



“Back-out” in the CBP Watershed Model

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What is “Back-out”?

- “Back-out” is the subtraction of acres of historic land use-change BMPs from “credit” in the model simulation because the benefits are assumed to be captured by new landcover/land use data introduced with model updates.
- The load reduction credit is transferred from the calculated replacement of higher-loading crop and pervious urban land uses with forest – to this shift now detected as lower-loading forest in the imagery used for the background conditions.



What is “Back-out”?

- Back-out lessens the chances of double-counting.
- The forest BMP acres submitted by jurisdictions continue to be reported in the BMP accounting system because there was an on-the-ground management action.
- For riparian forest buffers, the land use change in the model is eventually backed-out (replaced by the imagery) and the calculated upland benefits remain.



Land Use Change BMPs With Backout

- Ag Forest Buffers + Narrow
- Ag Grass Buffers + Narrow
- Tree Planting- Ag + Urban
- Land Retirement
- Carbon Sequestration/
Alternative Crops
- Urban Forest Buffers
- Urban Forest Planting
- Urban Grass Buffers
- Impervious Surface Reduction
- Abandoned Mine Reclamation
- Wetland Restoration
- Wetland Creation
- Wetland Enhance/Rehabilitate

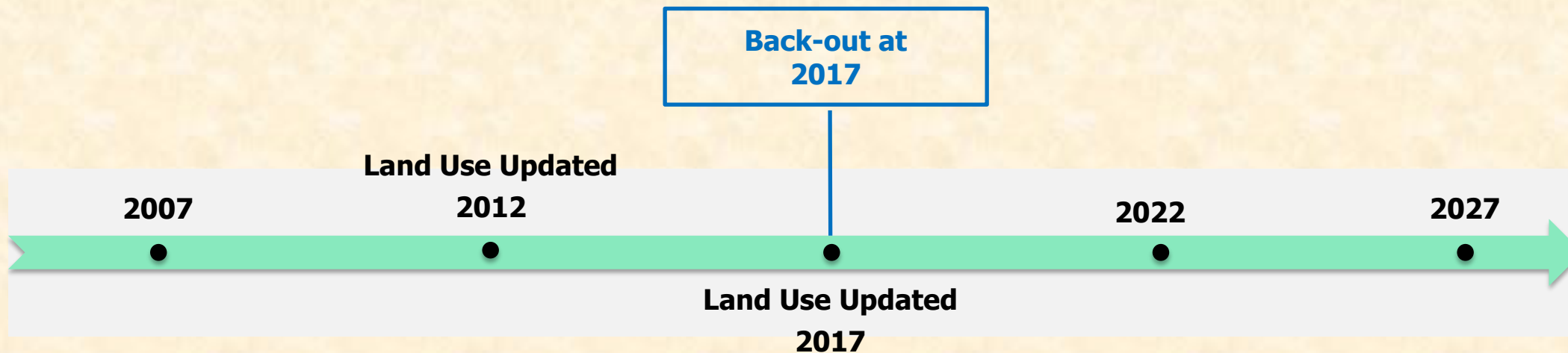


Back-Out Current Process





Back-Out Current Process

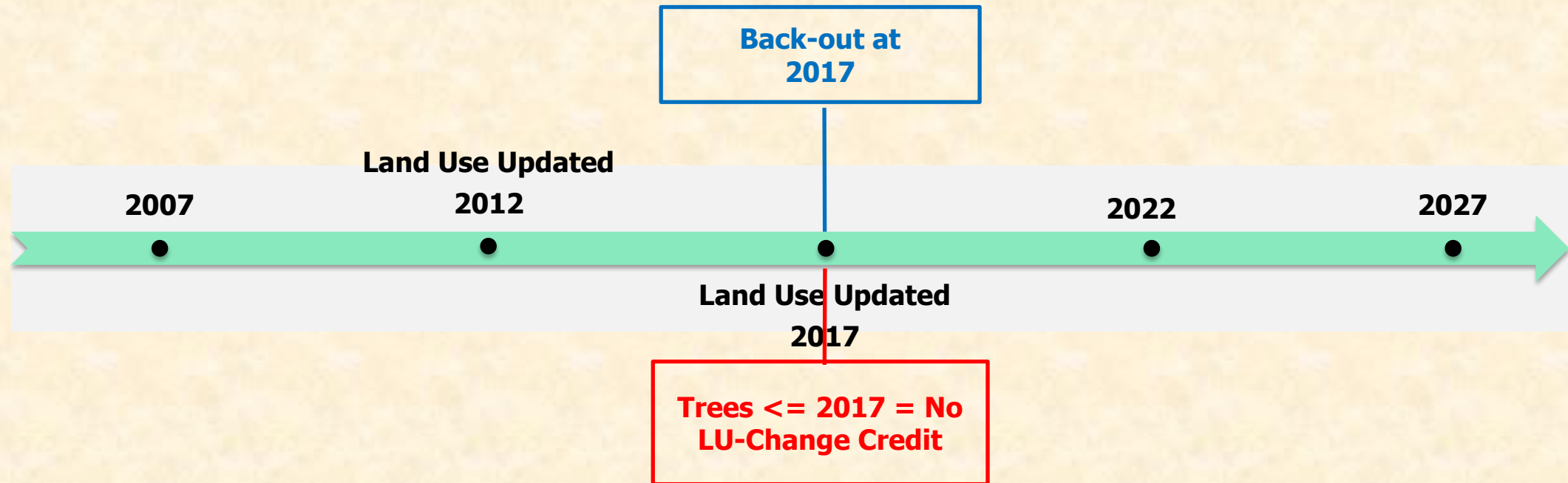




Trees Planted Before the Land Use/Landcover Imagery Update

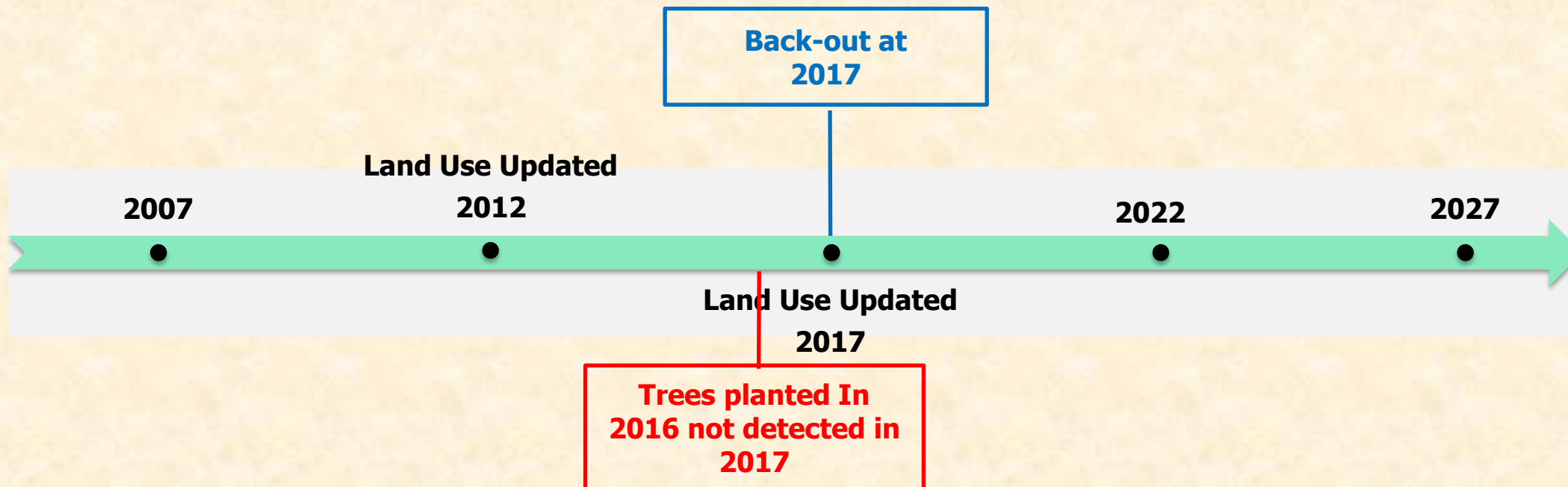


Back-Out Current Process



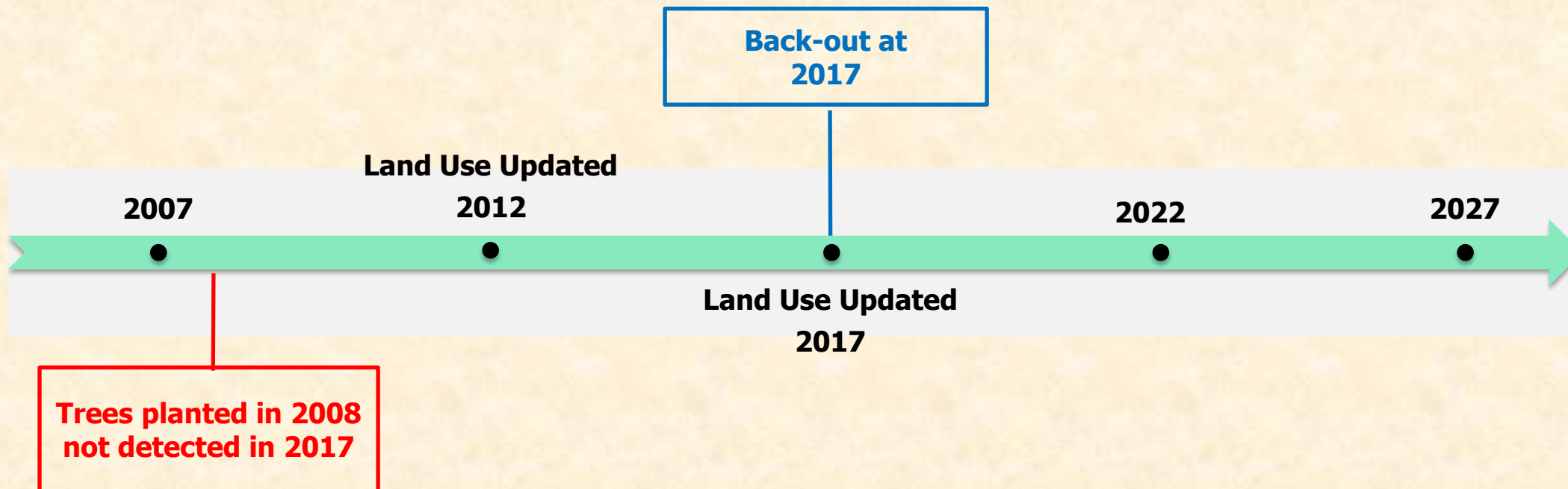


