



Natural Resource Lands Database (California, Idaho, Montana, Oregon, Washington)



Andrew Cooke, Matthew McLaughlin, Luke Rogers
University of Washington, Seattle - School of Environmental and Forest Sciences

Abstract : A Natural Resource Lands Database will provide physical and political information about lands suitable for growing poplar. A website will allow the public access to the database and analytical map outputs that can be used by a landowner to determine if their property is a good candidate for growing poplar. Another interface will be developed which will assist extension organizations in the development of local educational outreach programs for forest and agricultural land owners.

Lands Study

The data that are being collected for the lands study portion of this project include:

- Soils data (alkalinity, Ph. balance, depth, and texture)
- Temperature (maximum and minimum annual)
- Precipitation (annual average and seasonal distribution)
- Slope (trucks cannot travel on slopes > 10 % grade)
- Solar (northern or southern aspect)
- Ownership Class (current land use)



Data Collection

The Natural Resource Lands Database will be populated with data associated to specific geological and political locations. The data currently exists, but it is held and maintained by many entities such as local, county, state, and Federal governments and tribal nations . The data collection process involves contacting these entities and working with them to establish a mutually accepted protocol that can be used to incorporate the data into a single database.



Extension and Outreach

The data that are being collected for the extension and outreach portion of the project are:

- Parcels
- Zoning
- Urban Growth Areas
- Roads
- Streams

Lands Study

There are important questions that the database will be used to help answer, such as:

- Where should the poplar plantations be grown?
- What areas have the greatest growth potential?
- Where is there a critical mass of potential poplar plantation land to support a biofuel refinery?
- What land uses would potential poplar plantations be displacing (forest, agriculture, pasture, etc...)?



Data Analysis

Once the geographically explicit data is collected, normalized, and combined into a single database, the data can be used to answer questions. Through queries, the data becomes information that can be analyzed by project researchers to help guide decisions that are pertinent to the success of the USDA Agriculture and Food Research Initiative – Sustainable Bioenergy Project.



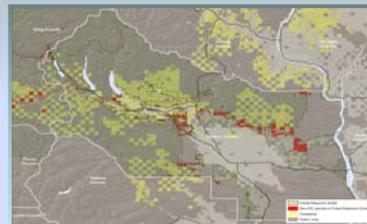
Extension and Outreach

There are important questions that the database will be used to help answer, such as:

- Who are the extension agents that serve the areas with a high potential to grow poplar plantations?
- What parcels are located in high potential areas?
- What types of owner classes are in these areas?
- Where is a central location to host workshops that will educate landowners of the potential value a poplar plantation might add to their land?

Outputs: public web portal

The public web portal is a source of information for the communities that are located in areas that have a high potential to grow poplar plantations. It allows owners to recognize whether their land might be more valuable as a plantation. Information is shared through potential land value tables, potential tax break opportunities, and easy to read maps.



Outputs: extension web portal

The extension web portal is a centralized source of information and collaboration between extension agents that serve regions with a high potential to grow poplar plantations. It is a tool to optimize the location for workshops that will educate the local landowners of the potential value a poplar plantation might add to their land. It is a source of workshop materials as well as a way to communicate successful outreach strategies between agents. The portal enables regional agents to focus their outreach efforts in an organized and accurate manner.

