

Lessons Learned from 23 Years Restoring a 55,000 Acre Residential Development in Southwest Florida

Michael Duever¹ and Maureen Bonness²

¹Natural Ecosystems, Naples, FL, USA

²Boondocks Botany, Naples, FL USA

The goal of the Picayune Strand Restoration Project is to restore sheetflow across a 55,000-acre failed residential development and adjacent public conservation lands. Restoration involves filling 41 miles of large canals to force water out onto the land surface, degrading 265 miles of roads and 65 miles of logging trams, and leveling spoil associated with these features to remove impediments to sheetflow. Construction activities are designed to restore natural hydrologic and fire regimes in Picayune to support long-term redevelopment of native plant and animal communities appropriate for existing conditions. The single most important lesson learned was that when the goal is to restore a naturally functioning ecosystem, the regular onsite personal involvement of highly qualified field ecologists who are very familiar with the ecosystem, and who have authority to make decisions about when construction criteria are being met, is required. This understanding of the site has been crucial to limiting major omissions and flaws in project design as well as facilitating innumerable smaller decisions on an almost daily basis over the course of 15 years as restoration activities proceeded across the Picayune landscape. It also allowed extrapolation of lessons learned in Picayune to a smaller but functionally similar southwest Florida project where there were serious unnecessary impacts occurring and contributed to the initial design of the even larger Western Everglades Restoration Project. Information on ecosystem conditions in hydrologically restored portions of Picayune and adjacent lands has been reducing uncertainties associated with protecting populations of endangered manatees and red cockaded woodpeckers. It is also reducing uncertainties about plant community recovery on 9,000 acres of construction footprints and the degree and extent of hydrologic impacts of major canals and what is required to reduce those impacts.

Contact Information: Michael Duever, Natural Ecosystems, 985 Sanctuary Rd, Naples, FL, USA 34120, Phone: 239-289-4256, Email: mikeduever@outlook.com