NRCS Natural Resources Conservation Service

612 – LONGLEAF PINE ESTABLISHMENT JOBSHEET

Georgia Practice Job Sheet-612 LLP

Prepared for: _____

Prepared by: _____

Farm: _____ Tract Number: _____ Date: _____

PURPOSE

To establish longleaf pine stands at densities that benefit wildlife species and protect water quality in native longleaf areas, which includes 137 counties in Georgia.

REQUIREMENTS

See location map to determine if you're property is within the longleaf pine range. (SEE MAP). Sites outside of the 137 county areas will be considered based on location and suitability. The State Staff Forester/Georgia Forestry Commission (GFC) will approve on a case by case basis.

• Agricultural or forest sites are eligible. *See planting recommendations for specific depths.*

Site Prep

One or more of the following site preparation methods may be required. Method and timing will be determined by site requirements as determined by agencies conservationist, GFC Forester, or other Foresters.

- Prescribe Burning
- Bush-hogging, light disking or mowing
- In-row subsoiling – should be competed 45-90 days prior to planting to allow settling.

Note: Do not plant in subsoil rip; plant to the side of rip, but no more than 12 inches away from rip. In certain cases subsoiling may be completed closer to planting date.

- Subsoiling is recommended based upon soils identified as having a hard pan present within top 15 inches
- In-row scalping especially on pasture and traditional Ag sites.
- Bedding – in rare cases ONLY if approved by Georgia Forestry Commission or the NRCS State Staff Forester where lower topography may cause some minimum flooding.
- Chemical site prep – to control herbaceous and woody competition, as well as invasive species such as cogongrass, kudzu, Japanese climbing fern, and other noxious species.
- Use appropriate herbicides when you are maintaining, restoring, or creating native ground cover for longleaf pine understory. See extension agents or other professional herbicide applicator for herbicide recommendation.
- Post emergence weed control – band application of herbicide after planting in spring or early summer
- Mechanical site preparation such as mulching, raking, chopping, or other means used with extreme caution to prevent erosion and site degradation.

PLANTING

- **Longleaf Pine Seedlings -** For adequate survival of longleaf pine, seedling and planting specifications must be followed closely. The Conservation plan will include specifications for site preparation, planting and maintenance. It is imperative to follow the specifications.
- Stocking – Planting density for longleaf pine shall be a minimum of 519 to a maximum of 726 trees per acre. It is recommended that the top of a containerized longleaf pine seedlings plugs be planted on cutover sites 1 inch above ground line. On agricultural scalped sites it is recommended that the top of seedlings plug be planted 1-2 inches above ground line (see photo below). Planting densities outside the recommended range will only be considered on a case by case basis.
- Pictured below demonstrates how a containerized longleaf pine seedling plug planted 1 inch above top of ground line.

Recommended spacing and densities are listed as follows:

- 6' X 10' = 726 trees per acre
- 7' x 10' = 622 trees per acre
- 8' x 10' = 545 trees per acre
- 6' X 12' = 605 trees per acre
- 7' X 12' = 519 trees per acre

Planting Dates

- Containerized seedlings – October – April (**provided adequate soil moisture exists**)
- Machine planters – coulter to create furrow 12 inches deep with tractor speed not to exceed 2.5 miles per hour
- Dibbles or planting bars – blades at least 10 inches long and 3 inches wide
- Plug tools must match type of seedling root plug being planted.

Methods

Plant seedling on contour of land

- Taproot must be straight in hole
- Soil must be firmly packed around roots
- Root pruning is not acceptable
- Containerized seedlings – plant with top of root plug slightly above ground line up to a maximum of two inches above ground line depending on furrow depth (See photo of planted containerized longleaf seedling).

Precautions to reduce seedling stress and promote survival:

- Keep seedling roots moist at all times
- Prevent lethal heating and freezing of seedlings
- Temperatures for planting – between 33 and 75 degrees Fahrenheit
- Humidity level for planting – 50 percent or greater

OPERATION AND MAINTENANCE

Planting Follow-Up - Seedling stocking and survival can be determined a year after planting by taking 1/100 acre randomly sampled plots in the plantation. The radius of a 1/100-acre plot is 11.75'. Sufficient plots are needed to give a good representation of area. As a rule, if 300 or more well-established seedlings survive per acre, it will not pay to replant. Replacement plantings should be made within 1 year after the original planting. Follow tree planting by implementing an herbicide release treatment and also a prescribe burn. See 315 Herbaceous Weed Control and 338 Prescribe Burn job sheets for specific details for installing these recommended practices.

Prescribed Burning - Fire is an important part of the longleaf pine ecosystem. Proper use of prescribed burning should be encouraged and written into the stand management recommendations.

NOTES: Check with your local Georgia Forestry Commission forester prior to burning to assure trees are at a proper stage to burn without damage.

