

## Spatial Digital Data Submission Standards Directives

### Frequently Asked Questions (v6.0)

#### General

##### **Q1. What is the intent of the Spatial Data Directives?**

**A1.** The Spatial Data Directives will specify that the forest industry must submit spatial data to Forestry Division with key attributes. Forest Management Branch (FMB) access to such data will allow for the efficient validation of key data sets used for a number of business functions including Alberta Regeneration Information System (ARIS) validation (e.g. cutblocks and area harvested), timber supply analysis and monitoring of harvest operations as well as fire behaviour modeling. The data will also prove invaluable for reporting of FMB statistics and as evidence in audits with the Office of the Auditor General (OAG), as well as third party auditors. The data will also be beneficial for use by field staff in support of a variety of business functions.

##### **Q2. What is the timing for these directives to take effect?**

**A2.** Submission dates for FHPs, AOPs and As-builts are driven by company OGRs (Directive No. 2). Blocks harvested in the 2015/2016 timber year (with a reforestation clock start date of May 1, 2016) would have to be flown in either 2016 or 2017 for submission on or before May 15, 2018 (Directive No. 3).  
Silvicultural treatments (planting of genetically deployed seedlings, aerial herbicide treatments and re-treatments) completed in the 2015/2016 timber year must be submitted by May 15 annually, beginning in 2016 (Directive No. 4).

#### Applicability

##### **Q3. Do these Directives apply to all companies or just the ones harvesting over 10,000m<sup>3</sup>/year?**

**A3.** The Directives will apply to all disposition holders harvesting over 10,000 m<sup>3</sup>/year of timber on Crown land and who are responsible for carrying out subsequent reforestation.

##### **Q4. What will be spatial data requirements for FRIAA?**

**A4.** FRIAA and/or its service providers will adhere to the Spatial Data Directive for Silviculture Activities (No. 4), including the planting of genetically improved seedlings, herbicide applications and re-treatments.

#### Standards

##### **Q5. Why won't Forestry Division allow the use of satellite imagery in final cutblock boundary delineation?**

**A5.** Satellite imagery could be used as long as it meets the specifications. There is new 30 cm stereo-ready satellite imagery available that meets the specifications. 1.5 m SPOT imagery would not meet the specifications.

##### **Q6. Why can't sub-meter accuracy GPS's be used for final block boundaries?**

**A6.** In Forestry Division's experience, it is difficult to apply standards and to quality control GPS boundaries. The Department has determined that the most accurate method of capturing final cutblock boundaries is with stereo digital imagery in a softcopy environment. This methodology aligns with Alberta Vegetation Inventory standards. In addition, the imagery provides an ongoing, permanent record of the original harvest event.

##### **Q7. Can industry submit "more data" than is being asked for within these directives?**

**A7.** Yes.

##### **Q8. What is Service Alberta's standard for a secure FTP software?**

A8. FileZilla.

**Q9. Why do we have to submit fields that are already in ARIS (disposition, skid clearance date)? Can't Forestry Division link the reforestation data by the opening number from ARIS?**

A9. Forestry Division wants to ensure that we have the same data as the disposition holder. In the Forestry Division's experience, most disposition holders carry this information in their databases. Because ARIS is not a spatial database, extracting information from it can be problematic.

**Q10. The silvicultural submission requires only 5 additional feature attributes more than the final (common fields being disposition holder, harvest authority, ARIS #). Can I include these additional 5 fields with the final submission if within one year?**

A10. You could, although the general understanding is that the treatments we are interested in tracking often occur two or more years after harvest.

**Q11. What data format will be used?**

A11. Any Esri® file format is acceptable, which should accommodate all submissions. However, once the data is received by FMB, it will be compiled into a standardized File Geodatabase (FGDB) format.

**Q12. Are all the fields required or are some of them optional?**

A12. All fields are required, but not all fields are necessarily populated. For example, in the Final Cutblock data submission, if a polygon is classified as harvested, all attributes must be populated. If the polygon is not classified as harvested, only the Harvest Code need be populated.

