

Response from Jason Rodrigue

Hi Nick,

The suitability analysis tried to incorporate streamside forests based on certain distances from a delineated stream channel. It was just an exercise to be used in the calculations.

Projects on the ground will need to identify and incorporate streamside forests appropriately.

The NHD is readily available from USGS and can be accessed a number different ways, the best is through their map services. Keeping in mind that USGS intermittent/perennial stream identification was not consistent, so at times we used stream order as a surrogate (e.g. 1st and some 2nd order streams = intermittent, 3+ order streams = perennial).

There is a short process write-up attached.

Jason

*(my emphasis added)*

### **Stream Buffer Process for Timber Suitability Analysis**

*(process recaptured by sbryan on 03.07.22)*

1. Identify perennial and intermittent streams from USGS NHD
  - a. ***Most recent NHD uses inconsistent mapping (disclaimer on USGS website); backed up several versions to improve consistency (2012 NHD) across NP***
  - b. Clip to NP ownership
  - c. USGS NHD f-codes used to identify intermittent and perennial channels (categorization still inconsistent but improved. NHD is a computer model and has not been 100% ground-truthed)
    - i. 46003 = intermittent
    - ii. 46006 = perennial
    - iii. 46007 = ephemeral
2. Buffer intermittent flowlines by 50' and dissolve into polygon. Calculate area.
  - a. This was originally done with smaller buffers (15') and updated to include most recent planning framework (50').
3. Buffer perennial flowlines by 100' and dissolve into polygon. Calculate area.
4. Merge buffered intermittent and perennial flowlines into single polygon. Recalculate area.
  - a. This is what is used in Timber Suitability Analysis (not a spatial process but uses spatial data for the math calculations).
  - b. This shapefile does not represent what is recognized as streamside forests on the NP—the planning framework is to be applied at the project level, as appropriate.