



# CTRL Forest– Pilot Application for Sustainable Forest Management Training

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# Outline

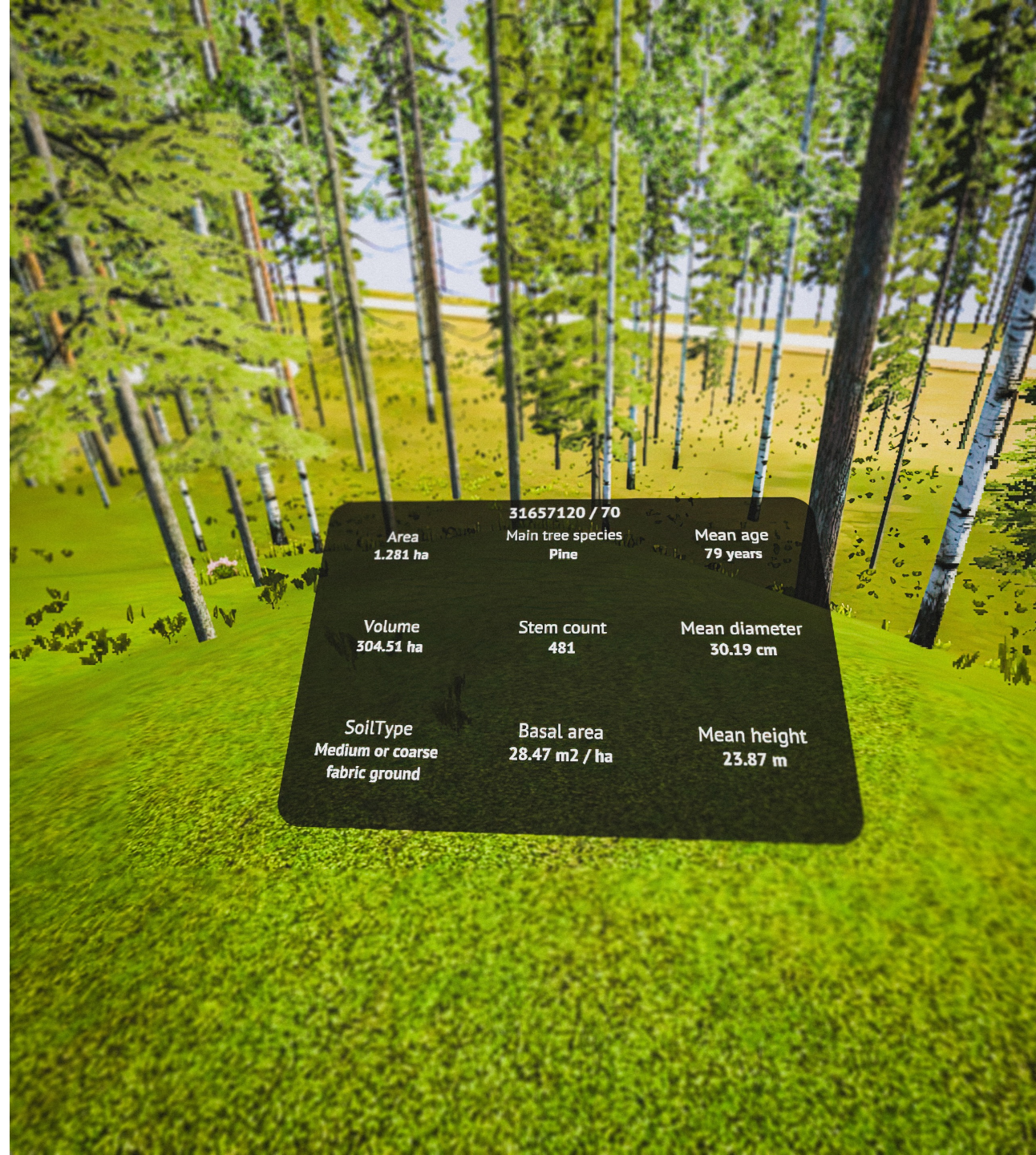
- Pilot application
- Data sources
- Basic functions
- Exercise examples
- Collecting feedback





## Pilot Application

- Learning by doing VR application for visiting forests in any part of Finland
  - Focus on economic forests
- Realtime generated landscapes based on open data
- Visualizes differences between different forest operations and especially effects of buffer zones





