wood products, livestock bedding, woodchips (for use in pulp and paper products), bark mulch, and landscaping products.

SLS has achieved virtually 100% utilization of the timber delivered to the mill in Cochrane. We continue to pursue maximization of product value and fibre use through the continued application of technology for improved recovery and grade.

# **Forest Management Planning**

Forest Management Plan (FMP) – A 20-year plan (with 10-year renewal) that identifies sustainable harvest levels, identifies which stands are to be sequenced for harvest, models landscape changes over 200 years, outlines objectives and manner for integrating with other resource values, describes a monitoring and reporting process, and includes a stakeholder involvement process.

General Development Plan (GDP) – A 5-year plan (with annual renewal) that outlines past years production, access developments, and resource management issues and projects the same for the next 5 years.

Forest Harvest Plan (FHP) – a 5-year operational plan, a map and report of harvest boundaries, roads, and water crossings. Report includes adherence to operating ground rules and compliance with FMP objectives. It is imperative that operational plans meet objectives of higher order plans. A harvest block with FHP approval can be operated within the 5-year approval term (ex: FHP\_MC2020\_2025; an FHP in the McLean Creek compartment with harvest design approval from 2020 until 2025). FHPs are submitted as they are completed and must be approved prior to AOP approval. An FHP typically takes two or more years to develop from initial consultation on design to active operations.

Annual Operating Plan (AOP) – Annual plan with operating schedule, timber production, reforestation program, forest protection, road development, road reclamation, and integration/mitigation strategies. The AOP is made up of FHP approved blocks and approval is harvest authority. The AOP is typically submitted April 1 annually. The 2022/23 AOP includes operations scheduled from May 1, 2022 - April 30, 2023. Within the SLS operating area operations are typically scheduled from July – March.

Typical lifecycle of a harvest cut block:

- Year -2: Initial consultation on design with numerous stakeholders and government to develop the plan for fieldwork to be completed.
- Year -1: Plan development, continued consultation. FHP submission and approval
- Year 0: AOP submission. Alberta review and approval prior to harvest and haul operations. Access control and seasonal deactivation of roads to ensure proper drainage when not in use.
- Year +1: Block scarification to cycle soil nutrients and prepare the planting sites.
  Re-establish access control and seasonal deactivation of roads if necessary.
- Year +2: Reforestation, manual planting of regionally sourced seedlings. Road and watercourse crossing recontouring and reclamation. Any designated trails that are impacted during operations are restored to pre-existing condition during reclamation.
- Year +3 to +14: Surveying and monitoring to ensure meeting regulatory regeneration standards. Should regenerations requirements be met at 14yrs, it is no longer a cut block but a healthy juvenile forest.

For more information on forest management planning visit <a href="https://www.spraylakesawmills.com/woodlands/forest-management-planning/">https://www.spraylakesawmills.com/woodlands/forest-management-planning/</a>.

# **Applications of Operating Ground Rules (OGR)**

SLS operates in accordance with current FMAs and CTQ, the requirements of SLS and C05 OGR, and area-specific standards developed with AFRED, Calgary Area, Forestry Division.

The ground rules highlight the current standards and guidelines for timber harvest planning and operations, road construction and reclamation, reforestation and the integration of other forest users and values. The OGR practices constitute the methods used to implement decisions made in the FMP and other higher-level plans such as the South Saskatchewan Regional Plan.

The ground rules also represent the standards and guidelines pertaining to the Forests Act, the Public Lands Act, the Water Act and the Forest and Prairie Protection Act. Provincial Acts such as the Occupational Health and Safety Act and the Surface Rights Act as well as federal Acts including the Navigable Waters and Fisheries Acts, must also be recognized during planning and when conducting forest operations.

Many rules and regulations are incorporated into a harvesting plan. At the same time, forest management strategies must be flexible enough to allow the incorporation of new knowledge and technology. Adaptive Management is the application of new approaches to plans and operations and can allow us to improve our ability to meet specified planning objectives.

A higher level of detail addressing many of the OGR such as fish and wildlife, recreation, access management, rare eco-sections and eco-sites and species of special management are seen below in the Harvest Plans section for each of the operating areas or dispositions.

To view the Operating Ground Rules visit <a href="https://spraylakesawmills.com/woodlands/forest-management-planning/operating-ground-rules/">https://spraylakesawmills.com/woodlands/forest-management-planning/operating-ground-rules/</a>.

#### **Environmental Stewardship**

SLS began its pursuit of attaining third-party forest certification in 1996. From 1996 through 2009, SLS was certified under the Alberta ForestCare certification program. SLS obtained international third-party forest certification in 2013 and continues to be forest certified by internationally recognized programs.

For more information on forest certification and environmental stewardship visit <a href="https://spraylakesawmills.com/woodlands/forest-certification/">https://spraylakesawmills.com/woodlands/forest-certification/</a>.

#### **First Nations Consultation**

SLS's First Nation consultation of the GDP continues to follow "The Government of Alberta's guidelines on consultation with First Nations on land and natural resource management" and "The Government of Alberta's proponent guide to First Nations and Métis Settlements consultation procedures [2019]".

### **Historical Resources and Unique Features**

Spray Lake Sawmills works to identify and protect unique resources within our planning areas. Historic features, sites with archaeological potential, rare plants or plant communities and other unusual natural attributes are considered during planning and operations.

The Listing of Historic Resources (Listing) identifies lands that contain or have a high potential to contain historic resources, including archaeological sites, paleontological sites, Aboriginal traditional use sites of a historic resource nature (burials, ceremonial sites, etc.), and/or historic structures.

Historic Resource Value (HRV) are defined as follows, designated under the <u>Historical</u> Resources Act (HRA):

- HRV 1: Provincial Historic Resource
- HRV 2: Registered Historic Resource
- HRV 3: contains a significant historic resource that will likely require avoidance
- HRV 4: contains a historic resource that may require avoidance
- HRV 5: high potential to contain a historic resource

In recognizing the valuable and non-renewable nature of historic resources, the HRA provides the framework for Historic Resources Impact Assessments (HRIA) and mitigation studies. As historic resources are often not visible, the potential for forestry activities to impact these resources may not be apparent. SLS submits proposed harvest and road building data for review by subject-area experts prior to commencement of operations. If any potentially impacted historical resource sites are identified, the sites are documented, submitted for HRIA Approval, field reviewed, and protected as necessary.