**Q13. Who ensures compliance to the standard?**

A13. FMB will be responsible for ensuring compliance to the standards for all data sets.

**Q14. If errors are found in the data, who notifies the data owner and follows up?**

A14. If errors are found in the data, FMB will notify the data owner and will return the data, for correction and resubmission.

**Q15. Who will audit industry's interpretation for the final cutblock boundary? What is the audit protocol? Will industry be formally notified that interpretation is accepted?**

A15. The Forest Resource Analysis Section will be responsible for auditing the final cutblock submissions. The audit protocols are outlined in Section 5 of *Disturbance Updates – Standards and Specifications for Timber Harvesting*. Companies will be notified of acceptance for submitted files.

**Q16. What will be source of truth for "net harvest area" in ARIS? Should the interpreted area replace the as-built area obtained from GPS? Will industry have to submit justifications for all area changes on an individual block basis?**

A16. The area obtained from the interpreted boundary will be the ultimate source of truth and would replace net harvest area figure in ARIS without justification as long as the interpretation has been accepted by Forestry Division.

**Q17. In terms of block area, how will updates to the blocks be dealt with on FMA's and non-FMA FMU's? For example, wellsites/ pipelines, etc.**

A17. Updates to blocks will be dealt with in the RSA process.

**Q18. When will Chapter 4 *Capturing Disturbances – Standards and Specifications for Timber Harvesting* be published?**

A18. Chapter 4 is published at <http://www.agric.gov.ab.ca/app21/forestrypage?cat1=Directives>

## **Data Submission and Storage**

### **Q19. Who receives the data?**

**A19.** A secure FTP site will be used to upload data (even data submitted on other media will be uploaded to the FTP site). Every company will have their own directory in each region. Regional staff will have access to the company directories in their area of interest. FMB will have access to all directories.

### **Q20. Where will the data be stored?**

**A20.** FMB will store the compiled data on FMB's server, which is secure and has the appropriate backup systems. Regions will store data to meet their own requirements.

### **Q21. Are there any benefits to industry associated with the data submission standards?**

**A21.** By standardizing data submission standards, the department has effectively "levelled the playing field". Everyone will be held to the same standard. Contractors/consultants will know exactly what is expected. FMA holders can compare bids for services as "apples to apples". In addition, those operators who 'report' to different Regions/Areas will have the same standards for reporting to 2 regions.

### **Q22. Are there any costs to industry associated with meeting the data submission standards?**

**A22.** A majority of disposition holders already collect this data. There may be additional costs for those disposition holders who do not currently collect this information. Forestry Division is not asking disposition holders to re-format their data, but to simply tell us what the file format is, so there is no need for changes to existing databases and any costs that might have been incurred. If disposition holders do not currently collect final cutblock boundaries with imagery there may be some additional costs incurred. There may also be some additional costs associated with capturing some of the silvicultural data.

### **Q23. Does Forestry Division get both hardcopy maps AND spatial data?**

**A23.** The Spatial Digital Data Directives speak to spatial digital data submission requirements. The requirements for hardcopy maps are specified in the Operating Ground Rules (OGRs). The map packages required under the OGRs can be submitted to Forestry Division through the SFTP site.

### **Q24. What happens if local regional staff do not download files within 30 days?**

**A24.** FMB will have data available.

### **Q25. Will FMB build data submission templates for use by industry?**

**A25.** FMB has created data templates for all datasets as well as sample datasets and guidelines. These templates and guidelines are published with the directives at <http://www.agric.gov.ab.ca/app21/forestrypage?cat1=Directives> and can also be found on the SFTP site.

### **Q26. If a particular company's forest operations spans two forest areas/ regions (e.g. UAR and North Saskatchewan), who is data submitted to?**

**A26.** File structures have been built to organize the submission, storage and distribution of data. In keeping with a "one window" approach, companies should follow existing submission processes.