Back-Out The Issue



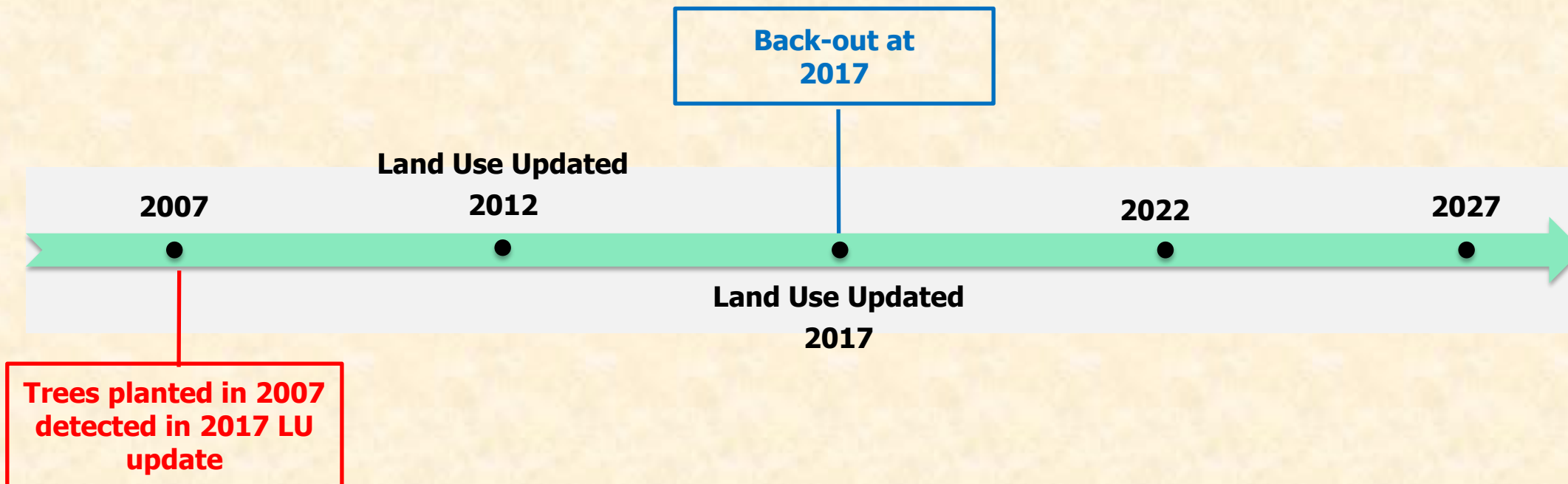


Back-Out The Issue



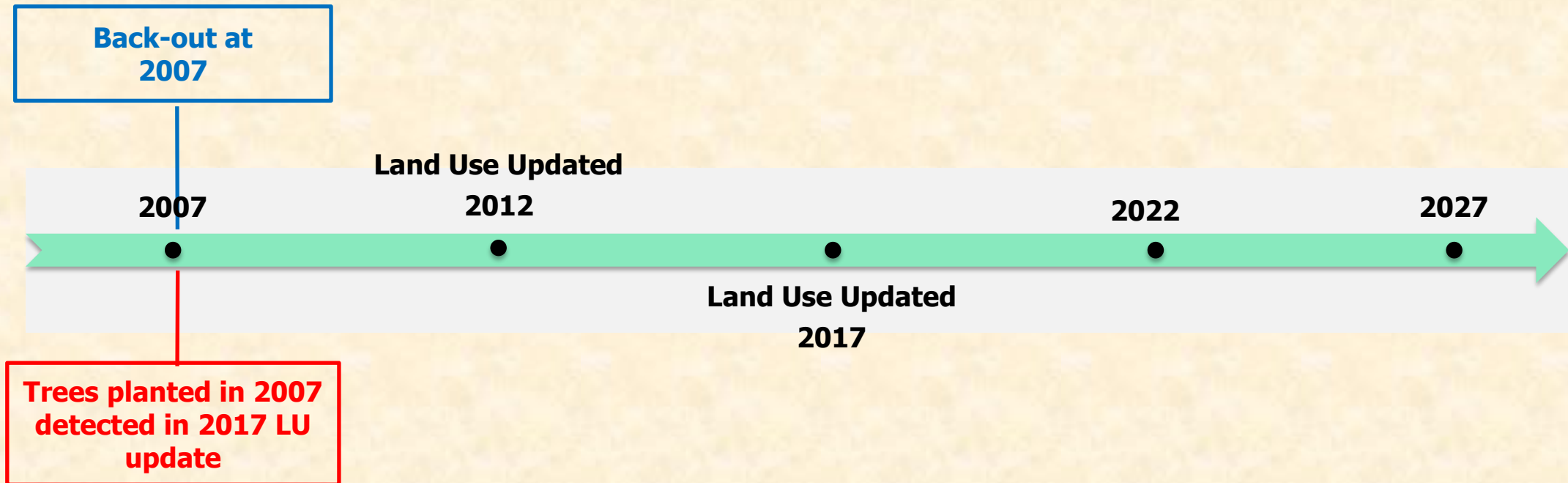


Back-Out Current Process





Back-Out Proposed Process

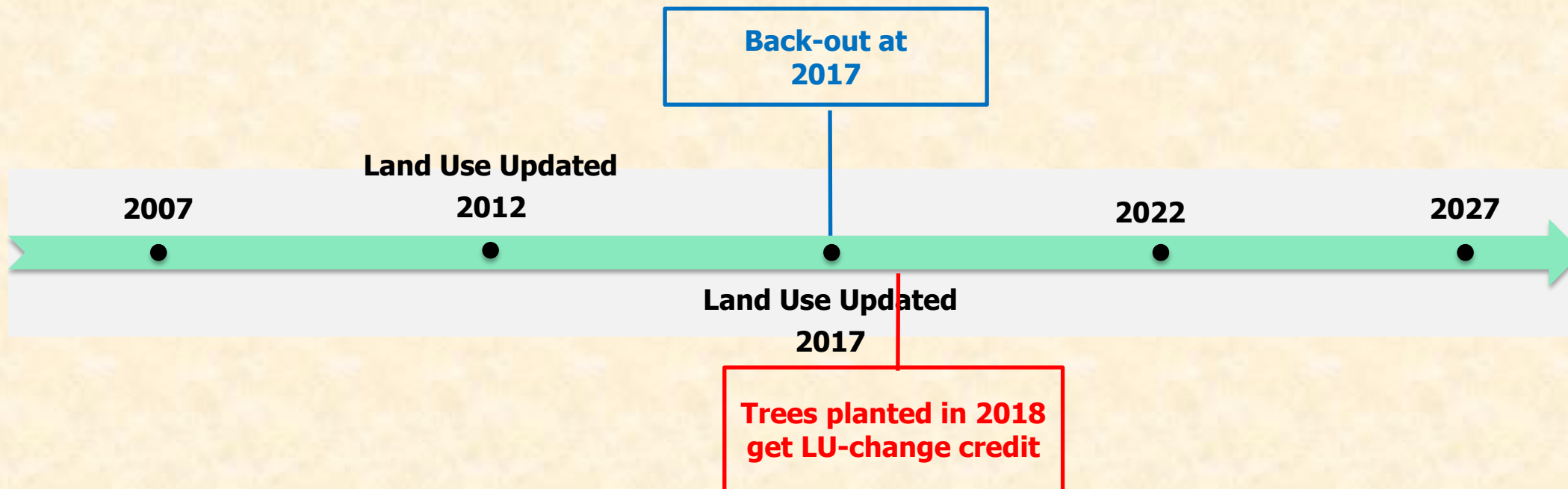




Trees Planted After the Land Use/Landcover Imagery Update

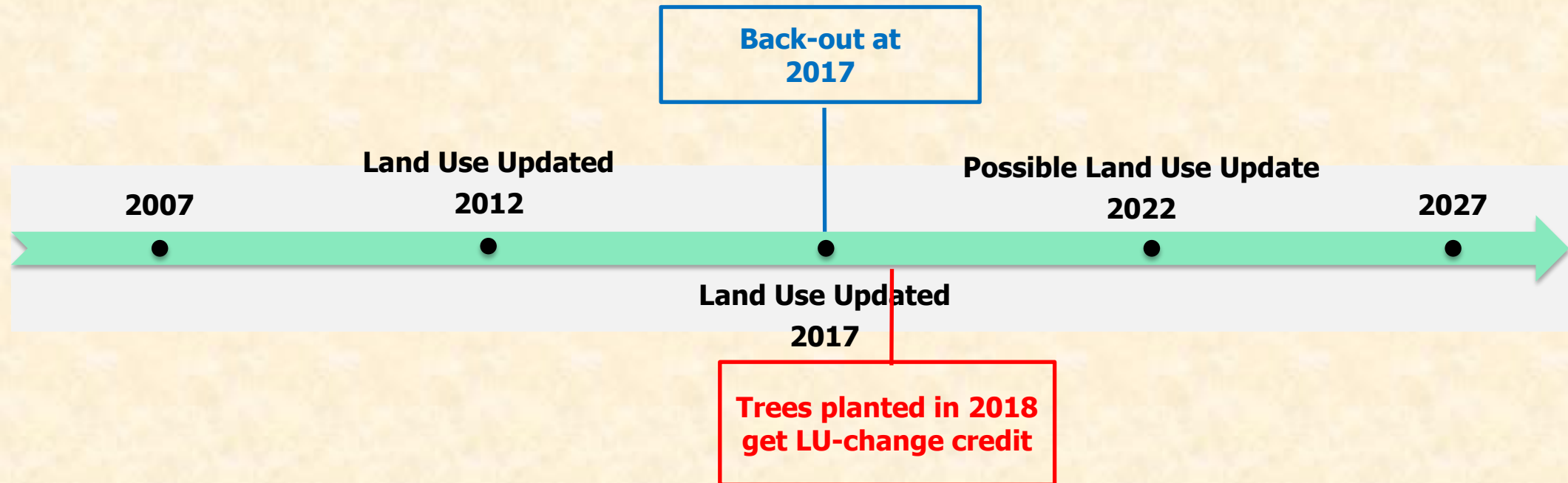


Back-Out Current Process



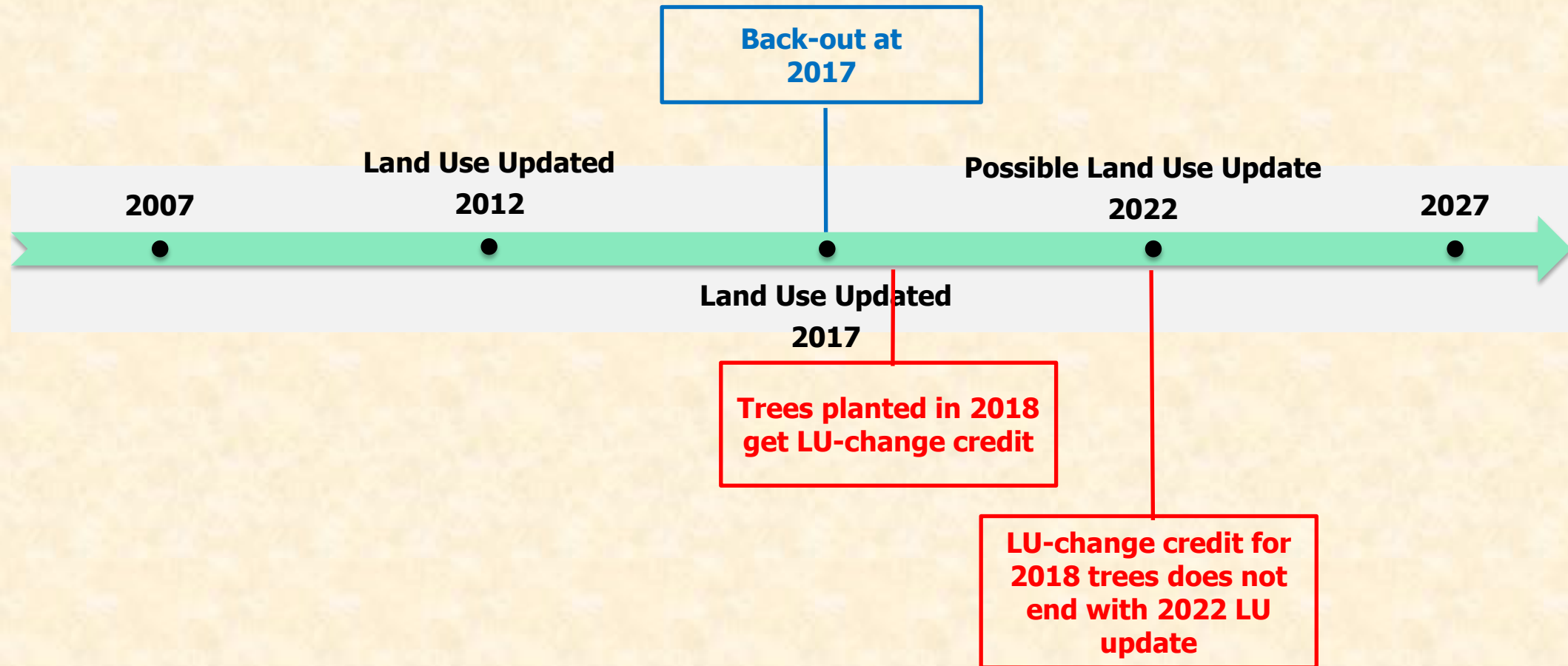


Back-Out Current Process



