



THE KISSIMMEE RIVER RESTORATION PROJECT: A LONG-TERM PROJECT SHOWS PROMISING INTERIM RESULTS

The Kissimmee River Restoration Project (KRRP) is one of the largest and most ambitious river restoration projects in the world (see map). The project, to be completed in 2019, will restore a full suite of ecosystem values to more than 40 square miles of river channel and floodplain habitats at a cost of approximately \$800 million. The restoration will backfill more than 22 miles of the flood conveyance canal that replaced the once naturally meandering, complex river channel, effectively reconnecting approximately 40 miles of historical river channel into one continuous stretch of river. In the restored system, river inflows will be allowed to mimic natural conditions, inundating floodplain habitats in response to season and rainfall.

An intermediate inflow regime has allowed for monitoring of the environmental response of important ecological indicators during the two of four planned phases of backfilling that have been completed so far. Perhaps surprisingly, even though hydrologic conditions do not yet match those of the historical system, dramatic responses are being seen in important ecosystem components.

Monitoring of environmental response is a crucial aspect any restoration project, and the KRRP monitoring plan investigates a suite of 25 performance measures covering physical, chemical, and biological aspects of the ecosystem. Interim monitoring results indicate that restoration targets for some performance measures already have been met. For example, the density of winter wading birds is showing tremendous response to

interim restoration. A target value of 30.6 birds/km² has been achieved in most monitoring periods. In contrast, while a large-scale target for restoration of wetland plants has been met, a finer-scale wetland plant target of re-establishing the broadleaf marsh community across 50% or more of the flood plain has not and will likely require the more complete implementation of historical hydrologic conditions that will accompany project completion.

Demonstrating the interim success of a project of this physical scale and time-frame is vital to maintaining forward momentum both within the technical team and at management and policy level. The interim progress simultaneously illustrates the effectiveness of the investment of resources and makes clear that achievement of the full suite of anticipated benefits is dependent on a continued commitment to project completion and performance measure monitoring.

For a more detailed version of this case study, see the 2014 System-Wide Ecological Indicator Report.