



Figure 20. Areas recommended for restoration by using the HydroGrow ranges 1 and 2 scenario.

SUMMARY AND CONCLUSIONS

The decision support system (DSS) presented in this report provides a new approach to the process of identifying, prioritizing, and selecting sites (or scenarios) for forested wetland restoration. The data compiled and the tools used in this DSS facilitated the generation and consideration of restoration scenarios. The DSS can be used to ensure that reforested tree species have a high likelihood of survival. The DSS simulates reforestation by selecting areas for the highest ecologic benefit and then reforesting selected tree species that maximize either the ecologic or economic benefits. The DSS can be used to provide input data for economic models so that the consequences of reforestation can be determined.

Wetland restoration has been and will continue to be a process that requires substantial fieldwork and the on-site presence of experienced ecologists, biologists, and wetland hydrologists. This DSS does not replace the need for on-site restoration work. Rather, the system makes possible the prioritization and selection of sites using advanced tools, data, and

modeling methods. The results produced by this DSS will provide a substantial benefit to those tasked with planning and managing large-scale forested wetland restoration activities over broad regions.

The benefits provided by using this tool can be increased through the use of improved data. The DSS easily supports the substitution of new data and improvements and/or modifications in the included applications. Most of the spatial data layers used in this DSS are dated. Although many of the spatial data used and included in the data list were provided without full metadata and without exact provenance, this DSS serves as a modular, broad-based analysis tool that integrates many data sources in arriving at a result. Consequently, the effect of inaccuracy in any given data set is minimized. This manner of development ensured that the DSS can be used as a framework in which new, improved data of a specific type can replace older data of the same type, which were used in the initial DSS. Thus, this DSS can provide substantial benefits to current restoration activities, and can be updated and improved in the future to include new data that reflect new restoration objectives.

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