U.S. Fish & Wildlife Service

Oil and Gas

Spills and Leaks are a Recurring Problem on Refuge

Atchafalaya Refuge

Established in 1986

15,220-acre refuge

Located 30 miles west of Baton Rouge, Louisiana

Provides bottomland and hardwood forest habitat and protection for threatened and endangered wildlife, waterfowl, and migratory birds

Currently, the Atchafalaya NWR has 46 oil and gas wells with three active oil wells, one active gas well, and 42 inactive wells. The actual status (shut in or plugged and abandoned, orphaned) of these inactive wells is unknown. Almost half of these inactive wells were drilled and completed 40 years ago.

Bottomland hardwood forests and cypress-tupelo swamps provide the perfect cover for black bears, bobcats, river otters, wild turkeys and other secretive wildlife inhabiting the Atchafalaya National Wildlife Refuge in Louisiana, part of the largest remaining bottomland hardwood swamp in the United States. Although the dense swampland screens most wildlife from view, not so with the numerous oil and gas wells present on the 15,220-acre wildlife refuge.

Most of the nonfederal oil and gas wells on the Atchafalaya National Wildlife Refuge were present prior to the acquisition of the property by the U.S. Fish and Wildlife Service. Mineral rights were excluded from the land acquisition. Since the initial acquisition, ongoing oil and gas exploration, development and production have continued. While the minerals are privately owned, the owners have the legal right to explore for and extract oil and gas from their mineral estate. However, they do not have the right to needlessly damage refuge resources, while removing those minerals.

During an 18-month period beginning on April 22, 2010, refuge law enforcement officers documented four brine spills,

Workover drilling rig/USFWS

two oil spills, and other violations of the refuge Special Use Permit issued to the oil operator for oil production activities on the refuge. The violations included: failure to report spills, not removing oil-contaminated soil from a flowline (pipe) leak, clearing vegetation along a road without prior approval from the Refuge, and conducting workover operations at a well without authorization. Other citations involved failure to remove trash, pipes, and barrels. During one inspection, refuge law enforcement officers documented unlabeled barrels, oil leaks from 55-gallon barrels, an uncapped well, discarded pipes and metal, and trash. The investigation resulted in a guilty plea by the operator.

Open oil and gas reserve pit that was never closed/Scott Covington-USFWS

Spills of oil, gas, and brine harm refuge wildlife and habitat. Oil and gas can injure or kill wildlife by destroying the insulating capacity of feathers and fur, depleting oxygen available in water, or exposing wildlife to toxic substances. Long-term effects of oil and gas contamination are difficult to determine, but studies suggest that effects of exposure include reduced fertility, kidney and liver damage, immune suppression, and cancer. Even small spills may contaminate soil and sediments if they occur frequently. For example, a study of Atchafalaya and Delta refuges in Louisiana by the North Carolina State University, Department of Environmental and Molecular Toxicology, found that levels of oil contamination near oil and gas facilities are lethal to most species of wildlife, even though refuge staff were not aware of any large spills. Brine spills can also be lethal to young waterfowl, damage birds' feathers, kill vegetation, and decrease nutrients in water.

Refuge law enforcement officers conducted a follow-up inspection a year and half after the initial investigation of one of the brine spills and found dead vegetation and bare soil. Brine spills not only injure or kill the vegetation but also damage the soil, creating bare spots, also known as "salt scald," devoid of vegetation for decades.

A guilty plea was filed in court in June 2012. In the guilty plea, the oil operator agreed to restore and rehabilitate the damaged Refuge property at the spill sites in accordance with conditions set in the Special Use Permit. As of June 2013, we are still waiting for restoration and rehabilitation of the spill sites to begin.

It only takes a little bit of oil to:

Kill an embryo - During the breeding season, birds can transfer oil from their feet and feathers to their eggs. A few drops of oil on an egg shell can kill the embryo.

Contaminate water - One gallon of oil can contaminate up to 1,000 gallons of water.

Harm wildlife - Oiled birds, bats, amphibians, and small mammals attract predators such as hawks and foxes, who ingest the prey - contaminated with oil - and may also die as a result.

Gas leak kills vegetation/USFWS


Oil leak at tank site/USFWS


Oil leaking around valve/USFWS


Remote monitoring system installed to reduce daily traffic to well pad/USFWS

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