Rare eco-sections and ecosites are reviewed during harvest design and layout. Any overlap or potential impact to these locations are discussed in the FHP submissions, with considerations in alignment with the FMP.

Any location encountered during timber operations that has historic or sensitive potential will be immediately protected until that potential can be assessed and protection requirements determined.

# **Watershed Protection**

Watershed protection and water quality maintenance are primary goals during both planning and operational stages. Watershed protection standards and guidelines have been defined for road construction and harvesting activities. They specify the requirements for establishing crossing structures, road locations, machine-free zones, and

stream buffers. Watercourses ranging from ephemeral draws with water flow only during periods of heavy runoff, to rivers and lakes, are classified for protection according to the provincial guidelines.

Site-specific assessments are completed before harvest plans are developed. The assessment information is used to plan access routes and boundary locations to minimize watershed disturbance. All operations are planned and conducted in compliance with provincial & federal regulations and OGR.

For more information on watershed protection visit https://spraylakesawmills.com/water/.

#### Wildlife

The foothill forests represent a range of habitat types supporting a variety of wildlife species. Monitoring our operations in relation to wildlife requirements will allow us to adapt future harvest designs to better incorporate habitat needs.

Each successional stage of forest development is important. Open areas and young forests represent early stages of forest growth. Both are necessary to sustain many species of wildlife. Harvest patterns can be planned to help maintain the full range of forest age classes across the landscape.

Human access into the forest is considered to have the greatest impact on wildlife. We strive to limit the number of access routes we develop and reclaim temporary roads as soon as possible following completion of operations.

The potential effect of the Species at Risk Act (SARA) on management practices remains a concern. SLS will continue to monitor the development of regulations and applicable species recovery plans that could have implications for forest management plans and operations.

Operations within identified Trout critical habitat will proceed as per the requirements of the Fisheries and Oceans Canada, Alberta Operational Statements.

# **Forest Insects and Diseases**

SLS monitors forest insects and diseases as a standard operating procedure. Alberta is notified regarding infestations or forest conditions of concern. Operating plans will be tailored to address known situations.

For more information on forest insects and diseases visit <a href="https://spraylakesawmills.com/woodlands/forestry-101/insects-and-diseases/">https://spraylakesawmills.com/woodlands/forestry-101/insects-and-diseases/</a>.

# **Weed Control**

All land-use dispositions that are held by SLS are subject to noxious weed legislation. The OGR have a series of procedures to minimize the impact and spread of noxious and prohibited noxious weeds. All forestry operators in the Defined Forest Area must ensure that their contractors are aware of the obligations under the OGRs. SLS has established a weed management plan that specifies the following:

- Education and Training of staff to increase awareness of weed concerns within the companies' sphere of interest
- Prevention, Inventory and Control of noxious and prohibited noxious weeds classified by the Alberta Weed Control Act and Regulation.
  - The companies will implement where practical the recommended 'Good Standards of Practice for Prevention' outlined in Forestry Directive 2001-06. Prevention measures will focus on clean equipment, limited disturbance, and clean seed usage.

As of this submission date, no weed management action areas have been identified. The company has participated in Municipal District (MD) coordinated Weed Management Co-ops where possible and will continue to collaborate with stakeholders through agreements on weed control.

# **Forest Protection**

As per the OGR and the Forest and Prairie Protection Act and associated regulations, SLS annually develops and submits a Fire Control Plan. The SLS Emergency Response Plan (ERP) identifies the process and procedures used to dealing with Forest Protection emergencies. A list of emergency contacts has also been included within the Fire Control Plan and the ERP.

### Slash Disposal

SLS amended harvesting practices to recognize stump side processing since 1998. Stump side processing is a harvest practice that leaves treetops and limbs spread throughout the harvested area. Known as slash, this material has tremendous value for reforestation. Slash helps retain snow during the winter and modify soil surface temperatures during summer. Larger pieces can shelter new tree seedlings from damaging winds, frosts, and large foraging mammals. The slash also helps to maintain higher soil moisture levels and with time, the decaying needles and branches become nutrient sources for the new growing forest.

#### **Reforestation Program**

Timber harvesting is planned to be sustainable, all areas harvested must be reforested. The rate of harvesting is calculated so it will not exceed forest growth. Silviculture systems are the prescribed strategic approaches recommended for harvesting timber and completing subsequent reforestation processes. Selected systems are chosen to match the biological needs of the tree species being harvested and the specific growing conditions of the harvest site. Prescriptions must consider seasons of operation, species being harvested, available harvest methods, site preparation tactics, species to reforest and regeneration method. Reclamation activities will follow operations as closely as possible, and roads will be reclaimed upon completion of planting activities.

For more information on the reforestation process including assessments, site preparation, tree planting, and surveys visit <a href="https://spraylakesawmills.com/woodlands/forestry-101/reforestation-process/">https://spraylakesawmills.com/woodlands/forestry-101/reforestation-process/</a>.

#### **Log Haul**

Log hauling into the SLS mill site is primarily completed with hayrack and quad axle configurations and supplemented by seven axle and picker configurations. Trucks are permitted for legal weights. SLS assesses the merits of hauling winter weights on an annual basis if satisfactory conditions are available. SLS will also continue with the use of picker trucks to move smaller concentrations of volume and clean-up volumes. The proposed haul routes have been identified on the attached GDP map and labelled in the legend as transportation.

Annually, log haul notices are placed in the local papers at the commencement of the log haul season outlining log haul routes and providing public driving safety tips concerning the log haul. Additional public driving safety tips are available at <a href="https://spraylakesawmills.com/woodlands/safety/">https://spraylakesawmills.com/woodlands/safety/</a>.

Haul routes and road classes within the timber dispositions are identified in the FHP and AOP submissions. Roads outside the timber dispositions will be either covered under road use agreements, disposition, or permits obtained from either Alberta Transportation or the local Municipal Districts prior to the hauling of logs. SLS will continue to work with Alberta Transportation and impacted stakeholders for access beyond road closures.

