



Carbon and Forest Management Work Group

Meeting 3: January 10th, 2024 | 9:00 am – 3:00 pm

By Zoom Webinar

Management Scenario Modeling Options

The Scenario Ideas presentation provided four straw dog scenarios and three dials to begin the discussion of the types of forest management scenarios that the carbon and wood basket study contractors will model. The modeling will then inform the work group's recommendations to DNR. DNR staff created the four straw dog scenarios as examples; they do not represent the only options. The Scenario Ideas presentation can be viewed on the [work group website](#).

DNR Existing Variables (Dials)

1. Harvest rotation length
2. Deferral of structurally complex, carbon-dense forest
3. Proportion of thinning to stand replacement harvest

New Variables

1. TBD

Original DNR Scenarios

0. Current operations (baseline/business-as-usual)
1. Shorten harvest rotation from current 60-80-year average
2. Lengthen harvest rotation from current 60-80-year average
3. Defer additional acres of structurally complex, carbon-dense forest
4. Significantly increase thinning compared to current practices, prior to final harvest

Below is a list of scenario suggestions and questions from the work group. Please note that these scenarios are drafts and do not represent a final scenario or necessarily feasible scenarios.

Scenario 1. Shorten Harvest Rotation: Comments, Questions and Suggestions from Work Group

- What are feasible reductions in rotation?
- Need to clarify DNR land base and "current" derived rotation age (for example, is it based only on general ecological management (GEM) lands?)
- Shorter rotations would impact the quality of wood products.
- DNR's current operations are already at minimum harvest. Legislature asked for increased carbon sequestration from current operations.

Scenario 2. Lengthen Harvest Rotation: Comments, Questions and Suggestions from Work Group

- What are feasible increases in rotation?





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- Need to clarify DNR land base and “current” derived rotation age (for example, is it based only on GEM lands?)
- Can you reduce harvest without reducing timber volume or carbon?
- Would longer rotations involve more thinning?
- Create a scenario with extended rotations and polycultures (for example, western red cedar, red alder)

Scenario 3. Additional Deferrals: Comments, Questions and Suggestions from Work Group

- Defer other types of lands too (for example, lands that sequester carbon more rapidly).

Scenario 4. Increased Thinning: Comments, Questions and Suggestions from Work Group

- Looking at variations of different cycles – what happens when you mix and layer the thinning practices? (Note: Further clarification is needed from work group member(s) who made this comment.)

Additional Modeling Scenario Suggestions from Work Group (All Ideas Presented, no Consensus from Work Group)

1. Increase silviculture treatment (for example, pre-commercial thinning, vegetation management)
2. Longer rotation and increased thinning (for example, more pre-commercial thinning; larger trees potentially support timber supply)
3. Longer harvest rotations – slightly longer and significantly longer
4. Shorten rotations and increase deferrals (for example, apply different treatments to different lands). What is final harvest after multiple thinning?
5. Defer other types of forests (not structurally complex forest)
6. No harvest – what happens to carbon sequestration and storage without harvest? (Replacement of revenue through other means)
7. State law management practice – legal baseline (maximizing revenue within bounds of state law; variation – sale of state lands managed by industry with revenues to state)
8. Maximize revenues with variable rotation length
9. Remove all complex forests from harvest (will require strategies to offset mill and revenue losses)
10. Extend rotation in polyculture forests; harvest some species earlier in rotation

Not a Modeling Scenario per se, but a “Lens” for Further Discussion

1. Drought resilience improvements
2. Wildfire resilience approach – reduce carbon loss by reducing wildfire risk (climate and wildfire, for all scenarios or separately)





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Bookends Ideas for Modeling

1. No harvest
2. Legally required baseline
3. Maximize revenues within bounds of state management forest practices

Questions for Modelers from the Work Group

1. Does the modeler have the ability to run pre-commercial thins?
2. How is the complexity of climate scenarios being incorporated into predictions?
3. What metrics will be used to measure carbon flux? Over what time periods?
4. Will each of the land base classes be measured separately?
5. Will the land base classes be evaluated by an ecosystem / ecotone or geophysical partition?
6. Will we be able to take into account fire risk?