Salmon habitat restoration is ongoing at a Nature Conservancy preserve on the Middle Fork John Day River in the Columbia River Basin in north-central Oregon. The site has a long history of disturbance including dredge mining upstream, channelization, grazing, logging, fire, and floods. Using historic aerial photos, habitat unit surveys, and cross sectional profiles, this thesis shows how the channel morphology, particularly habitat unit diversity, has changed since 1939, just before placer mining began. Results show that the dominant influence on present day channel morphology is channelization from the 1930's. Other changes including dredge mining in the late 1930's to early 1940's, cessation of cattle grazing in 1991, and a fire followed by a flood in the winter of 1996-1997, had less impact because of the straightened, stabilized channel morphology.