# Oil and Gas

SLS supports Integrated Land Management and communicates regularly with the oil and gas sector regarding options to minimize their impacts on forest resources. Sharing of advance planning information, joint use of access corridors, and coordination of operations are a few approaches being promoted.

#### **Access Management**

The OGR provide the procedures for planning and working within areas where access control is required. Unless otherwise approved, temporary roads will be operated and reclaimed in accordance with the OGR. Access agreements required through seasonal gate closures will be obtained through Alberta Transportation authorities. SLS will continue to work with Alberta to restrict motorized access and to decommission undesignated trails where they intersect with SLS activities.

# **Public Involvement Process**

SLS operates on Crown lands and people have the right to be involved in decisions affecting them. Interested and affected public have local knowledge and expertise that can improve how our operations are conducted.

Our promise to interested parties is to keep them informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced decisions. SLS's public involvement policy is to carefully consider feedback and then respond to stakeholders by addressing their concerns. Changes to a plan or operation as a result of public input are recorded by SLS and communicated to the interested party.

To achieve our objective, Spray Lake Sawmills maintains communication programs in each of the following areas:

- Public Awareness (Public Education)
- Response to Information Requests
- Communications with Stakeholders & Government Agencies
- Open Houses
- Collaborative Planning Sessions
- Resource Management Workshops

A key component of the Public Involvement Process is the Collaborative Planning Session. SLS hosts interested parties to develop preliminary harvest designs, this provides SLS with vital information to develop the harvest plans prior to any fieldwork being done and prior to plan submission to Alberta. Feedback provided in these sessions is gathered and an SLS response is provided. Past CPS sessions can be viewed on the SLS website, these should be reviewed to answer many frequently asked questions. (https://www.spraylakesawmills.com/woodlands/public-involvement-process/collaborative-planning-sessions/). Details on the CPS are seen below in the Harvest Plans section.

SLS encourages anyone with an interest in our operations to contact us, if you have any questions or have been unable to attend a public involvement session, please email woodlands@spraylakesawmills.com.

For more information on the SLS public involvement process, how to contact us, or to sign up for events and information notices visit <a href="https://spraylakesawmills.com/woodlands/public-involvement-process/">https://spraylakesawmills.com/woodlands/public-involvement-process/</a>.

#### **Public Land Use Zones**

SLS operations overlap with several Public Land Use Zones. These zones can be motorized or non-motorized and present mixed-use challenges. SLS works with trail users, trail groups, and Alberta to mitigate impact on the designated trail network. All designated recreation infrastructure will be maintained as possible throughout operations and restored to pre-industrial condition upon completion of activities. All designated infrastructure overlapping with SLS operations will be:

- Inventoried, mapped, and marked with ribbon/paint prior to operations. Inventory will include pictures or video as necessary to properly capture pre-industrial condition.
- Avoided as possible throughout operations and use will be maintained within operational, safety, or regulatory limitations. This may include portions of a trail that is utilized as part of the SLS road network. SLS does not have the authority to close designated trails and will discuss with recreation groups and Alberta should a trail closure be recommended. Recreational use is maintained by:
  - Avoiding trails with heavy equipment and crossing at limited, designated, signed locations.

- Ramping trails up to and down from SLS roads, signing trail prior to intersection.
- o Temporary re-routes of trail network to avoid high risk locations.
- o Communicating regularly on safety concerns, trail use, and schedule
- Delineated by leaving retention, understory, or high stumps during harvest stage to mark the trail location for follow up activities such as scarification, reclamation, and planting.
  - Restored to pre-industrial condition upon completion of road reclamation (within 3 years of initial road construction). These locations will be limited to SLS road overlap and skid crossings. Infrastructure inventory as well as adjacent trail condition will be referenced to ensure trail is in as good or better condition than prior to SLS operations

SLS is committed to working cooperatively with all stakeholders to ensure public safety. Safety concerns may exist for the public during harvest operations and along the haul route. SLS will post signage at common access points to alert of harvest and haul operations.

# **Grazing Timber Agreements**

Overlapping grazing and timber harvest operations on approved dispositions will conform to direction outlined in Grazing Timber Agreements (GTA) developed as per the Grazing and Timber Integration Manual.

#### **Emergency Response**

An effective safety program includes a plan to deal with emergency response in the event of medical incidents, forest fires, or environmentally hazardous spills. This annual plan provides step by step instructions for addressing various emergencies that could potentially occur in woodland operations.

SLS uses the STARS Emergency Link Centre (ELC), a 24-hour multi-function communications center established to meet the needs of industry working in remote locations. The ELC works closely with partners in the Chain of Survival, including first responders, 9-1-1 dispatch, EMS, fire, police, search and rescue, and hospital personnel to ensure efficient and effective patient care and transport. In the event of an emergency, one call to the ELC will link emergency service providers, medical personnel, and appropriate emergency transportation providers in one conversation – saving valuable time.

SLS contractors deploy a SLS Emergency Response Trailer to a central location near harvesting sites. The trailer contains equipment required for various types of emergencies and is equipped to safely store environmentally hazardous materials.

A review of the ERP is completed annually with staff and contractors. Personnel are trained in first aid and spill response and emergency drills are completed periodically.

The ERP is shared each year with various stakeholders, groups, or individuals who may be present in the areas where we are operating and is available upon request.

# **Timber Harvesting Systems and Harvest Design**

Development of the preliminary and the final harvest patterns relies on increasing levels of knowledge about the forest areas being planned. Detailed information is actively collected during field assessments and gathered from government agencies and stakeholders.

For more information on harvest method selection and sequence patch cutting visit <a href="https://spraylakesawmills.com/harvesting/">https://spraylakesawmills.com/harvesting/</a>.

All block locations and status are identified on the maps. A detailed analysis was done during the block design phase of this using Lidar in conjunction with the Spatial Harvest Sequence (SHS). Contours, slope classes and canopy height models have been generated from the Lidar Data to help determine the best locations for block boundaries, road access, and creek crossings to mitigate environmental impacts as well as help minimize the footprint on the landscape.

Only operating areas with current plans are listed below in the Planning Considerations section. Current plans include preliminary planning, plans in development, and active operations.

