**Biosum Glossary**

BA\_FT2\_AC: Basal area measured in feet per square acre

Collector Site: A PSITE located where there is both rail and road access.

condition: land class, reserved status, owner group, forest type, stand-size class, regeneration class, and stand density; forested vs non-forested; a plot can have multiple conditions; Practically it doesn’t have more than 4 or 5. The minimum size for a condition is 1 acre and it must be at least 120 feet wide. aka: FVS stand. The basic unit of analysis in FIA

CN number: unique sequence number identifying a single plot

cut list: list of cut trees for the years treatments were implemented; one list per condition/treatment combination

FFE: the Fire and Fuels extension of FVS simulates fuel dynamics and potential fire behavior over time, in the context of stand development and management

FIA: Forest Inventory Analysis Federal program. The purpose of FIA is to collect and analyze data to help forest professionals manage American forests.

FIADB: Forest Inventory and Analysis Database. U.S. Forest Service Forest Inventory and Analysis (FIA) data is inventoried periodically and annually. The data must be stored in Access table format to be used in BioSum.

FRCS: Fuel Reduction Cost Simulator; The processor to OpCost used to calculate cost; This was a series of MS Excel Macros and scripts that were distributed with the BioSum software.

FVS: Forest Vegetation Simulator; Family of forest growth simulation models

FVS variant: geographical region; FVS equations are developed for specific geographical areas; Each plot is assigned an FVS variant. Stored in db\_master.

JFSP: Joint Fire Science Program

KCP file: keyword control processor file generated by BioSum to direct FVS outputs to the appropriate database; Also used when creating a base-year POTFIRE report; Used to apply treatments. BioSum creates a template

modified cycle sequence: the standard 5-10 year cycle intervals have been altered to accommodate a baseline POTFIRE table

OBE: Acronym for OpCost for Biosum Edition; See OpCost for definition

OpCost: An R script that estimates treatment costs per acre for each stand as a function of several attributes; Derived from large number of treatment and harvest cost models developed from empirical data over the last 20 years.

POP tables: FIADB population tables. The most important tables in BioSum are  the POP\_STRATUM, POP\_EVALUATION\_GROUP and POP\_PLOT\_STRATUM\_ASSIGNMENT tables.

plot: sample site designed to cover 1-acre sample area

PNW IDB: Pacific Northwest Integrated Database; Contains the most recent periodic inventory data collected by PNW-FIA, the National Forest System (NFS: Regions 4, 5 and 6), and the BLM for California, Oregon, and Washington. The current version of BioSum is unable to process IDB data.

POTFIRE: the potential fire report is an optional output of the FFE of FVS; Contains information about the potential impact of fires under extreme and moderate fire conditions; Also useful when assessing stand and fuel conditions after management

PROCESSING SITE (PSITE): Wood processing facility. The PSITE can already exist or not. Access to PSITEs can either be by road, or rail, or both. If a PSITE is located on both a road and rail then it is called a ‘collector’. A ‘railhead’ is also viewed as a PSITE.

QMD: Quadratic Mean Diameter; the diameter of the tree of average per tree basal area

RAILHEAD: A transfer point from road to rail. A truck transports it’s load to a railhead point where it transfers it’s load to rail. During the analysis of the costs, a railhead could be converted to a collector site, therefore, a railhead is also processed as a psite.

regeneration harvest: Harvest is designed to prepare a stand for natural (natural seeding/sprouting) or artificial (planting/seeding) regeneration.

reserved forested land: state and national parks and statutorily designated wilderness; Not accessible for fuel treatments

Rx: sivicultural treatment to be simulated in FVS; Details include treatment, harvest method and harvest costs not calculated in FRCS

Rx package: series of treatments (or Rx) applied to a stand over 3 x 5 year cycles or 3 x 10 year cycles

slash: coarse woody debris generated during logging operations; the presence of slash may improve nutrient retention but it may also increase fire hazard

SLF: Stand list file for input from BioSum to FVS

subplot: sampling units within in a plot; subplot size depends on the size of the tree; For trees at least 5 inches in diameter size = 1/24 of an acre; for small trees 1/300 of an acre

stand: group of trees with a minimum size of one acre of forest land that is stocked by forest trees of any size; aka: forested condition in BioSum

SUPPOSE: graphical interface to run FVS

torching: the transition of a surface fire, via ladder fuels, into the crowns of all or some of the trees making the fire partly or fully stand replacing

tree: any plant on the tree list in the current field manual is measured as a tree; a tree belongs to a condition/stand and a plot

tree expansion factor: the number of trees per acre that each sample tree represents in the current inventory. It is the inverse of the size of the plot the tree was sampled on. Tree expansion factors are approximately 6 for trees at least 5 inches in diameter and approximately 75 for the smaller trees.

TPA: trees per acre

VOL\_AC: Volume per acre; Measured in ?

**Field Name Abbreviation Definitions:**

|  |  |
| --- | --- |
| **FIELD NAME ABBREVIATION** | **DEFINITION** |
| **DPT** | **Dollars Per Ton** |
| **DNR** | **Dollars Net Revenue** |
| **NR** | **Net Revenue** |
| **PNR** | **Positive Net Revenue** |
| **REV** | **Revenue** |
| **CPT** | **Cost Per Ton** |
| **GT** | **Green Tons** |
| **PGT** | **Per Green Ton** |
| **PA** | **Per Acre** |
| **CPA** | **Cost Per Acre** |
| **MKT** | **Market** |
| **VAL** | **Value** |
| **VOL** | **Volume** |
| **WT** | **Weight** |
| **CF** | **Cubic Feet** |
| **IMP** | **Improvement** |
| **RXINT** | **Treatment Intensity** |
| **TVLTM** | **Travel Time** |
| **DEF** | **Definition** |
| **BA** | **Basal Area** |
| **NUM** | **Number** |
| **COND** | **Condition** |
| **YARD** | **Yarding** |
| **DIST** | **Distance** |
| **SUM** | **Aggregate sum of values** |
| **OWN** | **Ownership** |
| **PRE** | **Tree and stand values before a stand treatment is applied** |
| **POST** | **Tree and stand values after a stand treatment is applied** |
| **RXCYCLE** | **The cycle of the treatment or non-treatment. BIOSUM has 4 potential treatment cycles whose values are either 1,2,3,4. A cycle represents a series of four 5 or 10 year increments.** |
| **SWD** | **Softwood** |
| **HWD** | **Hardwood** |
| **GRS** | **Gross** |
| **FT3** | **Cubic Feet** |
| **BC** | **Brush Cut** |