

Date: May 17, 2011

To: Craig Partridge, Washington State Department of Natural Resources

Re: Monthly Report Contract No. PSC 11-10, Washington Forest Biomass Supply Assessment

Submitted by: John Perez-Garcia, Principal Investigator

1) Activities Undertaken:

- a) Completed identification and delineation of owner types at the parcel level
- b) Received WDFW fish distribution database and have begun developing a stream buffer model for federal lands
- c) Finalized forestland database – inventory database relationship scheme to ensure that inventory data will populate ownerships appropriately
- d) Completed transportation time and distance analysis to existing wood buying facilities for each parcel
- e) Link un-mapped GNN plots to the most appropriate habitat types by variant to ensure the G&Y estimates reflect likely ground conditions (several iterations)
- f) Provided Biomass Characterization Document responses
- g) Literature review on sustainability – in progress
- h) Add FIA CRM method to biomass calculation comparison spreadsheet
- i) Develop regeneration strategy for FCIDs (plots) that need to be regenerated for initial inventory.
- j) Develop mapping algorithm to identify habitat types. Each set of habitat types are different for each FVS variant, so this requires a variant by variant approach. Coordinate with Elaine Oneil for plant associations and species that occur in each habitat type. This also requires substantial library research on the various habitat types to determine the best selection for a given plot. The algorithm is based on dominate species and understory species from the GNN plot data.
- k) Define species specific maximum SDI values to overlay on habitat types for aid in constraining growth estimates.
- l) Incorporate WA DNR utilization rates and volume equation information for DNR lands. These will be applied to simulations for DNR lands only.
- m) Begin development and testing of biomass calculation code. The WA_Biomass.py script allows for alternative methods of calculating biomass and processes about 2.5 million tree records per minute. This program can be run with any inventory or simulation results to provide biomass estimates before summarization.

- n) Continue developing and testing management alternatives for spatial allocation of results. Coordinate with database development team members on final ownership classes and management zones that need to be simulated.
 - o) Continue to initiate contact and deliver project overview and data request to:
 - i) Landowners/managers
 - ii) Fiber procurement managers
 - iii) Biomass processors
 - p) Continue to refine survey templates based upon initial interviews and responses from survey candidates.
 - q) Begin to backfill data gaps from survey candidates in eastern Washington
 - r) Begin to conduct interviews with survey candidates in western Washington, including:
 - i) Industrial forest landowners,
 - ii) WA DNR forest land managers,
 - iii) WA DFW forest land managers,
 - iv) Tribal forest land managers
 - v) USFS forest land managers,
 - vi) Municipal & private forest landowners,
 - vii) fiber managers,
 - viii) biomass processors
 - s) Continue to contact project developers for proposed biomass facilities in Washington to determine current status of development.
 - t) Conduct conference call with the University of Washington on 21 April 2010 to discuss preliminary results from initial survey conducted in eastern Washington.
 - u) Maintain communication with the University of Washington to assist in solving issues and minimize scope creep.
 - v) Develop schedule and appointments for upcoming site visits with land managers, fiber procurement managers, biomass processing contractors, etc.
- 2) **Obstacles Encountered:** the decision by SDS Lumber Co. and Port Blakely to not participate in either the landowner survey or the biomass recovery survey. We might have the same issue with Longview Timber
- 3) **Plans to address said obstacles:** We will evaluate the need for their contribution given data assembled from other participants to see if their decisions to not participate can significantly impact the information we are getting from the land owners, mill operators and biomass processors.