Please review the corresponding maps and AOP table showing which blocks are scheduled for operations in the 2022/2023 operating season. Blocks listed as contingency are scheduled for future operations, however, may be operated if necessary. Schedule of operations is subject to change.

#### **Harvest Plans**

#### Grease Creek

- FHP approved Nov 2, 2021
  - One FHP, but two separated areas within the compartment, referred to as GC\_North and GC\_South.
- FHP includes 20 blocks for a total of 1057.8ha, no operations to date.
- GC\_North is accessed from Stud Creek Road with three pre-existing approaches, one across from Hunter Valley Adventures Inc. (DML92003), and one on either side of Vam Creek. These approaches will be access controlled.
  - o Timber harvest is currently scheduled from July 2022 to March 2023, with haul to follow.
- GC\_South is accessed from Harold Creek Road in two locations, the east approach was last used by SLS in 2002. These approaches will be access controlled.
  - o This area is schedule for operations in the 2022/23 season.

- Watercourse buffers are laid out on all identified watercourses as per Table 2 of the OGR. The main watercourses in the area that require buffering are Harold, Grease and Vam Creeks. Watercourse crossings are minimized wherever possible, there are no watercourse crossings planned on either Grease or Harold Creeks. There is a small watercourse crossing on upper Vam Creek between GC\_2879 and 2984.
- Wildlife zones associated with FHP:
  - o Grizzly Bear (Core & Secondary); All FHP blocks
  - Key Wildlife Biodiversity Zone (KWBZ); Northeast 9ha of GC\_3454, all GC South blocks.
- Approx. 4km of designated quad trail (limited, open November only) along an old logging trail, approx. 3km which is planned to reopen for this plan. Standard trail management applies; trail marked with safety signage, trail use maintained where possible throughout operations, impacted trail restored following operations.

#### Collaborative Planning Session for future operations, details:

- FHP is in development, Collaborative Planning Session held May 4, 2022.
- Subject area is along the Burnt Timber Gas Plant Road, 1.5-6.5km west of the gas plant site between Grease Creek to south and Fallen Timber Creek to the north. The area is split between Grease Creek and Fallen Timber Creek watersheds.
- Fieldwork scheduled for summer/fall 2022
- Approx. 490ha planned for 2024/25, 557ha planned for 2025/26
- Adjacent harvest history includes blocks harvested in 1985, 1986, 1991, 1992, 1993, and 2000.
- Planned area is accessed from the Gas Plant Road as well as SLS road disposition DLO2872, both routes are planned for hauling associated volume east to HWY 22
- SLS will be recommending access control put in place off public roads and designated trails.
- SLS operations in this plan are wholly within the Forestry area, operations bordering private or leased lands are excluded from this plan. From time to time there may be an agreement with a private landowner or MD to harvest on private land or a road allowance, although it would be operated at the same time this harvest falls under SLS's Purchase Wood Program.
- Watercourse buffers are laid out on all identified watercourses as per Table 2 of the OGR. Watercourse crossings are minimized wherever possible, there are no watercourse crossings planned on either Grease or Fallen Timber Creeks. There is a small watercourse crossing on upper Mouse Creek between GC\_0427 and 0574.
- Wildlife zones associated with plan:
  - o Grizzly Bear (Secondary); All blocks
  - o Key Wildlife Biodiversity Zone (KWBZ); All blocks except GC\_2366
- Area overlaps with the Ghost PLUZ. SLS will work with trail users and Alberta prior to and throughout operations to mitigate impact where possible. There are several designated trails overlapping with harvest plans (blocks and roads),

- mitigation work to continue as plan develops. Standard trail management applies; trail marked with safety signage, trail use maintained where possible throughout operations, impacted trail restored following operations.
- FHP overlaps Grease Creek and Lower Fallen Timber Grazing Allotments; there is a GTA in place however may require updating. Grazing operator will be consulted during plan development to integrate grazing concerns/interests.
- FHP overlaps Traplines 983 and 2034, communication will continue throughout plan development.
- FHP will be assessed for historical impact in the spring/summer of 2022

#### **Burnt Timber Creek**

- FHP approved April 12, 2021
  - One FHP, but two separated areas within the compartment, referred to as BT\_East and BT\_West.
- FHP includes 9 blocks for a total of 951.1ha, primarily harvested in 2021/22 season with 3 blocks (251.8ha) scheduled for the 2022/23 season.
- 51,815m3 estimated inventory harvested in the 2021/22 season is being hauled to the mill site in the 2022/23 season. This 'carryover' volume is submitted in the SLS 2022/23 AOP.
- BT\_East is accessed near the intersection of Hunter Valley Road and HWY 940, there is one approach to be built off HWY 940 to access BT\_0994. This approach will be access controlled.
- BT\_West is accessed from SLS DLO210095. This approach is currently access controlled at the East end of the (SLS AOP) 'Burnt Timber Road' as shown on the map.
- Timber harvest is currently scheduled from Nov 2022 to March 2023, with haul to follow.
- Watercourse buffers are laid out on all identified watercourses as per Table 2 of the OGR. The main watercourses in the area that require buffering are Burnt Timber, Fallentimber, Nuisance, and Pretty Place Creeks. Watercourse crossings are minimized wherever possible, these watercourses were avoided in plan design except for one clear-span bridge installation on Pretty Place Creek near the confluence with Burnt Timber Creek.
- Wildlife zones associated with FHP:
  - o Grizzly Bear (Core & Secondary); All FHP blocks
  - Key Wildlife Biodiversity Zone (KWBZ); BT\_1704 (harvested in 2021/22 season)
- Overlap with designated trails in four blocks (BT\_1704, 1862, 2084, and 2492). These blocks were harvested in the 2021/22 season however the road network will remain in place until reclaimed in the 2023/24 season. Standard trail management applies; trail marked with safety signage, trail use maintained where possible throughout operations, impacted trail restored following operations.