### **Q27. Will there be 2 different data sets being managed? For example, one at FMB and one in the Areas?**

**A27.** Area offices will be responsible for managing their own AOP/FHP/As-built datasets. FMB will compile the AOP/FHP/As-built datasets to a common standard and then make that compiled provincial dataset available to Forestry Division staff through Layer Manager. FMB will compile and manage the final cutblock data as well as the silvicultural treatments.

### **Q28. For roads, what spatial data exactly will be required (e.g. as-built in block vs. inter-block roads vs. temporary roads)?**

**A28.** The requirement for **inter-block** roads is outlined in directive AF, Forestry Policy, 2015, No.2. An **inter-block road** is any **temporary** road that extends through a block to reach another block. It ends at the edge of the last block connected to the road. **Temporary roads** are defined as roads that are part of a harvest area or that connect harvest areas and are built, used and reclaimed before the expiry of the Annual Operating Plan (AOP) or reclaimed within three years of construction. (See Figure 1 in the Guidelines for Data Formats for an example submission.)

**Q29. What would trigger the re-submission of spatial data?**

**A29.** OGRs currently separate AOP amendments into Major or Minor Amendments, with Major Amendments requiring an approval to a proposed change/ addition to the plan, and Minor Amendments requiring a notification to the Department from the company (so long as the amendment is validated). Those amendments that meet the criteria to be considered Major Amendments **MUST** have spatial data submitted with them. Major Amendments significantly change the approved AOP, and include changes such as (but not limited to):

- changing block size by more than 5% for openings > 10ha or by more than 0.5ha when opening <= 10ha;
- deletions to a block that will cause the variance to exceed the 20% allowable threshold;
- moving exterior block roads more than 2 right of way widths from the original proposed road.

Only the blocks that are changed need to resubmitted (i.e. resubmission of the entire compartment is not required).

**Q30. Isn't it redundant to ask for both a Forest Harvest Plan and an Annual Operating Plan?**

**A30.** Spatial and attribute data are required for the Forest Harvest Plans. However, the Annual Operating Plan submission can be simply a table (in Excel spreadsheet format or as a CSV or text file) listing the opening numbers that the company proposes to harvest in the current timber year. The table can be linked back to the FHP spatial data. In cases where there is no FHP, AOPs must be a spatial submission as per the FHP directive.

**Q31. The As-Built and the Final Cutblock submissions both represent the final cutblock boundary. Why are two submissions required?**

**A31.** The As-Built is a requirement under the OGRs and can be captured using either GPS or imagery. The Department has determined that the most accurate method of capturing final cutblock boundaries is with stereo digital imagery in a softcopy environment. This methodology aligns with Alberta Vegetation Inventory standards. In addition, the image provides an ongoing, permanent record of the original harvest event. Historically, cutblock boundaries have been captured multiple times for various purposes. The intent is to capture the final boundary once. The final boundary can serve multiple purposes, including incorporation into the next inventory, for use in forest management plans, for retention tracking and for meeting Regeneration Standards of Alberta (RSA) requirements.

**Q32. If I can fly the harvest blocks and get a final cutblock boundary in the year after operations, do I still have to submit the as-built and the final, or just the final?**

**A32.** If you can capture aerial imagery and get the blocks interpreted in the first year, you can submit it as a final submission and in place of the as-built. The two-year window is recognition of reality – you may not be able to get your imagery every year, because it depends heavily on weather conditions and aircraft availability.

**Q33. What is the process to get an extension for Final Cutblock updates?**

**A33.** Directive No. 3 Final Cutblock Digital Data Submissions now states- *“All final cutblock boundaries must be submitted on May 15<sup>th</sup> within two (2) years from the reforestation clock start date, or as agreed to, in writing, by the Executive Director, Forest Management Branch.”* If an extension is required you will need to seek the approval of the Executive Director of the Forest Management Branch.

