



Oil and Gas

The Cost of Well Abandonment

Lower Rio Grande Valley NWR

Established in 1979

11 distinct biotic communities

1,100 plant species

484 bird species, 300 butterfly species

East Lake—designated as South Texas Salt Lakes Site of International Significance for migrating shorebirds by Western Hemisphere Shorebird Reserve Network

10% of world population of long-billed curlews winter at East Lake.

Gull-billed terns & snowy plovers nest at East Lake.

Lower Rio Grande Valley National Wildlife Refuge

What happens to long-billed curlews – one of North America’s most threatened shorebirds – and thousands of migrating geese, ducks and endangered piping

plover when oil and gas infrastructure are abandoned to rust and corrode around lakes that are roosting and nesting habitat?

That question faced the Lower Rio Grande Valley National Wildlife Refuge in Texas when the operator of three wells on East Lake abandoned the sites in the early 1990s. The privately-owned and operated wells had been drilled in 1948.

Before clean up, the abandoned production facilities – including storage tanks and sections of rusted pipe – extended into East Lake, threatening contamination of the adjacent wetlands that are piping plover winter habitat. They also posed potential health risks to other native wildlife. Oil sheens were visible in East Lake near one of the abandoned wells.

Lower Rio Grande Valley Refuge staff spent nearly 15 years talking to the Texas Railroad Commission (TRRC), the state’s oil and gas regulatory agency, about plugging the wells. The TRRC began plugging the wells in June 2011



Leaking fluids from old abandoned well

and completed the task in 34 days. It cost \$1.2 million to clean up the abandoned well sites and remove the oil and gas equipment from the refuge. The oil operator responsible for the wells was never located.

Part of the cleanup issue was access. Initially, low water levels made rebuilding the levees appear the logical approach. Shortly after levee construction began in 2010, rainfall raised the lake level so high that the project was put on hold for nearly two years. After the TRRC realized the cost of rebuilding the levees, the commission instead hired a contractor to transport the well plugging equipment using specialized track buggies.



One of the three wells removed from the shore of East Lake by the Texas Railroad Commission/USFWS

Transport of cleanup and plugging equipment brought its own set of problems: track buggies, which delivered the equipment, became mired in the lake bed and dug ruts in the substrate. The substrate then had to be restored.

Storage tanks, pipes, and other oil production equipment were removed from the three well sites. Metal that could be recycled was taken to a metal salvage yard. Refuge habitat was restored.

Immediate plugging and equipment removal would lessen the costs and impacts to our national wildlife refuges, state regulatory agencies, and the taxpayers.



Long-billed Curlew / Robert Burton

Abandoned Oil & Gas Equipment

Incident Date: early 1990's, exact date unknown

Incident Type: Abandoned equipment

Material Released: oil

Amount Released: unknown

Cause: Leaking well, corrosion

Habitat Affected: saline lake

Areal Extent: unknown

Estimated Damages: unknown

Corrective Action: abandoned wells plugged, oil & gas equipment removed, June-July 2011

Cost: \$1,189,034



A mass of abandoned equipment was removed from each of the three East Lake well sites/USFWS



Site after clean up/USFWS



Pumping cement in the well to plug it / USFWS

WELL STATISTICS:

This refuge has had oil development since at least the 1940's. Best available data indicate there are 68 active oil/gas wells and 107 inactive wells present.

For More Information Contact:

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