## Data Sources

- Region of Finland
- Geographical and topographic maps from Finish National Land Survey
  - Natural features: Rivers & streams, lakes & seas, roads
- Forest Centre / Natural Resources Institute Finland
  - Forest stands: shape & basic details
  - Forest Inventory data: 16x16m grid cells of approximated trees
  - Tree species: Birch, Spruce, Pine





## Application Flow

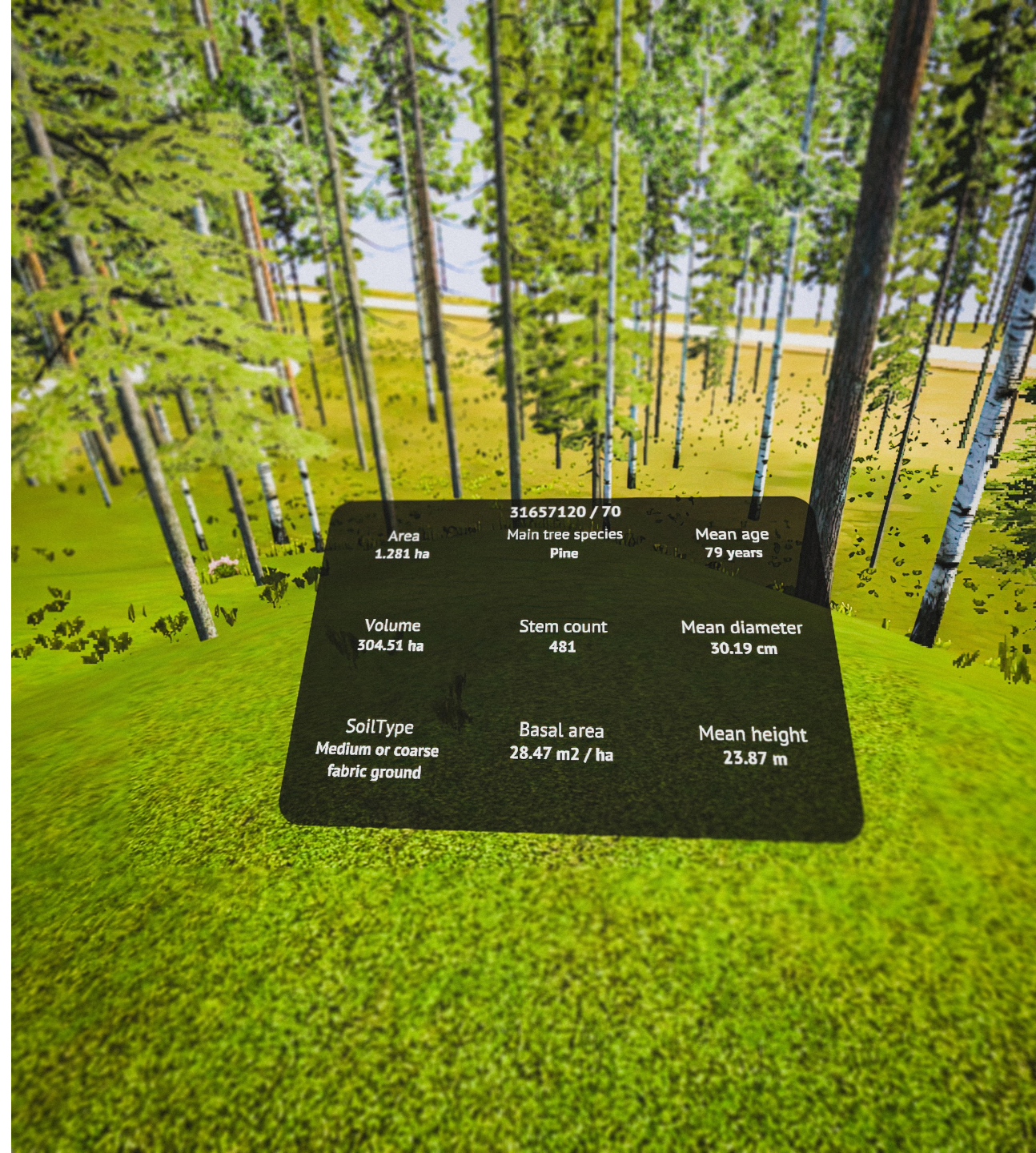
- User selects any available forest stand or alternatively any 200x200m region in Finland
- When a stand is selected, user can inspect its basic parameters
- All generated terrains can be operated
- User can select any individual tree and inspect its parameters