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Longleaf Pines are fire tolerant not fire proof. Prescribe fire benefits to longleaf pines are as follows:

- Early burns may cause some longleaf mortality, but the loblolly and hardwood control may be worth it.
- Burning can control pine stocking densities
- Burning can control unwanted hardwoods
- Remove unhealthy longleaf trees
- Longleaf Pine stems that are less than one inch in diameter are susceptible to fire
- Unless fire is very hot longleaf pines can be susceptible to fire during the candling stage therefore, take precaution on your fires.
- Fire will control brown spots on longleaf pines
- Prune Existing Stand
- Encourage/Sustain Groundcover Community
- Create Conditions for Future Fires
- Wildlife Habitat
- Aesthetics
- Regeneration

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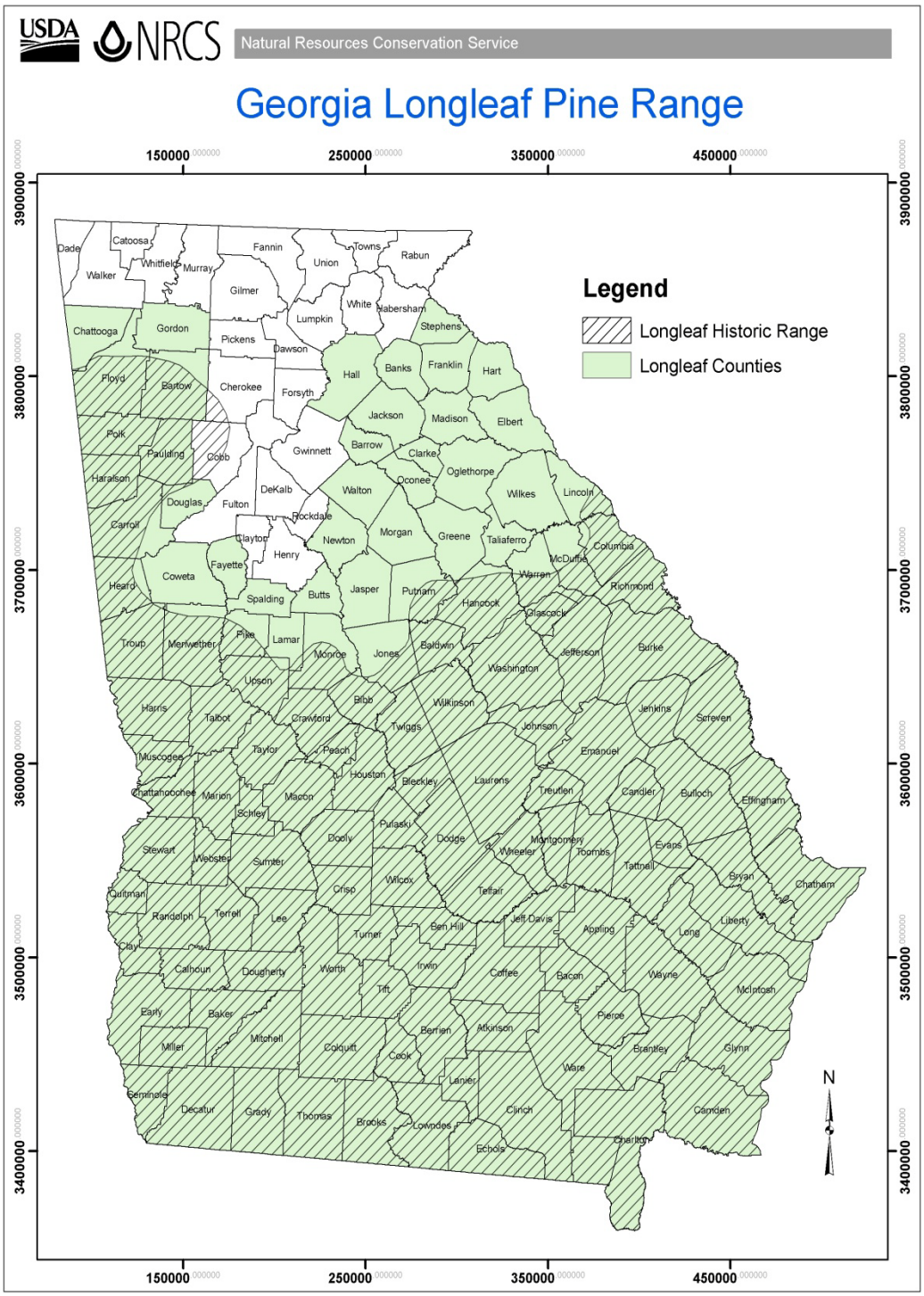

September, 2011

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Certification Job Sheet:

Prepared by: _____

Title: _____ Date: _____

Approved by: _____

Title: _____ Date: _____

Installation:

Circle: YES or NO to the following:

- **Were containerized seedlings planted on the land being offered?**
  Circle Yes or No

- **Were LLP planted at a minimum of 519 to a maximum of 726 trees planted to the acre?**
  Circle Yes or No

- **Is there a forestry management plan present for the land being offered?**
  Circle Yes or No

I certify that this practice has been installed in accordance with NRCS standards and specifications.

Certification by: _____

Date: _____

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