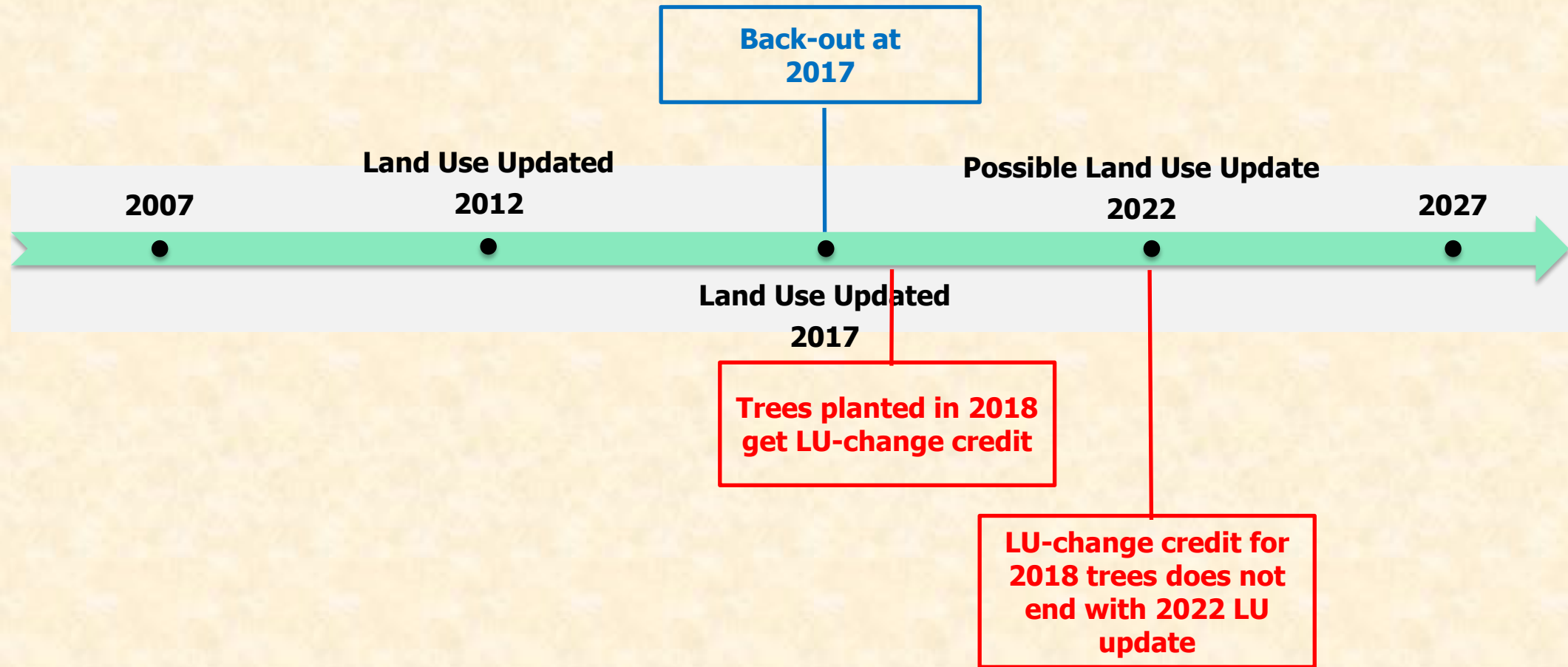


Back-Out Proposed Process





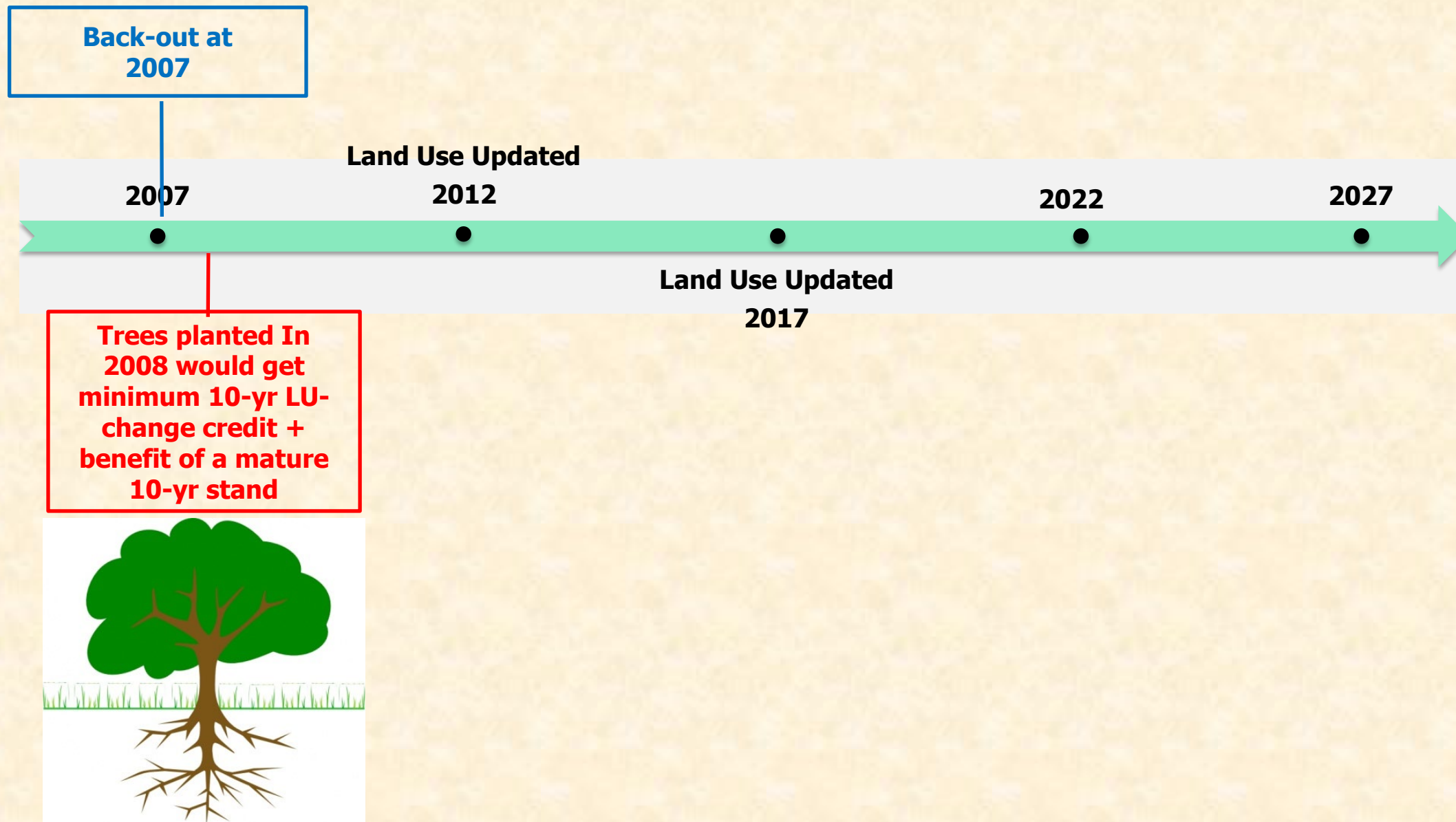
Back-Out Proposed Process



The proposal is to mimic what is occurring for the management action on the ground (planting trees that grow) as it occurs through time.



Back-Out Process Need To Consider

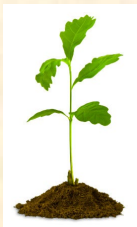




Back-Out Process Need To Consider



But

