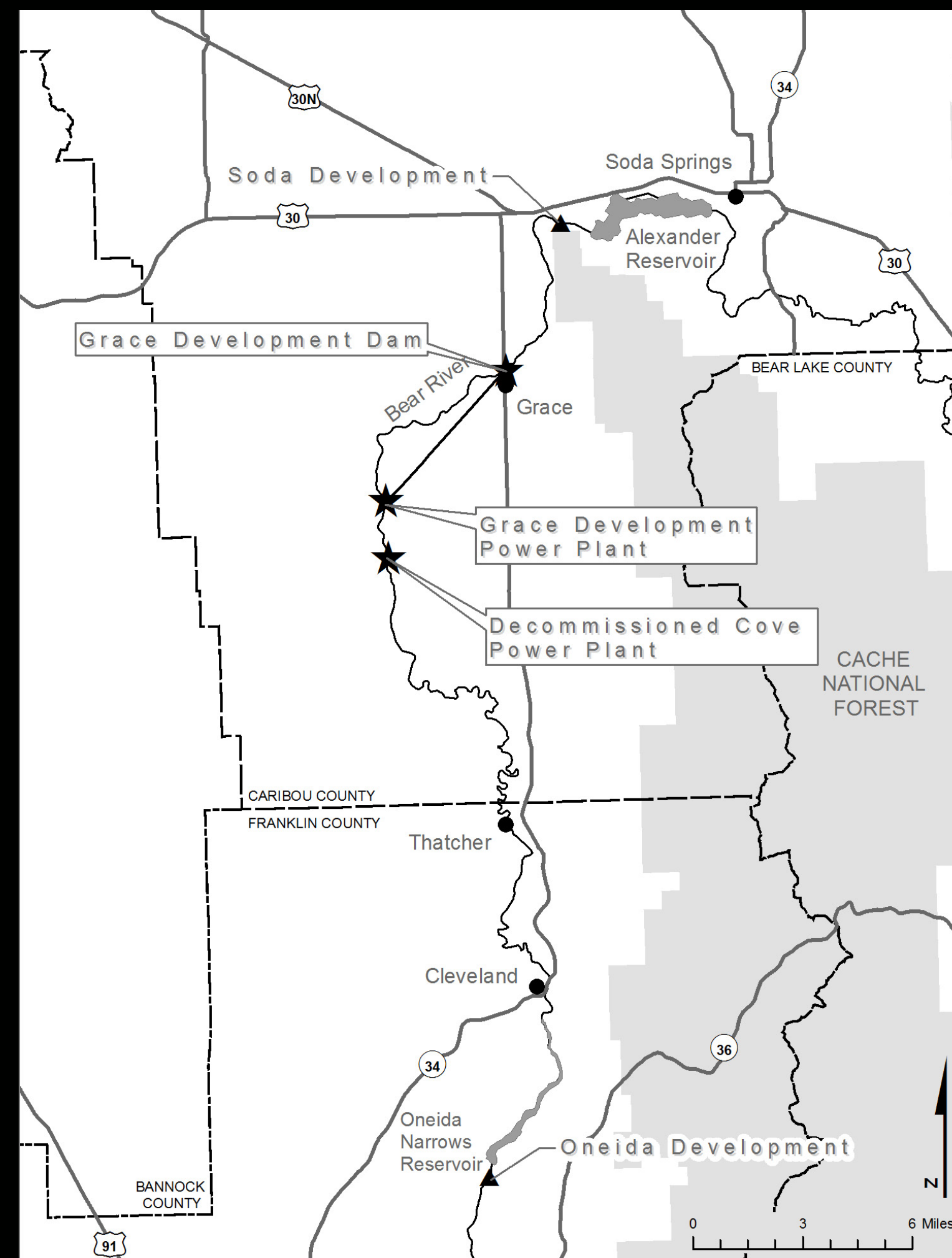


# THE GRACE DAM AND FLOWLINE

Above you and to the east are the historic Grace hydroelectric dam and flowline. The first dam, built in 1908, is submerged behind the dam you see today, which was built in 1951. It is one of five dams erected on the Bear River (four being in Idaho and one in Utah) by the Utah Power & Light Company in the early 1900s to generate hydroelectricity. Power generated by the Grace power station, located about 4.5 miles southwest of the dam, fed into one of the earliest electrical power grids in the Intermountain West. This grid primarily supplied electricity to the growing population in northern Utah.

The dam, located just east of State Highway 34, was constructed of wood cribbing and rock fill and has a concrete core base. It is about 185 feet long and 44 feet tall. In 1951, Utah Power & Light built a concrete spillway at the dam, but the original rock and wood cribbing are still present.

Historically, water had been diverted from the Bear River to two intake houses, one located at each end of the dam. From there, water flowed through



Grace Dam in relation to regional PacifiCorp facilities.



Construction crew transporting penstock section.



View from the top of the Grace penstock looking toward the Grace powerhouse.

hydroelectric complex. The No. 2 flowline and intake house (the western of the two) were completed a few years later. Between 1937 and 1952, much of the No. 2 line was replaced with a wood stave line. The eastern intake house was subsequently shut down, and in 1985 most of the eastern flowline was removed. A portion of the wood stave eastern flowline was used to replace part of the No. 2 flowline. However, wood decays over time, which results in water loss. So, upon acquiring the Bear River hydroelectric facilities from Utah Power & Light, PacifiCorp Energy replaced the rest of the No. 2 flowline wood stave section with a steel flowline, and will ultimately replace the entire wood stave line.

*This sign was erected by PacifiCorp to recognize the importance of preserving the history of hydroelectricity and the communities we serve.*

long, 11-foot-diameter wood stave flowlines to the Grace powerhouse. The flowlines rested on hundreds of large concrete “saddles” built into trenches across the plain above the Bear River. The trenches controlled the amount of incline (and therefore the flow rate of the water) in the flowlines.

The eastern intake house and flowline were built as part of the original 1908



Overview of the Grace Dam.