#### Atkinson Creek

#### Current plan details:

- FHP approved April 15, 2021
  - One FHP, but two separated areas within the compartment, referred to as AK\_East and AK\_West, split by Owl Creek.
- FHP includes 11 blocks for a total of 608.8ha, AK\_West was harvested in the 2021/22 season and AK East (6 blocks, 224.6ha) is scheduled for the 2022/23 season.
- 21,000m3 estimated inventory harvested in the 2021/22 season is being hauled to the mill site in the 2022/23 season. This 'carryover' volume is submitted in the SLS 2022/23 AOP.
- AK\_East includes blocks east of Owl Creek which are planned to be hauled south along Canlin Energy LOC013277 to HWY 1A east of Waiparous Village. This route is currently gated effectively controlling access.
  - o Timber harvest is currently scheduled from July 2022 to Nov 2022, with haul to follow.
- AK\_West includes 2021/22 harvested blocks west of Owl Creek which were hauled west to the Whispering Pine Bible Camp Road (DLO2847). The area is currently access controlled and roads are seasonally deactivated awaiting full reclamation in the 2023/24 season.
- Watercourse buffers are laid out on all identified watercourses as per Table 2 of the OGR. Two main watercourses in the area are Owl Creek and Atkinson Creek. Watercourse crossings are minimized wherever possible, there is not a watercourse crossing planned on either Owl or Atkinson Creeks.
- Wildlife zones associated with FHP:
  - o Grizzly Bear (Secondary); All FHP blocks
  - Key Wildlife Biodiversity Zone (KWBZ); 9ha of the northeast of AK\_1406 (2021/22 block) and the north 1ha tip of AK\_1167 (2022/23 block). AK MAIN as a haul route travels approx. 5800m through KWBZ to DLO2847.
- There are no designated recreation areas or trail associated with this FHP.

### Collaborative Planning Session for future operations, details:

- FHP is in development, Collaborative Planning Session scheduled for May 4, 2022.
- Subject area is east of HWY40 within the Waiparous Creek drainage basin.
- Fieldwork scheduled for summer/fall 2022. Two blocks were planned and ribboned in 2017 but not harvested, these blocks are incorporated into this plan and field work will be reviewed/refreshed.
- There are 14 blocks totaling 930.3ha planned for the 2024/25 and 2025/26 seasons.
- Adjacent harvest history includes blocks harvested in 1989, 2013, 2014, 2015, 2019, 2020, and 2021.
- Planned area has three access points:

- Whispering Pines Bible Camp Road (DLO2847) for blocks near the height of land between Waiparous Creek and the headwaters of Atkinson Creek.
- HWY940 for blocks west of Waiparous Creek near DML980063 (cadet camp).
- o Canlin Energy LOC013277 and a reclaimed AOP road (originally constructed in 2013) for blocks east of Waiparous creek.
- SLS will be recommending access control put in place off public roads and designated trails.
- Watercourse buffers are laid out on all identified watercourses as per Table 2 of the OGR. Two main watercourses in the area are Aura Creek and Waiparous Creek. Watercourse crossings are minimized wherever possible. There is a clearspan bridge crossing planned on Aura Creek and no crossing on Waiparous Creek.
- Low lying areas between the planned blocks require road crossings, all crossing will be constructed following best management practices and the OGR. As with all watercourse and non-watercourse installations these crossings will be monitored throughout operations and fully reclaimed following reforestation.
- Wildlife zones associated with FHP:
  - o Grizzly Bear (Secondary); All blocks
  - o Key Wildlife Biodiversity Zone (KWBZ); All blocks
- Area overlaps with the Ghost PLUZ. SLS will work with trail users and Alberta prior to and throughout operations to mitigate impact where possible. There are several designated trails overlapping with harvest plans (blocks and roads), mitigation work to continue as plan develops. Standard trail management applies; trail marked with safety signage, trail use maintained where possible throughout operations, impacted trail restored following operations.
- FHP overlaps Aura Cache, Ghost River, and Little Red Deer Grazing Allotments; there are GTAs in place however may require updating. Grazing operator will be consulted during plan development to integrate grazing concerns/interests.
- FHP overlaps Trapline 2356, communication will continue throughout plan development.
  - o FHP will be assessed for historical impact in the spring/summer of 2022

# Jumpingpound Creek

- FHP approved March 31, 2022
  - One FHP, but two separated areas within the compartment, referred to as JP\_North and JP\_South, split by HWY 68.
- FHP includes 21 blocks for a total of 1007.5ha, no operations to date.
- JP\_North includes blocks north of Hwy 68 and are accessed directly off the highway between the demonstration forest south loop and Sibbald Lookout Park Area. This approach will be access controlled.
  - These blocks are in the 2022/23 AOP as contingency for harvest if required, however, operations are scheduled in the 2023/24 season.

- JP\_South includes blocks south of Hwy 68 and are accessed off the Caledonian LOC (LOC920365) and the demonstration forest south loop. SLS will enter a road-use agreement with Alberta for use of the demonstration forest loop. This approach will be access controlled.
  - o Timber harvest is currently scheduled from Sept 2022 to March 2023, with haul to follow.
  - There are two blocks in the 2022/23 AOP as contingency for harvest if required, however, operations are scheduled in in the 2023/24 season.
- Watercourse buffers are laid out on all identified watercourses as per Table 2 of the OGR. Three main watercourses in the area are Bateman Creek, Coxhill Creek, and Jumpingpound Creek. Watercourse crossings are minimized wherever possible. There is one clear-span bridge planned on upper Bateman Creek, one clear-span bridge planned on Coxhill Creek near the confluence with Jumpingpound Creek. There are no crossings planned on Jumpingpound Creek.
- Wildlife zones associated with FHP:
  - o Grizzly Bear (Secondary); All FHP blocks
  - Key Wildlife Biodiversity Zone (KWBZ); JP\_0764, 1828, 2331, 2337, 2635.
- A portion of Tom Snow (approx. 1500m) is within JP\_1231. SLS is not expecting a trail closure to be necessary. The road network was designed to only cross the trail at one location and to limit skid crossings to one location: directly south of the end of 1231C road. This skid crossing will be restored immediately following skidding. Specific to Tom Snow trail, no other skid crossings are permitted without Alberta notification. SLS 1231C road overlaps a designated trail for its entirety (389m), this portion of trail is not being used regularly and has grown in.