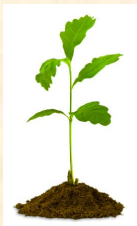




Back-Out Process Need To Consider



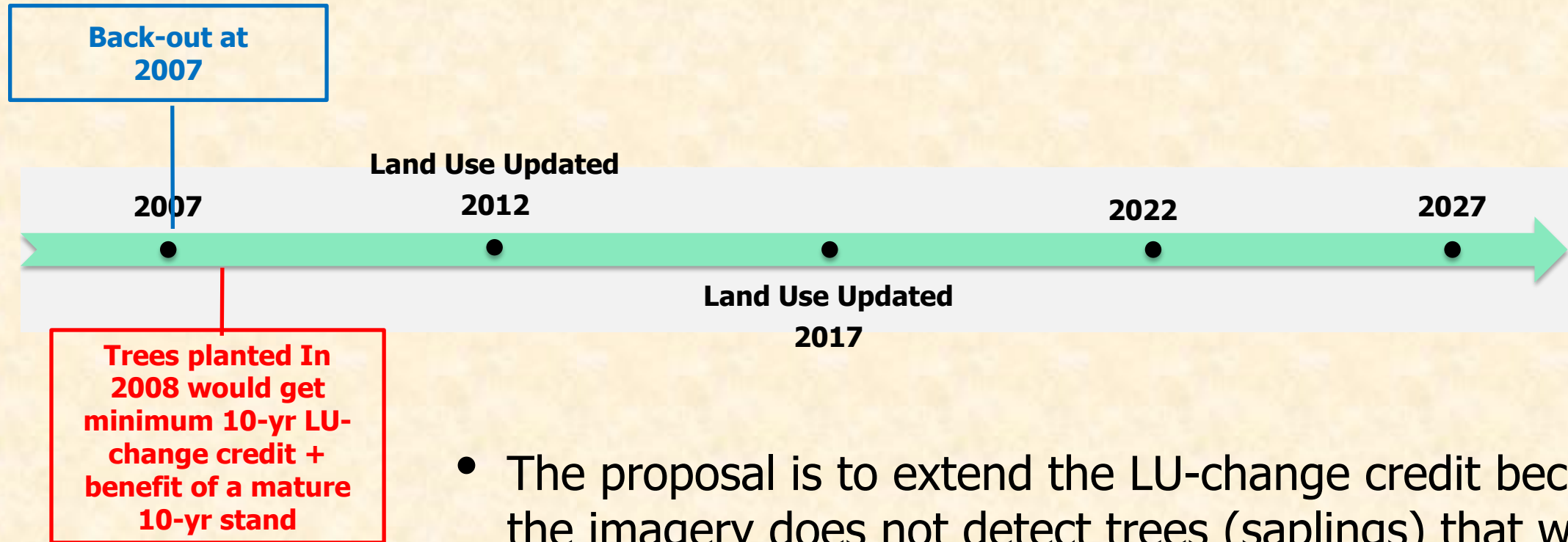
But



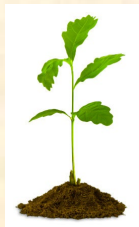
- If the extension of LU-change credit is to mimic what is occurring with the management action on the ground (planting trees that grow) as it occurs through time, we need to also consider the true effect of that management action as it occurs through time.



