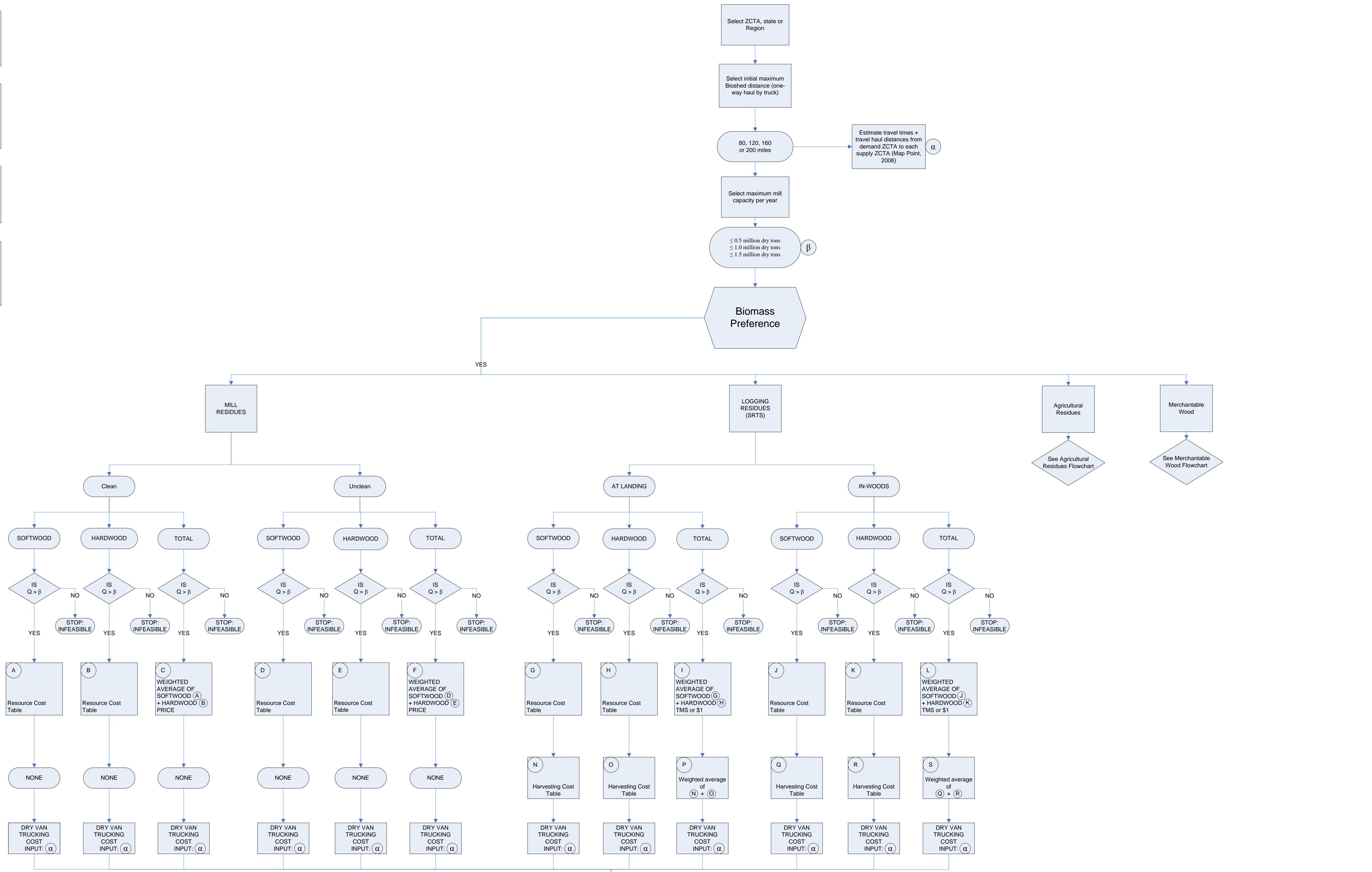


I. BIOMASS QUANTITY:
Resolution = ZCTA
Unit of measure = dry tons
Source: FIA data

II. BIOMASS RESOURCE COSTS:
Resolution = State
Unit of measure = \$ / dry ton
Source: Regional and State Reports

III. HARVESTING COSTS:
Resolution = ZCTA
Unit of measure = \$ / dry ton
Source: FRCS model

IV. TRANSPORTATION COSTS:
Resolution = Miles - ZCTA to ZCTA
Unit of measure = \$ / dry ton
Source: BioSAT Trucking model



ESTIMATE TOTAL COSTS, ATC, MC; DISPLAY MC (SUPPLY) CURVE; DISPLAY BIOSHED

- Estimate „BIOMASS QTY“ for each ZCTA
- Estimate „CUMULATIVE QTY“ for all ZCTAs in Bioshed (Retain Cumulative Q. for each ZCTA)
- Estimate „RESOURCE COST“ for each ZCTA (\$ / dry ton * dry tons in STEP)
- Estimate „HARVESTING COST“ for each ZCTA (\$ / dry ton * dry tons in STEP)
- Estimate „TRUCKING COST“ from each ZCTA in STEP to the demand ZCTA (\$ / dry ton * dry tons * # of hauls)
- Estimate „TOTAL COST“ for each ZCTA
- Estimate cumulative „TOTAL COST“ for each ZCTA (e.g., ZCTA 11111 + ZCTA 11112 + + ZCTA 22222)
- Estimate „AVERAGE TOTAL COST“ (ATC) for each ZCTA (Retain value for Display)
- Sort ZCTAs in STEP in ascending order
- Estimate ΔQ (change in quantity between cumulative quantities) + ΔTC (change in total cost STEP)
- Estimate Maginal Cost Curve = Producers Supply Curve, e.g.,
- Plot MC Curve
- Display Table of Costs + Quantities by ZCTA
- Display Picture of Bioshed

| ZCTA | Q | ATC |
|-------|-----------|-----------------|
| 11111 | 50 | \$ 23 / ton |
| 11112 | 65 | \$ 23.10 / ton |
| 11113 | 90 | \$23.50 / ton |
| | | |
| 22222 | 1,000,000 | \$ 101.10 / ton |

* ignore STEP 4 if forest residue retains ZCTA #