### Future plan details:

- There is area sequenced for harvest in the Jumpingpound compartment near West Bragg Creek and Moose Mountain (East of Moose Mountain Road) for the 2026/27 season. Consultation and design work on this area will be initiated in April/May 2024. There will be a collaborative planning session scheduled at the Open House in 2024, specific interest group meetings will follow as needed.

# **Highwood River**

- FHP in progress, fieldwork scheduled to be completed snow-free 2022 and plan submission scheduled for Dec 2022.
- FHP includes 8 blocks for a total of 1248.5ha, no operations to date. Operations are currently scheduled for the 2023/24 season however will likely extend into the 2024/25 season.
- The subject area is accessed from Hwy 40 approx. 9km NW of the Highwood Junction or approx. 2.8km SE of Lineham Park Area. Although there is a historic approach at this location, a new approach onto the highway will be required. SLS will be recommending access control at this location.

- Signage will be placed along Hwy 40 to ensure safety of all road users.
  Line of sight at approach locations will be increased as possible.
- Watercourse crossings are minimized wherever possible, there will be one clear-span bridge required on the Highwood River and two clear-span bridges required on Loomis Creek. Site plans (biologist review, terrain mapping, flood modelling) will be developed specifically for significant watercourse crossings.
- Bull Trout critical habitat identified in the subject area, specifically tributaries to Loomis and McPhail Creek as well as the Highwood River, operations in these areas will be assessed and approved as necessary.
- Pre-existing disturbance is incorporated into the plan to minimize road and trail network footprint.
- Steep terrain (> 70% slope) throughout subject area; blocks will be laid out to both ensure the safety of the operator and protection of the soils.
- Wildlife zones associated with FHP:
  - o Grizzly Bear (Core); All FHP blocks
  - o Mountain Goat and Sheep Areas; All FHP blocks

#### Savanna Creek

# Current plan details:

- FHP approved April 20, 2021. 11 blocks for a total of 68.2 ha are scheduled for the 2022/2023 timber year.
- Blocks are planned in the upper Isolation Creek area, access from Highway 940 (Forestry Trunk Road) will be via Canlin Energy Corporation LOC1156 and LOC070511 (Savanna Road), and Shell Canada Limited LOC950751.
- Watercourse buffers are laid out on all identified watercourses as per Table 2 of the OGR. The main watercourse crossing in the area is a clear-span bridge planned on Isolation Creek. Several watercourse crossings will be constructed on small tributaries to Isolation Creek.
- Area overlaps with the Livingstone PLUZ. SLS will work with trail users and Alberta prior to and throughout operations to mitigate impact to designated trails where possible. The designated trail southwest of Isola Peak overlaps with harvest plans (blocks and roads). Standard trail management applies; trail marked with safety signage, trail use maintained where possible throughout operations, impacted trail restored following operations.
- Wildlife zones associated with FHP:
  - o Grizzly Bear (Core); All FHP blocks
  - o Mountain Goat and Sheep Areas; All FHP blocks

#### Upper Livingstone

- FHP approved April 20, 2021. 43 blocks for a total of 401.5 ha are scheduled for the 2022/2023 timber year. Of the 43 blocks, 12 blocks totaling 132.3 ha have been submitted as contingency.
- Mainline access roads to blocks in this area will be built from Highway 940 (Forestry Trunk Road) at Coat Creek and south of Speers Creek.

- Area overlaps with the Livingstone PLUZ. SLS will work with trail users and Alberta prior to and throughout operations to mitigate impact to designated trails where possible. The designated trail which parallels Coat Creek overlaps with harvest plans (blocks and roads). Standard trail management applies; trail marked with safety signage, trail use maintained where possible throughout operations, impacted trail restored following operations.
- Watercourse buffers are laid out on all identified watercourses as per Table 2 of the OGR. Several watercourse crossings will be constructed on small tributaries to Coat Creek, Speers Creek, and the Livingstone River.
- Wildlife zones associated with FHP:
  - o Grizzly Bear (Core); All FHP blocks
  - o 26 blocks contain Mountain Goat and Sheep Areas
  - o 5 blocks contain Key Wildlife Biodiversity Zone (KWBZ)

#### Future plan details:

- FHP is in development and was presented for discussion at the May 5, 2022 Open House
- East of the Livingstone River and Highway 940 (Forestry Trunk Road), 20 harvest blocks totaling approximately 384.6 ha are laid out and planned for harvest in the 2023/2024 timber year. The FHP encompassing those 20 blocks along with 23 blocks in the Lower Livingstone area is currently under development and will be submitted in the spring of 2022.
- Main watercourse crossings in this area will include clear-span bridges over Ridge Creek and Deep Creek, several watercourse crossings will be constructed on small tributaries to Ridge Creek, Deep Creek, and the Livingstone River.
- The access road to this area will be built from Highway 940 near the intersection of the Livingstone River and Highway 940.
- Wildlife zones associated with FHP:
  - o Grizzly Bear (Core); All FHP blocks
  - o 7 blocks contain Mountain Goat and Sheep Areas
  - o 11 blocks contain Key Wildlife Biodiversity Zone (KWBZ)

#### Lower Livingstone

- FHP approved April 20, 2021. 21 blocks for a total of 160.6 ha are scheduled for the 2022/2023 timber year
- Blocks are planned west of the Livingstone River and Highway 940 (Forestry Trunk Road), North of the Oldman River and south of Speers Creek.
- 2 blocks in this area will be accessed via FRD910001 (Oldman Road), the remaining blocks will be accessed by two roads to be built from Highway 940.
- Wildlife zones associated with FHP:
  - o Grizzly Bear (Core); All FHP blocks
  - o 11 blocks contain Mountain Goat and Sheep Areas
  - o 5 blocks contain Key Wildlife Biodiversity Zone (KWBZ)

- 3,981m³ inventory harvested in the 2021/22 season is being hauled to the mill site in the 2022/23 season. This 'carryover' volume is submitted in the CFP 2022/23 AOP.

