The laboratory’s new steam plant utilizes a very unique type of fuel, wood chips. This has inspired our group at the ESD to initiate a new project. The concept was to thin and remove forest residues from the Oak Ridge Reservation (ORR) in large enough quantities that we could provide the steam plant with a self-sustainable portion of its fuel. This is where the need for a Central Operations Area (COA) came in.

**Central Operations Area Design**

Model A is designed for sites with side road access. It is expandable due to lower demands on adjacent land and can process larger amounts of wood chips. The total size and cost of this model is 1.5 acres (without chip pile) and $52,850.

Model B is for main road-side operations and allows for trucks to make a quick delivery/pick up. This is a more compact site. The total size and cost of this model is .68 acres (without chip pile) and $38,830.

- Estimated operating costs for each site (equipment, utilities, and transportation) is $8,244/month.
- The site could be located on a previously built site only if the site was completely abandoned.
- Site selection criteria: Avoid power lines, water drainage areas, and publically visible sites.

**Suitable sites for ORNL Central Operations Area**

- 7841
- SWSA I
- Hawks Nest
- Loblolly Pine
- Lagoon Road Waste

**Acknowledgements:**

ORISE, Mark Downing, Matt Langholts, Greg Byrd

**References:**

- Spencer, Eugene. Site Work & Landscape Cost Data. 2011