# Stand Information

- Basic details of the current stand



Area 1.281 ha	31657120 / 70 Main tree species Pine	Mean age 79 years
Volume 304.51 ha	Stem count 481	Mean diameter 30.19 cm
SoilType Medium or coarse fabric ground	Basal area 28.47 m <sup>2</sup> / ha	Mean height 23.87 m



## Forest operations

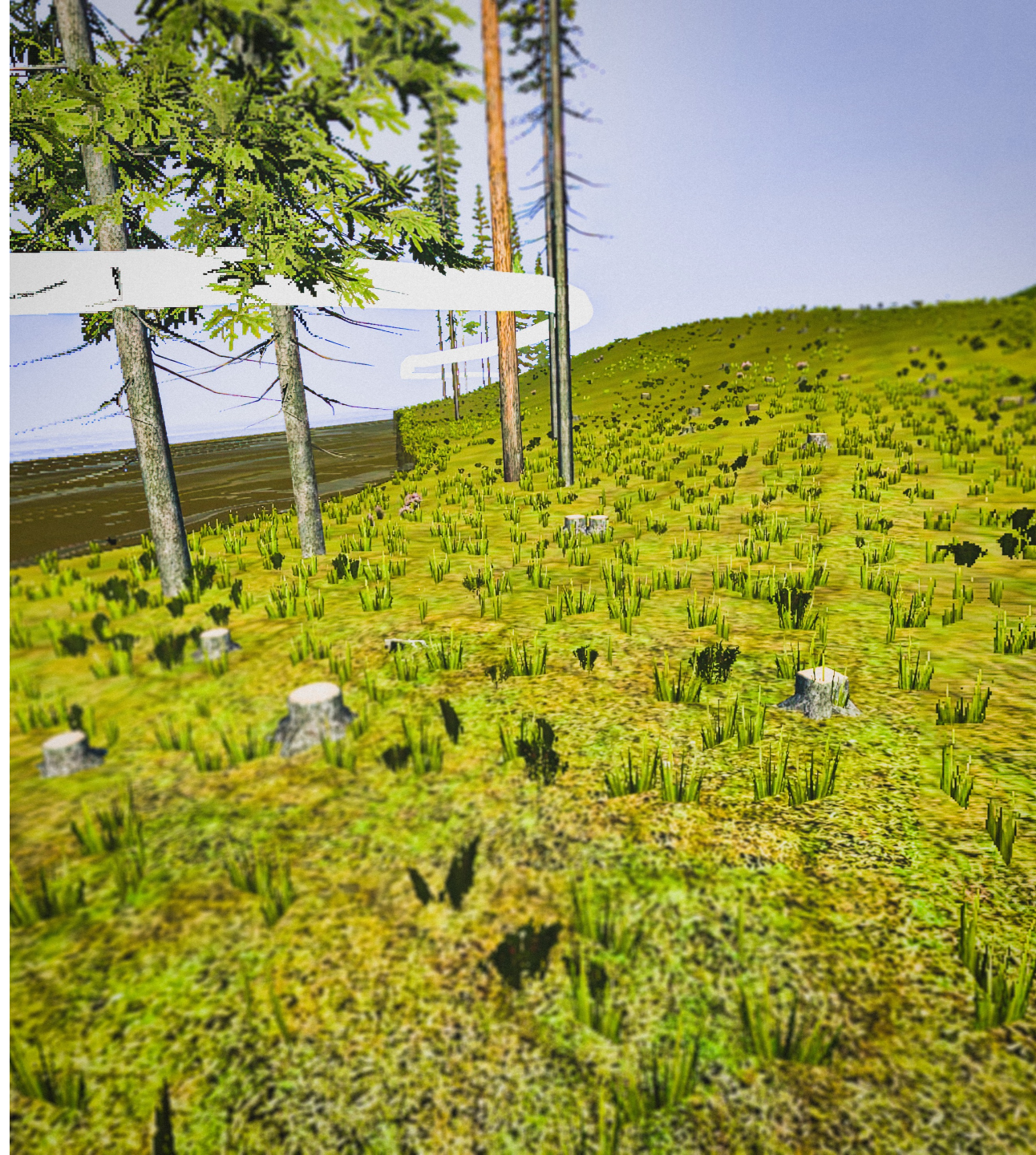
- Select buffer zone width: 5, 10, 15, 20 or 30 meters
- Click operation button to perform one of the available operations
  - Top thinning
  - Under-thinning
  - Clear cutting