# Future plan details:

- FHP is in development and was presented for discussion at the May 5, 2022 Open House.
- East of the Livingstone River and Highway 940 (Forestry Trunk Road), 23 harvest blocks totaling approximately 356.2 ha are laid out and planned for the 2023/2024 timber year. The FHP encompassing those 23 blocks along with 20 blocks in Upper Livingstone is currently under development and will be submitted in the spring of 2022.
- The main watercourse crossing in this area will be a clear-span bridge over Bruin Creek, several watercourse crossings will be constructed on small tributaries to Bruin Creek, White Creek, and the Livingstone River.
- Wildlife zones associated with FHP:
  - o Grizzly Bear (Core); All FHP blocks
  - o 3 blocks contain Mountain Goat and Sheep Areas
  - o 17 blocks contain Key Wildlife Biodiversity Zone (KWBZ)

#### West Chain Lakes

# Current plan details:

- FHP approved April 7, 2021. 11 blocks for a total of 194.6 ha are scheduled for the 2022/2023 timber year
- The main watercourse crossings in this area have been built and include clearspan bridges over Langford Creek, Westrup Creek, and Timber Creek. Several watercourse crossings will be constructed on small tributaries to Westrup Creek.
- Area overlaps with the Livingstone PLUZ. SLS will work with trail users and Alberta prior to and throughout operations to mitigate impact to designated trails where possible. The designated trails South of Indian Graves PRA overlap with harvested areas (blocks and roads). Standard trail management applies; trail marked with safety signage, trail use maintained where possible throughout operations, impacted trail restored following operations.
- 9,529m³ estimated inventory harvested in the 2021/22 season is being hauled to the mill site in the 2022/23 season. This 'carryover' volume is submitted in the CFP 2022/23 AOP.
- Wildlife zones associated with FHP:
  - o Grizzly Bear (Core); All FHP blocks
  - o Key Wildlife Biodiversity Zone (KWBZ); All FHP blocks

# Regal Creek

#### Current plan details:

- FHP was approved April 2, 2020. 9 blocks for a total of 81.9 ha are scheduled for the 2022/2023 timber year

- 3 Blocks in this area will be accessed from FRD620042 (Dutch Creek Road), the remaining 6 blocks will be accessed directly from Highway 940 (Forestry Trunk Road).
- 2,872m<sup>3</sup> estimated inventory harvested in the 2021/22 season is being hauled to the mill site in the 2022/23 season. This 'carryover' volume is submitted in the CFP 2022/23 AOP.
- Wildlife zones associated with FHP:
  - o Grizzly Bear (Core); All FHP blocks
  - o Key Wildlife Biodiversity Zone (KWBZ); All FHP blocks

# Vicary Creek

# Future plan details:

- FHP is in early stages of development, preliminary planning was presented for discussion at the May 5, 2022 Open House.
- Harvest is planned for the 2024/2025 timber year. Fieldwork and stakeholder communication scheduled for summer/fall 2022
- Subject area is East of Highway 940 (Forestry Trunk Road within the headwaters of Daisy Creek drainage basin.
- Area will be accessed via Canadian Natural Resources Limited LOC3613 and LOC4111, locally known as Coseka Resource Road.
- Wildlife zones associated with FHP:
  - o Grizzly Bear (Core)
  - o Key Wildlife Biodiversity Zone (KWBZ)

# FMA 0100038 2022/23 AOP Block List

		-	FMA01000	38 2022-	2023 AOP E	Block List	3	-	
Disposition	Compartment	FHP	Block Number	Harvest Area (ha)	Conifer Volume (m3)	Contingency Conifer Volume (m3)	Carry Over Conifer Volume (m3)*	Deciduous Volume (m3)**	Total Conifer Volume (m3)
FMA0100038	Atkinson Creek	FHP_AK2019_24	1314	0.0	0	0	21,000	0	21,000
				0.0	0	0	21,000	0	21,000
			0228	52.8	14,784	0	0	35	14,784
			0244 0290	17.2 10.1	4,799 2,525	0	0	5 1	4,799 2,525
FMA0100038	Atkinson Creek	FHP_AK2021_26	0293	34.7	8,675	0	0	21	8,675
		7111 _74142021_20	1167	103.6	25,589	0	0	78	25,589
			3579	6.2	1,817	0	0	5	1,817
				224.6	58,189	0	0	144	58,189
			0994	74.4	15,709	0	0	16	15,709
			1287	14.6	2,962	0	0	3	2,962
			1704	0.0	0	0	3,103	0	3,103
			1862	0.0	0	0	17,479	0	41,589
FMA0100038	Burnt Timber Creek	FHP_BT2021_26	1952	0.0	0	0	5,512	0	32,358
	Older.		1967 1995	0.0	0	0	17,763 10,892	0	11,214 8,547
			2084	0.0	0	0	20,057	0	24,002
			2492	225.6	51,979	0	0	52	51,979
				314.6	70,650	0	74,806	71	145,456
			1412	49.8	14,939	0	0	75	14,939
			1506	56.6	13,250	0	0	93	13,250
	Grease Creek	FHP_GC2021_26	1567 2158	59.7 70.1	17,053	0	0	34 33	17,053
			2199	39.1	16,459 7,271	0	0	7	16,459 7,271
			2233	25.3	4,156	0	0	4	4,156
FMA0100038			2245	47.3	7,251	0	0	15	7,251
			2706 2731	14.1 33.8	3,130 7,518	0	0	3 8	3,130 7,518
			2836	47.7	8,964	0	0	27	8,964
			3303	21.1	4,463	0	0	4	4,463
			3330	8.5	1,309	0	0	1	1,309
			3361	65.5 <b>538.6</b>	14,109 <b>119,873</b>	0 <b>0</b>	0 <b>0</b>	14 <b>318</b>	14,109 <b>119,873</b>
			2010						
			0616 0666	116.1 4.2	26,397 802	0	0	53 2	26,397 802
			0668	11.5	2,141	0	0	26	2,141
			0764	5.8	1,212	0	0	9	1,212
			1231 1391	251.1 11.2	0	45,401 2,018	0	45 10	45,401 2,018
			1828	49.2	0	9,512	0	129	9,512
			2331	14.5	0	3,161	0	126	3,161
			2337	5.1	0	1,142	0	20	1,142
	Jumpingpound		2426 2465	27.5 33.1	0	6,145 7,561	0	6 12	6,145 7,561
FMA0100038	Creek	FHP_JP2022_27	2502	10.0	0	2,250	0	40	2,250
			2551	67.9	0	14,949	0	15	14,949
			2635	69.0	0	13,732	0	112	13,732
			2771 2783	70.1 28.5	0	16,822 6,696	0	50 20	16,822 6,696
			3128	10.8	2,372	0,090	0	2	2,372
			3584	47.2	11,280	0	0	11	11,280
			3631	53.9	8,507	0	0	9	8,507
			3638 3695	103.6 17.2	24,159 3,056	0	0	24 3	24,159 3,056
			5555	1,007.5	79,927	129,388	0	724	209,315
Total				2,085	328,638	129,388	95,806	1,257	553,832