**Q34. TMR 143.2(2) referenced in the directives reads “A timber disposition holder responsible for carrying out reforestation shall, by May 15 of each year, submit to the director, in a form satisfactory to the director, a complete and accurate report summarizing the preceding year’s reforestation program”. Is ARIS no longer a satisfactory form? Why the duplication of information in the silvicultural submission and what we submit to ARIS?**

**A34.** ARIS doesn’t require the submission of spatially explicit treatment information. Forestry reviewed all of the ARIS treatment types and decided that it is important to know the location of certain treatment types within blocks (or outside of blocks e.g. OTAs). For example, Company A gets an uplift in their AAC because they planted genetically-improved stock. We should be able to track where that genetically-improved stock was planted in the block so that we can follow up in the future.

**Q35. Will the Forestry Division be asking for all “reforestation activity data”? If so why? If not, what specific reforestation information will be required for submission?**

**A35.** Not all reforestation information will be required for submission. Spatial boundary information will only be required for those activities/treatments that are either directly linked to forest sustainability or deemed of “high risk” to the environment will be asked for, namely:

- planting of genetically deployed seedlings
- aerial herbicides (notably openings with multiple spray treatments)
- re-treatments

**Q36. Does the disposition holder or the spray company have to submit complete spray information?**

**A36.** The disposition holder must supply the digital spray data. For the purposes of monitoring where aerial spraying occurred, FMB is requesting the original or unedited flight information that originates from the spray aircraft where spraying has occurred be submitted. FMB will not contact the various spray companies but rather work with those disposition holders who were approved to apply aerial herbicides. FMB recognizes that spray lines outside of a block boundary may not necessarily imply that chemical was applied there. Disposition holders should ensure that the sprayed block boundaries are submitted if those boundaries are not currently in the system.

**Q37. If there are 2 different seedlots of Stream 2 seedlings planted in a mixed bag manner in an opening, how do they need to be depicted spatially?**

**A37.** If you are planting Stream 2 seedlings from two different seedlots, you only need to capture the area where the seedlings were planted. You should, however, have both seedlots recorded in the database. The fields SEEDLOT\_2 and SEEDLOT\_3 have been added to capture that information.

**Q38. How will text files be handled (e.g. those with block comments)?**

**A38.** The submission of block comments files is not required, although if submitted, the text files would be stored along with the spatial data files. There is no intent to distribute them.

**Q39. What will be the spatial data requirement for buffers around watercourses, cabins and other sensitive sites?**

**A39.** There is no spatial data requirement for buffers around watercourses, cabins or other sensitive sites under the Spatial Data Directives.

**Q40. What about the need to submit the spatial location of burn piles?**

**A40.** The spatial recording of burn piles is not an obligation at this time.

**Q41. Will spatial plan submissions “fast track” approvals from Forestry Division?**

**A41.** Not necessarily. Plan submissions will follow the existing review and approval process. The standardization of the feature attributes submitted to Forestry Division is what is critical to enable consistent and complete review processes to take place.

## **Access To the Data**

### **Q42. Who can access data?**

**A42.** All Forestry Division employees will have access to the data.

## **Data Distribution**

### **Q43. How will the data be deployed?**

**A43.** Once the data is compiled FMB will deploy it as a FGDB through Layer Manager. Regional offices will deploy the data to meet their staff requirements.

### **Q44. Which ARIS attributes will be provided with the cutblock boundary inside Forestry Division through Layer Manager?**

**A44.** This will be determined through a consultation process with our internal stakeholders.

### **Q45. How long will it take for the spatial data to get to the regional offices?**

**A45.** By using the directory structure on the secure FTP server, regional office staff will have immediate access to the data submitted by the company. The company data may not be in a standard format, but will be useable by the regional staff. FMB will compile the data into a standard FGDB, which will then be deployed internally for all Forestry Division staff.

### **Q46. How do plan approvals (or any other “non spatial” data/ correspondence) get back to the disposition holder?**

**A46.** These directives will not change the approvals process as it currently exists within the Forestry Division.