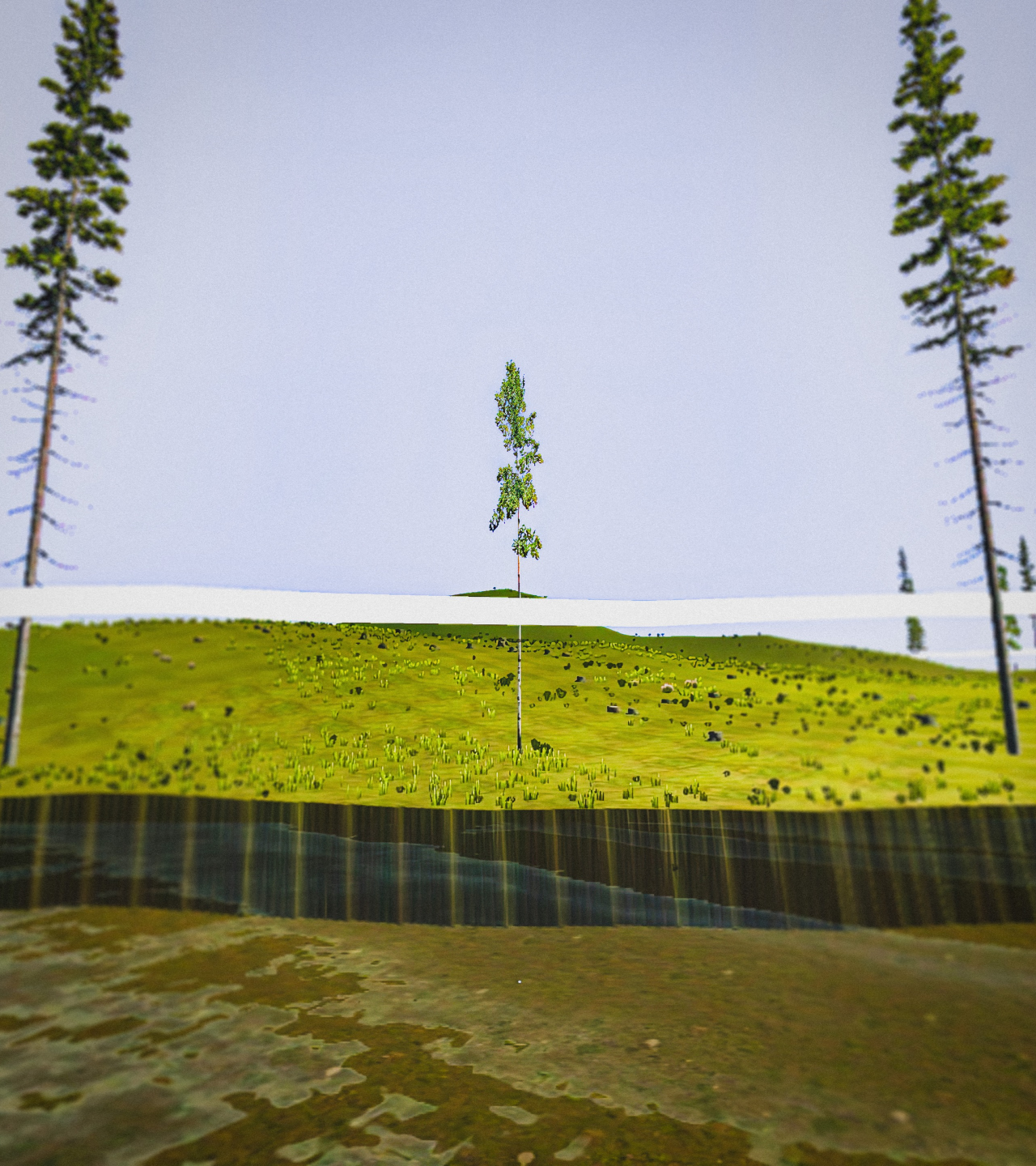
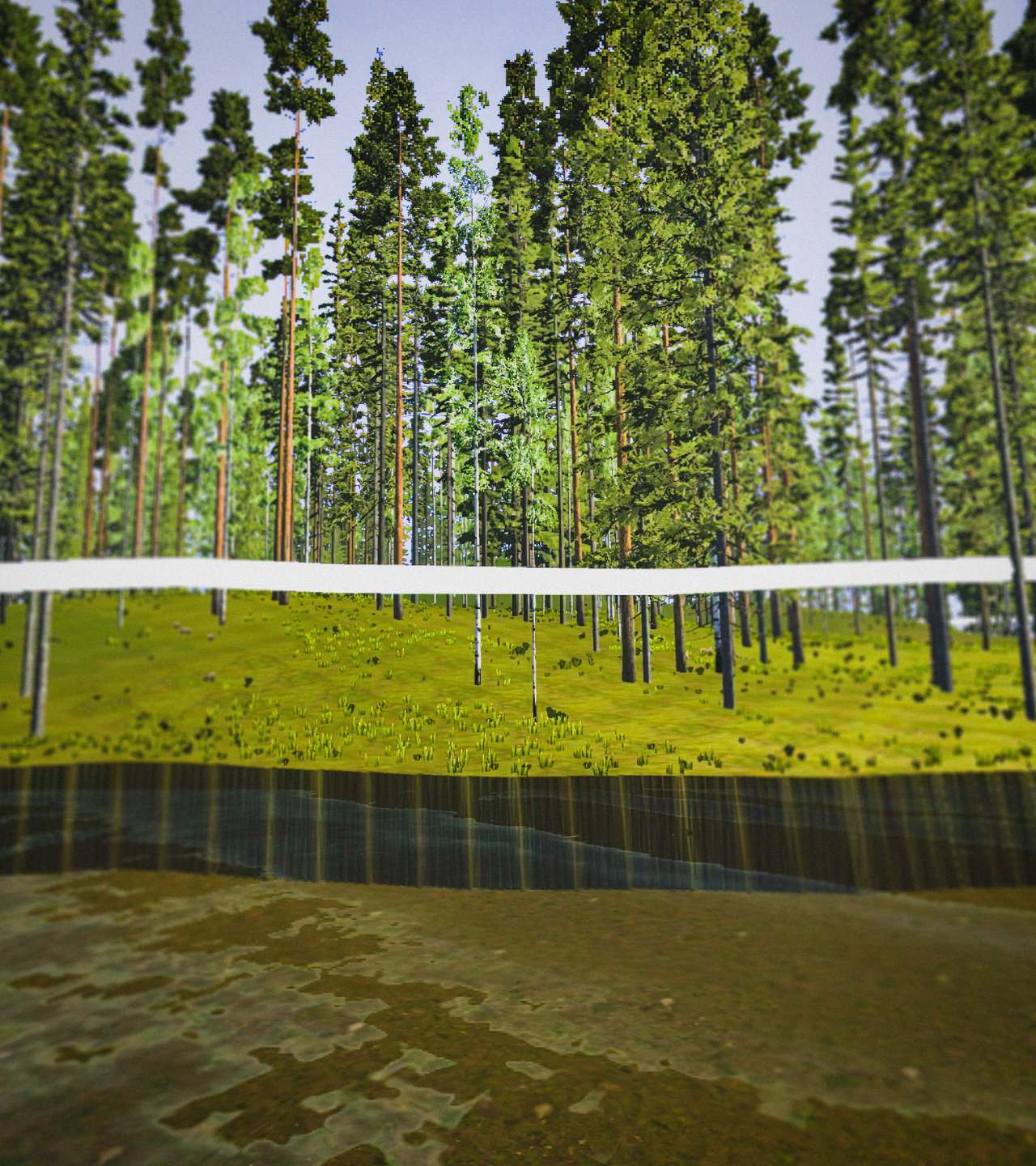


## Exercise examples

- Compare differences between different operations with different buffer zone widths
- Observe how the cut forest looks like near rivers and shores, both from land and the water
- Final exercises will be provided for the piloting phase









## Collecting feedback

- After completing the exercises, users are asked for feedback with a separate form
- Form will be provided for the piloting phase