Back-Out Process Need To Consider



But



- The proposal is to extend the LU-change credit because the imagery does not detect trees (saplings) that were planted less than 10 years before the imagery.
- But, in the model currently, the saplings get the BMP effectiveness of a mature 10-year stand of trees.



Back-Out Process Need To Consider



**Trees planted In
2008 would get
minimum 10-yr LU-
change credit +
benefit of a mature
10-yr stand**



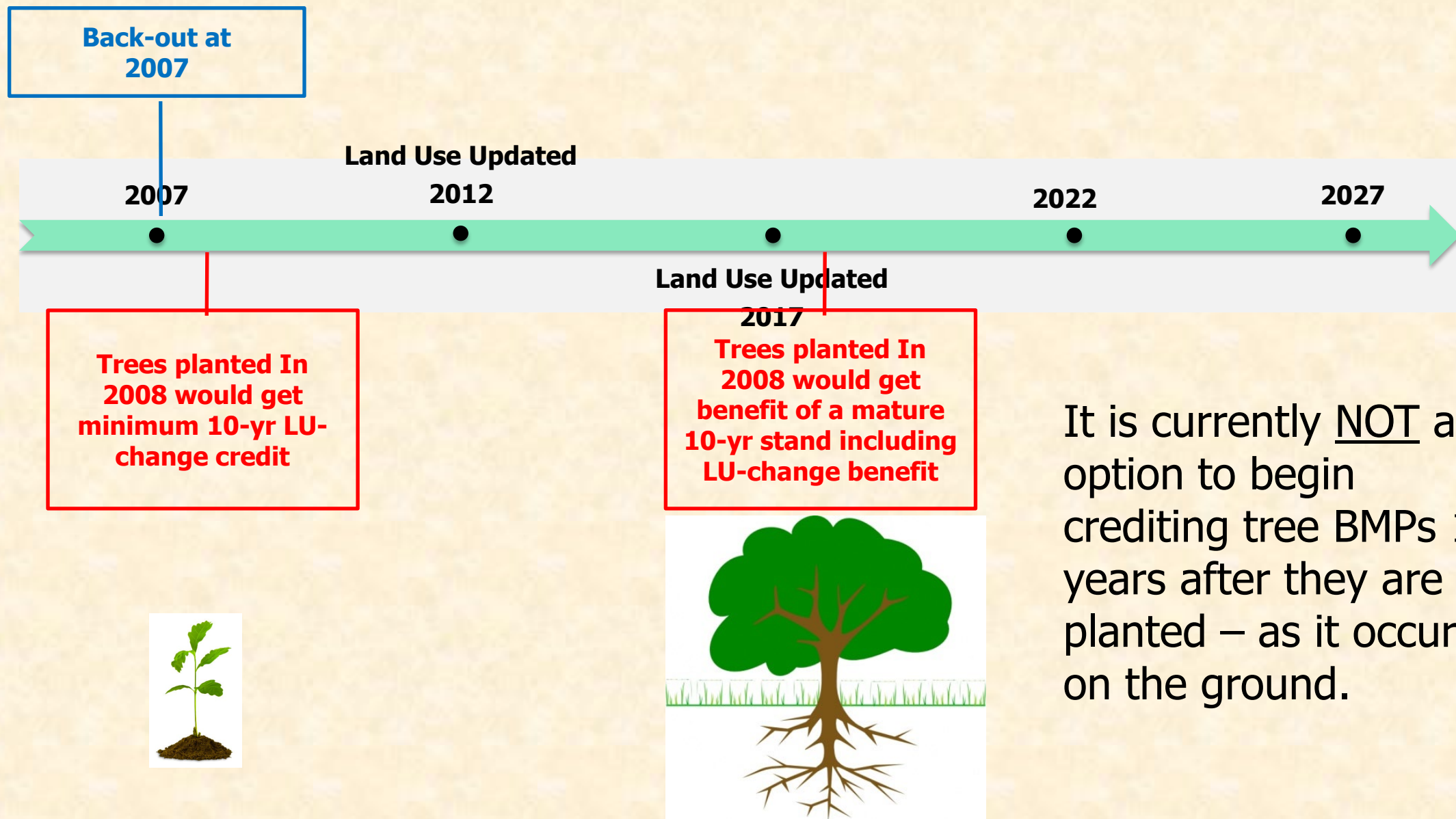
The CBP goal is to have management actions on the ground by 2025 that would meet water quality standards in the Bay.

- The model currently credits the long-term effect of a management action when the action is taken.
- But the proposal is aligning the LU-change credit over the period it occurs.



Back-Out Process

Can Not Consider At This Time





Discussion