Lab 3 & 4: VDDT Landscape Modeling Worksheet

In this lab we will investigate using the landscape model 'Vegetation Dynamics Development Tool' (VDDT) to assess the effects of disturbance and secondary succession on landscape composition over time. VDDT is a non-spatially explicit model. Your objectives are to:

1) Maintain ~20% of the landscape in each sagebrush steppe Class B & C

2) Maintain 5-10% mature juniper woodland (Class G) on the landscape into the future

Determine and present landscape composition changes 25, 50 and 100 years in the future given the following scenarios:

• No management: No changes to the juniper and fire management policy, which results in wildfires being suppressed as quickly as possible, and no other juniper management treatments are utilized.

- Produce a table showing the landscape composition of all cover classes at timesteps 0, 25, 50, and 100

• Management: The use of some combination of prescribed fire, mechanical treatment, and/or partial cutting to manage the landscape for the objectives listed above. Using trial and error, adjust parameters within the model to help identify the combinations of treatments that meet these objectives. There are likely to be multiple combinations of treatments that work.

- Produce a figure showing the abundance of classes B, C, F, and G up to timestep 100