# FMA 2100047 2022/23 AOP Block List

Dispostion	Working	Opening	Field	AOP	AOP Area	Volume
	Area	Number	Number	Area (ha)	Measurement	(m3)
		5030120727A	727	1.9	GPSG	380
		5040121338A	1338	4.5	GPSG	877
		5030121815A	1815	6.5	GPSG	1267
		5040122382A	2382	8.2	GPSG	1599
		5040122433A	2433	12.1	GPSG	2359
		5040122627A	2627	2	GPSG	420
		5040122638A	2638	5	GPSG	950
		5040122640A	2640	18.8	GPSG	3572
		5040122652A	2652	14	GPSG	2730
		5040122653A	2653	6.5	GPSG	1268
FM A 2100047		5040122666A	2666	35.8	GPSG	6981
	C225 - Lower	5040122709A	2709	3.6	GPSG	684
	Livingstone	5040122714A	2714	3.3	GPSG	644
		5040122716A	2716	6.8	GPSG	1326
		5040122718A	2718	6.8	GPSG	1326
		5040122735A	2735	3.9	GPSG	761
		5040122746A	2746	3.4	GPSG	680
		5040122768A	2768	1.1	GPSG	220
		5040122798A	2798	6.5	GPSG	1300
		5040113632A	3632	1.8	GPSG	351
		5040113651A	3651	8.1	GPSG	1580
		5040120192A	192	0	GPSG	229
		5040120603A	603			374
		5040113635A	3635	0	GPSG	3378
			Total	160.6	Total	31,275
Carry Over Volu	ume - Harveste	d 2021/2022 to be			Total	3981
,		5040111373A	1373		GPSG	484
		5030111833A	1833	7.7	GPSG	1617
		5030111842A	1842	2.1	GPSG	462
	C504- Regal Creek	5030111869A	1869		GPSG	525
		5030111873A	1873		GPSG	2816
FM A 2100047		5030113074A	3074		GPSG	2310
1 11/12 1000 17		5030113121A	3121		GPSG	440
		5030113128A	3128		GPSG	5103
		5030113160A	3160		GPSG	3591
		5030113134A	3134		GPSG	728
		5030113167A	3167	0		2144
		1	Total	81.9	Total	17348
Carry Over Volu	ume - Harveste	d 2021/2022 to be		23	Total	2872
, , , , , , , , , , , , , , , , , , , ,	1	5040132909A	2909		GPSG	2900
		5040132946A	2946		GPSG	1998
	1	5040132965A	2965		GPSG	952
	1	5040132966A	2966	0.8		152
	C500	5040132985A	2985		GPSG	935
FM A 2100047	C509 - Savanna	5040132995A	2995		GPSG	375
1 WIAZ 100047	Creek	5040133075A	3075		GPSG	1018
	J.J.J.	5040133077A	3073		GPSG	740
	1	5040133084A	3084		GPSG	1234
	1	5040 B3084A 5040133094A	3094		GPSG	779
	1	5040 B3094A 5040133160A	3160		GPSG	4389
		0040 03 100A	Total	74.1	Total	15472
			iotai	74.1	iotai	13472

		5030132732A 5030132755A	2732 2755		GPSG GPSG	13500
		5030132732A	2732		GPSG	782
		5030132728A		9.3		2046
			2728			
		5030 60527A 5030141537A	1537	2.5	GPSG	1295
Johnnigericy B1	5 51.0	5030150527A	527		GPSG	500
Contingency BI	ncks		Total	132.3	Total	33811
		33.0 E30 E71	Total	265	Total	68300
		5040123612A	3612	2.2	GPSG	330
		5040123566A	3566	39.2	GPSG	12975
		5040123391A	3391	4.4		858
		5040 130374A	3037	5.4		1026
		5040 B28 BA	2881	2.1		357
		5040132813A	2813	8.5	GPSG	3196
		5040132805A	2805	1.3		488
		5040132790A	2790	4.6	GPSG	1012
		5040132781A	2781	2.8		722
		5040132774A	2774	13.8		3560
		5040132743A	2743	1.7		281
		5040132721A	2721	2.4		360
		5040132712A	2712	5.4	GPSG	97
		5040132615A	2615	7.1		1768
		5040132612A	2612	4.1	GPSG	882
		5040132293A	2293	5		1405
		5040132276A	2276	5.6	GPSG	1394
		5040132265A	2265	1.3	GPSG	240
		5040132245A	2245	7.5	GPSG	1710
		5040132226A	2226	1.3		23
	Livingstone	5040132219A	2219	5.3	GPSG	875
FM A 2100047	C226 - Upper	5040132187A	2187	7.7	GPSG	1348
	0000 11	5040132179A	2179	11.1	GPSG	1998
		5040131689A	1689	14.4	GPSG	2693
		5040131666A	1666	4.4	GPSG	964
		5040131635A	1635	0.6		107
		5040131625A	1625	2.1	GPSG	336
		5040131604A	1604	2.2	GPSG	385
		5040131556A	1556	16.8		5561
		5040131506A	1506	5.7	GPSG	2069
		5040131496A	1496	46.2		11458
		5040131480A	1480	20.8		6386
		5040131444A	1444	5.9		1481
		5040131418A	14.18	42.9	GPSG	14286
		5040131324A	1324	2.1	GPSG	529
		5040131227A	1227	4.4	GPSG	858
		5040130390A	390	41		7626
			343	2.3		439
		5040 303 BA				
		5040130313A	313		GPSG	1234
		5040130272A	272		GPSG	2165
		5040130260A	260	15.2		4378
		5040130242A	242		GPSG	2213
		5040130240A	240	0.5	GPSG	38